Barclays PLC

Pillar 3 Report 2011

BARCLAYS

Cover image

As part of our Citizenship agenda, we focus on empowering young people with the necessary financial, entrepreneurial and life skills to achieve economic independence and security.

Barclays supports Cycle into Work, an initiative developed & delivered by our social enterprise partner Bikeworks which helps disadvantaged Londoners to learn key skills and find employment in the cycling industry.

The community investment programme supports Bikeworks to work in partnership with homeless hostels and shelters in London to reach vulnerable young people, offering them bicycle building and maintenance courses.

Employees also volunteer as mentors to help participants improve their confidence, communication skills and job prospects, as well as provide them with opportunities for team work and social interaction.

Trainees access on-the-job training and professional qualifications in bike mechanics alongside tailored personal development support. Graduates of the programme are then supported to access employment opportunities with Barclays Cycle Hire and cycling retailers in London.

www.bikeworks.org.uk

Basel 2 Pillar 3 Consolidated Disclosures

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Introduction: Performance and financial position

The Core Tier 1 ratio, a key measure of financial strength, increased to 11%

At 31 December 2011, the Group's Core Tier 1 ratio was 11.0% (2010: 10.8%) reflecting the contribution from retained earnings and reductions in risk weighted assets, which more than offset the impact of CRD3.

- The Group continued to generate Core Tier 1 Capital from retained profits (excluding own credit, impairment of investment in BlackRock, Inc. and goodwill impairment, which are added back for regulatory capital purposes). This contribution of £2.6bn more than offset other movements in Core Tier 1 Capital, notably pension contributions and foreign currency movements, resulting in an increase in Core Tier 1 Capital of £0.2bn to £43.1bn.

- Risk weighted assets decreased slightly to £391bn (2010: £398bn) largely reflecting foreign exchange movements and decreases in Barclays Capital from lower levels of activity, risk reduction and sales of credit market exposures, which more than outweighed the £30bn increase resulting from the implementation of CRD3 in December 2011.

- We expect the strength of our Core Tier 1 ratio, our ability to generate capital organically and our optimal use of risk weighted assets to enable us to meet our targeted capital ratios after absorbing the impact of Basel 3.

Table 1: Summary of capital resources and key capital ratios

	As at 31.12.11	As at 31.12.10
Core tier 1	11.0%	10.8%
Tier 1	12.9%	13.5%
Total capital	16.4%	16.9%
Capital Resources	£m	£m
Shareholders' equity (excluding non-controlling interests) per balance sheet	55,589	50,858
Non-controlling interests per balance sheet	9,607	11,404
Capital resources in Tier 1 and Tier 2	(6,946)	(8,480)
Regulatory adjustments and deductions:	(15,184)	(10,920)
Core tier 1 capital	**43,066**	**42,861**
Other tier 1 capital:		
Preference shares	6,235	6,317
Tier 1 notes	530	1,046
Reserve Capital Instruments	2,895	6,098
Regulatory adjustments and deductions:		
50% of material holdings	(2,382)	(2,676)
50% tax on excess of expected losses over impairment	129	(100)
Total tier 1 capital	**50,473**	**53,546**
Tier 2 capital:	20,657	21,223
Tier 2 deductions:	(4,594)	(5,204)
Total capital regulatory adjustments and deductions	(2,588)	(2,250)
Total regulatory capital	**63,948**	**67,315**

- Core Tier 1 capital, which is a key measure of capital quality and strength, increased by £0.2bn to £43.1bn primarily driven by retained profits offset by contributions to the retirement fund and the decrease in value of the investment in BlackRock, Inc. (see Table 3 on page 26).

- Total capital resources decreased by £3.4bn to £63.9bn principally as a result of the debt buy-back in December 2011 of £1.9bn Reserve Capital Instruments and £0.5bn Tier 1 notes that will not qualify as Tier 1 capital under Basel 3 and the further redemption of £1.3bn of Reserve Capital Instruments on a certain date unless called by the issuer (see Table 3 on page 26 and the Appendix for more details).

Table 2: Risk weighted assets

Risk Type	Risk weighted assets At as 31.12.11 £m	At as 31.12.10 £m	% diff.
Credit Risk	245,224	260,998	-6%
- Standardised Approach Credit Risk	84,758	86,553	
- Advanced and Foundation IRB Approach Credit Risk	160,466	174,445	
Counterparty risk	38,084	43,863	-13%
- Internal model method	33,131	29,466	
- Non-model method	4,953	14,397	
Market risk	71,951	61,051	18%
- Modelled - VaR	26,568	9,209	
- Modelled - Charges add-on and Non-VaR	17,560	3,769	
- Standardised	27,823	48,073	
Operational risk	35,740	32,119	
Total risk weighted assets	**390,999**	**398,031**	**-2%**

Risk weighted assets for credit risk, which account for more than 70% of total RWAs, decreased 6% to £245.2bn (2010: £261.0bn) (Table 4):

- Risk weighted assets under the Standardised Approach decreased 2% to £84.8bn (2010: £86.6bn; see Table 4), while total exposures decreased 4% partly reflecting the migration of Spanish mortgages to the Advanced IRB approach during 2011 (see Table 20 on page 51).
- Risk weighted assets assessed under the IRB approach decreased 8% to £160.5bn (2010: 174.4bn), mostly driven by corporates (see Table 4) as total exposure to this sector reduced 5% to £158.0bn (see Table 28 on page 58 across Advanced and Foundation IRB). These decreases mainly occurred in the highest-risk bands, as shown in Table 10c.
- Risk weighted assets for counterparty credit risk, decreased 13% to £38.1bn (2010: £43.9bn)
  - Risk weighted assets under the Internal model method rose £3.7bn reflecting the increase in exposures (see Table 16 on page 48)
  - Risk weighted assets under non-model method decreased £9.4bn mainly due to the integration of exposures previously treated under Local Regulatory Aggregated approach (treated as an add-on with no associated exposure figures in this report) using non-model methods into the Group capital calculation under the internal model method.

Risk weighted assets for market risk increased £10.9bn to £72.0bn (Table 4), reflecting risk reduction and lower activity that partly offset the impact of CRD3 (see Table 40 for the impact of the new CRD3 measures: Stressed VaR; Incremental Risk Charge; and All Price Risk Measure).

Overview of regulations and notes about this report

Overview of Basel 2 and Pillar 3

Barclays has applied the Basel 2 framework since 2008. The Basel accord is made up of three pillars:

- **Pillar 1** covers the calculation of risk-weighted assets for credit risk, market risk and operational risk.
- **Pillar 2** allows firms and supervisors to take a view on whether the firm should hold additional capital to cover the three Pillar 1 risk types, or to cover other risks. A firm's own internal models and assessments support this process.
- **Pillar 3** covers external communication of risk and capital information by banks as specified in the Basel rules.

Basel 2 also provides for different approaches to calculating capital requirements.

1. **Standardised approach**: In this approach the risk weights used to assess requirements against credit exposures are consistent across the industry. This is similar to the Basel I framework, but with a more detailed classification of asset types to enable better risk sensitivity;
2. **Internal Ratings Based approach (IRB):** This approach relies on the bank's internal models to derive the risk weights. Throughout this report the tables distinguish between these two approaches. The IRB approach is further sub-divided into two alternative applications, Advanced and Foundation:

   i) **Advanced IRB (AIRB):** Barclays uses its own estimates of probability of default (PD), loss given default (LGD) and credit conversion factor to model a given risk exposure;

   ii) **Foundation IRB:** Barclays applies its own PD as for Advanced, but it uses standard parameters for the LGD and the credit conversion factor. The Foundation IRB approach is specifically designed for wholesale credit exposures. Hence retail, equity, securitisation positions and non-credit obligations asset exposures are treated under Standardised or AIRB.

Pillar 3 principles can be found within the UK Financial Services Authority's (FSA). "Prudential Sourcebook for Banks, Building Societies and Investment Firms" ("BIPRU" Section 11), who are Barclays lead regulator

In accordance with the Group's Pillar 3 Policy, which covers standards related to disclosure process, verification and frequency, this report is currently published once a year.

The report is available from the Barclays Investor Relations web site (www.barclays.com/annualreport11). Note that this report also contains references to risk disclosures in the Barclays PLC Annual Report ('Annual Report').

Note that remuneration disclosures, also part of Pillar 3, are covered in the Annual Report. It is also available from the investor relations website[1].

Regulatory changes in 2011-12

The Basel Committee agreed updates to the Basel framework in July 2009, referred to as Basel 2.5. These seek to better capture risks from securitisation and trading book exposures and were incorporated into European law via amendments to the Capital Requirements Directive (the Third Capital Requirements Directive, or "CRD 3"). These have been reflected in BIPRU since 31 December 2011. These drove the following changes to the report:

- **Market Risk:** Disclosure of new market risk measures resulting from the updated framework (including stressed VaR), and a description of our approach to modelling these figures. The market risk section may be found on page 72
- **Securitisations:** Disclosure of securitisations held in the trading books, increased disclosures of re-securitisations, and updated descriptions of the risks from securitisation activity and our strategies to manage them. The securitisation section may be found on page 82
- **Risk Profile Disclosure:** The requirement that Banks comprehensively disclose their risk profile, by including relevant and material information beyond that explicitly specified in the regulations (see "Policy, verification and sign-off, below)

Note that in December 2010 the Basel Committee released Basel 3, which updates the regulatory liquidity framework and increases capital requirements. This will be progressively phased-in from 1 January 2013.

Future regulatory changes

Basel 3, released in December 2010, builds on Basel 2.5. It sets higher capital and liquidity requirements to be progressively phased in from December 2013. The European Commission has begun consultations on a proposed legislation that would implement Basel 3 in Europe ("CRD4") in July 2011. The main impacts on regulatory requirements related to Pillar 3 are expected to relate to the disclosure of capital resources and leverage levels, largely reflecting the focus of the Basel 3 text.

[1] Pages 54 to 65 of the Annual Report and our document "Barclays approach to remuneration" (which are both available at www.barclays.com/investorrelations) include information required to be disclosed on remuneration in accordance with the FSA's BIPRU regulations 11.5.18(1) to (5). Tables 15 to 18 on page 62 of the Annual Report include information required to be disclosed in accordance with the FSA's BIPRU regulations 11.5.18(6) and (7).

About this report

Presentation of risk data

This document discloses Barclays assets in terms of exposures and capital requirements. For the purposes of this document, credit exposure is defined as the estimate of the amount at risk in the event of a default (before any recoveries) or through the decline in value of an asset. This estimate takes account of contractual commitments related to undrawn amounts. In contrast, an asset in the Group's balance sheet is reported as a drawn balance only. This is one of the reasons why exposure values in the Pillar 3 report may differ from asset values as reported in the Annual Report.

Where this document discloses credit exposures or capital requirements, Barclays has followed the scope and application of its Pillar 1 capital adequacy calculations (unless noted otherwise). Where figures for impairment or losses are disclosed within this document, Barclays has followed the IFRS definitions used in the Annual Report. Throughout this report, tables show credit exposures or capital requirements split into various exposure classes (for instance, industry or type of borrower). Some of these classes are specified in the FSA rules. Where the regulations are not explicit, such as in industry and geographic analyses, Barclays shows exposure class splits at an appropriate level of granularity.

Policy, verification and sign-off

This report was verified and approved internally by Barclays in line with its Pillar 3 policy. Barclays follows an internal verification process. All data submissions are attested to by the Finance and Risk Directors. Review and challenge is performed within Group Risk to ensure that the disclosures are a fair representation of the risk profile. Consistency checks and reconciliations are performed within Group Finance to ensure consistency in disclosures.

The Pillar 3 policy also requires that Barclays external disclosures (which include the Pillar 3 report, the Preliminary Results Announcement, Interim Management Statements, and the Annual Report) convey its risk profile comprehensively, subject to the information being material and not proprietary nor confidential. Risk topics included in Barclays external disclosures that are not explicitly specified in Pillar 3 regulations include:

Annual Report Page	Disclosure
79	Maximum exposure to credit risk
81	Analysis of collateral and other enhancements
83	Credit concentrations by geography
84	Credit concentrations by industrial sector
86	Impairment charges by business
89	Identifying potential credit risk loans
91	Writing off of assets
91	Forbearance
92	Loans and advances to customers and banks
96	Retail credit risk
101	Wholesale credit risk
104	Credit quality of loans and advances
106	Debt securities
107	Derivatives
108	Reverse repurchase agreements and other financial assets
110	Credit market exposures
111	Protium assets
112	Group exposures to selected Eurozone countries
122	Traded market risk
124	Non-traded interest rate risk
126	Margins and balances
128	Foreign exchange risk
136	Economic capital demand
139	Liquidity risk
151	Operational risk profile

Note that some of the above topics are required by accounting regulations.

The report is reviewed by the Legal and Technical Committee and the Disclosure Committee and is based on attestations received from Risk and Finance Directors and senior executives.

Previous year comparisons

The 2010 Pillar 3 disclosure describes the Group's credit risk exposures covering both the Standardised and the IRB approaches. In many cases, the change in treatment of credit risk portfolios from the Standardised to the IRB approach caused material changes in the year on year balances. Where this is the case, this is noted in the commentary to the disclosures. The process of transferring portfolios to the IRB approach is expected to remain a significant driver of year on year movements for future years. This enhanced exposure reporting has not affected total volumes, but is visible in year on year comparatives of certain exposure classes and categories.

As mentioned above, Basel 2.5 has driven increased reporting requirements on market risk and securitisations. Consequently it is not possible to provide previous year comparatives for some data items. For instance, the new market risk measures are calculated using models that were only recently approved for use by the regulator.

Presentation of not applicable or nil figures

Where a specific figure is undefined or not reported within a table, it is generally shown as "N/A". The symbol "-" means that the figure is nil.

Significant subsidiaries

Pillar 3 disclosures are at consolidated Group level. However, Barclays has a number of subsidiary companies that are also FSA approved firms. The regulations require any such subsidiaries which are significant to disclose limited Pillar 3 information. Barclays has a significant subsidiary in the Absa Bank Limited. Absa Group's primary regulator is the South African Reserve Bank (SARB). Absa has disclosed complete Pillar 3 information in compliance with the SARB's regulations. These disclosures may be found in the Investor Relations section of Absa's website: www.Absa.co.za.

Exceptions to the disclosure requirements

The following disclosures were not made in this report as they are considered to be proprietary or inapplicable:

- The association of the external rating of each nominated ECAI or export credit agency with the credit quality assessment steps prescribed in BIPRU 3 (BIPRU 11.5.10), as the Group complies with the credit quality assessment scale.
- A description of the internal ratings process for equities (BIPRU 11.6.1) as it is proprietary
- In table 15, the credit conversion factor is not disclosed as discussed in the footnote to the table

Glossary of terms

This is available online at www.barclays.com/annualreport.

Barclays approach to managing risks

Barclays approach to managing risks

At a strategic level, our risk management objectives are to:

- Identify the Group's significant risks;
- Formulate the Group's risk appetite and ensure that business profile and plans are consistent with it;
- Optimise risk/return decisions by taking them as closely as possible to the business, while establishing strong and independent review and challenge structures;
- Ensure that business growth plans are properly supported by effective risk infrastructure;
- Manage risk profile to ensure that specific financial deliverables remain possible under a range of adverse business conditions; and
- Help executives improve the control and co-ordination of risk taking across the business.

The Group's approach is to provide direction on: understanding the principal risks to achieving Group strategy; establishing risk appetite; and establishing and communicating the risk management framework. The process is then broken down into five steps: identify, assess, control, report and manage/challenge. Each of these steps is broken down further, to establish end-to-end activities within the risk management process and the infrastructure needed to support it (see panel below). The Group's risk management strategy is broadly unchanged from 2010.

Assigning responsibilities

Responsibility for risk management resides at all levels within the Group, from the Board and the Executive Committee down through the organisation to each business manager and risk specialist. Barclays distributes these responsibilities so that risk/return decisions are taken at the most appropriate level; as close as possible to the business, and subject to robust and effective review and challenge. The responsibilities for effective review and challenges reside with senior managers, risk oversight committees, Barclays Internal Audit, the independent Group Risk function, the Board Risk Committee and, ultimately, the Board.

The *Board* is responsible for approving risk appetite (see page 71 in the Annual Report), which is the level of risk the Group chooses to take in pursuit of its business objectives. The Chief Risk Officer regularly presents a report to the Board summarising developments in the risk environment and performance trends in the key portfolios. The Board is also responsible for the Internal Control and Assurance Framework (Group Control Framework). It oversees the management of the most significant risks through the regular review of risk exposures and related key controls. Executive management responsibilities relating to this are set via the Group's Principal Risks Policy.

Steps	Activity
Identify	• Establish the process for identifying and understanding business-level risks.
Assess	• Agree and implement measurement and reporting standards and methodologies.
Control	• Establish key control processes and practices, including limit structures, impairment allowance criteria and reporting requirements. • Monitor the operation of the controls and adherence to risk direction and limits. • Provide early warning of control or appetite breaches. • Ensure that risk management practices and conditions are appropriate for the business environment.
Report	• Interpret and report on risk exposures, concentrations and risk-taking outcomes. • Interpret and report on sensitivities and Key Risk Indicators. • Communicate with external parties.
Manage and Challenge	• Review and challenge all aspects of the Group's risk profile. • Assess new risk-return opportunities. • Advise on optimising the Group's risk profile. • Review and challenge risk management practices.

Barclays approach to managing risks

Governance structure at Group level

Board oversight

Board
- Approves overall Group Risk Appetite.

Board Corporate Governance and Nominations Committee
- Reviews Board composition and recommends new appointments.
- Considers succession plans for Chairman, Chief Executive and Executive Committee.
- Oversees annual Board performance review.

Board Audit Committee
- Considers the adequacy and effectiveness of the Group Control Framework.
- Reviews reports on control issues of Group-level significance.

Board Risk Committee
- Reviews the Group risk profile.
- Approves the Group Control Framework.
- Approves minimum control requirements for principal risks.

Board Remuneration Committee
- Reviews remuneration principles and approach.
- Approves remuneration based on risk-adjusted performance.

Board Citizenship Committee
- Reviews and approves overall Citizenship strategy and associated policies.
- Monitors, considers and evaluates reputational risk issues and exposures.

Authority controls appetite

Assurance

Reporting and control

Governance and Control Committee
- Reviews the adequacy and effectiveness of the Group Control Framework.
- Monitors compliance with the Framework including remediation of significant control issues.
- Reviews reports on control issues of Group-level significance.

Chief Executive Group Executive Committee
- Monitors and manages risk adjusted performance of businesses.

Financial Risk Committee
- Monitors risk profile in respect to risk appetite.
- Debates and agrees actions on the financial risk profile and risk strategy across the Group.
- Considers issues escalated by Risk Type Heads and Business Risk Directors.

Treasury Committee
- Sets policy/controls for liquidity, maturity transformation and structural interest rate exposure.
- Monitors the Group's liquidity and interest rate maturity mismatch.
- Monitors usage of regulatory and economic capital.
- Oversees the management of the Group's capital plan.

Operational Risk Committee
- Reviews, challenges and recommends appetite for Operational Risk.
- Monitors risk profile against risk appetite for relevant Key Risk types.
- Reviews the Group's aggregate Operational Risk profile.
- Reviews and challenges presentations on individual Key Risk types.

Tax Risk Committee
- Monitors the tax risk profile in respect of risk appetite.
- Assesses the quality of the application of the control framework.
- Considers issues that arise as a result of developing trends.

Credit Risk | **Market Risk** | **Funding Risk** | **Operational Risk**

Assurance

Internal Audit
- Assesses the adequacy and effectiveness of the Group Control Framework.
- Assesses management assurance processes.

The *Board Risk Committee* (BRC) monitors the Group's risk profile against the agreed appetite. Where actual performance differs from expectations, the actions being taken by management are reviewed to ensure that the BRC is comfortable with them. After each meeting, the Chair of the BRC prepares a report for the next meeting of the Board. Barclays first established a separate Board Risk Committee in 1999 and all members are non-executive directors. The Finance Director and the Chief Risk Officer attend each meeting as a matter of course. The BRC receives regular and comprehensive reports on risk methodologies and the Group's risk profile including the key issues affecting each business portfolio and forward risk trends. The Committee also commissions in-depth analyses of significant risk topics, which are presented by the Chief Risk Officer or senior risk managers in the businesses. The Chair of the Committee prepares a statement each year on its activities (see page 43 to 44 of the Annual Report).

The *Board Audit Committee* receives quarterly reports on control issues of significance and a half-yearly review of the adequacy of impairment allowances, which it reviews relative to the risk inherent in the portfolios, the business environment, the Group's policies and methodologies and the performance trends of peer banks. The Chair of the Board Audit Committee also sits on the BRC. See pages 40 to 42 of the Annual Report for additional details on the membership and activities of the Board Audit Committee.

The *Board Remuneration Committee* receives a detailed report on risk management performance from the BRC which is considered in the setting of performance objectives in the context of incentive packages.

Summaries of the relevant business, professional and risk management experience of the Directors of the Board are given on pages 50 to 52 of the Annual Report. The terms of reference for each of the principal Board Committees are available from the Corporate Governance section at: http://group.barclays.com/About-us/Management-structure/Corporate-governance.

The *Chief Risk Officer* is a member of the Executive Committee and has overall day-to-day accountability for risk management under delegated authority from the Chief Executive. The Chief Executive must consult the Chairman of the Board Risk Committee in respect of the Chief Risk Officer's performance appraisal and compensation as well as all appointments to or departures from the role.

The Chief Risk Officer manages the independent Group Risk function and chairs the Financial Risk Committee and the Operational Risk Committee, which monitor the Group's financial and non-financial risk profile relative to established risk appetite. Reporting to the Chief Risk Officer, and working in the Group Risk function, are risk-type heads for retail credit risk, wholesale credit risk, market risk, operational risk and fraud risk. Along with their teams, the risk-type heads are responsible for establishing a Group-wide framework for oversight of the risks and controls of their risk type. These risk-type teams liaise with each business as part of the monitoring and management processes.

In addition, each business unit has an embedded risk management function, headed by a Business Chief Risk Officer (BCRO). BCROs and their teams are responsible for assisting business heads in the identification and management of their business risk profiles and for implementing appropriate controls. These teams also assist Group Risk in the formulation of Group policies and their implementation across the businesses. The business risk directors report jointly to their respective business heads and to the Chief Risk Officer.

The risk type heads within the central Group Risk function and the BCROs within the business units report to the Chief Risk Officer and are members of the Financial Risk Committee or Operational Risk Committee as appropriate.

For further details on the management of each of the Principal Risks, see pages 14 to 20.

Internal Audit is responsible for the independent review of risk management and the control environment. Its objective is to provide reliable, valued and timely assurance to the Board and Executive Management over the effectiveness of controls, mitigating current and evolving high risks and in so doing enhancing the controls culture within the Group. The Board Audit Committee reviews and approves Internal Audit's plans and resources, and evaluates the effectiveness of Internal Audit. An assessment by external advisers is also carried out periodically.

For information on the Board Citizenship Committee and the Board Corporate Governance and Nominations Committee please see pages 18 to 19, 38 to 39 and 70 in the Annual Report.

Risk management responsibilities are laid out in the Principal Risks Policy, which covers the categories of risk in which Barclays has its most significant actual or potential risk exposures.

The Principal Risks Framework:

- creates clear ownership and accountability;
- ensures the Group's most significant risk exposures are understood and managed in accordance with agreed risk appetite (for financial risks) and risk tolerances (for non-financial risks); and
- ensures regular reporting of both risk exposures and the operating effectiveness of controls.

Each Principal Risk comprises individual Key Risk Types. During 2011, the Principal Risks Policy was updated, resulting in risks being grouped into four categories with no significant change to the underlying risk types. The four Principal Risks are: Credit, Market, Funding and Operational, each owned by a senior individual within the Group Risk function known as the Group Principal Risk Owner. The first three Principal Risks are risks that Barclays actively seeks to manage and have direct income implications. The fourth Principal Risk relates to operational risks, exposure which arises directly from undertaking business processes in support of Barclays activities, which the Group seeks to minimise.

The five steps required by the Principal Risks Policy are: Identify, Assess, Control, Report, and Manage and Challenge (see page 7 for more detail).

Each Key Risk is owned by a senior individual known as the Group Key Risk Owner who is responsible for proposing a risk appetite statement and managing the risk in line with the Principal Risks Policy. This includes the documentation, communication and maintenance of a risk control framework which makes clear, for every business across the firm, the mandated control requirements in managing exposures to that Key Risk.

These control requirements are given further specification, according to the business unit or risk type, to provide a complete and appropriate system of internal control.

Business Unit and Group Centre function heads are responsible for obtaining ongoing assurance that the key controls they have put in place to manage the risks to their business objectives are operating effectively. Six-monthly reviews support the regulatory requirement for Barclays to make its annual external statement about its system of internal controls.

Group Key Risk Owners report their assessments of the risk exposure and control effectiveness to Group-level oversight committees and their assessments form the basis of the reports that go to the Board Risk Committee (see chart on page 8):

- Financial Risk Committee has oversight of Credit and Market Risks;
- Treasury Committee has oversight of Funding Risk; and,
- Operational Risk Committee has oversight of all Operational Risk types, with the exception of Tax Risk, which is overseen by the Tax Risk Committee.

Each Group Key Risk Owner also undertakes an annual programme of risk-based conformance reviews.

Risk Management in the Setting of Strategy

The planning cycle is centred on the medium-term planning (MTP) process, performed once a year. This sets out the Group's objectives in detailed plans which take account of the likely business environment. The risk functions at Group and business levels are heavily involved in this process.

In addition to supporting transaction decisions, the measurement and control of credit, market, operational and other risks have considerable influence on Barclays strategy. The Board is solely responsible for approving the MTP, the associated risk appetite statement, and the capital plans. As such, the business plans of Barclays must incur a level of risk that falls within the Board's tolerance, or be modified accordingly. The Board Risk Committee (BRC) has been in place since 1999 and is devoted to review the firm's risk and make appropriate recommendations to the Board. For details of the activities of the Board and the BRC in 2011 see pages 33 to 37 and 43 to 44 of the Annual Report.

The risk appetite and the Group-wide stress testing processes, described below, are closely linked to the MTP process and also support strategic planning and capital adequacy. The risk appetite process ensures that senior management and the Board understand the Plan's sensitivities to key risk types, and includes a set of mandate and scale limits to ensure the Group stays within appetite. Stress testing informs management on the impact to the business of detailed scenarios. Integral to the Group-wide stress testing process is a set of actions that management would take to mitigate the impact of a stress.

One of the main objectives of managing risk is to ensure that Barclays achieves an adequate balance between capital requirements and resources. The capital planning cycle is fully integrated within strategic planning.

MTP process

The MTP process, performed annually, requires each business unit to present its plans for business performance over the coming three years. Achieving the planned performance in each business is dependent upon the ability of the business to manage its risks. It is an iterative process featuring weekly reviews at the most senior levels as the plan is updated until final agreement. The output includes a detailed statement of the group's strategy over the medium-term, as well as detailed financial projections.

Risk managers support the MTP by providing robust review and challenge of the business plans to ensure that the financial projections are internally consistent, achievable given risk management capabilities and that they present a suitable balance between risk and reward. This culminates in the Risk Executive Dialogue process in which the Chief Risk Officer and senior management in each of our businesses discuss the findings from the risk reviews, and changes to the business plans are mandated as necessary.

The business plans are prepared with reference to a consistent set of economic assumptions which are reviewed within Group Risk to ensure that they appropriately reflect emerging risk trends. They are used as baseline scenarios in the stress testing and risk appetite processes.

The output from the business plan forms the basis of all strategic processes. In particular, the plans comprise projections of capital resources and requirements given profit generation, dividend policy and capital issuance. Risk variables are also considered, most importantly in the forecasting of the Group's impairment charge, and in sensitivity analyses of the plans (which include risk appetite and stress testing).

Risk Appetite

Risk appetite is defined as the level of risk that Barclays is prepared to sustain whilst pursuing its business strategy, recognising a range of possible outcomes as business plans are implemented. Barclays framework combines a top-down view of its capacity to take risk with a bottom-up view of the business risk profile associated with each business area's medium term plans. The appetite is ultimately approved by the Board.

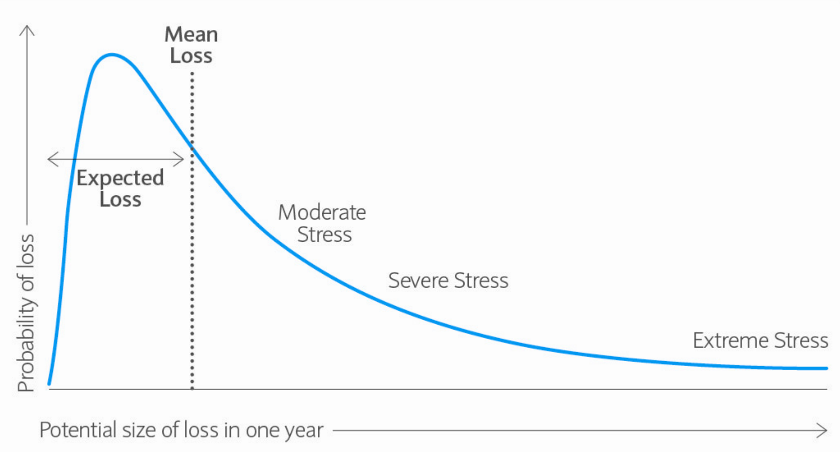
Taken as a whole, the risk appetite framework provides a basis for the allocation of risk capacity across Barclays Group and consists of two elements: 'Financial Volatility' and 'Mandate & Scale'.

Financial Volatility

Financial Volatility is defined as the level of potential deviation from expected financial performance that Barclays is prepared to sustain at relevant points on the risk profile. The Board sets the Group's financial volatility risk appetite in terms of broad, top down, financial objectives for a through the cycle, a moderate stress and a severe stress events; these scenarios are defined more generically through a level of probability of occurrence rather than through a specific set of economic variables like in Stress Tests. Our top-down appetite is quantified through an array of financial performance and capital metrics which are reviewed on an annual basis.

The Group's risk profile is assessed via a 'bottom-up' analysis of Group's business plans to establish the volatility of the key metrics. If the projections entail too high a level of risk (i.e. breach the top-down financial objectives at the through the cycle, moderate or severe level), management will challenge each area to rebalance the risk profile to bring the bottom-up risk appetite back within top-down appetite. Performance against risk appetite usage is measured and reported to the Executive Committee and the Board regularly throughout the year.

Risk Appetite concepts (diagram not to scale)



To measure the risk entailed by the business plans, management estimates potential earnings volatility from each business under various scenarios:

- through-the-cycle: the average losses based on measurements over many years;
- 1 in 7 (moderate) loss: the worst level of losses out of a random sample of 7 years; and
- 1 in 25 (severe) loss: the worst level of losses out of a random sample of 25 years.

These potentially larger but increasingly less likely levels of loss are illustrated in the risk appetite concepts chart above. Since the level of loss at any given probability is dependent on the portfolio of exposures in each business, the statistical measurement for each key risk category gives the Group clearer sight and better control of risk-taking throughout the enterprise. Specifically, Barclays believes that this framework enables it to:

- improve management confidence and debate regarding the Group's risk profile;
- re-balance the risk profile of the MTP where breaches are indicated, thereby achieving a superior risk-return profile;
- identify unused risk capacity, and thus highlight the need to identify further profitable opportunities; and
- improve executive management control and co-ordination of risk-taking across businesses.

Mandate & Scale

The second element to the setting of risk appetite in Barclays is an extensive system of Mandate & Scale limits, which is a risk management approach that seeks to formally review and control business activities to ensure that they are within Barclays mandate (i.e. aligned to the expectations of external stakeholders), and are of an appropriate scale (relative to the risk and reward of the underlying activities). Barclays achieves this by using limits and triggers to avoid concentrations which would be out of line with external expectations, and which may lead to unexpected losses of a scale that would be detrimental to the stability of the relevant business line or the Group. These limits are set by the independent Risk function, formally monitored each month and subject to Board-level oversight.

