Year end results

Basel II Pillar 3 Disclosures 2010

BARCLAYS

Basel II Pillar 3 Consolidated Disclosures

Notes about this report

Overview of Basel II and Pillar 3

Barclays has applied the Basel II 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 II also provides for different approaches to calculating capital requirements.

- The first is the Standardised approach, where 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;
- The second approach is the Internal Ratings Based approach (IRB) that 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:
  - Under 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;
  - Under 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.

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

This report is currently published once a year, in accordance with the Group's Pillar 3 Policy covering standards related to disclosure process, verification and frequency. The report is available from the Barclays Investor Relations web site (www.investorrelations.barclays.com). Note that this report also contains references to risk disclosures in the Barclays PLC Annual Report ('Annual Report').

Regulatory changes in 2010-11

The Pillar 3 rules have been updated in 2010 and include new requirements around market risk, operational risk and remuneration. Remuneration disclosures are found on pages 166 to 182 of the Annual Report.

More generally, the regulatory environment to which the Group's operations are subject continues to evolve. More detail on this is found in the Annual Report, on page 139 under "Supervision and regulation".

Presentation of risk data, verification and sign-off

This document discloses Barclays assets both 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, as published in the Annual Report, is reported as a drawn balance only. This is one of the reasons why exposure values in the Pillar 3 report can differ from asset values as reported in the published accounts.

Where this document discloses credit exposures or capital requirements, Barclays has followed the scope and application of its Pillar 1 capital adequacy calculations. 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 the exposure class splits on the same basis as its Annual Report.

This report was verified and approved internally by Barclays in line with its Pillar 3 policy. This included a review by the Group Risk Oversight Committee to ensure 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. There are no requirements for external auditing of these disclosures.

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 2010. The consolidation basis used is the same as that used for regulatory capital adequacy. Certain overseas subsidiaries operate under local regulatory capital regimes that are recognised as equivalent by the FSA. In these cases, Barclays has used these local capital calculations in its Group consolidation. The scope of consolidation is similar to that used for statutory accounting reporting for most of the Group's activities (see Appendix for differences).

Notes about this report

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. During 2010, in support of our AIRB application for Foundation portfolios, we have improved the collateral reporting and updated the granularity of our exposure breakdowns. This enhanced exposure reporting has not affected total volumes, but is visible in year on year comparatives of certain exposure classes and categories. For securitisations, improvements in granularity and breakdowns have also been implemented and to aid analysis, we have provided restated 2009 tables to capture the updated list of reportable securitisation transactions. These improvements had no effect on our capital ratios for 2009 as previously reported.

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Review of 2010

The financial performance of Barclays improved over 2010. Group profit before tax increased 32% to £6,065m. This was driven by lower impairment charge (down 30%), and higher income (up 8%).

The financial strength of Barclays increased, with Core Tier 1 ratio up 80bps to 10.8%. Return on average regulatory risk weighted assets (RWA) also improved, to 2.2% from 1.5% in 2009.

The balance sheet, in terms of total assets, increased £111bn to £1,490bn in 2010. The biggest increases were in cash and balances at central banks, trading portfolio assets and reverse repurchase lending. In the various tables in this report, this is reflected mainly in increased exposures (note that here they are measured in exposure at default (EAD) as opposed to balances) to central governments.

Risk weighted assets increased by 4% from £383bn to £398bn in 2010. Foreign exchange and model methodology changes have had a substantial impact.

The liquidity position of the Group has improved further in 2010, with the liquidity pool increasing £27bn to £154bn; this is a reflection of our continued ability to attract deposits and term funding in the markets.

Principal risks faced by Barclays

A global financial institution such as Barclays faces a wide range of risks beyond credit, market and operational, which are the main focus of this report. These risks are described on pages 73 to 81 of the Annual Report under "Risk factors".

Overview of risk management

Barclays has clear risk management objectives and a well-established strategy to deliver them, through core risk management processes.

At a strategic level, our risk management objectives are:

- to identify the Group's material risks;
- to formulate the Group's risk appetite and ensure that business profile and plans are consistent with it;
- to optimise risk/return decisions by taking them as closely as possible to the business, while establishing strong and independent review and challenge structures;
- to ensure that business growth plans are properly supported by effective risk infrastructure;
- to manage risk profile to ensure that specific financial deliverables remain possible under a range of adverse business conditions;
- to 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 on page 66 of the Annual Report). The Group's risk management strategy is broadly unchanged from 2009.

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 challenge 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 7), 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 these are set via the Group's Principal Risks Policy.