For example, in our commercial property finance and construction portfolios, a comprehensive series of limits are in place to control exposure within each business and geographic sector. To ensure that limits are aligned to the underlying risk characteristics, the Mandate & Scale limits differentiate between types of exposure. There are, for example, individual limits for property investment and property development, and for senior and subordinated lending. Property limits have been managed down through the course of 2011, with decreases evident across most businesses and geographic segments, particularly in South Africa and Europe.

Barclays uses the Mandate & Scale framework to:

- limit concentration risk;
- keep business activities within Group and individual business mandate;
- ensure activities remain of an appropriate scale relative to the underlying risk and reward; and
- ensure risk-taking is supported by appropriate expertise and capabilities.

As well as Group-level Mandate & Scale limits, further limits are set by risk managers within each business unit, covering particular portfolios.

Stress testing

Group-wide stress tests are an integral part of the annual MTP process and annual review of Barclays risk appetite and ensure that Barclays financial position and risk profile provide sufficient resilience to withstand the impact of stress.

The BRC agrees the range of scenarios to be tested and the independent Group Risk function leads the process. Barclays macro economic stress test scenarios are designed to be both severe and plausible and can include specific ad hoc scenarios, for example, a Euro break-up scenario. Barclays scenarios have been tested against the FSA's scenario framework and were shown to be appropriately conservative.

At the Group level, stress test scenarios capture a wide range of macroeconomic variables that are relevant to the current environment, such as GDP, unemployment, asset prices, foreign exchange rates and interest rates.

The stress testing process is detailed and comprehensive using bottom-up analysis performed by each of Barclays businesses, and includes all aspects of the Group's balance sheet across all risk types and is forward looking over a five year period. The businesses' stress test results are subject to a detailed review and challenge both within the businesses and by Barclays Group Functions. The impact on profitability, capital and liquidity are documented and presented to the Executive Committee, the BRC, the Board and the FSA. Should the BRC find that the impact falls outside of its expectations, the business plans will be appropriately amended.

In addition, the framework also includes reverse stress testing techniques which aim to identify the increased severity that would be needed over and above the stressed scenarios to result in the business model being no longer viable; for example, extreme macroeconomic downturn scenarios or specific idiosyncratic events. This is used to help support ongoing risk management and is fully integrated into the risk appetite framework.

Barclays also uses stress testing techniques at portfolio and product level to support risk management. For example, portfolio management in the US cards business employs stressed assumptions of unemployment to determine profitability hurdles for new accounts. In the UK mortgage business, affordability thresholds incorporate stressed estimates of interest rates. In Barclays Capital, global scenario testing is used to gauge potential losses that could arise in conditions of extreme market stress. Stress testing is also conducted on positions in particular asset classes, including interest rates, commodities, equities, credit and foreign exchange.

During 2011, along with 91 other banks, Barclays was included in the European Banking Authority stress test. The stress test was designed to assess the resilience of the EU banking sector and each of the selected banks' ability to absorb possible shocks on credit and market risks, including sovereign risks. The results supported Barclays own internal view that Barclays is well placed to withstand economic stress.

Information on the Group's stress testing specifically relating to liquidity risk is set out on pages 142 to 143 of the Annual Report.

Measurement of capital requirements

Regulatory capital requirements are calculated on the basis of Pillar 1 and Pillar 2 of the Basel framework. Pillar 1 capital covers credit, market and operational risks. The calculation methods (including formulae and ratings per exposure category) are specified by Basel 2 rules. Pillar 2 capital can also be held against the three risk types above, but mainly covers other types of risk. Barclays uses its own internal economic capital framework and stress testing processes to help determine Pillar 2 capital, though the final decision rests with the regulator.

Barclays calculates economic capital requirements based on its own internal framework, which is regularly enhanced and benchmarked to external reference points. It therefore represents the Group's view of the risk profile of the firm. While it is used to support the assessment of Pillar 2 regulatory requirements, its main purpose is to drive business decision-making. The Group assigns economic capital primarily within the following risks: retail and wholesale credit risk, market risk, operational risk, fixed assets, private equity and pension risk.

More information on economic capital can be found on page 136 of the Annual Report.

Barclays risk profile

Identification of principal risks

Identifying the Principal Risks and their component Key Risk Types ensures that the risk profile of Barclays is comprehensively reported and managed. Ensuring that any material risk that can be anticipated is covered by the framework is a continuous process at Barclays.

Principal Risks are owned by senior individuals within the Group Risk function known as Group Principal Risk Owners (GPROs). Each Key Risk is owned by a senior individual known as the Group Key Risk Owner who is responsible for proposing the risk appetite statement and managing the risk in line with the Principal Risks Policy. The risk committees referred to in this report also provide the forum where senior risk managers from the various businesses can report on emerging threats. If the Principal Risk Framework does not cover a new source of risk it will be updated accordingly.

The section above details how the risks are reported internally. External disclosures cover the Principal Risks in quantitative and qualitative terms, as appropriate.

Risk factors

During 2011, the Principal Risks Policy was updated, resulting in risks being grouped into four categories with no significant change to the underlying risk types. Definitions of the four Principal Risks are provided on pages 15 to 20. This summary also includes discussions of the impact of business conditions and the general economy and regulatory changes which can impact risk factors and so influence the Group's results. The Principal Risks described below can also potentially impact the Group's reputation and brand.

The following information describes the risk factors which the Group believes could cause its future results to differ materially from expectations. However, other factors could also adversely affect the Group's results and so the factors discussed in this report should not be considered to be a complete set of all potential risks and uncertainties.

Business conditions and the general economy

The Group has significant activities in a large number of countries. Consequently there are many ways in which changes in business conditions and the general economy can adversely impact profitability, whether at Group level, the individual business units or specific countries of operation.

During 2011, the economic environment in Barclays main markets was marked by generally weaker than expected growth and the ongoing sovereign debt crisis in the Eurozone. In the UK, the economy recovered slightly during 2011 although GDP declined slightly in the fourth quarter leading to uncertainty in the near term. The potential for persistent unemployment, higher interest rates and rising inflation may increase the pressure on disposable incomes, affecting an individual's debt service ability with the potential to adversely impact performance in the Group's retail sector. US economic conditions were better than the UK in 2011. However, unemployment is still high, which increases uncertainty in the near term. Credit conditions in Europe remain weak and a depressed housing sector and high unemployment may, in the near term, adversely affect Barclays business operations in this region. The global wholesale environment has been affected by the sovereign debt crisis and the business confidence has generally declined. Performance in the near term, therefore, remains uncertain.

The business conditions facing the Group in 2012 globally and in many markets in which the Group operates are subject to significant uncertainties which may in some cases lead to material adverse impacts on the Group's operations, financial conditions and prospects including, for example, changes in credit ratings, share price and solvency of counterparties as well as higher levels of impairment, lower revenues or higher costs.

Credit Risk

- Impact of potentially deteriorating sovereign credit quality, particularly debt servicing and refinancing capability;
- Extent and sustainability of economic recovery, including impact of austerity measures on the European economies;
- Increase in unemployment due to weaker economies in a number of countries in which the Group operates, fiscal tightening and other measures;
- Impact of rising inflation and potential interest rate rises on consumer debt affordability and corporate profitability;
- Possibility of further falls in residential property prices in the UK, South Africa and Western Europe;
- Potential liquidity shortages increasing counterparty risks;
- Potential for large single name losses and deterioration in specific sectors and geographies;
- Possible deterioration in remaining credit market exposures; and
- Potential exit of one or more countries from the Euro as a result of the European debt crisis.

Market Risk

- Reduced client activity leading to lower revenues;

- Decreases in market liquidity due to economic uncertainty;
- Impact on banking book income from uncertain interest and exchange rate environment; and
- Asset returns underperforming pension liabilities.

Funding Risk

- Impact of Basel 3 as regulatory rules are finalised;
- Impacts on capital ratios from weak profit performance;
- Availability and volatility in cost of funding due to economic uncertainty; and
- Reduction in available depositor and wholesale funding.

Operational Risk

- Implementation of strategic change and integration programmes across the Group;
- Continued regulatory and political focus, driven by the global economic climate;
- Impact of new, wide ranging, legislation in various countries coupled with changing regulatory landscape;
- Increasingly litigious environment; and
- The crisis management agenda and breadth of regulatory change required in global financial institutions.

Principal Risk factors

1. Credit Risk

Credit Risk is the risk of the Group suffering financial loss if any of its customers, clients or market counterparties fails to fulfil their contractual obligations to the Group.

The credit risk that the Group faces arises mainly from wholesale and retail loans and advances together with the counterparty credit risk arising from derivative contracts entered into with its clients. Other sources of credit risk arise from trading activities, including debt securities, settlement balances with market counterparties, available for sale assets and reverse repurchase loans. It can also arise when an entity's credit rating is downgraded, leading to a fall in the value of Barclays investment in its issued financial instruments.

Risk management

The Board and management have established a number of key committees to review credit risk management, approve overall Group credit policy and resolve all significant credit policy issues. These comprise: the BRC, the Financial Risk Committee, the Wholesale Credit Risk Management Committee and the Retail Credit Risk Committee.

Barclays constantly reviews its concentration in a number of areas including, for example, portfolio segments, geography, maturity, industry and credit rating.

Diversification is achieved through setting maximum exposure guidelines and mandate and scale limits to portfolio segments, individual counterparties, sectors and countries, with excesses reported to the Financial Risk Committee and the BRC.

For further information see Credit Risk Management (pages 28 to 71 in this report, and pages 79 to 120 of the Annual Report).

Key Specific Risks and Mitigation

Specific areas and scenarios where credit risk could lead to higher impairment charges in future years include:

Sovereign risk

Fiscal deficits continue to remain high, leading to high levels of public debt in some countries at a time of modest GDP growth. This has led to a loss of market confidence in certain countries to which the Group is exposed causing deteriorating sovereign credit quality, particularly in relation to debt servicing and refinancing. The Group has put certain countries on watch list status with detailed monthly reporting to the Wholesale Credit Risk Management Committee.

For further information see Group exposures to selected Eurozone countries (pages 112 to 120 of the Annual Report).

Economic Weakness

The implementation of austerity measures to tackle high levels of public debt has negatively impacted economic growth and led to rising unemployment in some European countries and the monetary, interest rate and other policies of central banks and regulatory authorities may also have a significant adverse effect on a number of countries in which the Group operates.

The threat of weaker economies in a number of countries in which the Group operates could lead to even higher increasing levels of unemployment, rising inflation, potentially higher interest rates and falling property prices. For example, the Spanish and Portuguese housing sectors continue to be depressed, impacting the Group's wholesale and retail credit risk exposures.

The Group has experienced elevated impairment across its operations in these two regions, although impairment in Spain decreased in 2011, following a marked reduction in construction activity and shrinking consumer spending. The Group has reduced its credit risk appetite to the most severely affected segments of the economy. In Spain, new lending to the property and construction sector ceased and workout team resources have been increased significantly.

In addition, if funding capacity in either the wholesale markets or central bank operations were to change significantly, liquidity shortages could result which may lead to increased counterparty risk with other financial institutions. This could also have an impact on refinancing risks in the corporate and retail sectors. The Group continues to actively manage this risk including through its extensive system of Mandate and Scale limits.

For further information see Retail Credit Risk and Wholesale Credit Risk (pages 96 to 103 of the Annual Report).

Eurozone Crisis

Concerns about credit risk (including that of sovereigns) and the Eurozone crisis remain very high. The large sovereign debts and/or fiscal deficits of a number of European countries have raised concerns regarding the financial condition of financial institutions, insurers and other corporates (i) located in these countries; (ii) that have direct or indirect exposure to these countries (both to sovereign debt and private sector debt); and/or (iii) whose banks, counterparties, custodians, customers, service providers, sources of funding and/or suppliers have direct or indirect exposure to these countries. The default, or a further decline in the credit rating, of one or more sovereigns or financial institutions could cause severe stress in the financial system generally and could adversely affect the markets in which the Group operates and the businesses, economic condition and prospects of the Group's counterparties, customers, suppliers or creditors, directly or indirectly, in ways which it is difficult to predict.

For further information see Group exposures to selected Eurozone countries (pages 112 to 120 of the Annual Report).

Credit Market Exposures

Barclays Capital holds certain exposures to credit markets that became illiquid during 2007. These exposures primarily relate to commercial real estate and leveraged finance loans. The Group continues to actively manage down these exposures.

For further information see Barclays Capital Credit Market Exposures (pages 110 to 111 of the Annual Report).

2. Market Risk

Market Risk is the risk of the Group suffering financial loss due to the Group being unable to hedge its balance sheet at prevailing market levels.

The Group can be impacted by changes in both the level and volatility of prices e.g. interest rates, credit spreads, commodity prices, equity prices and foreign exchange rates.

The risk is reported as Traded Risk where Barclays supports customer activity primarily via Barclays Capital; Non-Traded Risk to support customer products primarily in the retail bank; and Pension Risk where the investment profile is reviewed versus the defined benefit scheme.

Risk Management

The Board approves Market Risk appetite for trading and non-trading activities, with limits set within this context by the Group Market Risk Director.

Group Risk is responsible for the overall Barclays Market Risk Control Framework which implements the five step risk management process.

Business specific Market Risk teams are responsible for implementing the Control Framework. Oversight and challenge is provided by business committees, group committees and the central Group Market Risk team.

For further information see Market Risk (pages 72 to 81, and pages 121 to 129 of the Annual Report).

Key Specific Risks and Mitigation

Specific areas and scenarios where market risk could lead to lower revenues in future years include:

Reduced client activity and decreased market liquidity

While the Group is exposed to continued market volatility, Barclays Capital's trading activities are principally a consequence of supporting customer activity.

The impact of ongoing economic uncertainty on client volumes, reduced market liquidity and higher volatility could lead to lower revenues. The cost base and risk positions are constantly reviewed to ensure that they are calibrated appropriately. The portfolios are constantly reviewed to ensure that inventories are sized appropriately to support customer activity taking into account market volatility.

For further information see Market Risk (pages 72 to 81, and pages 121 to 129 of the Annual Report).

Non-Traded Interest Rate Risk

Interest rate volatility can impact the firm's net interest margin. The potential for future volatility and margin changes remain and it is difficult to predict with any accuracy, changes in absolute interest rate levels, yield curves and spread.

For further information see Market Risk (pages 72 to 81, and pages 121 to 129 of the Annual Report).

Pension Fund Risk

Adverse movements between pension assets and liabilities for defined benefit could contribute to a pension deficit. Barclays and the Pension Trustees dedicated Investment Management team constantly review the asset liability mismatch to ensure appropriate investment strategy.

For further information see Market Risk (pages 72 to 81, and pages 121 to 129 of the Annual Report, and note 39 in the Annual Report).

3. Funding Risk

Funding Risk is the risk that the Group is unable to achieve its business plans due to liquidity risk and capital risk or the management of structural balance sheet risks.

Liquidity Risk is the risk that the Group is unable to meet its obligations as they fall due resulting in: an inability to support normal business activity; failing to meet liquidity regulatory requirements; or changes to credit ratings.

Capital Risk is the risk that the Group is unable to maintain appropriate capital ratios which could lead to an inability to support business activity; failing to meet regulatory requirements; or changes to credit ratings.

Structural Risk relates to the management of non-contractual risks and predominantly arises from the impact on the Group's balance sheet of changes in primarily interest rates on income or foreign exchange rates on capital ratios.

Risk Management

The Board approves the Group's Liquidity Risk Appetite, Capital Plan and approach for Structural Hedging.

Group Risk provides oversight review and challenge to the Liquidity, Capital and Structural Risk Control Frameworks. The Risk function also provides direct input into as well as approval of various aspects of the calibration, calculation and reporting for these key risks.

Group Treasury has responsibility for implementing the Key Risk control frameworks for Liquidity, Capital and Structural Risks at both the Group and Legal Entity level and for ensuring that the firm maintains compliance with all local regulatory minimum limit requirements relating to these key risks.

Oversight and challenge is provided by local and group Asset Liability Committees all reporting up to Group Treasury Committee which meets at least monthly.

For further information see Capital Risk (pages 21 to 27) and Funding risk – Liquidity (pages 139 to 150 of the Annual Report).

Key Specific Risks and Mitigation

Specific areas and scenarios where funding risk could lead to higher costs or limit Barclays ability to execute its business plans include:

Increasing capital requirements

There are a number of regulatory developments that impact capital requirements. Most significantly Basel 3 as adopted into EU law through the fourth Capital Requirements Directive (CRD 4) and Capital Requirements Regulation which are still going through the EU legislative process. Additional capital requirements may arise from other proposals including the recommendations of the Independent Commission on Banking.

Barclays continues to prepare for the implementation of CRD 4 and includes the estimated impact of future regulatory changes in its capital planning framework. Current forecasts already include the impact of Basel 3 as currently understood, and forecasts will be continually updated as CRD 4 and other proposals for regulatory developments are finalised. Further detail on the regulatory developments impacting capital is included on page 137 of the Annual Report.

Maintaining capital strength

A material adverse deterioration in the Group's financial performance can affect the capacity to support further capital deployment. The Capital Plan is continually monitored against the internal target capital ratios with Risk, the business and legal entities through a proactive and forward looking approach to capital risk management which ensures that the Plan remains appropriate. The capital management process also includes an internal and regulatory stress testing process which informs the Group capital plan. Further detail on the Group's regulatory capital resources is included on pages 21 to 27.

Changes in Funding Availability and Costs

Market liquidity, the level of customer deposits and the Group's ability to raise wholesale funding impacts both the Group's net interest margin, which is sensitive to volatility in cost of funding, and its ability to both fulfil its obligations and support client lending, trading activities and investments. Large unexpected outflows, for example from customer withdrawals, ratings downgrades or loan drawdowns, could also result in forced reduction in the balance sheet, inability to fulfil lending obligations and regulatory breaches. The Liquidity Profile is monitored constantly and is supported by a range of early warning indicators to ensure the profile remains appropriate and sufficient liquid resources are held to protect against unexpected outflows. Further details are provided in the Funding Risk – Liquidity section on pages 139 to 150 of the Annual Report.

Local Balance Sheet Management and Redenomination Risk

The introduction of capital controls or new currencies by countries (for example in the Eurozone) to mitigate current stresses could have an ongoing or point-in-time impact on the performance of local balance sheets of certain Group companies based on the asset quality, types of collateral and mix of liabilities. Local assets and liability positions are carefully monitored by local asset and liability committees with oversight by Group Treasury. For further information see the Group's exposures to selected Eurozone countries (pages 112 to 120 of the Annual Report).

4. Operational Risk

Operational Risk is the risk of direct or indirect impacts resulting from human factors, inadequate or failed internal processes and systems or external events. Operational risks are inherent in the Group's business activities.

The Key Risks that this Principal Risk includes are External Suppliers, Fraud, Financial Reporting, Information, Legal, Product, Payments, People, Premises & Security, Regulatory, Taxation, Technology and Transaction Operations. For definitions of these key risks see pages 92 and 93.

Risk Management

The Operational Risk framework enables Barclays to manage and measure its Operational Risk profile and to calculate the amount of Operational Risk capital that it needs to hold. The minimum mandatory requirements applicable to all Business Units are set out in the Group Operational Risk policies.

Group Key Risk Owners are required to monitor information relevant to their Key Risk from each Operational Risk framework element. In addition, each Key Risk Owner mandates control requirements specific to their Key Risk through a Key Risk Control Framework.

For further information see Operational Risk Management (pages 91 to 95).

Key Specific Risks and Mitigation

Specific areas and scenarios where operational risk could lead to financial and/or non-financial impacts including legal or regulatory breaches or reputational damage include:

Regulatory Risk

Regulatory risk arises from a failure or inability to comply fully with the laws, regulations or codes applicable specifically to the financial services industry which are currently subject to significant changes. Noncompliance could lead to fines, public reprimands, damage to reputation, increased prudential requirements, enforced suspension of operations or, in extreme cases, withdrawal of authorisations to operate.

The regulatory response to the financial crisis has led and will continue to lead to very substantial regulatory changes in the countries in which the Group operates. It has also (amongst other things) led to (i) a more assertive approach being demonstrated by the authorities in many jurisdictions; and (ii) enhanced capital and liquidity requirements (for example pursuant to CRD4). Current examples of specific areas of concern include:

The Independent Commission on Banking (ICB)

The ICB was charged by the UK Government with reviewing the UK banking system and its findings were published on 12 September 2011. The ICB recommended (amongst other things) that: (i) the UK and EEA retail banking activities of a UK bank or building society should be placed in a legally distinct, operationally separate and economically independent entity (so-called "ring-fencing"); and (ii) the loss-absorbing capacity of ring-fenced banks and UK-headquartered global systemically important banks (such as Barclays Bank PLC) should be increased to levels higher than the Basel 3 proposals.

The UK Government published its response to the ICB recommendations in December 2011 and indicated that primary and secondary legislation relating to the proposed ring-fence will be completed by May 2015, with UK banks and building societies expected to be compliant as soon as practicable thereafter, and the requirements relating to increased loss-absorbing capacity of ring-fenced banks and UK-headquartered global systemically important banks will be applicable from 1 January 2019. Changes to the structure of UK banks and an increase in the amount of loss-absorbing capital issued by UK banks may have a material adverse impact on the Bank's and the Group's results and financial condition. It is also not possible to predict the detail of the implementation legislation or the ultimate consequences to the Group.

The Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA)

DFA will have an impact on the Group and its business. A significant number of rules and draft rules have been issued through 2011. While the impact of this rule-making will be substantial, the full scale of this impact remains unclear as many of the provisions of the Act require rules to be made to give them effect and this process is still underway. Barclays has taken a centralised approach to monitoring this process and to ensuring compliance with the rules that are developed as a result.

Recovery and Resolution Plans

The strong regulatory focus on resolvability has continued in 2011, both from UK and international regulators. The Group has been engaged, and continues to be engaged, with the authorities on taking forward recovery planning and identifying information that would be required in the event of a resolution. The Group will be required to prepare an initial plan for the UK and US regulators in the first half of 2012.

Any future regulatory changes may restrict the Group's operations, mandate certain lending activity and impose other, significant compliance costs. For further information see Supervision and Regulation (pages 154 to 158 of the Annual Report).

Legal Risk

The Group is subject to a comprehensive range of legal obligations in all countries in which it operates and so is exposed to many forms of legal risk, which may arise in a number of ways: (i) business may not be conducted in accordance with applicable laws around the world; (ii) contractual obligations may either not be enforceable as intended or may be enforced in an adverse way; (iii) intellectual property may not be adequately protected; and (iv) liability for damages may be incurred to third parties harmed by the conduct of the Group's business. The Group also faces risk where legal proceedings are brought against it. The Group is, and may in the future be, involved in various disputes, legal proceedings and regulatory investigations in various jurisdictions, including in the US. Furthermore, the Group, like many other financial institutions, has come under greater regulatory scrutiny in recent years and expects that environment to continue particularly as it relates to compliance with new and existing corporate governance, employee compensation, conduct of business, anti-money laundering and anti-terrorism laws and regulations, as well as applicable international sanctions regimes.

Key legal risks to which the Group was exposed during 2011 have included litigation in relation to:

- Lehman Brothers Holdings Inc;
- American Depository Shares;
- US Federal Housing Finance Agency and Other Residential Mortgage-Backed Securities; and
- Devonshire Trust.

For further information see Legal Proceedings (pages 248 to 249 of the Annual Report).

Payment Protection Insurance

During 2011 Barclays agreed with the FSA that it would process all on-hold and any new complaints from customers about PPI policies that they hold. Barclays also announced that, as a goodwill gesture, it would pay out compensation to customers who had PPI complaints put on hold during the judicial review. Barclays took a provision of £1bn in the second quarter of 2011 to cover the cost of future redress and administration. For further information see Provisions (pages 246 to 247 of the Annual Report).

CyberSecurity Risk

Barclays recognises the growing threats from cyberspace to its systems, including in respect of customer and its own information held on them and transactions processed through these systems. The implementation of measures to manage the risk is involving increasing investment and use of internal resources. However, given the increasing sophistication and scope of potential attacks from cyberspace, it is possible that in the future such attacks may lead to significant breaches leading to associated costs and reputational damage.

The Group has invested for many years in building defences to counter these threats and continues to do so, recognising that this is an area of risk that changes rapidly and requires continued focus.

To date the Group is not aware of any significant breaches of its systems from cyberspace.

Taxation Risk

Taxation risk is the risk that the Group suffers losses arising from additional tax charges, financial penalties or reputational damage associated with failure to comply with procedures required by tax authorities, changes in tax law and the interpretation of tax law. The Group is subject to the tax laws in all countries in which it operates, including tax laws adopted at an EU level, and is impacted by a number of double taxation agreements between countries.

HMRC, being the Group's primary taxation authority, recently took the unusual step of issuing a public statement that the Government was drafting retrospective tax legislation. Such steps add to the need to closely monitor changes in the way in which HMRC approaches the application of its Code of Practice for Taxation of Banks. For all tax jurisdictions, within which the Group operates, we continue to monitor the potential impact of proposed and recently enacted taxes aimed at banks.

In 2011 the Group continued to settle open tax issues in a number of jurisdictions and in meeting its tax obligations made global tax payments totalling £6.4bn. The profit forecasts that support the Group's deferred tax assets, principally in the US and Spain, have been subject to close scrutiny by management. For further information see the Financial review (pages 168 to 169 of the Annual Report) and Tax (pages 213 to 216 of the Annual Report).

Capital management

Capital management

Capital risk and liquidity risk management make up Funding Risk Management, one of Barclays principal risk types. Liquidity risk management is covered in the Annual Report (pages 139 to150)[2].

Capital Management

Capital risk is the risk that the Group is unable to maintain appropriate capital ratios which could lead to:

- an inability to support business activity;
- a failure to meet regulatory requirements; or
- rating agency concerns.

Capital Management is integral to the Group's approach to financial stability and sustainability management and is therefore embedded in the way our businesses and legal entities operate. Our Capital Management strategy is driven by the strategic aims of the Group and the risk appetite set by the Board.

Our objectives are achieved through well embedded capital management practices:

Primary Objectives	**Core Practices**
Provide a viable and sustainable business offering by maintaining adequate capital to cover the Group's current and forecast business needs and associated risks	• Monitor internal targets for capital demand and ratios • Meet minimum regulatory requirements at all times in the UK and in all other jurisdictions that the Group operates in, such as the United States and South Africa where regulated activities are undertaken
Ensure the Group and legal entities maintain adequate capital to withstand the impact of the risks that may arise under the stressed conditions analysed by the Group	• Perform Group-wide internal and regulatory stress tests • Maintain capital buffers over regulatory minima • Develop contingency plans for severe (stress management actions) and extreme stress tests (recovery actions)
Support a strong credit rating	• Maintain capital ratios aligned with rating agency expectations • Implementation of the Capital Principal Risk management framework and ensure alignment with leading international and regulatory practices
Support the Group's growth and strategic options	• Maintain a capital plan on a short-term and medium term basis aligned with strategic objectives

Our approach to capital risk management

We adopt a forward-looking, risk based approach to Capital Risk Management. Capital demand and supply is actively managed on a centralised basis, at a business level, at a local entity level and on a regional basis taking into account the regulatory, economic and commercial environment in which Barclays operates.

Capital planning

Capital forecasts are managed on a top-down and bottom-up analysis through both Short Term (Year 1 monthly) and Medium Term (3 year) financial planning cycles. The Group capital plan is developed with the objective of maintaining capital that is adequate in quantity and quality to support our risk profile and business needs. As a result the Group holds a diversified pool of capital resources that provides strong loss absorbing capacity and optimised returns.

Local management ensures compliance with an entity's minimum regulatory capital requirements by reporting to local Asset and Liability Committees with oversight by the Treasury Committee, as required.

Capital allocation

Capital allocations are approved by the Group Executive committee and monitored by the Treasury Committee, taking into consideration the risk appetite, growth and strategic aims of the Group. Barclays Bank PLC is the primary source of capital to its

[2] This section contains information on the consequences of a hypothetical downgrade in Barclays credit rating.

legal entities. Regulated legal entities are, at a minimum, allocated adequate capital to meet their current and forecast regulatory and business requirements.

Risk identification

Capital demand is assessed and quantified for credit, market, operational, interest rate risk on the banking book, pension obligation risk and securitisation risks, in line with the FSA's regulatory requirements.

Treasury works closely with Group Risk, businesses and legal entities to support a proactive approach to identifying sources of capital ratio volatilities which are incorporated in the Group's capital plan. We monitor capital risks against firm-specific and macroeconomic early warning indicators and report to the Treasury Committee, associated with clear escalation channels to senior management.

Following the financial crisis, managing for regulatory change has become fundamental to our capital planning process as it provides a forward looking assessment of the impact of mandated changes which allows us to understand the commercial implications.

Stress testing

Internal stress testing is undertaken to quantify and understand the impact of sensitivities on the capital plan and capital ratios, arising from 1 in 7 year and 1 in 25 year stresses. Actual recent economic, market and peer institution stresses are used to inform the assumptions of our stress tests and assess the effectiveness of our mitigation strategies.

Group also undertakes stress tests prescribed by the FSA and ECB. Legal entities undertake stress tests prescribed by their local regulators. These stress tests inform decisions on the size and quality of capital buffers required and the results are incorporated into the Group capital plan to ensure adequacy of capital under normal and severe, but plausible stressed conditions.

Risk mitigation

As part of the stress testing process we identify the actions that should be taken to mitigate the risks that could arise in the event of material adverse changes in the current economic and business outlook.

As an additional layer of protection, the Barclays Recovery Plan also defines the actions and implementation strategies for these actions available for the Group to increase or preserve our capital resources in the event that stress events are more extreme than originally forecast. Barclays has participated in the FSA's Pilot project of developing a Recovery Plan since 2010 and is progressing with compliance by June 2012.

Transferability of capital

The Group's policy is for surplus capital held in Group entities to be repatriated to Barclays Bank PLC in the form of dividends and/or capital repatriation, subject to local regulatory requirements, exchange controls and tax implications. This approach provides optimal flexibility on the re-deployment of capital across legal entities. The Group is not aware of any material impediments to the prompt transfer of capital resources or repayment of intra-group liabilities when due.

Governance

Our capital plans are underpinned by the Capital Management Framework, which includes our capital management policies and practices that are approved by the Capital Committee and implemented consistently and aimed at delivering on our objectives. The Treasury Committee and the Board approve the Group capital plan, stress tests and Recovery Plan. The Group Treasury Committee manages compliance with the Group's capital management objectives. The Committee reviews actual and forecast capital demand and resources on a monthly basis. The Board Risk Committee annually reviews risk appetite and then analyses the impacts of stress scenarios on the Group capital forecast (see pages 142 and 143 of the Annual Report) in order to understand and manage the Group's projected capital adequacy, amongst other things.

Resources

Global teams operate in accordance with the Group's policies and procedures, having direct access to local regulators and businesses in order to support individual capital management at a legal entity level.

Senior Management awareness and transparency

Capital ratios, early warning indicators and movements in capital demand and supply are reported to Treasury Committee monthly.

Capital management information is readily available at all times to support the Executive Managements strategic and day-to-day business decision making, as may be required.

The Group submits its Board approved ICAAP document to the FSA on an annual basis, which forms the basis of the Individual Capital Guidance set by the FSA.

See pages 137 and 138 in the Annual Report for information on ongoing capital management risks.

Capital Resources

Table 3 shows Barclays regulatory capital resources using FSA definitions. Capital is classified as "Core Tier 1", "Tier 1" and "Tier 2", depending on the degree to which the capital can absorb losses.

Core Tier 1 Capital includes:

- Ordinary shareholders' funds, which include:
  - Issuance of ordinary shares at their nominal value. See note 34 in the Barclays Bank PLC Annual Report for more details.
  - Share Premium Account from share issuance beyond the nominal value.
  - Retained earnings, which represent the profits not distributed to shareholders, and other eligible reserves.
- Equity non-controlling interests including minority interests in subsidiaries.
- Regulatory deductions including:
  - Intangible assets
  - 50% of relevant securitisation positions
  - 50% of the excess of expected loss over impairment net of tax.

Tier 1 Capital includes:

- Core Tier 1 Capital
- Preference shares
- Reserve Capital Instruments (RCIs), which comprise instruments that are both debt and equity accounted.
- Tier one notes
- Regulatory adjustments including:
  - Deduction of 50% of material holdings in other financial companies
  - 50% tax on expected losses over impairment

Tier 2 Capital includes:

- Eligible reserves including revaluation reserves, and unrealised gains on equity holdings
- Non-controlling interests in Tier 2 capital
- Collective impairment for assets on the standardised approach to credit risk
- Subordinated loan capital. These instruments are debt obligations, which are subordinated to senior debt holders and account holders.
- Regulatory deductions for:
  - 50% of relevant securitisation positions
  - 50% excess of expected loss over impairment
  - 50% material holdings in other financial companies.

Total Capital includes:

- Core Tier 1, Tier 1 and Tier 2 capital
- Deductions for connected lending and investments that are not considered material or qualifying under FSA definitions.

Table 3 on page 26 represents the Group's capital position at 31 December 2011.

Basis of consolidation

In this report, Barclays PLC information is presented on a consolidated basis. All of these disclosures are published for Barclays PLC for the year ended 31 December 2011. The consolidation basis used is the same as that used for regulatory capital adequacy. The scope of consolidation is similar to that used for statutory accounting reporting for most of the Group's activities, except for subsidiaries engaged in non-financial activities such as insurance. As at year-end 2011 these are:

- Barclays Insurance Services Company Limited

- Barclays Insurance Guernsey PCC Limited
- Barclays Assurance (Dublin) Limited
- Barclays Insurance (Dublin) Limited
- Barclays Reinsurance Ireland (No.2) Limited
- Barclays Vie SA
- Absa Insurance Company Limited
- Absa Manx Insurance Company
- Absa Life Limited
- Global Alliance Mozambique
- Woolwich Insurance Services Limited
- Barclays Life Assurance Limited

Together these deductions account for the £448m total under "Other deductions from total capital in Table 3, below. In the statutory account they are fully consolidated.

Note also these differences in treatment, which do not apply to the entities above:

- Associates, joint ventures and participations that are financial in nature which would be accounted for on an equity basis in the statutory accounts are consolidated in proportion to the participation in the regulatory calculations.
- Entities that are not financial in nature, as well as private equity investments treated as associates, would be accounted for on an equity basis in the statutory accounts but deducted from capital in the regulatory calculations.

Capital management

Table 3: Key Capital Ratios and Capital resources of Barclays with IRFS reconciliation

	As at 31.12.11	As at 31.12.10
Core Tier 1	11.0%	10.8%
Tier 1	12.9%	13.5%
Total capital	16.4%	16.9%
Capital Resources	£m	£m
Shareholders' equity (excluding non-controlling interests) per balance sheet	55,589	50,858
Non-controlling interests per balance sheet	9,607	11,404
Less: Other Tier 1 capital - preference shares	(6,235)	(6,317)
Less: Other Tier 1 capital - Reserve Capital Instruments	-	(1,275)
Less: Non-controlling Tier 2 capital	(573)	(572)
Other regulatory adjustments	(138)	(317)
Regulatory adjustments and deductions:		
Own credit cumulative gain (net of tax)	(2,680)	(621)
Defined benefit pension adjustment	(1,241)	99
Unrealised losses on available for sale debt securities	555	340
Unrealised gains on available for sale equity (recognised as Tier 2 capital)	(828)	-
Cash flow hedging reserve	(1,442)	(152)
Goodwill and intangible assets	(7,560)	(8,326)
50% excess of expected losses over impairment (net of tax)	(506)	(268)
50% of securitisation positions	(1,577)	(2,360)
Other regulatory adjustments	95	368
Core Tier 1 capital	**43,066**	**42,861**
Other Tier 1 capital:		
Preference shares	6,235	6,317
Tier 1 notes	530	1,046
Reserve Capital Instruments	2,895	6,098
Regulatory adjustments and deductions:		
50% of material holdings	(2,382)	(2,676)
50% tax on excess of expected losses over impairment	129	(100)
Total Tier 1 capital	**50,473**	**53,546**
Tier 2 capital:		
Undated subordinated liabilities	1,657	1,648
Dated subordinated liabilities	15,189	16,565
Non-controlling Tier 2 capital	573	572
Reserves arising on revaluation of property	25	29
Unrealised gains on available for sale equity	828	-
Collectively assessed impairment allowances	2,385	2,409
Tier 2 deductions:		
50% of material holdings	(2,382)	(2,676)
50% excess of expected losses over impairment (gross of tax)	(635)	(168)
50% of securitisation positions	(1,577)	(2,360)
Total capital regulatory adjustments and deductions:		
Investments that are not material holdings or qualifying holdings	(1,991)	(1,622)
Connected loans of a capital nature	(149)	(102)
Other deductions from total capital	(448)	(526)
Total regulatory capital	**63,948**	**67,315**

Core Tier 1 capital increased by £0.2bn to £43.1bn primarily driven by:

- £2.6bn capital generated from retained profits excluding own credit, impairment of investment in BlackRock, Inc. and goodwill impairment, which are added back for regulatory capital purposes
- £1.1bn reduction in the value of the investment in BlackRock, Inc. prior to impairment
- £0.5bn net increase from the impact of share awards on shareholders' funds

- £1.3bn reduction reflecting contributions made to the UK Retirement Fund in 2011
- £1.3bn reduction due to foreign currency movements, primarily due to the depreciation of the South African Rand (Rand) and Euro against Sterling
- £0.8bn increase resulting from lower regulatory deductions

Total capital resources decreased by £3.4bn to £63.9bn principally as a result of the debt buy-back in December 2011 of £1.9bn Reserve Capital Instruments and £0.5bn Tier 1 notes that will not qualify as Tier 1 capital under Basel 3 and the further redemption of £1.3bn of Reserve Capital Instruments.

Minimum Capital Requirements and Risk Weighted Assets (RWA) analysis

Under Basel 2, capital requirements against risk weighted exposures are 8% of the associated RWAs. The following table provides a breakdown of the Group's RWAs by risk type.

Table 4: Minimum capital requirement and risk weighted assets

As at 31.12.11 Risk Type	Capital Requirement £m	RWA £m
Standardised Approach Credit Risk	6,781	84,758
Advanced and Foundation IRB Approach Credit Risk	12,837	160,466
Counterparty Credit Risk	3,047	38,084
Total Credit Risk	22,665	283,308
Market Risk	5,756	71,951
Operational Risk	2,859	35,740
Total	**31,280**	**390,999**

As at 31.12.10 Risk Type	Capital Requirement £m	RWA £m
Standardised Approach Credit Risk	6,924	86,553
Advanced and Foundation IRB Approach Credit Risk	13,956	174,445
Counterparty Credit Risk	3,509	43,863
Total Credit Risk	24,389	304,861
Market Risk	4,884	61,051
Operational Risk	2,570	32,119
Total	**31,843**	**398,031**

Detailed breakdowns of the above amounts are included in tables 5, 6, 40 and 55.

Group risk weighted assets decreased by 2% to £391bn (2010: £398bn) driven by:

- approximately £30bn increase from implementation of CRD3 incorporating Basel 2.5, predominantly in modelled market risk;
- £26bn reduction across credit, counterparty and market risk in Barclays Capital, due to lower levels of activity combined with risk reduction, offset by a £4bn increase relating to market stress. £11bn reduction from currency movements, primarily depreciation of the Rand and Euro against Sterling;
- £9bn reduction due to credit market exposure sell down in Barclays Capital; and
- £5bn increase from business growth, £2bn relating to UK RBB and Barclays Corporate, reflecting delivery against Project Merlin targets, and £3bn from Barclaycard acquisitions.

Credit risk management

Credit Risk Management Strategy

Credit risk management is also discussed in pages 87 to 120 of the Annual Report.

Overview

Credit risk is the risk of suffering financial loss should any of the Group's customers, clients or market counterparties fail to fulfil their contractual obligations to the Group.

The granting of credit is one of the Group's major sources of income and, as the most significant risk, the Group dedicates considerable resources to its control.

The credit risk that the Group faces arises mainly from wholesale and retail loans and advances together with the counterparty credit risk arising from derivative contracts entered into with our clients. Other sources of credit risk arise from trading activities, including debt securities, settlement balances with market counterparties, available for sale assets and reverse repurchase loans.

Credit risk management objectives are to:

- establish a framework of controls to ensure credit risk-taking is based on sound credit risk management principles
- identify, assess and measure credit risk clearly and accurately across the Group and within each separate business, from the level of individual facilities up to the total portfolio
- control and plan credit risk-taking in line with external stakeholder expectations and avoiding undesirable concentrations
- monitor credit risk and adherence to agreed controls; and
- ensure that risk-reward objectives are met

In the review of Barclays credit risk management that follows, we explain how the Group meets its credit risk management objectives through its organisation, structure and governance, mitigation techniques, measurement and reporting. More information on credit risk management can be found in pages 87 to 120 of the Annual Report.

Organisation and structure

Barclays has structured the responsibilities of credit risk management so that decisions are taken as close as possible to the business, whilst ensuring robust review and challenge of performance, risk infrastructure and strategic plans.

The credit risk management teams in each business are accountable to the business risk directors in those businesses who, in turn, report to the heads of their businesses and also to the Chief Risk Officer.

The role of the Group Risk function is to provide Group wide direction, oversight and challenge of credit risk-taking. Group Risk sets the Credit Risk Control Framework, which provides a structure within which credit risk is managed together with supporting Group Credit Risk Policies. Group Risk also provides technical support, review and validation of credit risk measurement models across the Group.

Group Credit Risk Policies currently in force include:

- Maximum Exposure Guidelines to limit the exposures to an individual customer or counterparty;
- Country risk policies to specify Risk Appetite by country and avoid excessive concentration of credit risk in individual countries;
- Aggregation policy to set out the circumstances in which counterparties should be grouped together for credit risk purposes;
- Expected loss policies to set out the approaches for the calculation of the Group's expected loss, i.e. measure of anticipated loss for exposures;
- Forbearance and Loss Recognition policy for setting the standards for forbearance programmes within retail portfolios; and
- Impairment and provisioning policies to ensure that measurement of impairment accurately reflects incurred losses and that clear governance procedures are in place for the calculation and approval of impairment allowances.

The largest credit exposures are approved at the Credit Committee which is managed by Group Risk. Group Risk also manages and approves the Mandate and Scale limits and triggers which mitigate concentration risk and define appetite in risk sensitive areas of the portfolio such as commercial property finance.

The principal committees that review credit risk management, approve overall Group credit policy and resolve all significant credit policy issues are the Board Risk Committee, the Financial Risk Committee, the Wholesale Credit Risk Management Committee and the Retail Credit Risk Management Committee. Senior Group and business risk management are represented on the Financial Risk Committee, the Wholesale Credit Risk Management Committee and the Retail Credit Risk Committee.

On a semi-annual basis, the Credit Risk Impairment Committee (CRIC) obtains assurance on behalf of the Group that all businesses are recognising impairment in their portfolios accurately, promptly and in accordance with policy, accounting standards and established governance.

Credit risk management

CRIC is chaired by the Group Credit Risk Director and reviews the movements in impairment, including those already agreed at Credit Committee, as well as potential credit risk loans, loan loss rates, asset quality metrics and impairment coverage ratios.

CRIC makes twice-yearly recommendations to the Board Audit Committee on the adequacy of Group impairment allowances. Impairment allowances are reviewed relative to the risk in the portfolio, business and economic trends, current policies and methodologies, and the Group's position relative to peer banks.

Capital Requirements for credit risk

The following table represents the Group's credit risk capital requirement for exposures measured under the Standardised approach method. Information on the calculation of exposures and risk weighting under the Standardised approach may be found on pages 51 to 57.

Table 5: Minimum capital requirement for credit risk under the Standardised approach

	Minimum Capital	
	As at 31.12.11	As at 31.12.10
Standardised Credit Risk Exposure Class	**£m**	**£m**
Central governments or central banks	388	246
Regional governments or local authorities	2	3
Administrative bodies and non-commercial undertakings	5	5
Institutions	284	108
Corporates	3,227	3,282
Retail	1,571	1,691
Secured By Mortgages On Residential Property	526	800
Secured By Mortgages On Commercial Real Estate	174	117
Past due items	365	426
Private Equity[1]	106	146
Covered bonds	5	5
Securitisation positions	15	24
Collective investment undertakings	12	8
Other items	101	37
Total Standardised Requirement	**6,781**	**6,898**

Capital requirements showed a decrease of £117m to £6,781m, mainly reflecting the migration of portfolios to the IRB approach.

- Minimum capital requirements for exposures secured on residential property decreased £274m to £526m principally due to the migration of the Spanish mortgage portfolio to the Advanced IRB approach during 2011
- Capital against unsecured retail exposures decreased £120m to £1,571m, mainly driven by lower exposure in India and lower risk weight profile in US cards
- These decreases were partly offset by increased requirements against financial institutions to £284m (2010: £108m), following increased balances in Barclays Corporate and central functions
- Additionally, requirements against central governments and central banks increased £142m to £388m mainly due to the integration of certain liquid Absa portfolios from the Local Regulatory Aggregated approach into the Group capital calculation

Notes on Table 5:

[1] The "Private Equity" category is comprised of exposures that would fall under the "Items belonging to regulatory high risk categories" in the FSA rules.

Table 6: Minimum capital requirement for credit risk under the IRB approach

	Minimum Capital	
	As at 31.12.11	As at 31.12.10
IRB Exposure Class	**£m**	**£m**
Central governments or central banks	192	165
Institutions	233	224
Corporates	6,270	7,011
Retail		
- Small and medium enterprises (SME)	632	672
- Secured by real estate collateral	2,139	1,961
- Qualifying revolving retail	1,192	1,072
- Other retail	738	894
Equity - simple risk weight approach		
- Exchange traded exposures	-	24
- Private equity exposures	12	179
- Other exposures	-	-
Securitisation positions	367	658
Non-credit obligation assets	1,062	1,096
Total IRB Requirement	**12,837**	**13,956**

Capital requirements decreased £1,119m to £12,837m, reflecting lower exposures to higher risk categories.

- Minimum capital requirements for corporate exposures decreased £741m to £6,270m, driven by lower net lending levels in Barclays Capital.
- Capital for securitisation positions decreased £291m to £367m, following the consolidation of Protium loan in 2011 and repayments and disposals.
- These decreases are partly offset by an increase of £178m in capital for retail exposures secured on real estate to £2,139m, principally reflecting the migration of Spanish mortgages to the IRB approach

Internal Ratings Based (IRB) approach

This approach relies on the bank's internal models to derive risk weights. The IRB approach is divided into two alternative applications, Advanced and Foundation:

- **Advanced IRB (AIRB):** Barclays uses its own estimates of probability of default (PD), loss given default (LGD) and credit conversion factor to model a given risk exposure;
- **Foundation IRB:** Barclays applies its own PD as for Advanced, but it uses standard parameters for the LGD and the credit conversion factor. The Foundation IRB approach is specifically designed for wholesale credit exposures. Hence retail, equity, securitisation positions and non-credit obligations asset exposures are treated under Standardised or AIRB.

Scope of permission of Internal Ratings Based approach

Barclays has regulatory approval to use its internal credit models in the calculation of the majority of its credit risk and counterparty credit risk exposures (OTC derivatives, repurchase and reverse repurchase and stock borrow loan transactions). The following table summarises the principal portfolios within Barclays that use the Standardised, Foundation IRB and Advanced IRB approaches as at December 2011.

Table 7: The scope of the Standardised and IRB approaches

Business	Credit Risk Weighted Assets	Counterparty Credit Risk Weighted Assets	Standardised Approach	Foundation IRB Approach	Advanced IRB Approach
UK Retail & Business Banking	£29,089m		Certain minor portfolios within personal accounts, mortgages and consumer loans	None	Most portfolios
Europe Retail & Business Banking	£15,838m	£2m	All other portfolios	None	Portugal mortgages, Italy mortgages, Spain mortgages, Spain cards, Italy personal loans
Africa RBB	£29,834m	£6m	All Barclays Africa portfolios (excluding Absa). Certain minor Absa portfolios.	Wholesale portfolios in Absa	Retail portfolios in Absa
Barclaycard	£29,429m		Non UK portfolios except Germany, UK Secured Lending, Partnerships, Recent Acquisitions	None	UK retail credit cards, Germany retail credit cards
Barclays Capital	£62,213m	£37,361m	Certain insurer and fund manager portfolios, certain non-UK or emerging market portfolios	None	Most portfolios
Barclays Corporate	£65,163m	£562m	Non UK portfolios, asset and sales finance, New Markets and Western Europe portfolios	None	Larger and Medium business portfolios, UK trade finance portfolios
Barclays Wealth	£11,394m	£153m	Most portfolios	None	Spain Mortgages
Head office Functions and other operations	£2,265m		None	None	All portfolios

Barclays continuously develops credit models for the calculation of regulatory capital and aims to use the Advanced Internal Ratings Based (AIRB) approach for all of its significant portfolios. To achieve this target, Barclays has a well developed AIRB roll-out plan which is discussed with our regulators and updated on a 6-monthly basis. The plan is based on current regulatory requirements with portfolios taken advanced as soon as practicable, recognising any data constraints and methodology challenges.

Measurement, reporting and internal ratings

The principal objective of credit risk measurement is to produce the most accurate possible quantitative assessment of the credit risk to which the Group is exposed, from the level of individual facilities up to the total portfolio. Integral to this is the calculation of internal ratings, which are used in many aspects of credit risk management and in the calculation of regulatory and economic capital. The key building blocks of this process are:

- Probability of default (PD);
- Exposure at default (EAD); and
- Loss given default (LGD).

For example, Barclays can assign an expected loss over the next 12 months to each customer by multiplying these three factors. We calculate probability of default (PD) by assessing the credit quality of borrowers and other counterparties. For the sake of illustration, suppose a customer has a 5% probability of defaulting over a 12-month period.

The exposure at default (EAD) is our estimate of what the outstanding balance will be if the customer does default. Supposing the current balance is £200,000, our models might predict a rise to £250,000 by then. Should customers default, some part of the exposure is usually recovered. The part that is not recovered, together with the economic costs associated with the recovery process, comprise the loss given default (LGD), which is expressed as a percentage of EAD. Supposing the LGD in this case is estimated to be 40%, the expected loss for this customer is: 5% x £250,000 x 40% or £5,000.

To calculate probability of default (PD), Barclays assesses the credit quality of borrowers and other counterparties and assigns them an internal risk rating. Multiple rating methodologies may be used to inform the overall rating decision on individual large credits, such as internal and external models, rating agency ratings and other market information. For smaller credits, a single source may suffice such as the result from an internal rating model. Barclays recognises the need for two different expressions of PD depending on the purpose for which it is used. For the purposes of calculating regulatory and economic capital, long-run average through-the-cycle (TTC) PDs are required. However, for the purposes of pricing and existing customer management, PDs should represent the best estimate of probability of default given the current position in the credit cycle. Hence, point-in-time (PIT) PDs are also required.

Each PD model outputs an estimate of default probability that is PIT or TTC. Bespoke conversion techniques, appropriate to the portfolio in question, are then applied to convert the model output to pure PIT and TTC PD estimates. In deriving the appropriate conversion, industry and location of the counterparty and an understanding of the current and long-term credit conditions are considered. Both PIT and TTC PD estimates are recorded for each client.

Within Barclays, the calculation of internal ratings differs between wholesale and retail customers. For wholesale portfolios, the rating system is constructed to ensure that a client receives the same rating regardless of the part of the business with which it is dealing. To achieve this, a model hierarchy is adopted which requires users to adopt a specific approach to rating each counterparty depending upon the nature of the business and its location. A range of methods are utilised for estimating wholesale counterparty PDs. These include bespoke grading models developed within the Group (internal models), vendor models such as MKMV Credit Edge and RiskCalc, and a conversion of external alphabet ratings from either S&P, Moody's or Fitch. Retail models, especially those used for capital purposes, are almost exclusively built internally using Barclays data. In many cases bureau data is used to complement internal data. In addition, in some low data/low default environments, external developments may also be utilised.

A key element of the Barclays wholesale framework is the PD Masterscale (see below). This scale has been developed to distinguish meaningful differences in the probability of default risk throughout the risk range. In contrast to wholesale businesses, retail areas rarely bucket exposures into generic grades for account management purposes (although they may be used for reporting purposes). Instead, accounts are managed at a more granular and bespoke level.

Table 8: Internal default grade probabilities

DG Band	Default Probability			Financial statements description
	>=Min	Mid	<Max	
1	0.00%	0.01%	0.02%	Strong
2	0.02%	0.03%	0.03%	
3	0.03%	0.04%	0.05%	
4	0.05%	0.08%	0.10%	
5	0.10%	0.13%	0.15%	
6	0.15%	0.18%	0.20%	
7	0.20%	0.23%	0.25%	
8	0.25%	0.28%	0.30%	
9	0.30%	0.35%	0.40%	
10	0.40%	0.45%	0.50%	
11	0.50%	0.55%	0.60%	
12	0.60%	0.90%	1.20%	Satisfactory
13	1.20%	1.38%	1.55%	
14	1.55%	1.85%	2.15%	
15	2.15%	2.60%	3.05%	
16	3.05%	3.75%	4.45%	
17	4.45%	5.40%	6.35%	
18	6.35%	7.50%	8.65%	
19	8.65%	10.00%	11.35%	
20	11.35%	15.00%	18.65%	Higher risk
21	18.65%	30.00%	100.00%	

Exposure at default (EAD) represents the expected level of usage of the credit facility should default occur. At the point of default, the customer exposure can vary from the current position due to the combined effects of additional drawings, repayment of principal and interest and fees. EAD parameters are all derived from internal estimates and are determined from internal historical behaviour. The lower bound of EAD for regulatory capital purposes is the current balance at calculation of EAD. For derivative instruments, exposure in the event of default is the estimated cost of replacing contracts where counterparties have incurred obligations which they have failed to satisfy.

Should a customer default, some part of the exposure is usually recovered. The part that is not recovered, the actual loss, together with the economic costs associated with the recovery process, comprise the loss given default (LGD), which is expressed as a percentage of EAD. The Group estimates an average LGD using historical information. The level of LGD depends principally on: the type of collateral (if any); the seniority or subordination of the exposure; the industry in which the customer operates (if a business); the length of time taken for the recovery process and the timing of all associated cash flows; and the work-out expense. The outcome is also dependent on economic conditions that may determine, for example, the prices that can be realised for assets, whether a business can readily be refinanced or the availability of a repayment source for personal customers. For the purposes of regulatory capital an adjustment is made to the modelled LGD to account for the increased losses experienced under downturn conditions, giving a downturn LGD.

The following table shows the relationship between the financial statements description and external ratings on listed or unlisted debt securities. The relationship between internal and external ratings changes through time, and therefore a comparison is only indicative.

Table 9: External ratings and financial statements description

External Ratings	Financial Statements Description
AAA, AA+, AA, AA-, A+, A, A-, BBB+, BBB, BBB-	Strong
BB+, BB, BB-, B+, B, B-	Satisfactory
CCC+, CCC and lower	Higher risk

Applications of internal ratings

The three components described – the PD, EAD and LGD – are building blocks used in a variety of applications that measure credit risk across the entire portfolio. These parameters can be calculated to represent different aspects of the credit cycle:

- PD estimates can be calculated on a through-the-cycle (TTC) basis, reflecting the predicted default frequency in an average 12 month period across credit cycle, or on a point-in-time (PIT) basis, reflecting the predicted default frequency in the next 12 months
- LGD and EAD estimates can be calculated as downturn measures, reflecting behaviour observed under stressed economic conditions, or as business-as-usual (BAU) measures, reflecting behaviour under actual conditions

These parameters, in suitable combination, are used in a wide range of credit risk measurement and management. We use internal ratings for the following purposes:

- Credit approval: PD models are used in the approval process in both retail and wholesale portfolios. In high-volume retail portfolios, application and behaviour scorecards are frequently used as decision making tools. In wholesale and some retail mortgage portfolios, PD models are used to direct applications to an appropriate credit sanctioning level
- Credit grading: originally introduced in the early 1990s to provide a common measure of risk across the Group. Wholesale credit grading now employs a 21 point scale of default probabilities. These are shown above in Table 8
- Risk-reward and Pricing: PD, EAD and LGD metrics are used to assess the profitability of deals and portfolios and to allow for risk-adjusted pricing and strategy decisions
- Risk appetite: measures of expected loss and the potential volatility of loss are used in the Group's Risk Appetite framework
- Impairment calculation: under IAS 39, many of our collective impairment estimates incorporate the use of our PD and LGD models, adjusted as necessary
- Collections and recoveries: model outputs are used to identify segments of the portfolio where collection and recovery efforts should be prioritised
- Economic capital (EC) calculation: most EC calculations use the same PD and EAD inputs as the regulatory capital (RC) process. The process also uses the same underlying LGD model outputs as the RC calculation, but does not incorporate the same economic downturn adjustment used in RC calculations
- Risk management information: Group Risk and the business units generate risk reports to inform senior management on issues such as the business performance, Risk Appetite and consumption of EC. Model outputs are used as key indicators in those reports

The control mechanisms for the rating system

Each of the business risk teams is responsible for the design, oversight and performance of the individual credit rating models – PD, LGD and EAD – that constitute the credit rating system for a particular customer within each asset class. Group-wide standards in each of these business areas are set by Group Risk and are governed through a series of committees with responsibility for oversight, modelling and credit measurement methodologies.

Model governance standards apply to ratings models to minimise the risk of loss through model failure. The Group Model Risk Policy (GMRP) is managed by the independent Group Risk function. The GMRP helps reduce the potential for model failure by setting Group-wide minimum standards for the model development and implementation process. The GMRP also sets the governance processes for all models used in the Group, which allows model performance and risk to be monitored, and seeks to identify and escalate any potential problems at an early stage.

To ensure that the governance process is effective, and that management time is focused on the more material models, each model is assigned a materiality rating. The GMRP defines the materiality ranges for all model types, based on an assessment of the impact that a model error would have on the Group. The final level of model sign-off is based on materiality, with all of a business unit's models initially being approved in business unit committees. The more material models are also approved at the Group Material Models Technical Committee, and the most material models require further approval by the Executive Models Committee, a sub-committee of Group Executive Committee.

Although the final level of model sign-off will vary, depending on model materiality, the standards required by the GMRP do not change with the materiality level. This process ensures that the most significant models are subject to the most rigorous review, and that senior management has a good understanding of the most material models in the Group.

The GMRP sets detailed standards that a model must meet during development and subsequent use. For new models, documentation must be sufficiently detailed to allow an expert to understand all aspects of model development such that they could reproduce the model. It must include a description of the data used for model development, the methodology used (and the rationale for choosing such a methodology), a description of any assumptions made, and details of the strengths and weaknesses of the model.

All new models are subject to validation and independent review before they can be signed off for implementation. The model validation exercise must demonstrate that the model is fit for purpose and provides accurate estimates. The independent review ensures that the model development has followed a robust process and that the standards of the GMRP have been met, as well as ensuring that the model satisfies business and regulatory requirements. In addition, the most material models are subject to independent review by Group Risk. Once implemented, all models are subject to post-implementation review. This confirms that the model has been implemented correctly and behaves as predicted.

All implemented models within the Group are subject to ongoing performance monitoring to ensure that any deficiencies are identified early, and that remedial action can be taken before the decision-making process is affected. As part of this process, model owners set performance triggers and define appropriate actions for their models in the event that a trigger level is breached.

In addition to regular monitoring, models are subject to an annual validation process to ensure that they will continue to perform as expected, and that assumptions used in model development are still appropriate. In line with initial sign-off requirements, annual validations are also formally reviewed at the appropriate technical committee.

Within Barclays Capital, where models are used to value positions within the trading book, the positions are subject to regular independent price testing that covers all trading positions. Prices are compared with direct external market data where possible. When this is not possible, analytical techniques are used, such as industry consensus pricing services. These services enable peer banks to compare structured products and model-input parameters on an anonymous basis. The conclusions and any exceptions to this exercise are communicated to senior levels of business management.

Externally developed models are subject to the same governance standards as internal models, and must be approved for use following the validation and independent review process. External models are also subject to the same standards for ongoing monitoring and annual validation requirements.

Through their day-to-day activities, key senior management in Group Credit Risk, the businesses and the business risk teams have a good understanding of the operation and design of the rating systems used:

- The respective business risk heads or equivalents are responsible for supplying a robust rating system.
- The bank ensures that senior executives at Group level (including the Chief Risk Officer, credit risk director and wholesale and retail credit risk directors) as well as in the businesses (including CEOs and managing directors in the relevant areas) understand the operation and design of the rating system used to assess and manage credit risk. This enables them to carry out their responsibilities effectively.

The ratings process

The term “internal ratings” usually refers to internally calculated estimates of PD. These ratings are combined with EAD and LGD in the range of applications described previously. The ‘ratings process’ refers to the use of PD, EAD and LGD across the Group. In Barclays, the rating process is designed by each business. For central government and banks, institutions and corporate customers many of the models used in the rating process are shared across businesses as they are customer specific. For retail exposures, the ratings models are usually unique to the business and product type e.g. mortgages, credit cards, and consumer loans.

Ratings process: Wholesale approaches

A bespoke model has been built for PD and LGD for Sovereign ratings. For Sovereigns where there is no externally available rating, we use an internally developed PD scorecard. The scorecard has been developed using historic data on Sovereigns from an external data provider covering a wide range of qualitative and quantitative information. Our LGD model is based on resolved recoveries in the public domain, with a significant element of conservatism added to compensate for the small sample size.

To construct ratings for institutions, corporates, specialised lending, purchased corporate receivables and equity exposures, we use external models, rating agencies and internally constructed models. The applicability of each of these approaches to our customers has been validated by us to internal rating standards (see "The control mechanisms for the rating system" section above). The data used in validating these primary indicators are representative of the population of the bank's actual obligors and exposures and its long-term experience.

Internally built PD models are widely used. We employ a range of methods in the construction of these models. The basic types of PD modelling approaches used are:

- Structural
- Expert lender
- Statistical

Structural models incorporate in their specification the elements of the industry-accepted Merton framework to identify the distance to default for a counterparty. This relies upon the modeller having access to specific time series data or data proxies for the portfolio. Data samples used to build and validate these models are typically constructed by appropriately combining data sets from internal default observations with comparable externally obtained data sets from commercial providers such as rating agencies and industry data gathering consortia.

Expert lender models are used for parts of the portfolio where the risk drivers are specific to a particular counterparty, but where there is insufficient data to support the construction of a statistical model. These models utilise the knowledge of credit experts that have in depth experience of the specific customer type being modelled.

For any of the portfolios where we have a low number of default observations we adopt specific rules to ensure that the calibration of the model meets the current Basel and FSA criteria for conservatism. We have developed our own internal policy that describes specific criteria for the use of parametric and non-parametric low default portfolio calibration techniques.

Statistical models such as behavioural and application scorecards are used for our high volume portfolios such as Small/Medium Enterprises (SME). The model builds typically incorporate the use of large amounts of internal data, combined with supplemental data from external data suppliers. Wherever external data is sourced to validate or enhance internally held data, similar data quality standards to those applicable to the management of internal data are enforced.

In wholesale portfolios, the main approaches to calculating LGD aim to establish the effects of drivers (including industry, collateral coverage, recovery periods, seniority and costs) by looking at Barclays historical experience, supplemented with other external information where necessary. Estimates built using historical information are reviewed to establish whether they can be expected to be representative of future loss rates, and adjusted if necessary.