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 and the Chief Risk Officer has a dotted reporting line to the Chair. 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 pages 163-164 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 Board Risk Committee. See pages 160 to 162 of the Annual Report for additional details on the membership and activities of the Board Audit Committee.

The *Board Remuneration Committee* receives advice from the Board Risk Committee on the management of remuneration risk, including advice on 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 9 to 11 of the Annual Report. The terms of reference for each of the principal Board Committees are available from the Corporate Governance section at: *www.aboutbarclays.com*.

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 Finance Director. The Finance Director 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 *Group Risk Oversight Committee*, which monitors the Group's 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, financial crime risk and capital demand. Along with their teams, the risk-type heads are responsible for establishing a Group-wide framework for risk control and oversight. 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 risk director. Business risk directors 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 business risk directors within the business units report to the Chief Risk Officer and are members of the Group Risk Oversight Committee.

For further details on the management of each of the principal risks, see pages 74 to 81 of the Annual Report.

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. In addition to the Committees shown in the chart, there is a Brand and Reputation Committee reviewing emerging issues with potentially significant reputational impact.

Risk management responsibilities are laid out in the Principal Risks Policy, which covers the categories of risk in which the Group 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 is owned by a senior individual within Barclays, known as the Group Principal Risk Owner (GPRO). The GPRO is required to document, communicate and maintain a risk control framework, which makes clear the mandated control requirements in managing exposures to that Principal Risk, for every business across the firm.

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 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 the Group to make a statement about its system of internal controls (the 'Turnbull' statement), in the Annual Report and Accounts.

GPROs report their assessments of the risk exposure and control effectiveness to Group-level oversight committees. Their assessments form the basis of the reports that go to the Board Risk Committee.

Risk management processes at Barclays

One of the main objectives of managing risk is to ensure that Barclays achieves an adequate balance between capital requirements and resources. In addition to the modelling of credit, market, operational and other risks, Barclays uses several tools to ensure that risk is properly assessed and mitigated. The main elements are summarised below.

The Group Stress Testing framework

A fundamental duty of risk management is to ensure that organisations do not neglect to prepare for the worst event as they plan for success. Stress testing helps Barclays to understand how its portfolios would react if business conditions became significantly more challenging. We generate specific forward-looking scenarios and analyse how well our profitability would be maintained, whether our levels of capital would be adequate and what managers could do in advance to mitigate the risk.

Barclays uses stress testing techniques at Group, portfolio and product level and across a range of risk types. 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 the Investment Banking division, 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.

At the Group level, stress tests capture a wide range of macroeconomic variables that are relevant to the current environment, such as:

- GDP
- Unemployment
- Asset prices
- Interest rates.

The Board Risk Committee agrees the range of scenarios to be tested and the independent Group Risk function co-ordinates the process, using bottom-up analysis performed by the businesses. The results of the stress tests are presented to the Executive Committee, the Board Risk Committee, the Board and the UK Financial Services Authority (FSA).

In 2010, the range of stress scenarios included the stress test set out by the FSA as part of its assessment of the Group's resilience to stressed credit risk, market risk and economic conditions over a five-year period. This stress scenario analysis took into account a wide range of factors, including:

- the Group's revenue generation potential given stressed macroeconomic variables such as GDP and interest rates;
- the effect of the scenario on the probability of default and possible losses given default within its loan book; and
- possible declines in the market value of assets held in the trading books caused by the stress.

Following this work and discussion with the FSA, the Group was able to confirm that its capital resources, after exposure to the stress, were expected to continue to meet the FSA's capital requirements.

In addition, Barclays, along with 90 other banks, was included in the Committee of European Banking Supervisors' (CEBS)[a] stress test performed in July 2010. 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. Under the scenario considered, results indicated that Barclays would be well-placed to withstand the stress.

In 2010, Barclays integrated 'reverse' stress testing into the Group-wide stress testing process. Reverse stress testing aims to identify the conditions that would result in the business model no longer being viable, such as extreme macroeconomic downturn scenarios or specific idiosyncratic events. This is being used to help support the on-going risk management of the Group, for example reverse stress testing has been integrated into the Risk Appetite framework. This also supports the Group in meeting new regulatory requirements in regards to reverse stress testing.

Information on the Group's stress testing specifically relating to liquidity risk can be found within the Liquidity risk management section on page 80.

[a] On 7th February 2011 CEBS was renamed the European Banking Authority

The Group Risk Appetite framework

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 risk appetite is ultimately approved by the Board.

The Risk Appetite framework consists of two elements: 'Financial Volatility' and 'Mandate & Scale'.