In a similar fashion, wholesale EAD models estimate the potential utilisation of headroom based on historical information also considering the future outlook of client behaviour.

Typically, modellers do not reconfigure external data before using it as input to the model estimation or validation procedure. Changes required in the estimation and validation process are documented in the model build papers.

Ratings process: Retail approaches

Our retail banking operations have long and extensive experience of using credit models in assessing and managing risks. As a result, models play an integral role in customer approval and management processes.

Models used include PD models, mostly in the form of application and behavioural scorecards, as well as LGD and EAD models.

Application scorecards are derived from historically observed performance of new clients. They are built using customer demographic and financial information, supplemented by credit bureau information where available. Through statistical techniques (known as regression analysis), the relationship between these candidate variables and the default marker is quantified to produce output scores reflecting a PD. These scores are used primarily for new customer decisioning but are, in some cases, also used to allocate PDs to new customers for the purposes of capital calculation.

Behavioural scorecards are derived from the historically observed performance of existing clients as well as being supplemented by the same data as is used for application scoring. The techniques used to derive the output are the same as for application scoring. The output scores are used for existing customer management activities as well as for allocating PDs to existing customers for the purposes of capital calculation.

It is Barclays practice to embed Basel 2 models as extensively as possible in the portfolio management process. We expect greater convergence over time as the rolling out of the Advanced IRB approach to remaining portfolios under the Standardised approach continues. However, in some cases there are sound business reasons for having different models for regulatory capital calculations and internal applications.

EAD models within retail portfolios are split into two main methodological categories. The general methodology is to derive product level credit conversion factors (CCFs) from historical balance migrations. These are frequently further segmented at a delinquency bucket level. The most sophisticated EAD models are based on behavioural factors, determining customer level CCFs from characteristics of the individual facility.

Credit risk management

Retail LGD models are built using bespoke methods chosen to best model the observed recovery process. In a number of secured portfolios, LGD drivers are parameterised with market factors, which can be updated to capture market trends. For most unsecured portfolios, where recoveries are not based on collateral, statistical models are often used combining historical and projected cash collected data to estimate ultimate recoveries and LGDs. In all instances, bespoke country level factors are derived to discount recovery flows to the point of default. For capital calculations, customised economic downturn adjustments are made to adjust losses to stressed conditions.

In situations where data scarcity precludes the statistically robust derivation of certain model parameters, appropriate assumptions are typically used which, wherever possible, are validated against internal and external experience.

Most retail models within Barclays are built in-house. Whilst most models are statistically or empirically derived, some expert lender models (similar to those described in the wholesale context) are used, particularly where data limitations preclude a more sophisticated approach.

Where models are used in the calculation of regulatory capital, the definition of default is in line with the regulatory definition of default requirements i.e. for UK portfolios the default definition is 180 days past due for personal lending and 90 days for business and wholesale loans, or other evidence of potential failure to pay. In some cases, for models not used in regulatory capital calculations, in order to maximise model suitability, different default definitions are used. However, in all cases assumptions underlying PD, EAD and LGD models are appropriately aligned.

The following table details the Group's exposure for Advanced IRB approach and Foundation IRB approach portfolios in the wholesale business in both the Trading and Banking books.

Table 10: IRB wholesale obligor grade disclosure

10a: Central Governments & Central Banks

	Central Governments & Central Banks						
	Advanced IRB					Foundation IRB	
Obligor Grade	EAD Post CRM	Exposure-Weighted Average LGD	Exposure-Weighted Average Risk Weight	Undrawn Commitments	Average Exposure Value	EAD Post CRM	Exposure-Weighted Average Risk Weight
As at 31.12.11	£m	%	%	£m	£m	£m	%
Default Grade 1-3	155,195	11.13	1.72	2,517	145,552	1,018	0.04
Default Grade 4-5	2,521	9.52	4.92	301	2,070	58	32.87
Default Grade 6-8	218	24.11	17.56	-	702	-	-
Default Grade 9-11	610	37.65	50.45	0	210	0	70.29
Default Grade 12-14	14	50.15	101.39	-	48	0	96.09
Default Grade 15-19	4	16.17	39.71	-	3	0	144.50
Default Grade 20-21	8	30.00	165.89	-	4	-	-
In default	-	-	-	-	-	-	-
Total	**158,570**	**11.23**	**2.00**	**2,818**	**148,589**	**1,076**	**1.82**
As at 31.12.10							
Default Grade 1-3	134,180	11.21	1.62	1,565	138,051	1,328	0.25
Default Grade 4-5	744	23.12	12.96	-	1,439	25	35.52
Default Grade 6-8	1,936	11.67	9.72	150	805	0	41.85
Default Grade 9-11	41	41.63	75.20	1	54	-	-
Default Grade 12-14	65	51.48	102.23	-	44	3	95.17
Default Grade 15-19	0	70.68	181.44	-	0	2	129.48
Default Grade 20-21	-	-	-	-	-	-	-
In default	-	-	-	-	-	-	-
Total	**136,966**	**11.31**	**1.86**	**1,716**	**140,393**	**1,358**	**1.31**

AIRB exposure to central governments and central banks, including counterparty risk, increased £21.6bn to £158.6bn.

- This was largely reflected in default grades 1-3, in which exposures increased £21.0bn to £155.2bn mainly driven by Barclays Capital. The risk weight increased slightly (from 1.62% to 1.72%), adding 14 basis points to the average total risk weight which increased from 1.86% to 2.00%
- The effects of the movements in the lower-quality grades, for which totals are relatively small, on the total average risk weights are largely offsetting

Foundation IRB exposures to central governments and central banks, including counterparty risk, decreased £0.3bn to £1.1bn

- The increase in exposure in grades 4-5, although small in absolute terms, drives the increase in the total average risk weight to 1.82% from 1.31%
- These movements largely reflect the depreciation of the Rand. The 0.04% risk weight in default grades 1-3 reflects the treatment of cash reserves with the central bank.

10b: Institutions

	Institutions						
	Advanced IRB					Foundation IRB	
Obligor Grade	**EAD Post CRM**	**Exposure-Weighted Average LGD**	**Exposure-Weighted Average Risk Weight**	**Undrawn Commitments**	**Average Exposure Value**	**EAD Post CRM**	**Exposure-Weighted Average Risk Weight**
As at 31.12.11	£m	%	%	£m	£m	£m	%
Default Grade 1-3	45,627	32.43	11.70	1,336	46,539	1,086	13.83
Default Grade 4-5	2,430	47.89	27.31	124	2,801	512	26.75
Default Grade 6-8	1,796	33.44	30.23	4	1,862	203	46.35
Default Grade 9-11	578	51.17	65.26	2	477	45	9.74
Default Grade 12-14	311	45.49	95.97	1	374	2	111.62
Default Grade 15-19	104	48.95	190.20	0	120	2	144.79
Default Grade 20-21	37	46.91	241.81	-	18	0	221.78
In default	57	61.78	48.88	-	67	-	-
Total	**50,940**	**33.58**	**14.80**	**1,467**	**52,258**	**1,850**	**21.14**
As at 31.12.10							
Default Grade 1-3	46,762	35.64	12.57	1,646	50,028	1,166	14.27
Default Grade 4-5	3,763	47.79	23.30	81	4,083	278	31.55
Default Grade 6-8	977	43.25	42.12	27	1,418	187	43.74
Default Grade 9-11	387	52.09	85.37	17	571	15	65.73
Default Grade 12-14	475	55.15	114.66	6	571	19	97.33
Default Grade 15-19	58	53.55	209.85	20	90	1	157.90
Default Grade 20-21	1	34.47	168.76	-	6	1	258.91
In default	97	64.66	32.93	-	155	0	450.00
Total	**52,520**	**37.02**	**15.60**	**1,797**	**56,922**	**1,667**	**22.02**

AIRB exposure to institutions, including counterparty risk, decreased £1.6bn to £50.9bn.

- This was largely driven by credit grades 1-3, in which exposures decreased £1.1bn to £45.6bn as a result of a reduction in lending in Barclays Capital.
- Movements in exposures and risk weights in default grades 5 or better largely drove the 80 basis points decrease in the total average risk weight, to 14.80% from 15.60%

Foundation IRB exposure to institutions, including counterparty risk, increased £0.2bn to £1.9bn

- This small increase mainly occurred in grades 4 to 11.
- The decrease in the total average risk weight to 21.14% from 22.02% was driven by slightly lower risk weights across grades.

10c: Corporates

	Corporates						
	Advanced IRB					Foundation IRB	
Obligor Grade	EAD Post CRM	Exposure-Weighted Average LGD	Exposure-Weighted Average Risk Weight	Undrawn Commitments	Average Exposure Value	EAD Post CRM	Exposure-Weighted Average Risk Weight
As at 31.12.11	£m	%	%	£m	£m	£m	%
Default Grade 1-3	68,705	32.91	11.34	24,005	63,392	1,280	27.38
Default Grade 4-5	47,642	32.10	21.50	27,259	44,354	2,944	30.32
Default Grade 6-8	23,772	36.53	41.03	12,862	22,042	2,789	45.06
Default Grade 9-11	18,014	40.89	62.59	9,723	17,997	2,445	65.91
Default Grade 12-14	23,257	37.46	82.05	8,278	23,218	4,642	95.22
Default Grade 15-19	17,736	36.54	122.37	4,396	18,444	1,933	133.42
Default Grade 20-21	2,266	33.47	175.25	636	3,775	257	210.92
In default	3,599	39.95	93.88	177	3,837	424	181.39
Total	**204,991**	**34.80**	**42.54**	**87,336**	**197,059**	**16,714**	**74.32**
As at 31.12.10							
Default Grade 1-3	59,341	30.81	11.49	22,764	55,157	1,205	15.83
Default Grade 4-5	40,099	35.11	23.24	25,051	38,394	4,114	28.60
Default Grade 6-8	20,141	36.05	38.77	11,596	21,343	3,125	45.17
Default Grade 9-11	19,189	41.30	59.65	10,430	19,607	3,014	64.55
Default Grade 12-14	23,048	37.58	84.44	8,405	23,827	4,628	96.51
Default Grade 15-19	21,034	38.59	135.82	5,156	20,073	2,970	124.05
Default Grade 20-21	4,433	35.31	180.80	550	5,857	328	215.80
In default	3,826	42.04	100.23	113	4,236	674	10.80
Total	**191,111**	**35.32**	**49.86**	**84,065**	**188,494**	**20,058**	**68.09**

AIRB exposures to corporates, including counterparty risk, increased £13.9bn to £205.0bn.

- The increase was mainly in default grade 8 or better which increased £20.5bn to £140.1bn, largely driven by net new positions with large counterparties in Corporate and Investment Banking
- This was partly offset by a £6.7bn decrease in the lower quality grades, including defaults. Decreased exposure in the lower-quality grades as well as lower average risk weights led to the decrease in total average risk weight from 49.86% to 42.54%

Foundation IRB exposures to corporates, including counterparty risk, decreased £3.3bn to £16.7bn

- These movements largely reflect the depreciation of the Rand, and decreased lending in the Commercial Property portfolio
- The increased relative importance of exposures in grades 12 to 14, as well as the increased average risk weight on defaulted assets drove the increase in the total average risk weight from 68.09% to 74.32%

10d: Central Governments & Central Banks, Institutions and Corporates

	Total IRB Central Governments & Central Banks, Institutions and Corporates						
	Advanced IRB					Foundation IRB	
Obligor Grade	EAD Post CRM	Exposure-Weighted Average LGD	Exposure-Weighted Average Risk Weight	Undrawn Commitments	Average Exposure Value	EAD Post CRM	Exposure-Weighted Average Risk Weight
As at 31.12.11	£m	%	%	£m	£m	£m	%
Default Grade 1-3	269,527	20.29	5.86	27,858	255,483	3,384	14.81
Default Grade 4-5	52,593	31.75	20.97	27,684	49,225	3,514	29.84
Default Grade 6-8	25,786	36.21	40.08	12,866	24,606	2,992	45.15
Default Grade 9-11	19,202	41.10	62.29	9,725	18,684	2,490	64.91
Default Grade 12-14	23,582	37.57	82.25	8,279	23,640	4,644	95.24
Default Grade 15-19	17,844	36.61	122.74	4,396	18,567	1,935	133.45
Default Grade 20-21	2,311	33.68	176.32	636	3,797	257	211.04
In default	3,656	40.30	93.19	177	3,904	424	181.32
Total	**414,501**	**25.63**	**23.62**	**91,621**	**397,906**	**19,640**	**65.34**
As at 31.12.10							
Default Grade 1-3	240,283	20.80	6.19	25,975	243,236	3,699	9.74
Default Grade 4-5	44,606	35.98	23.07	25,132	43,916	4,417	28.83
Default Grade 6-8	23,054	34.31	36.47	11,773	23,566	3,312	45.09
Default Grade 9-11	19,617	41.51	60.19	10,448	20,232	3,029	64.55
Default Grade 12-14	23,588	37.97	85.10	8,411	24,442	4,650	96.51
Default Grade 15-19	21,092	38.63	136.03	5,176	20,163	2,973	124.06
Default Grade 20-21	4,434	35.30	180.76	550	5,863	329	215.90
In default	3,923	42.60	98.58	113	4,391	674	10.83
Total	**380,597**	**26.91**	**27.86**	**87,578**	**385,809**	**23,083**	**60.83**

This table summarises tables 10a, 10b and 10c.

Advanced IRB Retail Expected Loss Grade Disclosures

The tables below show analyses of exposures by EL Grade bucket in the retail portfolios modelled under the Advanced IRB approach. Secured and unsecured exposures are shown in separate tables to reflect their differing risk profiles. This is also reflected in the different risk bands used.

Table 11 shows the Group's retail exposures under the Advanced IRB approach by Expected Loss (EL) Grade for exposures secured by real estate collateral.

Table 11: Expected loss grade analysis of exposures secured on real estate collateral

	EAD Post CRM	
	Retail exposures secured on real estate collateral	
	As at 31.12.11	As at 31.12.10
EL Grade	£m	£m
EL Grade => 0 - < 0.15%	134,133	118,393
EL Grade => 0.15 - < 0.3%	16,259	14,282
EL Grade => 0.3 - < 0.8%	8,436	8,228
EL Grade => 0.8 - < 2.15%	4,100	3,657
EL Grade => 2.15 - < 4.45%	1,094	939
EL Grade => 4.45 - < 8.65%	1,141	728
EL Grade => 8.65 - < 18.65%	784	469
EL Grade => 18.65 - < 100%	2,665	3,034
Total	**168,612**	**149,730**

The £18.9bn increase to £168.6bn in IRB capital requirements for secured retail exposures mainly occurred within the better credit grade bands, with the highest quality band (0% – 0.15%) increasing £15.7bn to £134.1bn:

- The migration of the Spanish mortgage book to the Advanced approach (which also drives the increases in all other bands) added £10bn to the 0-0.15% EL band, and £15bn overall
- Additionally, net mortgage lending increased in the UK. This added a further £7bn
- These increases were partly offset by a £5bn reduction in Absa, driven by the depreciation of the Rand against Sterling and a correction of an over-estimated exposure to defaulted assets

The following table shows the EAD for unsecured retail exposures.

Table 12: Expected loss grade analysis of unsecured exposures

	EAD Post CRM			
EL Grade	**Retail SME**	**Qualifying revolving retail**	**Other retail**	**Total Unsecured Retail**
As at 31.12.11	£m	£m	£m	£m
EL Grade => 0 - < 0.8%	7,295	21,778	2,832	31,905
EL Grade => 0.8 - < 2.15%	2,734	4,746	3,278	10,758
EL Grade => 2.15 - < 3.05%	587	2,209	693	3,489
EL Grade => 3.05 - < 4.45%	472	1,526	693	2,691
EL Grade => 4.45 - < 6.35%	359	1,430	726	2,515
EL Grade => 6.35 - < 8.65%	242	835	332	1,409
EL Grade => 8.65 - < 18.65%	388	1,303	335	2,026
EL Grade => 18.65 - < 100%	459	2,339	1,507	4,305
Total	**12,536**	**36,166**	**10,396**	**59,098**
As at 31.12.10				
EL Grade => 0 - < 0.8%	7,433	23,598	2,899	33,930
EL Grade => 0.8 - < 2.15%	2,849	4,445	4,356	11,650
EL Grade => 2.15 - < 3.05%	733	2,151	923	3,807
EL Grade => 3.05 - < 4.45%	534	1,411	1,036	2,981
EL Grade => 4.45 - < 6.35%	469	1,087	868	2,424
EL Grade => 6.35 - < 8.65%	307	710	460	1,477
EL Grade => 8.65 - < 18.65%	483	1,008	583	2,074
EL Grade => 18.65 - < 100%	577	2,786	1,653	5,016
Total	**13,385**	**37,196**	**12,778**	**63,359**

Exposure to unsecured retail exposures decreased by £4.3bn to £59.1bn

- Exposures to retail SMEs decreased £0.9bn to £12.5bn, principally due to decreased lending in Absa combined with the depreciation of the Rand against Sterling. The reduction was evenly distributed across grades
- Qualifying revolving retail (mostly consisting of credit cards and overdrafts) reduced £1.0bn to £36.2bn mainly driven by a £1.8bn decrease in the highest quality band (0% - 0.8%) to £21.8bn due to:
  - Barclaycard, where a change in the definition of “default” in forbearance accounts has negatively affected the distribution of loss rates, causing exposures to migrate to lower-quality bands and primarily affecting EL grades 0 < 0.8% in absolute terms
  - Absa, reflecting the effect of lower Rand on a portfolio heavily weighted on this band; and
  - UK RBB reflecting more penal model estimates
- Other retail exposures decreased £2.4bn to £10.4bn, principally driven by Absa due to the depreciation of the Rand.

Impairment and Actual Value Adjustments

Table 13 shows the impairment and actual value adjustments taken by the Group in the portfolios to which the IRB approaches apply. The figures include actual value adjustments taken on portfolios within the trading book and banking book where the Advanced IRB approach is used to determine the counterparty credit exposure. These charges are included within the net trading income and net investment income within the Annual Report. For this and other reasons, the figures below differ from the impairment roll-forward analysis in Table 37 ("Analysis of movement on impairment and amounts taken directly to profit and loss"). Additionally, the figures below are only for portfolios that use the IRB approaches; in contrast, the analysis in Table 37 shows impairment and actual value adjustments for both IRB and Standardised approach portfolios.

Table 13: Impairment charges and actual value adjustments for IRB exposures

	Actual Value Adjustments and Individual Impairment Charges Year ended	
	As at 31.12.11	As at 31.12.10
IRB Exposure Class	£m	£m
Central governments or central banks	-	(8)
Institutions	(6)	(7)
Corporates	760	649
Retail	-	
- Retail SME	136	114
- Retail exposures secured by real estate collateral	24	31
- Qualifying revolving retail	-	-
- Other retail	-	-
Equity	-	-
Securitisation positions	-	-
Non-credit obligation assets	-	-
Total	**914**	**779**

Actual value adjustments and individual impairment charges increased £0.1bn to £0.9bn (2010: £0.8bn) driven by an increase in the Corporates category. This movement was mainly attributable to Barclays Capital as a consequence of fair value charges relating to CMBS EU/US trades

Loss Analysis – Regulatory Expected Loss versus Actual Losses

The following table shows Barclays Regulatory Expected Loss measure compared with an actual loss measure in 2011 for those portfolios where credit risk is calculated using the IRB approach.

Regulatory Expected Loss

Regulatory Expected Loss is a Basel 2 measure based upon Pillar 1 metrics that is an input to the Capital Adequacy process. Regulatory Expected Loss can be seen as an expectation of average future loss as derived from our IRB models, and is not a prediction of future impairment.

For non-defaulted assets, Regulatory Expected Loss is calculated using probability of default and downturn loss given default estimates. For the calculation of Regulatory Expected Loss for defaulted assets, the probability of default is 100% and loss given default is based upon an estimate of likely recovery levels for each asset.

Actual Loss

Cumulative Actual Loss is made up of two parts: the existing impairment stock at 31 December 2010 plus the net impairment charge recorded through the income statement in 2011.

Cumulative Actual Loss includes a degree of impairment allowance on assets not identified as being in default at the balance sheet date and can also include charges against assets that were originated during the year and which were therefore outside of the scope of the Regulatory Expected Loss calculated at the beginning of the year. Actual Loss does not include the effects on impairment stock of amounts written off in the year.

Table 14: Analysis of expected loss versus actual losses for IRB exposures

IRB Exposure Class	Total Expected Loss to 31.12.11 £m	Total Actual Loss to 31.12.11 £m
Central governments or central banks	3	4
Institutions	74	32
Corporates	2,461	4,061
Retail	-	-
- SME	536	537
- Secured by real estate collateral	851	971
- Qualifying revolving retail	2,396	2,488
- Other retail	1,449	1,658
Equity	34	10
Securitisation positions	-	-
Non-credit obligation assets	-	-
Total IRB	**7,804**	**9,761**

IRB Exposure Class	Total Expected Loss to 31.12.10 £m	Total Actual Loss to 31.12.10 £m
Central governments or central banks	3	5
Institutions	77	63
Corporates	3,321	4,768
Retail		
- SME	431	459
- Secured by real estate collateral	646	792
- Qualifying revolving retail	1,990	2,358
- Other retail	1,469	1,766
Equity	-	-
Securitisation positions	-	-
Non-credit obligation assets	N/A	N/A
Total IRB	**7,937**	**10,211**

Total expected loss decreased £0.1bn to £7.8bn (2010: £7.9bn)

- Overall the movement remained flat and the categories largely reflect what was seen in the prior period

Total actual loss decreased £0.5bn to £9.8bn (2010: £10.2bn)

- Overall the trends remained consistent with those seen in the prior period

When considering the figures for expected loss and actual loss the following should be noted:

- Whilst the impairment charge and the expected loss measure respond to similar drivers, they are not comparable
- The expected loss does not reflect growth of portfolios or changes in the mix of exposures. In forecasting and tracking impairment, the Group looks at actual trends in the cash flow behaviour of customer accounts
- We expect actual losses to be higher than the expected loss during a depressed economic environment; actual losses will capture losses beyond the average measures captured by expected loss

Credit Model Performance - Estimated versus Actual

The following table shows the forecast and actual probability of default, loss given default and exposure at default ratio for the assets under the IRB approach. In each case, the forecasts are based on Barclays operational model calibrations at the start of the period. This may differ from the models' applications in regulatory capital calculations where the probability of default is generally estimated on a "through the cycle" basis and the loss given default on a downturn basis. Additionally, regulatory capital calculations set minimum values for certain parameters, which typically imply higher severity than Barclays modelled and observed values. In particular, retail loans secured by real estate collateral have a regulatory minimum LGD of 10%.

The PDs below are based on the total portfolio of Advanced and Foundation assets managed by the Group. Individual portfolio PDs within an exposure class have been weighted in proportion to the expected monetary loss of the portfolio to arrive at the class PD. The LGD percentages and EAD ratios are based on analysis of defaulted assets only, under the Advanced approach (the Foundation approach does not estimate these figures but uses parameters stipulated by FSA regulations).

Table 15: Analysis of expected IRB credit model performance versus actual results

IRB Exposure Class As at 31.12.11	PD of Total Portfolio		LGD of Defaulted Assets[1]		Exposure at Default of Defaulted Assets[1]
Wholesale	Estimated %	Actual %	Estimated %	Actual %	Estimate to Actual Ratio[2]
Central Governments or central banks	0.10	0.00	11.55	-	N/A
Institutions	0.45	0.00	42.09	-	N/A
Corporates	2.26	1.27	35.41	27.43	1.60
Retail					
SME	9.16	6.20	54.25	49.08	1.05
Secured by real estate collateral UK[3]	1.99	0.56	13.10	2.13	1.02
Secured by real estate collateral Rest of World[3]	1.86	3.78	19.65	15.12	1.06
Qualifying revolving retail	2.34	2.69	87.24	89.12	1.03
Other retail	7.47	4.96	70.98	68.13	0.89

Barclays credit models continue to perform adequately across all portfolios. Actual outcomes have generally been close to model estimates across both retail and wholesale portfolios.

Notes on Table 15:

[1] Where default rates are typically low Barclays carries out multi-year analysis to improve the sample data and as such the estimates and outcomes above do not represent the results for a single year. The LGD results for different portfolios have been weighted in proportion to the expected EAD of the defaulted assets. Where individual portfolio EAD results are based on multi-year analysis they have been annualised for consolidation by dividing them by the period of years the sample portfolio covers. Barclays uses PD, EAD, LGD and expected loss models to calculate the risk of its credit exposures; credit risk related to equity, securitisation, and non-credit obligation asset portfolios do not use such models. Accordingly there is no model analysis to disclose for these exposure classes.

[2] FSA regulations require the disclosure of appropriate components of the credit models' expected loss such as PD, LGD and Credit Conversion Factor (CCF). The CCF is a model's estimation of the utilisation of undrawn commitments at the time of default. Barclays believes that it is more useful and appropriate to disclose the ratio of the pre default estimated EAD to the actual EAD of defaulted assets at the time of default. Where the estimate exceeds the actual exposure the ratio is greater than 100%.

[3] Barclays has shown the model performance information for UK and ROW retail exposures secured on real estate collateral separately in order to provide homogeneous results.

Counterparty credit risk

Counterparty credit exposures

Counterparty credit exposure arises from the risk that parties are unable to meet their payment obligations under certain financial contracts such as derivatives, securities financing transactions (e.g. repurchase agreements), or long settlement transactions.

Internal capital for counterparty credit risk is assessed and allocated based on the economic capital for wholesale credit risk calculation. The magnitude of the exposure is determined by considering the current mark to market of the contract, the historic volatility of the underlying asset and the time to maturity. This allows calculation of a credit equivalent exposure (CEE) for such exposures. The total economic capital for a portfolio of such exposures is then calculated in a manner similar to a book of loans.

Credit risk from derivatives is mitigated, where possible, through netting agreements whereby derivative assets and liabilities with the same counterparty can be offset. Group policy requires all netting arrangements to be legally documented. The ISDA Master Agreement is the Group's preferred agreement for documenting OTC derivatives. It provides the contractual framework within which dealing activities across a full range of OTC products are conducted and contractually binds both parties to apply close-out netting across all outstanding transactions covered by an agreement if either party defaults or other predetermined events occur.

Collateral is obtained against derivative assets, depending on the creditworthiness of the counterparty and/or nature of the transaction. Any non-cash collateral taken in respect of OTC trading exposures will be subject to a 'haircut', which is negotiated at the time of signing the collateral agreement. A haircut is the valuation percentage applicable to each type of collateral and will be largely based on liquidity and price volatility of the underlying security. The collateral obtained for derivatives is either cash, direct debt obligation government (G14+) bonds denominated in the domestic currency of the issuing country, debt issued by supranationals or letters of credit issued by an institution with a long-term unsecured debt rating of A+/A3 or better. Where the Group has ISDA master agreements, the collateral document will be the ISDA Credit Support Annex (CSA). The collateral document must give Barclays the power to realise any collateral placed with it in the event of the failure of the counterparty, and to place further collateral when requested or in the event of insolvency, administration or similar processes, as well as in the case of early termination.

'Wrong way risk' in a trading exposure arises when there is significant correlation between the underlying asset and the counterparty, which in the event of default would lead to a significant mark to market loss. When assessing the credit exposure of a wrong way trade, analysts take into account the correlation between the counterparty and the underlying asset as part of the sanctioning process.

Adjustments to the calculated CEE are considered on a case by case basis. In the case of specific wrong-way risk trades, which are self-referencing or reference other entities within the same counterparty, specific approval by a senior credit officer is required.

Table 16 shows Barclays counterparty credit exposure including the impact of netting contracts and the offset of collateral held (see "Credit Risk Mitigation" section on page 69 for policies governing collateral management). Where the Group calculates the exposure under the Standardised approach and the Internal Model Method, the impact of both netting and collateral is integral to the calculation of the exposure. These contract exposures are therefore only available on a net basis. Where the Group uses the mark to market approach, it is possible to identify the impact of netting and collateral.

Derivative counterparty credit risk measurement (Credit Value Adjustments)

Barclays participates in derivative transactions, and is therefore exposed to counterparty credit risk (or "counterparty risk"). This is the risk that a counterparty will fail to make the future payments agreed in the derivative contract. This is considered as a separate risk to the volatility of the mark to market payment flows. Modelling this counterparty risk is an important part of managing credit risk on derivative transactions.

The counterparty risk arising under derivative transactions is taken into account when reporting the fair value of derivative positions. The adjustment to the value is known as Credit Value Adjustment. It is the difference between the value of a derivative contract with a risk free counterparty and that of a contract with the actual counterparty. This is equivalent to the cost of hedging the counterparty risk, which is replicated by purchasing and selling credit default swaps (CDS) on the counterparty to create a hedge position that mirrors the Expected Exposure profile for the counterparty.

Credit Value Adjustment for derivative positions are calculated as a function of the "Expected Exposure", which is the average of future hypothetical exposure values (or mark to market) for a single transaction or group of transactions by the same counterparty, and the CDS spread for a given horizon.

In order to calculate the Expected Exposure, the expected mark to market is calculated using Monte Carlo simulations of risk factors that may affect the valuation of the derivative. These simulations include credit mitigants such as exposure netting, collateral, mandatory break clauses and set-off clauses. Counterparties with appropriate credit mitigants will generate a lower Expected Exposure profile compared to counterparties without credit mitigants in place for the same derivative transactions.

Table 16: Counterparty credit exposure

	Gross Positive Fair Value of Contracts	Potential Future Credit Exposure	Netting Benefits	Netted Current Credit Exposure	Collateral Held	Net Derivatives Credit Exposure
As at 31.12.11	£m	£m	£m	£m	£m	£m
Mark to Market Method	7,264	3,647	(5,724)	5,187	-	5,187
Internal Model Method	N/A	N/A	N/A	N/A	N/A	71,833
As at 31.12.10						
Mark to Market Method	6,387	3,603	(4,813)	5,177	-	5,177
Internal Model Method	N/A	N/A	N/A	N/A	N/A	64,454

Exposure to counterparty credit risk assessed under the Internal Models Method (IMM) increased £7.4bn to £71.8bn, reflecting the addition of new counterparties and increased activity with existing ones. This was partially offset by the closings of some positions.

Exposures assessed using mark-to-market increased £0.9bn to £7.3bn ("gross positive fair value of contracts"), mainly reflecting the integration of Barclays Capital Inc. into the Group capital calculation. The net exposure remained broadly stable.

Credit derivative notionals

The following table shows the notional of the credit derivative transactions outstanding as at 31 December 2011.

Barclays internal counterparty credit risk models calculate expected exposure as the first stage in the preparation of the regulatory capital requirement. The model is calibrated to simulate an economic downturn through the use of a scaling factor (known generically as alpha) to arrive at the exposure at default.

Table 17: Notionals exposure associated with credit derivative contracts

	Notional Exposure to Credit Derivative Transaction			
	Own Credit Portfolio		Intermediation Activities	
Outstanding Amount of Exposure held:	As Protection Purchaser	As Protection Seller	As Protection Purchaser	As Protection Seller
Credit Derivative Product Type as at 31.12.11	£m	£m	£m	£m
Credit Default Swaps	24,245	14,272	937,503	908,716
Total Return Swaps	5,739	5,835	14,670	2,207
Total	**29,984**	**20,107**	**952,173**	**910,923**
Credit Derivative Product Type as at 31.12.10				
Credit Default Swaps	9,347	5,595	977,538	944,450
Total Return Swaps	-	10,172	15,223	1,404
Total	**9,347**	**15,767**	**992,761**	**945,854**

Continued improvement has enabled more accurate identification of trades for own portfolio use and hence there has been a redeployment of trades from Intermediation activities in the above.

The notional includes certain contracts that are classified as credit derivatives for regulatory reporting purposes due to the inclusion of provisions relating to default risk, which for financial reporting purposes are treated as interest rate derivatives.