Taken as a whole, the Risk Appetite framework provides a basis for the allocation of risk capacity across Barclays Group.

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 financial objectives (ie 'top down') on through the cycle, 1 in 7 and 1 in 25 severity levels. The Group's risk profile is assessed via a 'bottom-up' analysis of the Group's business plans to establish the financial volatility. If the projections entail too high a level of risk (i.e breach the top-down financial objectives at the through the cycle, 1 in 7 or 1 in 25 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.

To measure the risk entailed by the business plans, management estimates the potential earnings volatility from different businesses under various scenarios, represented by severity levels:

- expected loss: the average credit 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;
- 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 on page 69 of the Annual Report. 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 medium-term plan 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;
- improve executive management control and co-ordination of risk-taking across businesses.

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 of 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 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. Since the onset of the global economic downturn, these limits have been reduced significantly and the frequency of review has been increased. The Group's exposure to Ireland has been restricted through the recent reduction in Mandate & Scale limits.

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;
- 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.

Relationship between Risk Appetite and Stress Testing

Stress testing occurs throughout the Bank and it helps to ensure that our medium term plan has sufficient flexibility to remain appropriate over a multi-year time horizon during times of stress.

Stress testing allows us to analyse a specific potential economic scenario or event using defined macro and market based parameters. The results of a stress test, whether at a Group or business level, will produce an output that could be compared to a point in the curve of our Financial Volatility based statistical outcomes, although stress tests are scenario based and as such are not calibrated to a specific confidence level.

Given that the Stress Testing, Risk Appetite, and medium term planning timelines are all aligned, the outputs of stresses are used by risk functions throughout the Group to inform Risk Appetite (particularly at a business level). The outputs of stresses also feed into the setting of Mandate & Scale limits. For example, via the use of primary and secondary stresses in Market Risk, we identify and limit the scale of risks that DVaR would not automatically capture.

Reverse stress testing also supports our Risk Appetite framework. Reverse stress testing starts with defining a worst case set of metrics and deduces a scenario that could theoretically cause that situation to occur. This will help to ensure that we understand the tail risks across our books and explain what would have to happen to generate a change in strategy. Group reverse stress testing also identifies risks that in one business alone would not have been sufficient to be a critical event, thereby complementing the Financial Volatility and Mandate & Scale processes.

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 II 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.

Capital risk is the risk that the Group has insufficient capital resources to:

- meet minimum regulatory requirements in the UK and in other jurisdictions such as the United States and South Africa where regulated activities are undertaken. The Group's authority to operate as a bank is dependent upon the maintenance of adequate capital resources;
- support its credit rating. A weaker credit rating would increase the Group's cost of funds;
- support its growth and strategic options.

Organisation and structure

Barclays operates a centralised capital management model, considering both regulatory and economic capital. The Group's capital management objectives are to maintain sufficient capital resources to:

- ensure the financial holding company is well capitalised relative to the minimum regulatory capital requirements set by the UK FSA and the US Federal Reserve;
- ensure locally regulated subsidiaries can meet their minimum regulatory capital requirements;
- support the Group's Risk Appetite and Economic Capital requirements; and
- support the Group's credit rating.

Capital is allocated to businesses to support the Group's strategic objectives, including optimising returns on regulatory and economic capital.

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 processes in place for delivering the Group's capital management objectives are to:

- establishment of internal targets for capital demand and ratios;
- manage capital ratio sensitivity to foreign exchange movement; and
- manage local entity regulatory capital adequacy.

In addition to the processes above, the Group Risk Oversight Committee and the Board Risk Committee annually review risk appetite and analyse the impacts of stress scenarios on the Group capital forecast (see page 6) in order to understand and manage the Group's projected capital adequacy.

Internal targets

To support its capital management objectives, the Group sets internal targets for its key capital ratios. Internal targets are reviewed regularly by Group Treasury Committee to take account of:

- changes in forecast demand for capital caused by accessing new business opportunities, including mergers and acquisitions;
- flexibility in debt capital issuance and securitisation plans;
- the possible impact of stress scenarios including:
  - changes in forecast demand for capital from unanticipated drawdown of committed facilities or as a result of deterioration in the credit quality of the Group's assets;
  - changes in forecast profits and other capital resources; and
  - changes to capital resources and forecast demand due to foreign exchange rate movements.

Managing capital ratio sensitivity to foreign exchange rate movements

The Group has capital resources and RWAs denominated in foreign currencies. Changes in foreign exchange rates result in changes in the Sterling equivalent value of foreign currency denominated capital resources and RWAs. As a result, the Group's regulatory capital ratios are sensitive to foreign currency movements.

The Group's capital ratio hedge strategy is to minimise the volatility of the capital ratios caused by foreign exchange rate movements. To achieve this, the Group aims to maintain the ratio of foreign currency Core Tier 1, Tier 1 and Total Capital resources to foreign currency RWAs the same as the Group's capital ratios.

The Group's foreign currency capital resources include investments in subsidiaries and branches, intangible assets, non-controlling interest, deductions from capital and debt capital instruments.

The Group's investments in foreign currency subsidiaries and branches create Core Tier 1 capital resources denominated in foreign currencies. Changes in the Sterling value of the investments due to foreign currency movements are captured in the currency translation reserve, resulting in a movement in Core Tier 1 capital.

To create foreign currency Tier 1 and Total Capital resources additional to the Core Tier 1 capital resources, the Group issues, where possible, debt capital in non-Sterling currencies. This is primarily achieved by the issuance of debt capital from Barclays Bank PLC, but can also be achieved by subsidiaries issuing capital in local currencies.

In some circumstances, investments in foreign currency subsidiaries and branches are hedged. In these circumstances, foreign currency capital resources are not created. Hedging decisions take into account the impact on capital ratios, the strategic nature of the investment, the cost of hedging, the availability of a suitable foreign exchange market and prevailing foreign exchange rates. Depending on the value of foreign currency net investments, it is not always possible to maintain the ratio of Core Tier 1 capital to RWAs consistent with the Group's Core Tier 1 ratio in all currencies, leaving some capital ratio sensitivity to foreign currency movements.

The investment of proceeds from the issuance of equity accounted foreign currency preference shares also contributes to foreign currency capital resources. If a preference share issuance is redeemed, the cumulative movement from the date of issuance in the currency translation reserve will be offset by an equal and opposite movement in reserves reflecting the revaluation of the preference shares to prevailing foreign exchange rates. Issuance of a replacement Tier 1 instrument in the same currency will maintain the hedge of the Tier 1 ratio.

Local entity regulatory capital adequacy

The Group manages its capital resources to ensure that those Group entities that are subject to local capital adequacy regulation in individual jurisdictions meet their minimum capital requirements. Local management manages compliance with entities minimum regulatory capital requirements by reporting to local Asset and Liability Committees with oversight by The Treasury Committee, as required.

Injections of capital resources into Group entities are centrally controlled by the Group Treasury Committee, under authorities delegated from the Group Executive Committee. 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.

Other than as indicated above, the Group is not aware of any material impediments to the prompt transfer of capital resources or repayment of intra-group liabilities when due.

Allocating capital in the Group's strategic medium-term plan

Capital adequacy and returns on regulatory and economic capital form a key part of the Group's annual strategic medium-term planning process. Amongst other strategic objectives, the Group seeks to optimise returns on economic and regulatory capital through the planning process. To achieve this, executive management consider returns on RWAs and economic capital when setting limits for business capital demand. Executive management will also review the forecast capital ratios to ensure internal targets continue to be met over the medium-term plan.

The Treasury Committee reviews the limits on capital demand on a monthly basis taking into account actual performance.

Capital Resources

Table 1 shows regulatory capital resources held by Barclays to meet the requirements set out by the regulators. Capital is classified as "Tier 1" and "Tier 2", depending on regulatory assessment of the degree to which the capital can absorb losses. "Core Tier 1" capital is a narrower measure, which only includes resources deemed to be very close to equity in nature.

Under **Core Tier 1 resources**, the following are included before various regulatory deductions[b]:

- Ordinary shareholders' funds, which include:
  - The cumulative proceeds from the issuance of ordinary shares at their nominal value. See note 28 in the Barclays Bank PLC Annual Report for more details. These instruments confer a share of ownership in the bank, and carry no obligations;
  - Share Premium Account, the cumulative proceeds from share issuance beyond the nominal value. See note 29 in the Annual Report for more information on the share capital of Barclays;
  - Retained earnings, which represent the cumulative profits not distributed to shareholders, and other eligible reserves. These reserves are not linked to financial instruments; they are funds on the balance sheet that are available to absorb losses.
- Equity non-controlling interests: This includes minority interests in subsidiaries.

Deductions from Core Tier 1 resources include intangible assets, 50% of relevant securitisation positions and 50% of the excess of expected loss over impairment.