The following table shows the Group's exposure at default (EAD) to counterparty credit risk after credit risk mitigation (CRM) analysed by the type of financial contract. The nature of the calculation of credit exposure under the Internal Model Method precludes the identification of individual product exposures. Only the total for each counterparty has been calculated.

Table 18: Counterparty credit exposures analysed by financial contract type

	As at 31.12.11	
	EAD Post CRM under Mark to Market Approach	EAD Post CRM under Internal Model Method
Financial Contract Type	£m	£m
As at 31.12.11		
Interest Rate Contracts	2,075	N/A
Foreign Currency Contracts	1,113	N/A
Equities Contracts	328	N/A
Precious Metal other than Gold Contracts	708	N/A
Commodities other than Precious Metal Contracts	210	N/A
Securities financing transactions	-	N/A
Credit Derivatives	22	N/A
Other	633	N/A
Total	**5,089**	**107,122**
As at 31.12.10		
Interest Rate Contracts	904	N/A
Foreign Currency Contracts	958	N/A
Equities Contracts	626	N/A
Precious Metal other than Gold Contracts	970	N/A
Commodities other than Precious Metal Contracts	491	N/A
Securities financing transactions	-	N/A
Credit Derivatives[1]	137	N/A
Other	1,090	N/A
Total	**5,176**	**89,877**

Exposure to counterparty credit risk including securities financing transactions increased £17.2bn to £107.1bn, driven by the net counterparty movements described in Table 16 (page 48) and the integration of Barclays Capital Inc. within the Group capital calculation hitherto treated as an "add-on" to the total capital requirement.

Barclays has additional counterparty exposure calculated under other approved approaches totalling £6.7bn (2010: £6.2bn). This is comprised of £2.9bn (2010: £3.5bn) "other" and £3.7bn (2010: £2.7bn) "securities financing transactions".

The following table sets out the notional value of the Group credit derivative contracts held for hedging purposes.

Table 19: Notional value of credit derivative contracts held for hedging purposes

	As at 31.12.11	As at 31.12.10
Risk Methodology	£m	£m
Notional value of credit derivative hedges for Mark to Market Method	330	380
Notional value of credit derivative hedges under the Internal Model Method	3,276	5,810
Total	**3,606**	**6,190**

Total notional value of credit derivative contracts decreased £2.6bn to £3.6bn

- Approximately £1.1bn of this reduction is due to improving market conditions whereby less CDS protection was needed across the portfolio.
- Further reductions are due to continued systems improvement which has enabled more accurate disclosure of trades used for regulatory credit risk mitigation.

Credit risk exposures

The following tables show exposures under the Standardised and the Foundation / Advanced IRB approaches by:

- **Geographic Analysis:** represent Barclays credit exposure by geographic region. Exposures are allocated to the region in which the customer is located and are disclosed before the application of CRM.
- **Industry Analysis:** represent the Group's credit exposures split by industry and counterparty type. Exposure includes drawn as well as undrawn amounts and is Barclays calculation of the expected maximum amount which may be drawn at the time of default. It cannot be directly compared with the balance sheet industry analysis contained within the Annual Report.
- **Residual maturity analysis:** The maturity analysis below shows all of the Group's credit exposure by maturity date for regulatory purposes. This is defined as the contractual maturity date and it is the basis upon which capital adequacy calculations are performed. This differs from the treatment required by IFRS, under which firms disclose drawn balances rather than exposures and apportion maturity according to the repayment schedule.
- **Credit Quality Assessment Scale (applies to the Standardised approach):** shows the exposures calculated under the Standardised approach broken down by credit quality step as specified by the Standardised approach rules (further detail on this may be obtained from the FSA's BIPRU regulations, Section 3).

Standardised Approach credit exposure

The following table shows Barclays credit exposure for its portfolios under the Standardised approach before the use of credit risk mitigation (CRM).

Table 20: Credit risk exposure under the Standardised approach

Standardised Approach Credit Risk Exposure Class	Credit Exposure (EAD) Pre-CRM	Average Credit Exposure (EAD) Pre-CRM over the year
As at 31.12.11	£m	£m
Central governments or central banks	10,321	12,908
Regional government or local authorities	86	119
Administrative bodies and non-commercial undertakings	324	310
Institutions	7,122	3,846
Corporates	45,294	42,365
Retail	26,594	25,487
Secured By Mortgages On Residential Property	14,926	19,695
Secured By Mortgages On Commercial Real Estate	3,023	2,702
Past due items	3,368	3,807
Private equity	877	1,078
Covered bonds	286	295
Securitisation positions	374	399
Collective investment undertakings	740	702
Other items	6,731	5,076
Total Standardised Credit Risk Exposure	**120,066**	**118,789**
As at 31.12.10		
Central governments or central banks	14,192	12,506
Regional government or local authorities	151	221
Administrative bodies and non-commercial undertakings	288	329
Institutions	2,862	3,032
Corporates	44,622	44,597
Retail	25,232	25,407
Secured By Mortgages On Residential Property	25,425	24,555
Secured By Mortgages On Commercial Real Estate	2,327	2,564
Past due items	4,001	4,206
Private equity	1,214	1,993
Covered bonds	285	100
Securitisation positions	407	81
Collective investment undertakings	653	866
Other items	3,653	3,598
Total Standardised Approach Credit Risk Exposure	**125,312**	**124,055**

Detailed breakdowns of these amounts are found in tables 21-23, 26 and 27.

Exposures assessed under the Standardised approach decreased £5.2bn to £120.1bn, largely driven by Europe

- The £10.5bn decrease in exposures secured by mortgages on residential property was principally driven by the migration of Spanish mortgages to the IRB approach
- Exposures to central governments and central banks decreased £3.9bn to £10.3bn principally due to decreased exposure to the Spanish government
- These decreases were partly offset by a £4.3bn increase in institutions, primarily within Barclays Corporate as exposures were transferred from the Advanced IRB approach as models are refined
- Other items, mostly made up of non-customer assets, showed a £3.1bn rise to £6.7bn principally due to increases in Barclays Capital.

Table 21: Geographic analysis of credit risk exposures under the Standardised approach

	Credit Exposure (EAD) Pre-CRM					
Standardised Approach Credit Risk Exposure Class	**United Kingdom**	**Europe**	**Americas**	**Africa and Middle East**	**Asia**	**Total**
As at 31.12.11	£m	£m	£m	£m	£m	£m
Central governments or central banks	29	2,303	277	7,281	431	10,321
Regional governments or local authorities	11	57	0	18	-	86
Administrative bodies and non-commercial undertakings	54	270	-	-	-	324
Institutions	1,661	1,315	607	1,282	2,257	7,122
Corporates	11,138	18,194	7,677	5,977	2,308	45,294
Retail	7,814	8,477	7,873	1,925	505	26,594
Secured By Mortgages On Residential Property	9,064	2,918	1,805	832	307	14,926
Secured By Mortgages On Commercial Real Estate	92	2,005	681	1	244	3,023
Past due items	1,098	1,415	499	271	85	3,368
Private equity positions	268	133	381	47	48	877
Covered bonds	-	286	-	-	-	286
Securitisation positions	354	-	20	-	-	374
Collective investment undertakings	-	740	-	-	-	740
Other items	4,198	1,052	504	918	59	6,731
Total Standardised Approach Credit Risk Exposure	**35,781**	**39,165**	**20,324**	**18,552**	**6,244**	**120,066**
As at 31.12.10						
Central governments or central banks	19	5,031	966	7,996	180	14,192
Regional governments or local authorities	22	98	16	15	-	151
Administrative bodies and non-commercial undertakings	53	235	-	-	-	288
Institutions	649	1,064	275	728	146	2,862
Corporates	11,303	19,618	5,697	5,625	2,379	44,622
Retail	6,816	8,861	6,666	2,212	677	25,232
Secured By Mortgages On Residential Property	8,682	14,801	927	793	222	25,425
Secured By Mortgages On Commercial Real Estate	50	2,199	3	2	73	2,327
Past due items	1,226	1,582	768	311	114	4,001
Private equity positions	474	220	470	50	-	1,214
Covered bonds	-	285	-	-	-	285
Securitisation positions	380	-	27	-	-	407
Collective investment undertakings	-	653	-	-	-	653
Other items	2,641	418	60	521	13	3,653
Total Standardised Approach Credit Risk Exposure	**32,315**	**55,065**	**15,875**	**18,253**	**3,804**	**125,312**

Total exposure to Europe decreased £15.9bn to £39.2bn, principally as a result of the migration of the Spanish mortgage portfolio to the Advanced IRB portfolio.

This decrease was partly offset by a £4.4bn increase in the Americas, mainly in:

- Barclays Corporate driven by exposure to banks which are now reported under the Standardised approach; and
- Barclaycard following the acquisition of credit card portfolios in the United States

There was also an increase of £3.4bn in the UK, principally due to an increase in other assets, the acquisition of a cards portfolio and hedging operations with other institutions.

Table 22: Industry analysis of credit exposure under the Standardised approach

Credit Exposure (EAD) Pre-CRM	Financial institutions/ services	Agriculture, forestry and fishing	Manufacturing	Construction	Property	Energy and water	Wholesale and retail, distribution and leisure	Transport	Postal and communication	Business and other services	Home loans	Other personal	Non-customer assets	Total
As at 31.12.11	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	8,177	-	-	-	-	0	-	-	-	2,144	-	-	-	10,321
Regional governments or local authorities	0	-	-	-	0	0	-	0	-	86	-	-	-	86
Administrative bodies and non-commercial undertakings	-	-	1	0	-	143	-	72	-	108	-	-	-	324
Institutions	7,027	-	0	0	3	-	0	0	-	92	-	-	-	7,122
Corporates	6,649	172	5,844	1,405	3,246	2,339	5,279	3,165	479	13,227	47	3,442	0	45,294
Retail	220	51	290	120	233	276	261	1,113	10	749	691	22,580	-	26,594
Secured By Mortgages On Residential Property	848	5	9	41	1,162	2	68	4	1	1,640	5,282	5,864	-	14,926
Secured By Mortgages On Commercial Real Estate	20	24	107	56	2,095	10	210	30	1	416	12	42	-	3,023
Past due items	153	6	155	57	435	3	78	314	5	195	473	1,494	-	3,368
Private equity positions	603	-	79	8	4	17	15	8	11	132	-	-	-	877
Covered bonds	286	-	-	-	-	-	-	-	-	-	-	-	-	286
Securitisation positions	374	-	-	-	-	-	-	-	-	-	-	-	-	374
Collective investment undertakings	740	-	-	-	0	-	-	-	-	0	-	-	-	740
Other items	59	1	8	1	70	-	40	-	6	56	-	-	6,490	6,731
Total Standardised Approach Credit Exposure	**25,156**	**259**	**6,493**	**1,688**	**7,248**	**2,790**	**5,951**	**4,706**	**513**	**18,845**	**6,505**	**33,422**	**6,490**	**120,066**
As at 31.12.10														
Central governments or central banks	9,983	-	-	-	-	-	-	-	-	4,209	-	-	-	14,192
Regional governments or local authorities	12	-	-	-	0	0	-	0	-	139	-	-	-	151
Administrative bodies and non-commercial undertakings	-	-	16	0	-	105	1	34	-	132	0	-	-	288
Institutions	2,764	-	0	-	2	-	-	-	-	86	-	1	9	2,862
Corporates	7,046	214	5,186	1,648	5,513	2,617	4,494	3,822	817	11,490	48	1,727	-	44,622
Retail	294	70	367	160	261	307	318	1,203	11	899	779	20,563	-	25,232
Secured By Mortgages On Residential Property	712	67	324	168	1,081	28	329	136	38	3,072	13,658	5,814	-	25,425
Secured By Mortgages On Commercial Real Estate	22	36	166	71	100	10	280	39	5	505	964	129	-	2,327
Past due items	80	8	114	111	387	6	80	256	7	244	834	1,874	-	4,001
Private equity positions	787	-	128	7	6	-	39	7	12	228	-	-	-	1,214
Covered bonds	285	-	-	-	-	-	-	-	-	-	-	-	-	285
Securitisation positions	407	-	-	-	-	-	-	-	-	-	-	-	-	407
Collective investment undertakings	652	-	-	-	0	-	-	-	-	1	-	-	-	653
Other items	85	-	0	-	8	-	-	-	-	26	-	-	3,534	3,653
Total Standardised Approach Credit Exposure	**23,130**	**395**	**6,301**	**2,165**	**7,358**	**3,073**	**5,541**	**5,496**	**889**	**21,030**	**16,283**	**30,108**	**3,543**	**125,312**

Exposures under the Standardised approach decreased by £5.2bn to £120.1bn was mainly due to:

- Lower exposure to home loans, which decreased by £9.8bn to £6.5bn, principally due to the migration of the Spanish mortgage portfolio to the Advanced IRB approach
- Business and other services, which decreased £2.2bn to £18.8bn principally driven by lower available for sale positions in Europe

Table 23: Residual maturity analysis of credit exposures under the Standardised approach

	EAD Pre-CRM by Standardised Approach Credit Risk Exposure Class						
Credit Exposure (EAD) Pre-CRM	On demand and qualifying revolving	Under one year	Over one year but not more than three years	Over three years but not more than five years	Over five years but not more than ten years	Over ten years or undated	Total
As at 31.12.11	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	5,158	3,233	1,629	23	39	239	10,321
Regional governments or local authorities	18	58	1	0	3	6	86
Administrative bodies and non-commercial undertakings	0	158	110	35	8	13	324
Institutions	1,845	3,750	865	278	309	75	7,122
Corporates	2,308	20,389	9,157	7,569	3,059	2,812	45,294
Retail	14,193	2,374	2,624	3,196	3,358	849	26,594
Secured By Mortgages On Residential Property	17	1,722	1,905	3,380	4,450	3,452	14,926
Secured By Mortgages On Commercial Real Estate	2	276	142	100	580	1,923	3,023
Past due items	1,128	841	287	244	381	487	3,368
Private equity	-	8	23	65	74	707	877
Covered Bonds	-	-	126	71	89	-	286
Securitisation positions	-	-	61	-	-	313	374
Collective investment undertakings	0	704	0	20	16	0	740
Other items	1,106	161	7	169	0	5,288	6,731
Total Standardised Approach Credit Risk Exposure	**25,775**	**33,674**	**16,937**	**15,150**	**12,366**	**16,164**	**120,066**
As at 31.12.10	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	4,961	4,705	2,345	1,751	43	387	14,192
Regional governments or local authorities	15	112	4	2	1	17	151
Administrative bodies and non-commercial undertakings	0	148	55	53	6	26	288
Institutions	203	1,633	300	608	7	111	2,862
Corporates	2,107	22,015	8,285	6,777	2,585	2,853	44,622
Retail	11,924	2,908	2,997	3,052	3,318	1,033	25,232
Secured By Mortgages On Residential Property	224	2,179	1,496	2,109	2,004	17,413	25,425
Secured By Mortgages On Commercial Real Estate	8	163	44	104	454	1,554	2,327
Past due items	1,536	797	297	209	323	839	4,001
Private equity	-	0	47	42	86	1,039	1,214
Covered Bonds	-	-	69	91	69	56	285
Securitisation positions	-	17	80	-	-	310	407
Collective investment undertakings	0	611	2	-	40	0	653
Other items	3,130	40	0	18	0	465	3,653
Total Standardised Approach Credit Risk Exposure	**24,108**	**35,329**	**16,021**	**14,816**	**8,936**	**26,102**	**125,312**

Total exposures decreased by £5.2bn to £120.1bn

- This was mainly driven by the migration of Spanish mortgage exposures, which are mainly over 10 years, to the Advanced IRB approach. This is reflected in the £10.0bn decrease in exposures over 10 years/undated
- Exposures over five years but not more than ten years increased £3.4bn to £12.4bn, mostly driven by Barclays Wealth due to increased secured exposures, and a change of reporting assumption where the actual facility end date is now used, rather than the "interest roll date"

Credit rating agencies

Under the Standardised approach, the Group makes limited use of credit ratings assigned by credit rating agencies in its calculation of credit RWAs. The FSA determines which agencies may be relied upon in the determination of this risk weight.

The provisions of the Credit Rating Agencies Regulation come into force on 1 May 2012. These provisions restrict the use of ratings for regulatory purposes to those either issued in the EU or endorsed by the European Securities and Markets Authority (ESMA). The change potentially impacts the calculation of regulatory capital requirements, although the impact of the change is not yet known as ESMA has not yet determined which non-European countries are eligible to be endorsed. Barclays uses ratings assigned by the following agencies:

- Standard & Poor's
- Moody's
- Fitch

These ratings are used in the calculation of the following exposure classes:

- Central governments and central banks
- Institutions

- Corporates
- Short term claims on institutions and corporates

Unrated and rated counterparties

Where a rating is not available, Barclays follows the provisions of the regulations that cover this state. The following is a summary of the rules governing the Standardised approach. Each exposure must be assigned to one of six credit quality steps if a rating is available as defined in the table below.

Table 24: Credit rating agencies and credit quality steps under the Standardised approach

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

After each unrated exposure has been assigned a quality step, exposure class and maturity are then used to determine the risk weight percentage. Exposures cannot be assigned a risk weight that is lower than that of the sovereign risk of the country in which the asset is located. Where a rating is not available, in most cases the treatment is approximately equivalent to that which is applied to credit quality step 3. The following table is a simplified version of the risk weight allocation process.

Table 25: Credit quality steps and risk weights under the Standardised approach

Credit quality Step	Central governments and central banks	Corporates	Institutions greater than 3 months maturity
Credit quality Step 1	0%	20%	20%
Credit quality Step 2	20%	50%	50%
Credit quality Step 3	50%	100%	50%
Credit quality Step 4	100%	100%	100%
Credit quality Step 5	100%	150%	100%
Credit quality Step 6	150%	150%	150%

Retail exposures are generally assigned a risk weight of 75%. More detailed criteria are applied for exposures secured on residential or commercial property to include the credit risk mitigation.

Table 26: Credit quality step analysis of pre-CRM exposure and capital deductions under the Standardised approach

	Credit Exposure								Capital
Credit Exposure (EAD) / Capital Pre-CRM	Credit Quality Step 1	Credit Quality Step 2	Credit Quality Step 3	Credit Quality Step 4	Credit Quality Step 5	Credit Quality Step 6	Unrated	Total	Deducted from Capital Resources
As at 31.12.11	£m	£m	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	912	189	6,865	926	681	-	748	10,321	-
Regional governments or local authorities	10	0	47	-	-	-	29	86	-
Administrative bodies and non-commercial undertakings	-	43	-	-	-	-	281	324	-
Institutions	1,003	1,378	733	139	2	-	3,867	7,122	-
Corporates	493	1,838	1,203	87	266	154	41,253	45,294	-
Retail	N/A	N/A	N/A	N/A	N/A	N/A	26,594	26,594	-
Secured By Mortgages On Residential Property	N/A	N/A	N/A	N/A	N/A	N/A	14,926	14,926	-
Secured By Mortgages On Commercial Real Estate	N/A	N/A	N/A	N/A	N/A	N/A	3,023	3,023	-
Past due items	(1)	0	N/A	N/A	N/A	N/A	3,368	3,368	-
Private Equity	N/A	N/A	N/A	N/A	N/A	N/A	877	877	931
Covered Bonds	-	286	-	-	-	-	-	286	-
Collective investment undertakings	557	169	-	-	-	-	14	740	-
Other items	N/A	N/A	N/A	N/A	N/A	N/A	6,731	6,731	-
Securitisation positions	-	292	-	-	-	-	82	374	614
Total Standardised Approach Credit Exposure/ Capital	**2,975**	**4,195**	**8,848**	**1,152**	**949**	**154**	**101,793**	**120,066**	**1,545**
As at 31.12.10									
Central governments or central banks	5,202	1,109	4,979	1,085	911	-	906	14,192	-
Regional governments or local authorities	12	0	-	-	-	-	139	151	-
Administrative bodies and non-commercial undertakings	-	-	-	-	-	-	288	288	-
Institutions	426	352	65	17	14	-	1,988	2,862	-
Corporates	29	1,268	372	161	123	4	42,665	44,622	-
Retail	N/A	N/A	N/A	N/A	N/A	N/A	25,232	25,232	-
Secured By Mortgages On Residential Property	-	N/A	N/A	N/A	N/A	N/A	25,425	25,425	-
Secured By Mortgages On Commercial Real Estate	N/A	N/A	N/A	N/A	N/A	N/A	2,327	2,327	
Past due items	N/A	N/A	N/A	N/A	N/A	N/A	4,001	4,001	-
Private Equity	N/A	N/A	N/A	N/A	N/A	N/A	1,214	1,214	982
Covered Bonds	-	285	-	-	-	-	-	285	-
Collective investment undertakings	557	41	52	-	-	-	3	653	-
Other items	N/A	N/A	N/A	N/A	N/A	N/A	3,653	3,653	-
Securitisation positions	-	300	-	-	-	-	107	407	974
Total Standardised Approach Credit Exposure / Capital	**6,226**	**3,355**	**5,468**	**1,263**	**1,048**	**4**	**107,948**	**125,312**	**1,956**

Under the Basel rules most of the exposures under the Standardised approach are classified as “unrated”. This table therefore largely reflects the split show in “Table 20: Credit risk exposure under the Standardised approach”.

Table 27: Credit quality step analysis of post-CRM exposure and capital deductions under the Standardised approach

	Credit Exposure								Capital
Credit Exposure (EAD) / Capital post CRM	Credit Quality Step 1	Credit Quality Step 2	Credit Quality Step 3	Credit Quality Step 4	Credit Quality Step 5	Credit Quality Step 6	Unrated	Total	Deducted from Capital Resources
As at 31.12.11	£m	£m	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	912	189	6,865	926	681	-	748	10,321	-
Regional governments or local authorities	10	0	47	-	-	-	29	86	-
Administrative bodies and non-commercial undertakings	-	43	-	-	-	-	281	324	-
Institutions	1,003	1,378	733	139	2	-	3,826	7,081	-
Corporates	493	1,837	1,203	87	266	154	37,717	41,757	-
Retail	N/A	N/A	N/A	N/A	N/A	N/A	26,225	26,225	-
Secured By Mortgages On Residential Property	N/A	N/A	N/A	N/A	N/A	N/A	14,555	14,555	-
Secured By Mortgages On Commercial Real Estate	N/A	N/A	N/A	N/A	N/A	N/A	3,023	3,023	-
Past due items	(1)	0	N/A	N/A	N/A	N/A	3,358	3,358	-
Private Equity	N/A	N/A	N/A	N/A	N/A	N/A	877	877	931
Covered Bonds	-	286	-	-	-	-	-	286	-
Short term claims on institutions and corporates	-	-	-	-	-	-	-	-	-
Collective investment undertakings	557	169	-	-	-	-	14	740	-
Other items	N/A	N/A	N/A	N/A	N/A	N/A	6,731	6,731	-
Securitisation positions	-	292	-	-	-	-	82	374	614
Total Standardised Approach Credit Exposure/ Capital	**2,975**	**4,194**	**8,848**	**1,152**	**949**	**154**	**97,538**	**115,738**	**1,545**
As at 31.12.10									
Central governments or central banks	5,202	1,109	4,979	1,085	911	-	905	14,191	-
Regional governments or local authorities	12	0	-	-	-	-	139	151	-
Administrative bodies and non-commercial undertakings	-	-	-	-	-	-	288	288	-
Institutions	426	352	65	17	14	-	1,946	2,820	-
Corporates	29	1,203	372	161	123	4	40,350	42,242	-
Retail	N/A	N/A	N/A	N/A	N/A	N/A	24,931	24,931	-
Secured By Mortgages On Residential Property	1,213	N/A	N/A	N/A	N/A	N/A	23,910	25,122	-
Secured By Mortgages On Commercial Real Estate	N/A	N/A	N/A	N/A	N/A	N/A	2,326	2,326	
Past due items	-	N/A	N/A	N/A	N/A	N/A	3,982	3,982	-
Private Equity	N/A	N/A	N/A	N/A	N/A	N/A	1,214	1,214	982
Covered Bonds	-	285	-	-	-	-	-	285	-
Collective investment undertakings	557	41	52	-	-	-	2	652	-
Other items	N/A	N/A	N/A	N/A	N/A	N/A	3,653	3,653	-
Securitisation positions	-	300	-	-	-	-	107	407	974
Total Standardised Approach Credit Exposure / Capital	**6,226**	**3,290**	**5,468**	**1,263**	**1,048**	**4**	**104,966**	**122,265**	**1,956**

Exposures have moved broadly in line with the pre-CRM exposures, shown in the preceding table.

Advanced and Foundation IRB approach credit exposure

The following table shows the Group's credit exposures measured under the Advanced IRB approach and the Foundation IRB approach before the application of credit risk mitigation.

Table 28: Credit risk exposures under the Advanced and Foundation IRB approaches

	Credit Exposure (EAD) Pre-CRM		Average Credit Exposure (EAD) Pre-CRM over the year	
IRB Exposure Class	Advanced IRB	Foundation IRB	Advanced IRB	Foundation IRB
At at 31.12.11	£m	£m	£m	£m
Central governments or central banks	140,518	1,070	133,792	1,217
Institutions	29,823	936	28,857	844
Corporates	141,780	16,266	143,811	17,198
Retail				
- SME	12,536	N/A	12,946	N/A
- Secured by real estate collateral	168,611	N/A	159,655	N/A
- Qualifying revolving retail	36,165	N/A	36,693	N/A
- Other retail	10,396	N/A	11,577	N/A
Equity	40	N/A	482	N/A
Securitisation positions	26,009	N/A	24,403	N/A
Non-credit obligation assets	13,962	N/A	14,351	N/A
Total IRB Credit Risk Exposure	**579,840**	**18,272**	**566,567**	**19,259**
As at 31.12.10				
Central governments or central banks	120,705	1,358	113,986	1,170
Institutions	24,149	969	28,319	1,642
Corporates	146,605	19,159	143,196	16,492
Retail				
- SME	13,386	N/A	13,757	N/A
- Secured by real estate collateral	149,730	N/A	142,782	N/A
- Qualifying revolving retail	37,195	N/A	32,708	N/A
- Other retail	12,779	N/A	13,505	N/A
Equity	659	N/A	652	N/A
Securitisation positions	29,894	N/A	31,263	N/A
Non-credit obligation assets	14,397	N/A	13,576	N/A
Total IRB Credit Risk Exposure	**549,499**	**21,486**	**533,744**	**19,304**

Detailed breakdowns of these amounts are found in tables 29-34.

Exposures under Advanced IRB increased £30.3bn to £579.8bn.

- This was partly due to higher increased exposures to central governments and central banks by £19.8bn to £140.5bn, mainly within Barclays Capital
- Retail exposures secured on real estate collateral increased £18.9bn to £168.6bn mainly driven by the migration of the Spanish mortgage portfolio to the Advanced IRB approach
- The £5.7bn increase in exposures to institutions was offset by the £4.8bn decrease in exposures to corporates, largely due to the re-classification of a large counterparty
- Balances declined in other categories, notably securitisation positions, which reduced £3.9bn to £26.0bn following the consolidation of Protium loan and repayments and disposals

Exposures under Foundation IRB decreased £3.2bn to £18.3bn, mainly due to the depreciation of the Rand.

Please refer to Table 6 for commentary on the movement of capital requirements which also apply to risk weighted assets (that are equal to 12.5 times the capital requirements).

Table 29: Geographic analysis of credit risk exposures under the Advanced IRB approach

Advanced IRB Approach Credit Risk Exposure Class	Credit Exposure (EAD) Pre-CRM United Kingdom	Europe	Americas	Africa and Middle East	Asia	Total
As at 31.12.11	£m	£m	£m	£m	£m	£m
Central governments or central banks	22,904	65,687	34,583	2,491	14,853	140,518
Institutions	14,972	5,694	7,304	646	1,207	29,823
Corporates	82,465	18,189	38,257	1,280	1,589	141,780
Retail	158,786	37,107	34	31,771	10	227,708
Equity	40	-	-	-	-	40
Securitisation positions	6,767	3,695	14,211	717	619	26,009
Non-credit obligation assets	7,273	1,762	2,241	2,401	285	13,962
Total Advanced IRB Credit Risk Exposure	**293,207**	**132,134**	**96,630**	**39,306**	**18,563**	**579,840**
As at 31.12.10						
Central governments or central banks	30,207	19,384	43,408	2,641	25,065	120,705
Institutions	13,639	6,643	1,991	1,021	855	24,149
Corporates	76,825	24,498	41,217	1,399	2,666	146,605
Retail	153,225	19,789	27	40,041	8	213,090
Equity	1	9	33	616	-	659
Securitisation positions	3,703	4,131	20,136	1,240	684	29,894
Non-credit obligation assets	9,190	1,394	1,123	2,569	121	14,397
Total Advanced IRB Credit Risk Exposure	**286,790**	**75,848**	**107,935**	**49,527**	**29,399**	**549,499**

Exposures under Advanced IRB increased £30.3bn to £579.8bn

- Exposure to Europe increased by £56.3bn to £132.1bn, principally due to increased balances with central banks and the migration of the Spanish mortgage portfolio to the Advanced IRB approach
- UK exposure increased £6.4bn to £293.2bn due to higher corporate balances in Barclays Corporate and increased net mortgage lending
- These increases were partially offset by a £10.8bn decrease in exposures to Asia to £18.6bn, principally due to decreased balances with central banks and lower exposure to corporates in the region

Table 30: Industry analysis of credit exposure under the Advanced IRB approach

Credit Exposure (EAD) Pre-CRM	Financial institutions/ services	Agriculture, forestry and fishing	Manufacturing	Construction	Property	Energy and water	Wholesale and retail, distribution and leisure	Transport	Postal and communication	Business and other services	Home loans	Other personal	Non-customer assets	Total
As at 31.12.11	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	104,478	-	-	-	-	-	-	-	-	36,040	-	-	-	140,518
Institutions	29,823	-	-	-	-	-	-	-	-	-	-	-	-	29,823
Corporates	16,733	1,997	16,330	4,238	28,181	18,282	13,232	5,307	4,619	32,851	-	10	-	141,780
Retail	102	2,129	1,176	867	2,425	43	3,286	470	90	5,254	165,280	46,586	-	227,708
Equity	40	-	-	-	-	-	-	-	-	-	-	-	-	40
Securitisation positions	25,734	-	-	-	116	-	-	-	-	159	-	-	-	26,009
Non-credit obligation assets	-	-	-	-	-	-	-	-	-	-	-	-	13,962	13,962
Total Advanced IRB Approach Credit Exposure	**176,910**	**4,126**	**17,506**	**5,105**	**30,722**	**18,325**	**16,518**	**5,777**	**4,709**	**74,304**	**165,280**	**46,596**	**13,962**	**579,840**
As at 31.12.10														
Central governments or central banks	92,338	-	-	-	-	-	-	-	-	28,367	-	-	-	120,705
Institutions	24,149	-	-	-	-	-	-	-	-	-	-	-	-	24,149
Corporates	22,148	1,338	18,173	4,234	28,841	16,240	13,229	7,064	5,844	29,494	-	0	-	146,605
Retail	95	1,975	899	805	2,493	19	3,031	366	49	3,696	149,612	50,050	-	213,090
Equity	203	-	87	7	200	0	42	-	16	104	-	-	-	659
Securitisation positions	29,542	-	-	-	231	-	-	-	-	121	-	-	-	29,894
Non-credit obligation assets	-	-	-	-	-	-	-	-	-	-	-	-	14,397	14,397
Total Advanced IRB Approach Credit Exposure	**168,475**	**3,313**	**19,159**	**5,046**	**31,765**	**16,259**	**16,302**	**7,430**	**5,909**	**61,782**	**149,612**	**50,050**	**14,397**	**549,499**

Exposures assessed under the Advanced IRB approach increased by £30.3bn to £579.8bn mainly driven by

- A £12.5bn increase in exposures to business and other services principally as a result of increased positions with governments in Barclays Capital and Treasury
- A £15.7bn increase in exposures to in Home Loans, driven by the migration of the Spanish mortgage portfolio to the Advanced IRB approach
- An £8.4bn increase in exposures to financial institutions and services, driven by new positions with the central governments and central banks, and increases with various bank counterparties in Barclays Capital

Table 31: Residual maturity analysis credit exposures under the Advanced IRB approach

	EAD Pre-CRM by Advanced Approach Credit Risk Exposure Class						
Credit exposure (EAD) Pre-CRM	On demand and qualifying revolving	Under one year	Over one year but not more than three years	Over three years but not more than five years	Over five years but not more than ten years	Over ten years or undated	Total
As at 31.12.11	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	51,313	59,291	4,217	5,693	11,520	8,484	140,518
Institutions	3,386	14,394	8,368	3,013	564	98	29,823
Corporates	7,570	20,690	32,865	41,416	8,142	31,097	141,780
Retail	41,472	5,207	5,821	11,226	22,015	141,967	227,708
Equity	-	-	40	-	-	-	40
Securitisation positions	-	5,459	3,721	707	12,007	4,115	26,009
Non-credit obligation assets	146	14	-	-	-	13,802	13,962
Total Advanced IRB Credit Risk Exposure	**103,887**	**105,055**	**55,032**	**62,055**	**54,248**	**199,563**	**579,840**
As at 31.12.11							
Central governments or central banks	78,588	17,203	3,014	2,271	12,505	7,124	120,705
Institutions	2,425	6,600	8,111	5,920	1,019	74	24,149
Corporates	8,204	24,453	46,955	27,425	10,459	29,109	146,605
Retail	45,022	1,641	8,359	9,868	20,520	127,680	213,090
Equity	-	-	-	659	-	-	659
Securitisation positions	-	7,779	2,576	96	16,120	3,323	29,894
Non-credit obligation assets	78	95	-	-	-	14,224	14,397
Total Advanced IRB Credit Risk Exposure	**134,317**	**57,771**	**69,015**	**46,239**	**60,623**	**181,534**	**549,499**

The £30.3bn increase in Advanced IRB exposures to £579.8bn was the net result of offsetting movements in various maturity bands:

- Exposures under one year increased £47.3bn to £105.1bn driven by increased positions with the central governments and central banks in Barclays Capital
- Exposures over 10 years or undated increased £18.0bn to £199.6bn following the migration of Spanish mortgages to the Advanced IRB approach, and increased net mortgage lending in the UK
- On demand and qualifying exposures decreased £30.4bn to £103.9bn as on demand balances with various central banks were replaced at different maturities

Table 32: Geographic analysis of credit risk exposures under the Foundation IRB approach

	Credit Exposure (EAD) Pre-CRM					
Foundation IRB Approach Credit Risk Exposure Class	**United Kingdom**	**Europe**	**Americas**	**Africa and Middle East**	**Asia**	**Total**
As at 31.12.11	£m	£m	£m	£m	£m	£m
Central governments or central banks	-	24	-	1,046	-	1,070
Institutions	82	395	127	330	2	936
Corporates	12	109	87	16,058	-	16,266
Total Foundation Approach Credit Risk Exposure	**94**	**528**	**214**	**17,434**	**2**	**18,272**
As at 31.12.10						
Central governments or central banks	-	0.5	-	1,357	-	1,358
Institutions	113	103	202	544	8	969
Corporates	15	72	48	19,024	-	19,159
Total Foundation Approach Credit Risk Exposure	**127**	**175**	**250**	**20,926**	**8**	**21,486**

Total exposure under the Foundation IRB approach relates to the Absa business and decreased by £3.2bn to £18.3bn.

- In the aggregate, this was principally the result of the depreciation in the value of the Rand against Sterling.
- Corporate exposures in Africa and the Middle East decreased £3.5bn to £17.4bn, though the exposure slightly increased in Rand terms across both Absa Capital and Absa Business Banking.

Table 33: Industry analysis of credit exposure under the Foundation IRB approach

Credit Exposure (EAD) Pre-CRM	**Financial institutions/ services**	**Agriculture, forestry and fishing**	**Manufacturing**	**Construction**	**Property**	**Energy and water**	**Wholesale and retail, distribution and leisure**	**Transport**	**Postal and communication**	**Business and other services**	**Other personal**	**Total**
As at 31.12.11	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	982	-	15	-	-	-	-	37	-	36	-	1,070
Institutions	936	-	-	-	-	-	-	-	-	-	-	936
Corporates	1,143	1,776	2,158	611	2,263	603	2,199	828	523	4,162	-	16,266
Total Foundation IRB Approach Credit Exposure	**3,061**	**1,776**	**2,173**	**611**	**2,263**	**603**	**2,199**	**865**	**523**	**4,198**	**-**	**18,272**
As at 31.12.10												
Central governments or central banks	1,258	-	24	-	0	3	-	68	-	5	-	1,358
Institutions	785	-	-	-	-	-	-	-	-	184	-	969
Corporates	1,046	2,027	2,175	639	3,320	917	2,172	698	5	6,160	-	19,159
Total Foundation IRB Approach Credit Exposure	**3,089**	**2,027**	**2,199**	**639**	**3,320**	**920**	**2,172**	**766**	**5**	**6,349**	**-**	**21,486**

Exposure under the Foundation IRB approach relates to the Absa business and decreased by £3.2bn to £18.3bn. The main drivers included:

- Business and other services, which decreased by £2.2bn to £4.2bn mainly as a result of lower lending and the depreciation of value of the Rand against Sterling; and
- A £1.1bn decrease in Property to £2.3bn, due to lower net lending and the depreciation of value of the Rand against Sterling

Table 34: Residual maturity analysis of credit exposures under the Foundation IRB approach

Credit Exposure (EAD) Pre-CRM	EAD Pre-CRM by Foundation Approach Credit Risk Exposure Class						
	On demand and qualifying revolving	Under one year	Over one year but not more than three years	Over three years but not more than five years	Over five years but not more than ten years	Over ten years or undated	Total
As at 31.12.11	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	981	-	89	0	0	-	1,070
Institutions	2	2	931	-	1	-	936
Corporates	3,625	0	8,358	719	3,564	-	16,266
Total Foundation IRB Approach Credit Risk Exposure	**4,608**	**2**	**9,378**	**719**	**3,565**	**-**	**18,272**
As at 31.12.10							
Central governments or central banks	1,354	0	-	-	4	-	1,358
Institutions	4	462	223	24	256	-	969
Corporates	1,737	1,559	1,342	881	13,640	-	19,159
Total Foundation IRB Approach Credit Risk Exposure	**3,095**	**2,021**	**1,565**	**905**	**13,900**	**-**	**21,486**

Total exposure under the Foundation IRB approach relates to the Absa business and decreased by £3.2bn to £18.3bn.

- This was largely as a result of the depreciation in the value of the Rand against Sterling
- Note the exposures have been re-classified following data refinements in anticipation of Advanced IRB treatment applications

Accounting for the impairment of financial assets

Note that page 86 of the Annual Report, and note 7 on pages 210 and 211 of the Annual Report, contain discussions of allowances for impairment.

Loans and other assets held at amortised cost

In accordance with IAS 39, the Group assesses at each balance sheet date whether there is objective evidence that loan assets or available for sale financial investments (debt or equity) will not be recovered in full and, wherever necessary, recognises an impairment loss in the income statement.

An impairment loss is recognised if there is objective evidence of impairment as a result of events that have occurred and these have adversely impacted the estimated future cash flows from the assets. These events include:

- becoming aware of significant financial difficulty of the issuer or obligor;
- a breach of contract, such as a default or delinquency in interest or principal payments;
- the Group, for economic or legal reasons relating to the borrower's financial difficulty, grants a concession that it would not otherwise consider;
- it becomes probable that the borrower will enter bankruptcy or other financial reorganisation;
- the disappearance of an active market for that financial asset because of financial difficulties; and
- observable data at a portfolio level indicating that there is a measurable decrease in the estimated future cash flows, although the decrease cannot yet be ascribed to individual financial assets in the portfolio – such as adverse changes in the payment status of borrowers in the portfolio or national or local economic conditions that correlate with defaults on the assets in the portfolio.

Impairment assessments are conducted individually for significant assets, which comprise all wholesale customer loans and larger retail business loans, and collectively for smaller loans and for portfolio level risks, such as country or sectoral risks. For the purposes of the assessment, loans with similar credit risk characteristics are grouped together – generally on the basis of their product type, industry, geographical location, collateral type, past due status and other factors relevant to the evaluation of expected future cash flows.

The impairment assessment includes estimating the expected future cash flows from the asset or the group of assets, which are then discounted using the original effective interest rate calculated for the asset. If this is lower than the carrying value of the asset or the portfolio, an impairment allowance is raised.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed by adjusting the allowance account. The amount of the reversal is recognised in the income statement.

Following impairment, interest income continues to be recognised at the original effective interest rate on the restated carrying amount.

Uncollectable loans are written off against the related allowance for loan impairment on completion of the Group's internal processes and all recoverable amounts have been collected. Subsequent recoveries of amounts previously written off are credited to the income statement.

Available for sale financial assets

Impairment of available for sale debt instruments

Debt instruments are assessed for impairment in the same way as loans. If impairment is deemed to have accrued, the cumulative decline in the fair value of the instrument that has previously been recognised in equity is removed from equity and recognised in the income statement. This may be reversed if there is evidence that the circumstances of the issuer have improved.

Impairment of available for sale equity instruments

Where there has been a prolonged or significant decline in the fair value of an equity instrument below its acquisition cost, it is deemed to be impaired. The cumulative net loss that has been previously recognised directly in equity is removed from equity and recognised in the income statement.

Increases in the fair value of equity instruments after impairment are recognised directly in other comprehensive income. Further declines in the fair value of equity instruments after impairment are recognised in the income statement.

Critical accounting estimates and judgements

The calculation of the impairment allowance involves the use of judgement, based on the Group's experience of managing credit risk.

Within the retail and small businesses portfolios, which comprise large numbers of small homogeneous assets with similar risk characteristics where credit scoring techniques are generally used, statistical techniques are used to calculate impairment allowances on a portfolio basis, based on historical recovery rates and assumed emergence periods. These statistical analyses use as primary inputs the extent to which accounts in the portfolio are in arrears and historical information on the eventual losses encountered from such delinquent portfolios. There are many such models in use, each tailored to a product, line of business or customer category. Judgement and knowledge is needed in selecting the statistical methods to use when the models are developed or revised. The impairment allowance reflected in the financial statements for these portfolios is therefore considered to be reasonable and supportable. The impairment charge reflected in the income statement for these retail portfolios is £2,422m (2010: £3,296m; 2009: £3,919m) and amounts to 64% (2010: 59%; 2009: 53%) of the total impairment charge on loans and advances in 2011.

For individually significant assets, impairment allowances are calculated on an individual basis and all relevant considerations that have a bearing on the expected future cash flows are taken into account (for example, the business prospects for the customer, the realisable value of collateral, the Group's position relative to other claimants, the reliability of customer information and the likely cost and duration of the work-out process). The level of the impairment allowance is the difference between the value of the discounted expected future cash flows (discounted at the loan's original effective interest rate), and its carrying amount. Subjective judgements are made in the calculation of future cash flows. Furthermore, judgements change with time as new information becomes available or as work-out strategies evolve, resulting in frequent revisions to the impairment allowance as individual decisions are taken. Changes in these estimates would result in a change in the allowances and have a direct impact on the impairment charge. The impairment charge reflected in the financial statements in relation to wholesale portfolios is £1,368m (2010: £2,329m; 2009: £3,439m) and amounts to 36% (2010: 41%; 2009: 47%) of the total impairment charge on loans and advances. Further information on impairment allowances and related credit information is set out within the Credit Risk Management section of the Annual Report (pages 79 to 120).

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Table 35: Analysis of impaired and past due exposures and allowance for impairment by exposure type

As at 31.12.11	Neither Past due nor Impaired	Past Due but not Impaired	Impaired Loans		Total	Allowance for Impairment
			Individually	Collectively		
	£m	£m				£m
Traded loans	1,374	-	-	-	1,374	
Financial assets designated at fair value	21,528	432	-	-	21,960	-
Loans and advanced to banks	44,986	2,471	34	-	47,491	(45)
Home Loans	160,932	114	382	10,678	172,106	(834)
Credit card receivables	24,989	-	-	3,392	28,381	(1,825)
Other personal lending	27,481	249	381	3,542	31,653	(2,425)
Wholesale and Corporate loans and advances	183,923	7,036	9,573	816	201,348	(5,178)
Finance lease receivables	8,178	99	321	400	8,998	(290)
Total	**473,391**	**10,401**	**10,691**	**18,828**	**513,311**	**(10,597)**

As at 31.12.10	Neither Past due nor Impaired	Past Due but not Impaired	Impaired Loans		Total	Allowance for Impairment
			Individually	Collectively		
	£m	£m				£m
Traded loans	2,170	-	-	-	2,170	
Financial assets designated at fair value	22,273	79	-	-	22,352	-
Loans and advanced to banks	37,149	663	35	-	37,847	(48)
Home Loans	156,908	467	296	11,238	168,909	(854)
Credit card receivables	20,734	-	-	4,365	25,099	(2,441)
Other personal lending	24,363	256	409	4,707	29,735	(3,127)
Wholesale and Corporate loans and advances	181,473	6,407	17,570	779	206,229	(5,611)
Finance lease receivables	9,338	370	259	387	10,354	(351)
Total	**454,408**	**8,242**	**18,569**	**21,476**	**502,695**	**(12,432)**

All loans and advances are categorised as either:

- neither past due nor impaired
- past due but not impaired; or
- impaired, which includes restructured loans

For the purposes of the disclosures:

- A loan is considered past due when the borrower has failed to make a payment when due under the terms of the loan contract.
- The impairment allowance includes allowances against financial assets that have been individually impaired and those subject to collective impairment.
- Home loans and credit card receivables that are subject to forbearance in the retail portfolios are included in the Collectively impaired loans column in the table.
- Included within wholesale and corporate loans that are neither past due nor impaired are a portion of loans that have been subject to forbearance or similar strategies as part of the Group's ongoing relationship with clients. The loans will have an internal rating reflective of the level of risk to which the Group is exposed, bearing in mind the circumstances of the forbearance and the overall performance and prospects of the client. Loans on forbearance programmes will typically, but not always, attract a higher risk rating than similar loans which are not.
- A portion of wholesale loans under forbearance is included in the past due but not impaired column, although not all loans subject to forbearance are necessarily impaired or past due. Where wholesale loans under forbearance have been impaired, these form part of individually impaired loans.

Credit risk management

The following table gives a geographic analysis of impaired exposures, past due exposures and allowances for impairment.

Table 36: Geographic analysis of impaired and past due exposures and allowance for impairment

	Past Due but not Impaired	Impaired Loans		Allowance for Impairment
		Individually	Collectively	
As at 31.12.11	£m	£m	£m	£m
UK	2,110	2,008	11,528	4,005
Europe	3,340	3,911	2,919	2,920
Americas	4,342	3,528	382	2,128
Africa and Middle East	441	1,183	3,994	1,446
Asia	168	61	5	98
Total	**10,401**	**10,691**	**18,828**	**10,597**

	Past Due but not Impaired	Impaired Loans		Allowance for Impairment
		Individually	Collectively	
As at 31.12.10	£m	£m	£m	£m
UK	1,929	1,941	13,224	4,429
Europe	1,739	4,208	3,438	2,793
Americas	4,018	10,739	1,025	2,958
Africa and Middle East	367	1,213	3,664	1,857
Asia	189	468	125	395
Total	**8,242**	**18,569**	**21,476**	**12,432**

Credit quality by geography was impacted by the following in 2011:

- £7.5bn decrease due to Protium now being consolidated by the Group. The impact of this can be seen within individually impaired loans for Americas.
- £2.2bn increase in amounts past due mainly due to counterparty movements for Europe
- £2.7bn decrease in overall collective impairment was driven by economic conditions and change in write off policies relating to Cards
- The geographical regions have been revised with Ireland now included within Europe and Middle East now reported with Africa. 2010 comparatives have been updated to reflect this change.

The table below shows the movement of impairment in 2011 as well as amounts directly written off or recovered to profit and loss.

Table 37: Analysis of movement on impairment and amounts taken directly to profit and loss

	Allowance for Impairment	
	As at 31.12.11	As at 31.12.10
Impairment Movement	£m	£m
Starting period	12,432	10,796
Acquisitions & Disposals	(18)	78
Exchange and other adjustments	(440)	331
Unwind of discount	(243)	(213)
Amounts written off	(5,165)	(4,310)
Recoveries	265	201
Amounts charged against profit	3,766	5,549
Ending period	**10,597**	**12,432**

	P&L Impact	
	As at 31.12.11	As at 31.12.10
Direct P&L Impacts	£m	£m
Direct write-offs	2,103	126
Direct recoveries	-	-

Impairment allowance decreased by £1.8bn to £10.6bn (2010: £12.4bn), predominantly driven by write offs of £5.2bn, exchange adjustments of £0.4bn and unwind of discount of £0.2bn offset by new and increased charges net of releases of £3.8bn.

Credit Risk Mitigation

Barclays employs a range of techniques and strategies to actively mitigate credit risks to which it is exposed. These can be broadly be divided into three types:

- Collateral
- Netting and set-off
- Risk Transfer

Barclays has detailed policies in place to ensure that credit risk mitigation is appropriately recognised and recorded. The recognition of credit risk mitigation is subject to a number of considerations, including ensuring legal certainty of enforceability and effectiveness, ensuring the valuation and liquidity of the collateral is adequately monitored, and ensuring the value of the collateral is not materially correlated with the credit quality of the obligor.

All three types of credit risk mitigation may be used by different areas of the Group for exposures with a full range of counterparties. For instance, Barclays Capital, Barclays Corporate and other business areas may all take property, cash or other physical assets as collateral for exposures to retailers, property companies or other client types.

Collateral

Barclays will often seek to take a security interest in a tangible or financial asset to provide an alternative source of repayment in the event that customers, clients or counterparties are unable to meet their obligations. Generally assets taken as collateral include cash, financial assets and property. To a lesser degree, other physical assets are also taken as collateral, such as vehicles, aircraft, ships and physical commodities amongst others. All collateral is subject to an appropriate margin or "haircut" to reflect their price volatility and liquidation period.

Assets other than cash are subject to regular revaluation to ensure they continue to achieve appropriate mitigation of risk. Customer agreements often include requirements for provision of additional collateral should valuations decline or credit exposure increase (for example due to market moves impacting a derivative exposure).

Where Barclays calculates regulatory capital under advanced IRB regulations the benefit of collateral is generally taken by adjusting LGDs. For standardised portfolios the benefit of collateral is taken using the financial collateral comprehensive method: supervisory volatility adjustments approach.

Netting and Set-off

In many jurisdictions in which Barclays operates, credit risk exposures can be reduced by applying netting and set off. This technique is commonly used in derivative and repo transactions, for example.

For derivative transactions, Barclays will often seek to enter into standard master agreements with counterparties (e.g. ISDA). These master agreements allow for netting of credit risk exposure to a counterparty resulting from a derivative transaction against Barclays obligations to the counterparty in the event of default, to produce a lower, net, credit exposure. These agreements may also reduce settlement exposure (e.g. for foreign exchange transactions) by allowing for payments on the same day in the same currency to be set off against one another.

Barclays also often seeks to enter into credit support annexes (CSA) with counterparties with which Barclays has master agreements in place. These annexes to master agreements provide a mechanism for further reducing credit risk, whereby collateral (margin) is posted on a regular basis (typically daily or weekly) to collateralise the mark to market exposure of a derivative portfolio.

In the majority of its portfolios Barclays uses the Internal Model Method (IMM) to calculate counterparty credit risk exposures.

Risk Transfer

A range of instruments including guarantees, credit insurance, credit derivatives and securitisation can be used to transfer credit risk from one counterpart to another. This mitigates credit risk in two main ways:

- Firstly, if the risk is transferred to a counterpart which is more credit worthy than the original counterpart, then overall credit risk will have been reduced
- Secondly, where recourse to the first counterpart remains, both counterparts must default before a loss materialises. This will be less likely than the default of either counterpart individually so credit risk is reduced

Risk transfer can also be used to reduce risk concentrations within portfolios lowering the impact of stress events.

Risk transfer transactions are undertaken with consideration to whether the collateral provider is correlated with the exposure, the credit worthiness of the collateral provider and legal certainty of enforceability and effectiveness. Where credit risk mitigation is deemed to transfer credit risk this exposure is appropriately recorded against the credit risk mitigation provider.

For instruments that are deemed to transfer credit risk, in advanced IRB portfolios the protection is recognised by using the PD and LGD of the protection provider.

Collateral and Guarantees

Table 38 shows the Group's exposure for assets in Standardised approach portfolios after eligible financial collateral and guarantees. Barclays has no credit exposure in its Standardised approach portfolios which has been reduced through the application of other (non-financial) collateral or by guarantees or credit derivatives.

Table 38: Collateral and guarantees for Standardised approach

	Total Exposure after netting and volatility adjustments covered by Eligible Financial Collateral	
	As at 31.12.11	As at 31.12.10
Standardised Approach Credit Risk Exposure Class	£m	£m
Central governments or central banks	-	-
Regional governments or local authorities	-	-
Administrative bodies and non-commercial undertakings	-	-
Institutions	41	6
Corporates	3,537	2,566
Retail	369	316
Secured By Mortgages On Residential Property	371	303
Secured By Mortgages On Commercial Real Estate	0	-
Past due items	10	0
Private equity positions	-	-
Covered Bonds	-	-
Collective investment undertakings	-	-
Other items	-	-
Total	**4,328**	**3,191**

Collateral and guarantees under the Standardised approach principally relate to Barclays Wealth business and increased by £1.1bn to £4.3bn mainly as a result of increased lending to corporates.

Table 39 shows the Group's exposure for assets in its Advanced and Foundation portfolios covered by collateral, guarantees and credit derivatives.

Table 39: Collateral and guarantees for Advanced and Foundation IRB approach

	Advanced IRB	Foundation IRB		
IRB Exposure Class	**Total Exposure - after netting covered by Guarantees and Credit Derivatives**	**Total Exposure - after netting and volatility adjustments covered by Eligible Financial Collateral**	**Total Exposure - after netting and volatility adjustments covered by Other Eligible Collateral**	**Total Exposure - after netting covered by Guarantees and Credit Derivatives**
As at 31.12.11	£m	£m	£m	£m
Central governments or central banks	-	35	1	-
Institutions	-	256	-	-
Corporates	-	345	7,417	-
Retail	-	N/A	N/A	N/A
Equity				
- Exchange traded exposures	-	N/A	N/A	N/A
- Private equity exposures	-	N/A	N/A	N/A
- Other Exposures	-	N/A	N/A	N/A
Securitisation positions	-	-	-	-
Non-credit obligation assets	N/A	N/A	N/A	N/A
Total	**-**	**636**	**7,418**	**-**
As at 31.12.10				
Central governments or central banks	-	-	-	-
Institutions	-	62	-	-
Corporates	-	12,415	-	-
Retail	-	N/A	N/A	N/A
Equity				
- Exchange traded exposures	-	N/A	N/A	N/A
- Private equity exposures	-	N/A	N/A	N/A
- Other exposures	-	N/A	N/A	N/A
Securitisation positions	-	-	-	-
Non-credit obligation assets	N/A	N/A	N/A	N/A
Total	**-**	**12,477**	**-**	**-**

Collateral under Foundation IRB relates to Absa

- Eligible financial collateral decreased £11.8bn to £0.6bn as exposures were re-classified to other eligible collateral
- Other eligible collateral increased due to the reclassification, but the underlying exposure decreased in line with Absa's exposure to commercial property

Note that the table includes collateral applied against exposures and does not include collateral that has been applied against loss given default or risk weights. Collateral balances within the Annual Report generally refer to securities financing transactions which are not part of the credit exposures above.

Market risk management

Market risk management strategy

Market Risk is the risk that Barclays earnings or capital, or its ability to meet business objectives, will be adversely affected by changes in the level or volatility of market rates or prices such as interest rates, spreads, commodity prices, equity prices and foreign exchange rates.

The main sources of risk are traded market risk, non-traded interest rate risk and translational foreign exchange risk and pension risk. Traded risk resides primarily in Barclays Capital while non-traded market risk resides mainly in Retail and Business Banking, Barclays Corporate, Barclays Wealth and Group Treasury. Pension risk is managed centrally with the cost borne by respective businesses.

Barclays market risk objectives are to:

- Understand and control market risk by robust measurement, limit setting, reporting and oversight
- Facilitate business growth within a controlled and transparent risk management framework
- Ensure traded market risk resides primarily in Barclays Capital
- Minimise non-traded market risk

Organisation and structure

The Board Risk Committee reviews and approves market risk appetite for the Group. The Group Market Risk Director is responsible for the Barclays Market Risk Control Framework and, under delegated authority from the Chief Risk Officer, sets a limit framework within the context of the approved market risk appetite. Daily market risk reports summarises Barclays market risk exposures against agreed limits and are distributed to the principal risk owners.

Market Risk Committee approves, and makes recommendations concerning the market risk profile across Barclays. This includes approving Barclays Market Risk Control Framework and Group Policies; reviewing current and forward issues, limits and utilisation; and proposing risk appetite levels for the Board. The Committee is chaired by the Group Market Risk Director and attendees include the Chief Risk Officer, respective business risk managers and senior managers from Group Market Risk.

The head of each business, assisted by the business market risk management team, is accountable for all market risks associated with its activities. The head of each business market risk team is responsible for implementing the Barclays Market Risk Control Framework which sets out how market risk should be identified, measured, controlled, reported and reviewed. The Framework also outlines and references Group market risk policies.

Market Risk oversight and challenge is provided by business committees, Group Committees including Market Risk Committee and the Group Market Risk team.

The chart on page 121 of the Annual Report gives an overview of the business control structure.

Capital requirements for market risk

Information on the management of market risk is found in this section and on pages 121 to 129 of the Annual Report. Barclays market risk capital requirements comprise two elements:

1) Trading book positions where the market risk is measured under an FSA approved internal models approach, including Daily Value at Risk (DVaR), stressed Value at Risk (sVaR), incremental risk charge (IRC) and all price risk (APR) as required.

2) Trading book positions that have not yet met the conditions for inclusion within the approved internal models approach. Their capital requirement is calculated using Standardised rules.

Until recently, positions within overseas subsidiaries which operate under the capital requirements of their local regulators and are recognised as equivalent regimes by the FSA. In such cases, the FSA require that the local capital requirement is aggregated with the Group total. They appear in the table below as “Local Regulatory Aggregated PRR”. As at year-end 2011 these exposures were fully integrated into the Group calculation.

Table 40: Minimum capital requirement for market risk

	Minimum Capital	
	As at 31.12.11	As at 31.12.10
Market Risk	£m	£m
DVaR Model Based PRR[1]	1,563	1,038
Stressed VaR PRR	1,291	N/A
All Price Risk Measure Requirement	169	N/A
Incremental Risk Charge Requirement	508	N/A
Interest rate PRR	1,535	1,420
Equity PRR	446	152
Option PRR	5	5
Collective investment schemes PRR	155	98
Commodity PRR	20	104
Foreign exchange PRR	64	12
Local Regulatory Aggregated PRR	-	2,055
Total Market Risk Capital Requirement	**5,756**	**4,884**

New market risk measures were introduced from 31 December 2011 under CRD3. These measures are Stressed VaR, Incremental Risk Charge (which replaced IDRC) and the All Price Risk measure. The minimum capital requirements generated by these new measures are additive to DVaR-based and standard rules PRR, and are shown in the table above.

DVaR Model Based PRR increased significantly from 2010 to 2011 due to:

- An increase at year end of the scope of modelled specific market risk for fixed income instruments; and
- The capitalisation of certain illiquid risks in Pillar 1 which had historically been capitalised in Pillar 2.

As shown in Table 44, average regulatory DVaR in 2011 was £67m, down 25% from 2010, reflecting the reduction of risks in the trading book, although the year end regulatory DVaR is £126m reflecting the increase specific risk scope.

Prior to 31 December 2011, Barclays calculated consolidated market risk capital requirements for certain entities using local regulatory rules where these entities were not authorised by the FSA for DVaR Model Based PRR. On 31 December 2011, the market risk capital calculation for these entities was changed to standardised rules. Consequently, the Local Regulatory Aggregated PRR is zero for 31 December 2011, with the PRR being captured in the various standard rules PRRs. The increase in Interest Rate PRR was partially offset by the removal of standard rules specific market risk for those fixed income instruments which came within the scope of modelled specific market risk.

Note on Table 40:

[1] PRR: Position Risk Requirement

Traded market risk

Traded market risk is primarily the result of client facilitation in wholesale markets. This involves market making, risk management solutions, and execution of syndications. In Barclays Capital, trading risk is measured for the trading book, as defined for regulatory purposes, and certain banking books for management purposes.

In Barclays Capital, trading risk is measured for the trading book, as defined for regulatory purposes, and certain banking books.

Risk Measurement

Barclays uses a range of complementary technical approaches to measure and control traded market risk including: Daily Value at Risk (DVaR), Expected Shortfall, 3W, stress testing of both primary and secondary risk factors and scenario analysis.

DVaR is an estimate of the potential loss arising from unfavourable market movements, if the current positions were to be held unchanged for one business day. Barclays Capital uses the historical simulation methodology with a two-year equally weighted historical period, at the 95% confidence level for all trading portfolios and certain banking books.

Market volatility in 2011 was impacted by uncertainty on the future economic growth and the sovereign debt crisis. The high volatility observations of early 2009 rolled out of the two year DVaR historical data set, although new tail points were added in the second half of 2011.

As defined by the FSA, a green model is consistent with a good working model and is achieved for models that have four or less back-testing exceptions in a 12-month period. Back-testing counts the number of days when a loss (as defined by the FSA) exceeds the corresponding DVaR estimate, measured at the 99% confidence level. For Barclays Capital's DVaR model, green model status was maintained for 2011.

The DVaR model is regularly assessed and reviewed internally by Group Executive Models Committee and Barclays Capital Models Committee.

When reviewing DVaR estimates the following considerations should be taken into account:

- Historical simulation uses the most recent two years of past data to generate possible future market moves but the past may not be a good indicator of the future.

- The one-day time horizon does not fully capture the market risk of positions that cannot be closed out or hedged within one day.

- DVaR is based on positions as at close of business and consequently intra-day risk, the risk from a position bought and sold on the same day, is not captured.

- DVaR does not indicate the potential loss beyond the 95th percentile.

In part due to the points above, and in part due to the desire to measure risk beyond DVaR, Barclays uses additional metrics. These include Expected Shortfall, 3W, Primary risk factor stress testing, Secondary risk factor stress testing and combined scenario stress testing.

Both Expected Shortfall and 3W metrics use the same two year historical simulation data set as used to calculate DVaR. Expected Shortfall is the average of all one day hypothetical losses beyond the 95% confidence level DVaR while 3W is the average of the three largest one day estimated losses.

Stress testing provides an estimate of potential significant future losses that might arise from extreme market moves or scenarios. Primary stress tests apply stress moves to key liquid risk factors for each of the major trading asset classes including interest rate, credit, commodity, equity foreign exchange and securitised products. Secondary stress tests apply stress moves to less liquid risks such as option volatility skew. Combined scenarios apply simultaneous shocks to several risk factors, reflecting defined extraordinary, but plausible macro scenarios. This is assessed by applying respective changes on foreign exchange rates, interest rates, credit spreads and equities to the portfolio.

In 2011, Barclays Capital implemented new regulatory risk models to comply with the CRD3 revisions to the market risk capital requirement. These are Stressed VaR (SVaR), Incremental Risk Charge (IRC) and the All Price Risk (APR). All three models were approved by the FSA for calculation of regulatory capital for designated trading book portfolios. The SVaR approval covers general market risk in interest rate, foreign exchange, commodities and equity products, and issuer specific risk for the majority of single name and portfolio traded credit products.

SVaR is an estimate of the potential loss arising from a 12-month period of significant financial stress. SVaR uses DVaR methodology based on inputs calibrated to historical data from a continuous twelve month period that maximises the DVaR based capital at a 99% one-tailed confidence limit.

IRC is computed on all fixed income positions subject to specific risk. It calculates the incremental risk arising from rating migrations and defaults, beyond what is already captured in specific market risk, to a 99.9% confidence level over a one year holding period.

APR replaces specific risk for the correlation trading portfolio and is intended to capture all risk factors relevant to corporate nth-to-default and tranched credit derivatives. As for IRC, the capital requirement is based on a 99.9% confidence interval over a one year holding period.

When reviewing estimates produced by the CRD3 models the following considerations should be taken into account:

- SVaR uses the same methodology as the DVaR model and hence is subject to the same considerations as this model. In addition, SVaR is calibrated to a specific 12 month historical stress period which may not reflect a stress period that could arise in the future.

- In common with DVaR, neither IRC nor APR indicate the potential loss beyond the 99th percentile, and they do not measure risk from trades which are bought and sold in between weekly runs.

- Both IRC and APR are computed to a 1-in-1,000 year confidence level which cannot be meaningfully backtested. This is in contrast to DVaR, which can be meaningfully backtested.

Risk Control

Market Risk is controlled through the use of an appropriate limit framework. Limits are set at the total Barclays Capital level, risk factor level e.g. interest rate risk, and business line level e.g. Emerging Markets. Stress limits and book limits, such as foreign exchange and interest rate sensitivity limits, are also in place.

Market risk management

The total DVaR limit, risk factor DVaR limits, and 3W limit are approved by Board Risk Committee. Primary stress limits are approved by the Chief Risk Officer and are tabled for noting by Board Risk Committee. Compliance with limits is monitored by Barclays Capital's Market Risk team with oversight provided by Group Market Risk.

In 2011 Group Market Risk continued its ongoing programme of conformance visits to Barclays business areas. These visits review both the current market risk profile and potential market risk developments, as well as verifying conformance with Barclays Market Risk Control Framework.

Risk Reporting

Barclays Capital Market Risk team produce a number of detailed and summary market risk reports daily, weekly, fortnightly and monthly. Throughout 2011, Barclays Capital remained within the defined market risk appetite. These are also sent to Group Market Risk for review and inclusion in the Group Daily Market Risk Report. A risk summary is also presented at Market Risk Committee and Barclays Capital Traded Positions Risk Review.

Non-traded equity investments

Within these disclosures the Group has adopted a definition of equity that is consistent with the IFRS definition used within the Annual Report. Barclays reports non trading book equities under the Advanced IRB approach and the Standardised approach. (The Advanced IRB approach is only available where regulatory approval has been given.) The following table shows the Group's exposure to equities where it uses the Simple Risk Weight approach under the Advanced IRB approach to determine the credit exposure.

Table 41: Risk weighted exposures of equity investments

	Risk Weighted Exposure Amount for Equities Exposures using Simple Risk Weight Approach	
	As at 31.12.11	As at 31.12.10
Risk Weight Category	£m	£m
Exchange Traded Exposures	-	300
Non Exchange Traded Exposures	147	2,236
Other Exposures	-	-
Total Risk Weighted Exposure Amount for Equities	**147**	**2,536**

Exposures reported in 2010 related to Absa. These have now migrated to the Standardised approach. The £0.1bn of exposures related to a business growth fund in Barclays Corporate.

Market risk management

Table 42: Fair value of and gains and losses on equity investments

Non Trading Book Equity Investments	As at 31.12.11	As at 31.12.10
Fair Value	£m	£m
Exchange Traded	598	154
Private Equity	897	1,648
Other	517	502
Total	**2,012**	**2,304**
Cumulative Realised Gains / Losses from Sale and Liquidations of equity investments	(128)	(169)
Unrealised gains/(losses)		
Total Gains or Losses	828	(749)
Amount included in Tier 1, 2 or 3 Capital	828	(749)
Latent Revaluation gains/(losses)		
Total Gains or Losses	-	-
Amount included in Tier 1, 2 or 3 Capital	-	-

The fair value of equity investments decreased by £0.3bn to £2.0bn (2010: £2.3bn). This was driven by;

- The split between exchange traded and private equity moving due to the mix of equity investments within Barclays Capital
- Other items are flat and made up of balances relating to Europe
- The £4bn stake that Barclays retains in BlackRock, Inc. following the sale of BGI is deducted from capital requirements, hence not risk weighted

Non-traded interest rate risk

For more information on the management of interest rate risk, please see pages 124 to 127 of the 2011 Annual Report.

Non-traded interest rate risk arises from the provision of retail and wholesale (non-traded) banking products and services, when the interest rate repricing date for loans (assets) is different to the repricing date for deposits (liabilities). This includes current accounts and equity balances which do not have a defined maturity date and an interest rate that does not change in line with Base rate changes. The risk resides mainly in Retail and Business Banking, Barclays Corporate, and Group Treasury.

Barclays objective is to minimise non-traded interest rate risk and this is achieved by transferring interest rate risk from the business to a local or Group Treasury, which in turn hedges the net exposure with the external market. Limits exist to ensure no material risk is retained within any business or product area. Trading activity is not permitted outside Barclays Capital.

Risk measurement

The risk in each business is measured and controlled using both an income metric (Annual Earnings at Risk) and a value metrics (Economic Value of Equity, Economic Capital, Daily Value at Risk, risk factor stress testing, scenario stress testing).

Annual Earnings at Risk (AEaR) measures the sensitivity of net interest income over the next 12 month period. It is calculated as the difference between the estimated income using the current yield curve and the lowest estimated income following a 100 basis points increase or decrease in interest rates, subject to a minimum interest rate of 0%.

The main model assumptions are:

- The balance sheet is kept at the current level i.e. no growth is assumed
- Balances are adjusted for an assumed behavioural profile. This includes the treatment of fixed rate loans including mortgages

Economic Value of Equity (EVE) calculates the change in the present value of the banking book for a 100 basis point upward and downward rate shock. This calculation is equivalent to that of AEaR except Economic Value of Equity is a present value sensitivity while AEaR is an income sensitivity

Market risk management

Economic Capital (EC) consistent models are used to measure: recruitment risk, the risk from customers not taking up their fixed rate loan offer; and prepayment risk, the risk of a customer deciding not to carry on with their fixed rate loan. Behavioural profiles are also used when modelling the balance sheet.

DVaR and stress are used by Treasuries that operate within liquid currencies such as Sterling, US Dollar and Euros while for Treasuries that operate in less liquid currencies, stress risk is the only risk metric used.

Risk Control

Market Risk is controlled through the use of limits on the above risk measures. Limits are set at the total business level and then cascaded down. The total business level limits for AEaR, EVE, EC, DVaR and stress tests are agreed by Market Risk Committee. In 2011, a range of basis risk limits were introduced to formalise the control of basis risk Group Treasury is exposed to as a result of the interest rate risk clearing house activities it undertakes on behalf of the businesses. Compliance with limits is monitored by Group Market Risk and the Market Risk Committee.

Adherence to the Group market risk control framework is tested via an ongoing programme of conformance visits by both the business market risk departments and Group Market Risk. These visits review the current market risk profile and potential market risk developments, as well as verifying conformance with Barclays policies and standards.

The interest rate risk for balances with no defined maturity date and an interest rate that is not linked to the base rate is managed by Group Treasury. A series of continuous equity and product structural hedges is used to mitigate the interest rate risk, as described in the Annual Report on pages 126 and 127.

Risk Reporting

Each business area is responsible for their respective market risk reports. A combination of daily and monthly risk reports are produced and used by the business. These are also sent to Group Market Risk for review and inclusion in the Group Daily Market Risk Report. A risk summary is also presented at Market Risk Committee and respective Asset and Liability Committees.

Table 43: Income sensitivity from the effect of interest rate changes on the value of banking book assets

	Change in Economic Value of Equity £m As at 31.12.11	
Currency	+ 200 basis points	- 200 basis points
GBP	(880)	70
USD	(544)	425
Euro	(307)	151
Rand	(186)	208
Other	5	(114)
Total Economic Value of Equity (EVE)	**(1,912)**	**740**
Percentage of EVE to Tier 1 and Tier 2 Capital	**-2.99%**	

	Change in Economic Value of Equity £m As at 31.12.10	
Currency	+ 200 basis points	- 200 basis points
GBP	(1,115)	592
USD	(341)	379
Euro	(413)	459
Rand	(271)	294
Other	(51)	(25)
Total Economic Value of Equity (EVE)	**(2,191)**	**1,699**
Percentage of EVE to Tier 1 and Tier 2 Capital	**-3.25%**	

Potential change in EVE from a 200bps increase in rates was broadly unchanged. The persistent low interest rate environment has reduced the potential change in EVE for a 200bps decrease in rates.

A similar analysis of net interest income sensitivity can be found on page 125 of the Annual Report.

"Backtesting" of DVaR models

The Backtesting is performed at a legal entity level and at sub-portfolio levels. Regulatory backtesting compares Regulatory VaR at 99% confidence level (1 day holding period) to a clean P&L as defined in BIPRU 7.10. The consolidated Barclays Bank plc and

Market risk management

Barclays Capital Securities Ltd is the highest level of consolidation for the VaR models that are used in the calculation of regulatory capital. Below this level, there is backtesting performed at sub-portfolio level on legal entity agnostic basis: Fixed Income Rates, Foreign Exchange, Equities, Commodities Emerging Markets and Consolidated Credit Businesses. The number of exceptions in these portfolios do not have to add up to the number of exceptions in the consolidated portfolio.

The two tables below show the basic statistics on VaR and their corresponding backtesting exceptions. Subsequently the graphs show the comparison of VaR history to the corresponding P&L. A backtesting exception is generated when a loss is greater than the VaR for a given day.

Table 44: Analysis of regulatory DVaR, sVaR, IRC and All Price Risk Measure

	Market Risk Statistics				
	Year-end	Avg.	Max	Min	Weighted Average Liquidity Horizon
As at 31.12.11	£m	£m	£m	£m	Years
Daily Value at Risk (DVaR)	126	67	134	47	
Stressed Value at Risk	131				
Incremental Risk Charge	508				1
Charge for "All Price Risk Measure"	169				1

Average DVaR in 2011 was £67m (25% lower than in 2010: £89m). This reflects both lower inventories in trading books and 2008/9 tail events dropping out of the historical time series. The year end DVaR was significantly higher due to an increase in the scope of fixed income specific market risk regulatory DVaR at year end.

Note that the DVaR figures shown above are 99% regulatory DVaR and reflect general market risk DVaR plus specific market risk DVaR on an undiversified basis. Consequently these figures do not correspond precisely to the 95% management DVaR figures reported in Barclays Annual Report on page 123.

As discussed on page 3, Basel 2.5 measures (Stressed VaR, Incremental Risk Charge and All Price Risk Measure) are only disclosed from the year-end, therefore no intra-year statistics are available in this report.

Note that in the table below, sub-portfolios feed up to the consolidated portfolio and the exceptions do not have to add up to the number of exceptions in the consolidated portfolio.

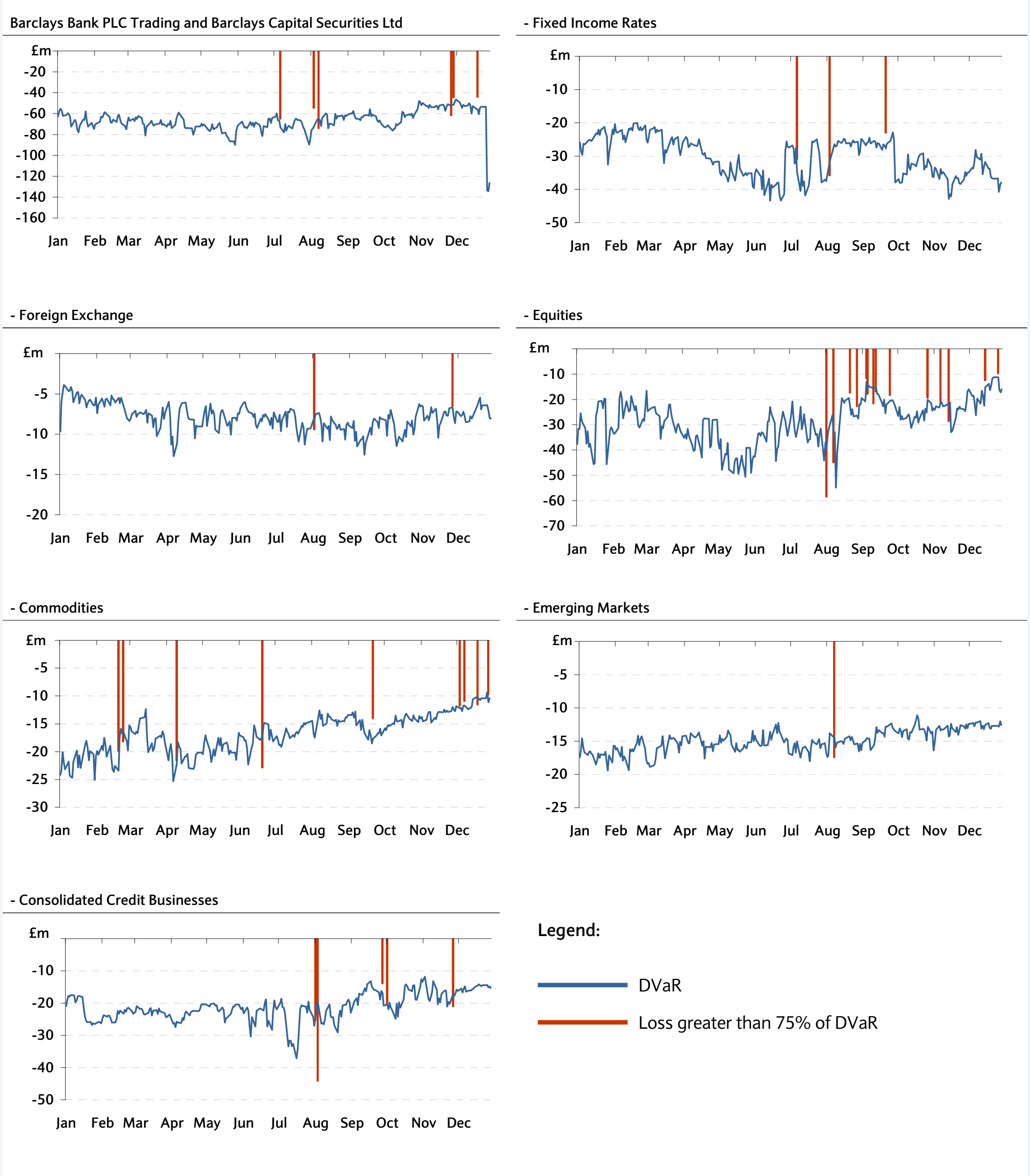
Table 45: Regulatory DVaR – exceptions and model status

	Exceptions and Model Status	
Entity / Business Area As at 31.12.11	Exceptions	Model Status
Barclays Bank PLC Trading and Barclays Capital Securities Ltd	2	Green
- Fixed Income Rates	1	Green
- Foreign Exchange	1	Green
- Equities	6	Amber
- Commodities	3	Green
- Emerging Markets	1	Green
- Consolidated Credit Businesses	3	Green

During 2011 one exception was recorded at the consolidated portfolio level during the heightened market volatility experienced in H2. At the consolidated level The model remains well within the 'Green' zone at a consolidated level.

Note: Green = 4 exceptions or below, Amber = 5 to 9 exceptions, Red = 10 or more exceptions

Figure 1: Regulatory DVaR against P/L of regulatory portfolios



Exceptions occur on days where a loss exceeds the DVaR. Typically fewer exceptions are expected for larger, more diversified portfolios versus single asset class portfolios. Under CRD3, we are now required to perform backtesting using hypothetical P&L rather than clean P&L. The above charts show backtesting using hypothetical P&L.

Other market risks

Barclays maintains a number of defined benefit pension schemes for past and current employees. The ability of the Pension Fund to meet the projected pension payments is maintained through investments and regular bank contributions. Pension risk arises because the estimated market value of the pension fund assets might decline; or their investment returns might reduce; or the estimated value of the pension liabilities might increase. In these circumstances, Barclays could be required or might choose to make extra contributions to the pension fund. Financial details of the pension fund are in Note 28 of the Annual Report.

Asset management structural risk arises where the fee and commission income earned by asset management products and businesses is affected by a change in market levels, primarily through the link between income and the value of assets under management. Asset management structural risk mainly resides in Barclays Wealth. It is Barclays policy that businesses monitor and report this risk against a defined risk appetite and regularly assess potential hedging strategies.

Securitisations

Securitisations

This section discloses information about Barclays securitisation activities distinguishing between the various functions performed in supporting its customers and managing its risks. It includes traditional securitisations as well as synthetic transactions effected through the use of derivatives.

This year's Pillar 3 requirements cover banking book exposures, trading book exposures with separate disclosures of re-securitisations.

Objectives in relation to securitisation activities

In the course of its business, Barclays has traditionally undertaken securitisations of its own originated assets as well as the securitisation of third party assets via sponsored conduit vehicles and shelf programmes.

Barclays has securitised its own originated assets in order to manage the Group's credit risk position, to obtain regulatory capital relief, and to generate term liquidity for the Group balance sheet.

Barclays makes a secondary market for a range of European and American securitised products, including Agency RMBS, Non-Agency RMBS, CMBS and ABS. Barclays also provides derivative transactions to securitisations sponsored by itself and third parties. These transactions are included in Barclays trading book and form part of its market making activities in interest rate and foreign exchange products.

The role Barclays plays in the securitisation process

Barclays adopts the following roles in the securitisation processes in which it is involved:

- originator of securitised assets
- executor of securitisation trades including bond marketing and syndication
- provider of securitisation trade servicing, including data management, investor payments and reporting
- purchaser of third-party securitisations (i.e. where Barclays would not be defined as an originator or a sponsor for regulatory purposes) to support client franchise

As at the end 2011, Barclays has securitised some of its own originated retail and commercial mortgages, as well as corporate loans across both funded traditional and synthetic transactions.

Barclays acts as an administrator and manager of multi-seller conduits through which interests in third-party-originated assets are securitised and funded via the issuance of asset backed commercial paper. From a regulatory perspective, Barclays would be defined primarily as a sponsor of these conduits. In relation to such conduit activity, Barclays may provide all or a portion of the backstop liquidity to the commercial paper, programme-wide credit enhancement and, as appropriate, interest rate and foreign currency hedging facilities. Barclays receives fees for the provision of these services. Barclays provides credit enhancement and a liquidity facility to two conduits: Sheffield and Salisbury.

In addition to the above, Barclays has provided swaps to securitisation vehicles, both those sponsored by Barclays and those sponsored by third parties, in order to provide hedges against interest rate and/or currency movements. This forms part of Barclays Capital's market making activity in interest rate and foreign exchange products.

Third party securitisations in which Barclays acts as investor include positions in ABS CDO Super Senior, other US Sub Prime & Alt A, commercial mortgages, loans and bonds.

Barclays involvement in securitisation in 2011

Due to a strong overall capital and liquidity position, Barclays has undertaken selective securitisation activity during 2011 only where market conditions were appropriate.

As discussed above, Barclays acts as sponsor of multi-seller conduits and provides all or a portion of the backstop liquidity to the commercial paper, programme-wide credit enhancement and, as appropriate, interest rate and foreign currency hedging facilities. Barclays receives fees for the provision of these services.

Barclays does not manage or advise entities that invest in either securitisation positions that the firm has securitised or in SSPES that the firm sponsors. Generally, the approach is to transfer the risk to third party entities

Securitisation risks, monitoring and hedging policies

In addition to credit risk, the securitised assets are subject to liquidity risk, interest rate risk and, in some instances, FX risk. The nature and scale of these risks varies from transaction to transaction - for example, individual retail exposures have very limited liquidity in their own right, but are marketable as a pool or in securitised form. All securitised assets are also subject to a degree of operational risk associated with documentation and the collection of cashflows.

Barclays re-securitisation exposure relates largely to legacy positions, on a look through basis the underlying securitisation positions include both senior and non-senior (primarily mezzanine) positions. Analysis is undertaken at the level of the underlying assets, with any additional correlation risks transparent in the credit risk process. The majority of the re-securitisation positions are planned to be held until liquidation can be achieved.

Securitisations

Securitisation exposures are subject to Barclays Credit Risk Policies and Procedures. This includes the requirement to review each exposure on an annual basis, following a detailed initial analysis, with particular focus on the underlying asset performance, key risk drivers and the impact/potential impact on such exposure. Changes to the credit risk profile of securitisation exposures will also be identified through ratings movement which feed the internal risk systems. In addition, periodic stress tests of a sample population of the portfolio as part of ongoing risk management are conducted as well as in response to Group wide or Regulatory requests. This process is also applied to re-securitisation exposures.

Securitisation exposures are typically unhedged due to the relative seniority of the exposure in the capital structure and lack of liquidity in the Credit Default Swap market for individual asset backed securities. There are no material hedge counterparties relating to the securitisation and re-securitisation population.

ECAIs used for securitisations

Barclays employs External Credit Assessment Institutions to provide ratings for its asset backed securities. Their use is dependent on the transaction or asset class involved. For existing transactions, we employ Standard & Poor's, Moody's, Fitch and DBRS for securitisations of corporate, residential mortgage and other retail exposures and Standard & Poor's and Moody's for securitisations of small and medium-sized entity and revolving retail exposures.

For each ABCP transaction, the IAA framework mirrors ECAI methodologies, including those of Moody's and S&P. Stress testing on a securitisation structure is performed as prescribed by an ECAI methodology for the relevant ratings level, and is at least as penal as the published methodology. Stress factors may include, among other factors, asset yields, principal payment rates, losses, delinquency rates and interest rates. In determining an internal rating, collateral risks are the primary driver and are addressed through the transaction structure and modelled attachment point. The analysis reflects Barclays view on the transaction, including dilution risk, concentration and tenor limits, as well as qualitative aspects such as counterparty risk and important ancillary issues (operational and legal risks). The adequacy and integrity of the servicer's systems and processes for underwriting, collections, as well as other integral policies and procedures is also reviewed. Barclays conducts a full due diligence review of the servicer for each transaction. Each transaction is reviewed on, at least, an annual basis with a focus on the performance of underlying assets. The results of any due diligence review and the financial strength of the seller/servicer, are factored into the ratings reaffirmation of a transaction, giving effect to the most up to date ECAI methodologies. Any transaction which deviates from the current methodology is amended accordingly.

Approaches to calculating RWAs

RWAs reported for securitised and re-securitised banking book and trading book assets at 31 December 2011 are calculated in line with FSA regulations. Barclays has approval to use the IRB Approach for the calculation of RWAs. Within this, the Group uses the Ratings Based Approach, the Internal Assessment Approach and the Supervisory Formula Approach to calculate its regulatory capital requirements arising from its securitisation exposures.

Summary of the accounting policies for securitisation activities

Certain Group sponsored entities have issued debt securities or have entered into funding arrangements with lenders in order to finance specific assets. Such entities will typically be considered to be special purpose entities (SPEs) for accounting purposes. SPEs are consolidated when the substance of the relationship between the Group and that entity indicates control. Potential indicators of control include, amongst other things, an assessment of the Group's exposure to the risks and benefits of the assets of the SPE.

This assessment of risks and benefits is based on arrangements in place and the assessed risk exposures at inception. This initial assessment is reconsidered at a later date if:

- the Group acquires additional interests in the entity;
- the contractual arrangements of the entity are amended such that the relative exposure to risks and benefits change; or
- if the Group acquires control over the main operating and financial decisions of the entity.

Assets that have been transferred to an unconsolidated entity will nonetheless remain on the Group balance sheet, with a liability recognised for the proceeds received, unless the following cases apply:

a) substantially all the risks and rewards associated with the assets have been transferred, in which case, they are derecognised in full; or

b) if a significant portion, but not all, of the risks and rewards have been transferred, the asset is derecognised entirely if the transferee has the ability to sell the financial asset, otherwise the asset continues to be recognised only to the extent of the Group's continuing involvement.

Where either case above applies to a fully proportionate share of all or specifically identified cash flows, the relevant accounting treatment is applied to that proportion of the asset.

Other than where (a) or (b) apply, securitisation transactions are treated as financing in the financial statements. When (a) or (b) do apply, the transaction will result in sale treatment or partial sale treatment to the extent the Group has no continuing involvement. Gains are recognised to the extent that proceeds that can be measured using observable market data exceed the assets derecognised.

Any retained interests, which will consist of loans and/or securities depending on the nature of the transaction, are valued in accordance with the Group's Accounting Policies, as set out in the 2011 Annual Report. To the extent that these interests are measured at fair value, they will be included within the fair value disclosures in Note 19 to the financial statements in the Annual Report. As outlined in these disclosures, key valuation assumptions for retained interests of this nature will include spreads to discount rates, default and recovery rates and prepayment rates that may be observable or unobservable.

In a synthetic securitisation transaction, the underlying assets are not sold into the relevant SPE. Instead, their performance is transferred into the vehicle through a synthetic instrument such as a credit default swap, a credit linked note or a financial guarantee. The accounting policies outlined above will apply to synthetic securitisations. However, derecognition will be possible only if asset cash flows are transferred into the SPE under arrangements satisfying the pass-through criteria of paragraph 19 of IAS 39 Financial Instruments: Recognition and Measurement.

Table 46: Securitisation activity during the year

	Securitisation Activity (exposures securitised)									
	Banking Book					Trading Book				
	Traditional			Synthetic		Traditional			Synthetic	
Exposure Type	Originator	Sponsor	Recognised Gain / Loss on Sale	Originator	Sponsor	Originator	Sponsor	Recognised Gain / Loss on Sale	Originator	Sponsor
2011	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Residential Mortgages	-	-	-	-	-	37	-	-	-	-
Loans to Corporates or SMEs	-	-	-	3,185	-	-	-	-	-	-
Securitisations/ Re-securitisations	-	-	-	-	-	2	-	-	-	-
Total	**-**	**-**	**-**	**3,185**	**-**	**39**	**-**	**-**	**-**	**-**
2010										
Residential Mortgages	169	-	-	-	-					
Loans to Corporates or SMEs	-	-	-	-	-					
Securitisations/ Re-securitisations	798	-	-	-	-					
Total	**967**	**-**	**-**	**-**	**-**					

In 2011 hedges of corporate loans amounting to £3.2bn exposure under banking book synthetic originations were purchased.

In the trading book £39m of exposures was acquired via traditional origination

Table 47: Assets awaiting securitisation

	Recorded in the Banking Book		Recorded in the Trading Book	
Exposure Type	**"Warehouse"**	**"Pipeline"**	**"Warehouse"**	**"Pipeline"**
As at 31.12.11	£m	£m	£m	£m
Residential Mortgages	71	-	-	-
Total	**71**	**-**	**-**	**-**

The £71m of assets awaiting securitisation originate from Absa.

Table 48: Outstanding amount of exposures securitised

	Banking Book				Trading Book			
	Traditional Transactions		Synthetic Transactions		Traditional Transactions		Synthetic Transactions	
Exposure Type	**Originator**	**Sponsor**	**Originator**	**Sponsor**	**Originator**	**Sponsor**	**Originator**	**Sponsor**
As at 31.12.11	£m	£m	£m	£m	£m	£m	£m	£m
Residential Mortgages	17,542	-	-	-	-	37	-	-
Commercial Mortgages	12,084	-	-	-	-	-	-	-
Loans to Corporates or SMEs	4,232	-	3,710	-	-	-	-	-
Consumer Loans	-	7,746	-	-	-	-	-	-
Securitisations/ Re-securitisations	385	-	-	-	-	2	-	-
Other Assets	-	-	-	-	-	-	-	-
Total	**34,243**	**7,746**	**3,710**	**-**	**-**	**39**	**-**	**-**
As at 31.12.10								
Residential Mortgages	10,610	-	-	-				
Commercial Mortgages	9,695	-	-	-				
Loans to Corporates or SMEs	4,691	-	1,403	-				
Consumer Loans	-	7,871	-	-				
Securitisations/ Re-securitisations	1,050	-	-	-				
Other Assets	249	-	-	-				
Total	**26,295**	**7,871**	**1,403**	**-**				

Total originated outstanding traditional transactions in the banking book increased £7.9bn to £34.2bn

- Residential mortgages increased £6.9bn to £17.5bn, partly due to a reclassification of £12.9bn of the pre-securitisation warehouse[3] exposures to originator; this was offset by a £4.7bn reduction due to reclassification of assets to commercial property
- In commercial property the increase of £2.4bn to £12.1bn is primarily due to the reclassification of assets from residential property mentioned above

Table 49: Amounts past due and losses against securitisation positions

	Past Due		Recognised Losses	
Exposure Type	**Originator**	**Sponsor**	**Originator**	**Sponsor**
As at 31.12.11	**£m**	**£m**	**£m**	**£m**
Residential Mortgages	2,728	-	-	-
Commercial Mortgages	13	-	-	-
Loans to Corporates or SMEs	-	-	-	-
Consumer Loans	-	103	-	-
Securitisations/ Re-securitisations	-	-	-	-
Total	**2,741**	**103**	**-**	**-**
As at 31.12.10				
Residential Mortgages	925	-	97	-
Commercial Mortgages	949	-	5	-
Loans to Corporates or SMEs	14	-	3	-
Consumer Loans	-	179	-	-
Securitisations/ Re-securitisations	237	-	23	-
Total	**2,125**	**179**	**128**	**-**

Overall the originator past due amounts increased by £0.6bn:

- In Residential Mortgages past due amount increased by £1.8bn primarily due to reclassification of pre-securitisation warehouses previously classed as originated (see footnote 3 on page 86).
- Commercial mortgages past due amount reduced by £0.9bn due to reductions against a small number of counterparties.

3 Article 122a provides greater clarification as to the identification of Originators and Investors. Pre-securitisation warehouses are deemed to be classed as originated. This has been reflected in the Pillar 3 disclosures and has no impact on the RWA treatment. In December 2010, these positions were disclosed as purchased.

Table 50: Aggregate amount of securitised positions retained or purchased

	Aggregate amount of securitised positions retained or purchased		
	Banking Book		Trading Book
Exposure Type	Retained	Purchased	
As at 31.12.11	£m	£m	£m
Residential Mortgages	2,099	5,777	2,644
Commercial Mortgages	841	1,677	343
Credit Card Receivables	-	76	130
Leasing	-	59	-
Loans to Corporates or SMEs	5,887	6,296	541
Consumer Loans	6,363	492	260
Trade Receivables	-	-	-
Securitisations/ Re-securitisations	372	1,052	244
Other Assets	8	226	220
Total	**15,570**	**15,655**	**4,382**
As at 31.12.10			
Residential Mortgages	912	33,878	
Commercial Mortgages	677	1,144	
Credit Card Receivables	-	100	
Leasing	-	58	
Loans to Corporates or SMEs	2,398	7,169	
Consumer Loans	7,530	376	
Trade Receivables	-	14	
Securitisations/ Re-securitisations	640	7,811	
Other Assets	23	418	
Total	**12,180**	**50,968**	

Retained exposures increased by £3.4bn to £15.6bn:

- Residential mortgages increased by £1.2bn to £2.1bn. This was driven by a £1.8bn increase in various pre-securitisation warehouse exposure re-classified from purchased, and a £0.7bn increase due to the reclassification of an exposure that was previously classified as a consumer loan. This was offset due to the update in the reporting basis[4]; where the requirement states for the exposure to be the same as the capital requirement amount

- Corporate loans and SME increased by £3.5bn primarily due to a single new position (see "Table 46: Securitisation activity during the year").

- This was offset by a reduction in consumer loans of £1.2bn to £6.4bn, mainly due to the reclassification mentioned above, and by a £0. 3bn reduction in exposures under securitisation / re-securitisation to £0.3bn

Purchased exposures decreased by £35.3bn to £15.7bn, principally due to:

- Residential mortgages decreased by £28.1bn to £5.8bn:
  - £20.2bn reduction in Collateralised Debt Obligations due to the update in the reporting basis (see footnote 4) whereby the reported exposure is now the same as the capital requirement
  - £2.0bn reclassification of pre-securitisation warehoused exposures from purchased to retained
  - £3.2bn further reduction resulted from various sales, liquidations, and reductions in exposures

- Exposures under securitisation / re-securitisation decreased £6.8bn to £1.1bn, principally driven by the repayment of the Protium loan

[4] For securitisation positions where KIRB approach has been applied (i.e. look-through to the underlying exposures to calculate capital requirement), the methodology for reporting the exposure amount has changed from December 2010 to December 2011. In December 2010, the EAD of the underlying exposures risk-weighted were reported as the exposure drives the RWA calculation. Following discussions with the FSA, for December 2011 the exposure is shown as the capital requirement, therefore reflecting the capital deduction nature.

Table 51: Risk weight band analysis of securitised positions retained or purchased

	Aggregate Amount of Securitised Positions Retained or Purchased by Risk Weight Band, Approach					
	Exposure Values			Capital Requirements		
	Banking Book		Trading Book	Banking Book		Trading Book
Risk Weight Band	Retained	Purchased		Retained	Purchased	
As at 31.12.11	£m	£m	£m	£m	£m	£m
IRB Approach						
<= 10%	10,558	7,273	467	61	43	3
> 10% <= 20%	1,514	1,974	212	14	11	2
> 20% <= 50%	2,467	3,957	2,553	47	67	56
> 50% <= 100%	75	161	202	4	5	12
>100% <= 650%	377	603	209	37	98	47
> 650% <= 1250%	45	33	26	25	17	15
> 1250% / Deducted	180	1,600	713	180	1,600	710
Total IRB	**15,216**	**15,601**	**4,382**	**368**	**1,841**	**845**
Standardised Approach						
Concentration Approach	354	54	-	12	6	-
Total Standardised	**354**	**54**	**-**	**12**	**6**	**-**
Total	**15,570**	**15,655**	**4,382**	**380**	**1,847**	**845**
As at 31.12.10						
IRB Approach						
<= 10%	9,864	9,542		57	59	
> 10% <= 20%	1,130	2,636		10	20	
> 20% <= 50%	485	2,341		14	35	
> 50% <= 100%	34	5,960		2	449	
>100% <= 650%	68	489		18	63	
> 650% <= 1250%	-	32		-	3	
> 1250% / Deducted	599	29,968		118	3,658	
Total IRB	**12,180**	**50,968**		**219**	**4,287**	
Standardised Approach						
Concentration Approach	-	-		-	32	
Total Standardised	**-**	**-**		**-**	**32**	
Total	**12,180**	**50,968**		**219**	**4,319**	

Guidance for Risk Weight Bands		
Risk Weight Band	**IRB S&P Equiv Rating**	**STD S&P Equivalent Rating**
<= 10%	AAA to A+ (Senior Positions Only)	N/A
> 10% <= 20%	A to A- (Senior Positions Only) / AAA to A+ (Base Case)	N/A
> 20% <= 50%	A to A- (Base Case)	AAA to AA-
> 50% <= 100%	BBB+ to BBB (Base Case)	A+ to A-
>100% <= 650%	BBB- (Base Case) to BB (Base Case)	BBB+ to BB-
> 650% <= 1250%	BB- (Base Case)	N/A
> 1250% / Deducted	B+ & Below (Base Case)	B+ & Below

This table presents the information contained in Table 50 by risk weight band.

Retained exposures increase of £3.4bn to £15.6bn, primarily due to:

- The >20% <= 50% band increased £2.0bn to £2.5bn principally from higher risk weights applied to various re-securitisation transactions
- The <=10% band increased by £0.7bn to £10.6bn primarily due to the net results of increases and new positions (see table 46) of £3.4bn against a reduction of £2.8bn

Purchased exposures decreased by £35.3bn to £15.7bn, primarily due to:

- The >1250% / Deducted band decreasing by £28.4bn to £1.6bn. This was principally due to reduction of:
  - £20.2bn in Collateralised Debt Obligations due to the update in the reporting basis (see footnote 3 on page 86) whereby the reported exposure is now the same as the capital requirement

- £2.2bn due to repayment of Protium loan
- £4.3bn resulting from various sales, liquidations, and reductions in exposures

- The <=10% band reduction of £2.3bn to £7.3bn was mainly due to a re- securitisation position which is now in a higher risk weight band

Table 52: Risk weight band analysis of re-securitised positions retained or purchased

	Aggregate Amount of Re - Securitised Positions Retained or Purchased by Risk Weight Band, Approach					
	Exposure Values			Capital Requirements		
	Banking Book		Trading Book	Banking Book		Trading Book
Risk Weight Band	Retained	Purchased		Retained	Purchased	
As at 31.12.11	£m	£m	£m	£m	£m	£m
IRB Approach						
<= 10%	-	-	-	-	-	-
> 10% <= 20%	-	-	-	-	-	-
> 20% <= 50%	1,763	3,250	279	34	55	8
> 50% <= 100%	10	7	0	1	0	0
>100% <= 650%	8	379	104	1	43	20
> 650% <= 1250%	-	2	10	-	1	6
> 1250% / Deducted	2	1,034	122	2	1,034	122
Non-1250% Deduction	-	-	-	-	-	-
Total IRB	**1,783**	**4,672**	**515**	**38**	**1,133**	**156**
Standardised Approach						
Concentration Approach	-	-	-	-	-	-
Total Standardised	**-**	**-**	**-**	**-**	**-**	**-**
Total	**1,783**	**4,672**	**515**	**38**	**1,133**	**156**

This table shows re-securitisation exposures from the same population as Table 51 and includes structures where the underlying pool of assets includes at least one securitisation position.

Table 53: Total deductions for securitisation positions

Exposure Type	Total Deductions	
	Banking Book	Trading Book
As at 31.12.11	£m	£m
Residential Mortgages	1,202	450
Commercial Mortgages	88	51
Credit Card Receivables	1	15
Leasing	55	-
Loans to Corporates or SMEs	139	75
Consumer Loans	15	24
Securitisations/ Re-securitisations	161	76
Other Assets	46	18
Total	**1,707**	**709**
As at 31.12.10		
Residential Mortgages	1,275	N/A
Commercial Mortgages	58	N/A
Credit Card Receivables	1	N/A
Leasing	5	N/A
Loans to Corporates or SMEs	63	N/A
Consumer Loans	9	N/A
Securitisations/ Re-securitisations	2,232	N/A
Other Assets	43	N/A
Total	**3,686**	**N/A**

Banking book deductions declined by £2.0bn to £1.7bn. This was primarily driven by the repayment of the Protium loan.

Table 54: Trading book exposures subject to a market risk capital requirement

Exposure Type	Traditional	Synthetic
As at 31.12.11	£m	£m
Residential Mortgages	61	-
Total	**61**	**-**

The £61m amount relates to originated exposure positions subject to market risk capital requirements.

Operational risk management

Operational risk management

Operational risk is defined as the risk of direct or indirect impacts resulting from human factors, inadequate or failed internal processes and systems or external events. Operational risks are inherent in the Group's business activities and are typical of any large enterprise. It is not cost effective to attempt to eliminate all operational risks and in any event it would not be possible to do so. Losses from operational risks of small significance are expected to occur and are accepted as part of the normal course of business. Those of material significance are rare and the Group seeks to reduce the likelihood of these in accordance with its risk appetite.

Capital for operational risk

The following table details the Group's operational risk capital requirement. Barclays has approval from the FSA to calculate its operational risk capital requirement using a Basel 2 Advanced Measurement Approach (AMA), although recently acquired businesses are excluded from this approval. Barclays uses the Basic Indicator Approach or the Standardised approach while it transitions these areas to AMA.

Table 55: Minimum capital requirement for operational risk

	Minimum Capital	
	As at 31.12.11	As at 31.12.10
Operational Risk	**£m**	**£m**
Operational Risk - Basic Indicator Approach	112	131
Operational Risk - Standardised Approach	108	48
Operational Risk - Advanced Measurement Approach	2,639	2,391
Total Operational Risk Capital Requirement	**2,859**	**2,570**

Barclays operational risk capital requirement increased £289m to £2,859m.

- The majority of this increase (£248m) was within the Advanced Measurement Approach (AMA) driven by adjustments for business growth and a review of Barclays exposure to regulatory risk.
- Capital requirements under the Standardised Approach increased £60m driven by new acquisitions.
- Capital requirements under the Basic Indicator Approach decreased by £19m following the disposal of entities in 2011.

Overview

The management of operational risk has two key objectives:

- To minimise the impact of losses suffered in the normal course of business (expected losses) and to avoid or reduce the likelihood of suffering a large extreme (or unexpected) loss; and
- To improve the effective management of the Barclays Group and strengthen its brand and external reputation.

Barclays is committed to the management and measurement of operational risk and was granted a waiver to operate an Advanced Measurement Approach (AMA) for operational risk under Basel 2, which commenced in January 2008. The majority of the Group calculates regulatory capital using AMA, however, in specific areas we apply the Basic Indicator Approach. In certain joint ventures and associates, Barclays may not be able to apply the AMA.

Areas where the Group is working towards the rollout of AMA and the Basic Indicator Approach is applied are: the Africa RBB businesses, including Barclays Bank Mozambique and National Bank of Commerce (Tanzania); Barclays Bank PLC Pakistan; Barclays Investment and Loans India Limited; the business activities acquired from Lehman Brothers; and the portfolios of assets purchased from Woolworths Financial Services in South Africa, Citi Cards Portugal and Italy, Standard Life Bank, MBNA Corporate Cards, Upromise and Egg Cards.

Barclays works to benchmark its internal operational risk practices with peer banks and to drive the development of advanced operational risk techniques across the industry.

Organisation and structure

Operational risk is one of four Principal Risks in the Barclays Principal Risks Framework and comprises a number of specific key risks defined as follows:

External supplier risk – Inadequate selection and ongoing management of external suppliers;

- *Financial reporting risk* – Reporting mis-statement or omission within external financial or regulatory reporting;
- *Fraud risk* – Dishonest behaviour with the intent to make a gain or cause a loss to others;

- *Information risk* – Inadequate protection of Barclays information in accordance with its value and sensitivity;
- *Legal risk* – Failure to identify and manage legal risks;
- *Product risk* – Inadequate design, assessment and testing of products/ services;
- *Payment process risk* – Failure in operation of payments processes;
- *People risk* – Insufficient people /capabilities and/or inappropriate behaviours and/or unsafe working environments;
- *Premises & security risk* – Unavailability of premises to meet business requirements or inadequate protection of physical assets, employees and customers against criminal, terrorist and adverse political activities;
- *Regulatory risk* – Failure or inability to comply fully with the laws, regulations or codes applicable specifically to the financial services industry;
- *Taxation risk* – Failure to comply with tax laws and practice which could lead to financial penalties, additional tax charges or reputational damage;
- *Technology risk* – Failure to develop and deploy secure, stable and reliable technology solutions; and
- *Transaction operations risk* – Failure in the management of critical transaction processes.

These risks can result in financial and/or non-financial impacts including legal/regulatory breaches or reputational damage.

The operational risk framework comprises a number of elements which allow Barclays to manage and measure its Operational risk profile and to calculate the amount of operational risk capital that Barclays needs to hold to absorb potential losses. The minimum, mandatory requirements for each of these elements are set out in the Group Operational risk policies. This framework is implemented across the Group: vertically, through the organisational structure with all Business Units required to implement and operate an operational risk framework that meets, as a minimum, the requirements detailed in these operational risk policies; and horizontally, with the Group Key Risk Owners required to monitor information relevant to their key risk from each Operational Risk Framework element.

Barclays operates within a robust system of internal control that enables business to be transacted and risk taken without exposure to unacceptable potential losses or reputational damage. To this end, Barclays has implemented the Group Internal Control and Assurance Framework (GICAF) which is aligned with the internationally recognised Committee of Sponsoring Organisations of the Treadway Commission Framework (COSO).

The prime responsibility for the management of operational risk and the compliance with control requirements rests with the business and functional units where the risk arises. Operational risk managers are widely distributed throughout the Group and support these areas, assisting line managers in understanding and managing their risks.

The Operational Risk Director (or equivalent) for each Business Unit is responsible for ensuring the implementation of and compliance with Group Operational Risk policies.

The Group Operational Risk Director is responsible for establishing, owning and maintaining an appropriate Group-wide Operational Risk Framework and for overseeing the portfolio of operational risk across the Group.

The Operational Risk Committee (ORC) is the senior executive body responsible for the oversight and challenge of operational risk in Barclays. The Group Operational Risk Executive Committee (GOREC) assists with this oversight. GOREC is a sub-committee of the ORC, the output of which is presented to the BRC.

In addition, Governance and Control Committees (G&CCs) in each business monitor control effectiveness. The Group G&CC receives reports from these committees and considers Group-significant control issues and their remediation. The Group G&CC presents to the Board Audit Committee (BAC).

Business units are required to report their operational risks on both a regular and an event-driven basis. The reports include a profile of the material risks to their business objectives and the effectiveness of key controls, control issues of Group-level significance, operational risk events and a review of scenarios and capital. Specific reports are prepared on a regular basis for GOREC, ORC, BRC and BAC.

The Internal Audit function provides further independent review and challenge of the Group's operational risk management controls, processes and systems and reports to the Board and senior management.

Operational risk management

The Barclays Operational Risk Framework is a key component of GICAF and has been designed to meet a number of external governance requirements including Basel, the Capital Requirements Directive and Turnbull. It also supports the Sarbanes-Oxley requirements.

The Operational Risk framework includes the following elements:

Risk Assessments

Barclays identifies and assesses all material risks within each business unit and evaluates the key controls in place to mitigate those risks. Managers in the business units use self-assessment techniques to identify risks, evaluate the effectiveness of key controls in place and assess whether the risks are effectively managed within business risk appetite. The businesses are then able to make decisions on what, if any, action is required to reduce the level of risk to Barclays. These risk assessments are monitored on a regular basis to ensure that each business continually understands the risks it faces.

Risk Events

An operational risk event is any circumstance where, through the lack or failure of a control, Barclays has actually, or could have, made a loss. The definition includes situations in which Barclays could have made a loss, but in fact made a gain, as well as incidents resulting in reputational damage or regulatory impact only.

A standard threshold is used across the Group for reporting risk events and as part of our analysis we seek to identify where improvements are needed to processes or controls, to reduce the recurrence and/or magnitude of risk events.

Barclays also uses a database of external risk events which are publicly available and is a member of the operational risk data eXchange (ORX), a not-for-profit association of international banks formed to share anonymous loss data information. Barclays uses this external loss information to support and inform risk identification, assessment and measurement.

Key indicators

Key Indicators (KIs) are metrics which allow Barclays to monitor its operational risk profile. KIs include measurable thresholds that reflect the risk appetite of the business. KIs are monitored to alert management when risk levels exceed acceptable ranges or risk appetite levels and drive timely decision making and actions.

Key Risk Scenarios

By combining data from risk events, risk assessments and key indicators with that from audit findings, expert management judgement and other internal data sources, Barclays is able to generate Key Risk Scenarios (KRSs). These scenarios identify the most significant operational risks across the Group. The KRSs are validated at business unit and Group level to ensure that they appropriately reflect the level of operational risk the business faces.

Barclays shares and receives an anonymous sub-set of KRS information with the ORX community in order to compare and contrast scenario analysis with peers.

Insurance

As part of its risk management approach, the Group also uses insurance to mitigate the impact of some operational risks.

Operational Risk Appetite

Barclays approach to determining appetite for operational risk combines both quantitative measures and qualitative judgement, in order to best reflect the nature of non financial risks. This approach is applied at both an overall operational risk level and for individual key risks.

The monitoring and tracking of operational risk measures is supplemented with qualitative review and discussion at senior management executive committees on the action being taken to improve controls and reduce risk to an acceptable level.

Operational risk appetite is aligned to the Group's Risk Appetite Framework.

Reporting

The ongoing monitoring and reporting of operational risk is a key component of an effective Operational Risk Framework. Reports are used by the Operational Risk function and by business management to understand, monitor, manage and control operational risks and losses.

Operational Risk Measurement

The Operational Risk capital model uses the outputs of the risk management tools to measure Barclays operational risk exposure. KRSs are the main input to the model, which also uses the frequency and severity of operational risk losses to provide a distribution of potential losses over a year for Barclays as a whole. This process takes into account the possibility of correlations i.e. the likelihood of two key risks occurring within the same year. The model generates a regulatory capital requirement, which is determined to a level of 99.9% confidence. Once the overall level of regulatory capital for the Group has been established it is allocated, on a risk sensitive basis, to business units. This provides an incentive for the business to manage its risks within appetite levels.

Operational risk profile

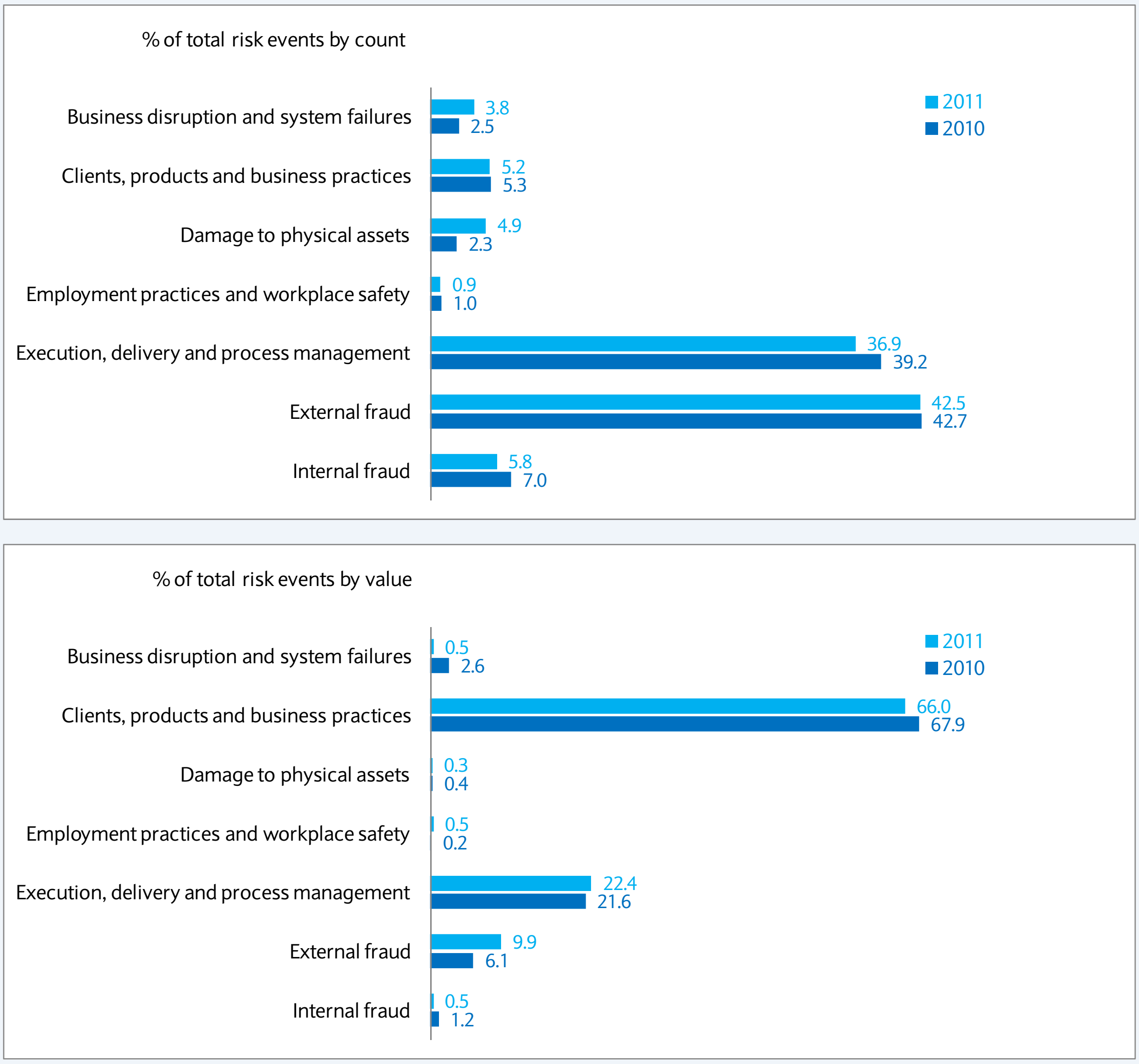
A high proportion of Barclays operational risk events have a low associated financial cost and a very small proportion of operational risk events have a material impact. In 2011, 70.4% of operational losses had a value of £50,000 or less (2010: 75.0%) and accounted for 1.9% of the overall impact (2010: 3.7%). In contrast, 4.1% of the operational risk events had a value of £1m or greater (2010: 2.5%) and accounted for 91.1% of the overall impact (2010: 86.5%).

The Group monitors trends in operational risk events by size, business unit and internal risk categories (including Key Risk). For comparative purposes, the analysis below presents Barclays operational risk events by Basel 2 category. In 2011, the highest frequency of events occurred in External Fraud (42.5%) and Execution, Delivery and Process Management (36.9%). Clients,

Operational risk management

Products and Business Practices accounted for the highest proportion of losses by value, with 66% (2010: 67.9%). The continued high impact in this category was driven by the £1bn provision for PPI which was announced in May 2011. The volume of external fraud events remained broadly stable in 2011, although there was an increase in value due to a small number of high value fraud events.

Figure 2: Operational risk profile



Appendix: Terms and conditions of capital resources

Instrument	Initial call date	Maturity date	IFRS 2011 £m	IFRS 2010 £m	Regulatory 2011 £m	Regulatory 2010 £m
Preference Shares						
6.00% non cumulative callable preference shares			746	746	743	744
6.278% non cumulative callable preference shares			550	550	548	548
4.875% non cumulative callable preference shares			689	689	684	687
4.75% non cumulative callable preference shares			1,011	1,013	967	963
6.625% non cumulative callable preference shares			407	407	406	406
7.1% non cumulative callable preference shares			660	660	657	657
7.75% non cumulative callable preference shares			553	552	550	550
8.125% non cumulative callable preference shares			1,313	1,316	1,309	1,309
Absa Preference Shares			371	452	371	452
Total Preference Shares			6,300	6,385	6,235	6,317
Tier One Notes (TONs)						
6% Callable Perpetual Core Tier One Notes (£91m, 2010: £400m)	2032		103	453	90	400
6.86% Callable Perpetual Core Tier One Notes (US$681m, 2010: US$1,000m)	2032		753	866	440	646
Total Tier One Notes			856	1,319	530	1,046
Reserve Capital Instruments (RCIs)						
8.55% Step-up Callable Perpetual Reserve Capital Instruments			-	887	-	804
7.375% Step-up Callable Perpetual Reserve Capital Instruments			-	531	-	481
5.926% Step-up Callable Perpetual Reserve Capital Instruments (US$533m, 2010: US$1,350m)	2016		414	1,010	343	866
7.434% Step-up Callable Perpetual Reserve Capital Instruments (US$347m, 2010: US$ 1,250m)	2017		273	950	217	803
6.3688% Step-up Callable Perpetual Reserve Capital Instruments (£95m, 2010: £500m)	2019		122	608	95	500
14% Step-up Callable Perpetual Reserve Capital Instruments	2019		3,210	2,887	2,155	2,144
5.3304% Step-up Callable Perpetual Reserve Capital Instruments (£81m, 2010: £500m)	2036		120	599	85	500
Total Reserve Capital Instruments			4,139	7,472	2,895	6,098

Undated loan capital	Initial call date	2011 £m	2010 £m	2011 £m	2010 £m
Undated Notes					
6.875% Undated Subordinated Notes	2015	158	156	135	135
6.375% Undated Subordinated Notes	2017	157	150	133	133
7.7% Undated Subordinated Notes (US$99m)	2018	75	69	64	64
8.25% Undated Subordinated Notes	2018	166	156	140	140
7.125% Undated Subordinated Notes	2020	214	190	158	158
6.125% Undated Subordinated Notes	2027	233	234	196	196
Junior Undated Floating Rate Notes (US$121m)	Any interest payment date	78	78	139	139
Undated Floating Rate Primary Capital Notes Series 3	Any interest payment date	146	145	145	145
Bonds					
9.25% Perpetual Subordinated Bonds (ex-Woolwich PLC)	2021	99	96	75	75
9% Permanent Interest Bearing Capital Bonds	At any time	46	41	40	40
Loans					
5.03% Reverse Dual Currency Undated Subordinated Loan (Yen 8,000m)	2028	53	70	66	63
5% Reverse Dual Currency Undated Subordinated Loan (Yen 12,000m)	2028	82	104	100	95
Barclays SLCSM Funding B.V. guaranteed by the Bank					
6.140% Fixed Rate Guaranteed Perpetual Subordinated Notes	2015	239	232	264	264
Total undated subordinated debt		1,746	1,721	1,657	1,648

Dated loan capital	Initial call date	Maturity date	2011 £m	2010 £m	2011 £m	2010 £m
Barclays Bank PLC						
5.75% Subordinated Notes (€1,000m)		2011	-	836	-	172
5.25% Subordinated Notes (€250m) (ex-Woolwich plc)		2011	-	221	-	44
Floating Rate Subordinated Step-up Callable Notes (US$750m)	2011	2016	-	484	-	484
Callable Floating Rate Subordinated Notes (€1,250m)	2011	2016	-	1,082	-	1,079
Callable Floating Rate Subordinated Notes (US$500m)	2012	2017	324	323	324	323
10.125% Subordinated Notes (ex-Woolwich plc)	2012	2017	102	105	100	100
Floating Rate Subordinated Step-up Callable Notes (US$1,500m)	2012	2017	972	969	971	968
Floating Rate Subordinated Step-up Callable Notes (€1,500m)	2012	2017	1,259	1,296	1,257	1,295
5.015% Subordinated Notes (US$150m)		2013	103	104	39	58
4.875% Subordinated Notes (€750m)		2013	659	670	251	388
Callable Fixed/Floating Rate Subordinated Notes (€1,000m)	2014	2019	900	904	838	863
4.38% Fixed Rate Subordinated Notes (US$75m)		2015	55	55	39	48
4.75% Fixed Rate Subordinated Notes (US$150m)		2015	110	111	78	97
5.14% Lower Tier 2 Notes (US$1,250m)	2015	2020	900	791	810	807
6.05% Fixed Rate Subordinated Notes (US$2,250m)		2017	1,723	1,662	1,457	1,453
Floating Rate Subordinated Notes (€40m)		2018	34	35	34	35
6% Fixed Rate Subordinated Notes (€1,750m)		2018	1,556	1,596	1,466	1,511
CMS-Linked Subordinated Notes (€100m)		2018	88	90	84	86
CMS-Linked Subordinated Notes (€135m)		2018	117	121	113	117
Fixed/Floating Rate Subordinated Callable Notes	2018	2023	621	590	500	500
Floating Rate Subordinated Notes (€50m)		2019	41	42	42	43
6% Fixed Rate Subordinated Notes (€1,500m)		2021	1,333	1,316	1,257	1,295
9.5% Subordinated Bonds (ex-Woolwich plc)		2021	344	292	200	200
Subordinated Floating Rate Notes (€100m)		2021	83	85	84	86
10% Fixed Rate Subordinated Notes		2021	2,389	2,160	1,961	1,961
10.179% Fixed Rate Subordinated Notes (US$1,521m)		2021	1,174	1,040	985	982
Subordinated Floating Rate Notes (€50m)		2022	42	43	42	43
6.625% Fixed Rate Subordinated Notes (€1,000m)		2022	954	-	838	-
Subordinated Floating Rate Notes (€50m)		2023	42	43	42	43
5.75% Fixed Rate Subordinated Notes		2026	781	675	600	600
5.4% Reverse Dual Currency Subordinated Loan (Yen 15,000m)		2027	104	132	126	119
6.33% Subordinated Notes		2032	62	53	50	50
Subordinated Floating Rate Notes (€100m)		2040	84	86	84	86
Absa						
8.75% Subordinated Callable Notes (ZAR 1,500m)	2012	2017	124	154	120	146
Subordinated Callable Notes (ZAR 1,886m)	2013	2018	181	210	71	87
8.8% Subordinated Fixed Rate Callable Notes (ZAR 1,725m)	2014	2019	148	178	138	168
Subordinated Callable Notes (ZAR 3,000m)	2014	2019	286	331	-	-
8.1% Subordinated Callable Notes (ZAR 2,000m)	2015	2020	167	200	159	195
10.28% Subordinated Callable Notes (ZAR 600m)	2017	2022	49	60	-	-
Subordinated Callable Notes (ZAR 400m)	2017	2022	32	41	-	-
Subordinated Callable Notes (ZAR 1,500m)	2023	2028	135	156	-	-
Other capital issued by Barclays Spain, Ghana, Kenya, Botswana and Zambia		2011-2016	51	63	29	33
Total Dated subordinated debt			18,129	19,405	15,189	16,565
Non controlling tier 2 capital						
Undated Floating Rate Primary Capital Notes Series 1			274	274	261	260
Undated Floating Rate Primary Capital Notes Series 2			312	312	313	312
Total non controlling tier 2 capital			586	586	573	572

Note that regulatory capital differs from the amounts recorded in the balance sheet due to FSA requirements relating to: capital eligibility criteria; amortisation of principal in the final five years to maturity; and the exclusion of the impact of fair value hedging.

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Note on forward-looking statements

Forward-looking statements

This document contains certain forward-looking statements within the meaning of Section 21E of the US Securities Exchange Act of 1934, as amended, and Section 27A of the US Securities Act of 1933, as amended, with respect to certain of the Group's plans and its current goals and expectations relating to its future financial condition and performance. Barclays cautions readers that no forward-looking statement is a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking statements. These forward-looking statements can be identified by the fact that they do not relate only to historical or current facts. Forward-looking statements sometimes use words such as "may", "will", "seek", "continue", "aim", "anticipate", "target", "expect", "estimate", "intend", "plan", "goal", "believe" or other words of similar meaning. Examples of forward-looking statements include, among others, statements regarding the Group's future financial position, income growth, assets, impairment charges, business strategy, capital ratios, leverage, payment of dividends, projected levels of growth in the banking and financial markets, projected costs, estimates of capital expenditures and plans and objectives for future operations and other statements that are not historical fact. By their nature, forward-looking statements involve risk and uncertainty because they relate to future events and circumstances, including, but not limited to, UK domestic, Eurozone and global economic and business conditions, the effects of continued volatility in credit markets, market related risks such as changes in interest rates and exchange rates, effects of changes in valuation of credit market exposures, changes in valuation of issued notes, the policies and actions of governmental and regulatory authorities (including requirements regarding capital and Group structures and the potential for one or more countries exiting the Euro), changes in legislation, the further development of standards and interpretations under IFRS applicable to past, current and future periods, evolving practices with regard to the interpretation and application of standards under IFRS, the outcome of current and future litigation, the success of future acquisitions and other strategic transactions and the impact of competition – a number of such factors being beyond the Group's control. As a result, the Group's actual future results may differ materially from the plans, goals, and expectations set forth in the Group's forward-looking statements.

Any forward-looking statements made herein are as at the date they are made. Except as required by the UK Financial Services Authority (FSA), the London Stock Exchange plc (LSE) or applicable law, Barclays expressly disclaims any obligation or undertaking to release publicly updates or revisions to forward-looking statements to reflect any change in Barclays expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. The reader should, however, consult any additional disclosures that Barclays has made or may make in documents it has filed or may file with the LSE and/or the SEC.