The following resources, when added to Core Tier 1 capital and after deductions make up **Tier 1** capital:

- Proceeds from the issuance of preference shares in Barclays Bank plc. Information on the terms and conditions of preference shares can be found in note 28 of the Barclays Bank PLC Annual Report;
- Innovative tier 1 capital is composed of Reserve Capital Instruments (RCIs), which comprise instruments that are both debt and equity accounted. More information on these can be found in note 23 of the Annual report.
- Tier one notes (TONs) terms and conditions are contained in note 23 of the Annual Report.

The most material deduction from Tier 1 is for 50% of material holdings in other financial companies are deducted from Tier 1 capital.

Tier 2 capital comprises the following resources:

- Eligible reserves under Tier 2, including revaluation reserves, and unrealised gains on equity holdings;
- Non-controlling interests in Tier 2 capital;
- Collective impairment;
- Subordinated loan capital – see note 23 of the Annual Report for more information. These instruments are debt obligations, which are subordinated to senior debt holders and account holders.

The remaining 50% of relevant securitisation positions, the excess of expected loss over impairment and material holdings in other financial companies are deducted from Tier 2 capital.

Finally, total net capital resources are obtained by applying deductions for investments in the capital of non-consolidated subsidiaries from the total of Tier 1 and Tier 2 capital.

The table on the next page represents the Group's capital position at 31 December 2010.

[b] Note some references on this page are to the Barclays Bank PLC Annual Report, which is distinct from the Barclays PLC Annual Report (referred to as 'Annual Report' throughout this document).

Table 1: Tier 1 and Tier 2 Capital Resources

	As at 31.12.10 £m	As at 31.12.09 £m
Ordinary shareholders' funds	50,858	47,277
Regulatory adjustments to reserves:		
- Available for sale reserve - debt	340	83
- Available for sale reserve - equity	-	(309)
- Cash flow hedging reserve	(152)	(252)
- Defined benefit pension scheme	99	431
- Adjustments for scope of regulatory consolidation	99	196
- Foreign exchange on RCIs and upper Tier 2 loan stock	209	25
- Adjustment for own credit	(621)	(340)
- Other adjustments	(40)	144
Equity non-controlling interests	2,923	2,351
Less: Intangible assets	(8,326)	(8,345)
Less: Net excess of expected loss over impairment at 50%	(168)	(25)
Less: Securitisation positions at 50%	(2,360)	(2,799)
Core Tier 1 capital	**42,861**	**38,437**
Preference shares[1]	6,317	6,256
Reserve Capital Instruments[2]	6,098	6,724
Tier 1 Notes	1,046	1,017
Tax on the net excess of expected loss over impairment	(100)	8
Less: Material holdings in financial companies at 50%	(2,676)	(2,805)
Total qualifying Tier 1 capital	**53,546**	**49,637**
Revaluation reserves	29	26
Available for sale reserve - equity	-	309
Collectively assessed impairment allowances	2,409	2,443
Tier 2 non-controlling interests	572	547
Qualifying subordinated liabilities:		
- Undated loan capital	1,648	1,350
- Dated loan capital	16,565	15,657
Less: Net excess of expected loss over impairment at 50%	(168)	(25)
Less: Securitisation positions at 50%	(2,360)	(2,799)
Less: Material holdings in financial companies at 50%	(2,676)	(2,805)
Total qualifying Tier 2 capital	**16,019**	**14,703**
Less: Other regulatory deductions	(2,250)	(880)
Total net capital resources	**67,315**	**63,460**

Core Tier 1 capital increased by £4.4bn to £42.9bn in 2010 (2009: £38.4bn). £3.6bn of this increase was a result of attributable profit. In addition £1.5bn of equity was issued following the exercise of warrants and £0.7bn additional Core Tier 1 was reflected in the currency translation reserve. These were offset by net losses on available for sale equity positions, of which BlackRock Inc. was £0.9bn, and dividends paid of £0.5bn. Total qualifying Tier 1 capital increased by £3.9bn in 2010 as the increase in Core Tier 1 capital was offset by the redemption of Reserve Capital Instruments of £0.7bn. Total net capital resources increased by £3.9bn in 2010 reflecting the growth in Tier 1 capital and an increase in total qualifying Tier 2 capital, primarily due to the net issuance of additional subordinated debt of £0.9bn. This was offset by an increase in other regulatory deductions for investments in non-consolidated subsidiaries and associates of £1.4bn.

Notes on Table 1:

[1] Hybrid capital, which is capital that features characteristics typical of both debt and equity instruments.

[2] Hybrid capital (sometimes referred to as "innovative capital") with incentive to redeem, i.e. with interest rate that increases on a certain date unless called by the issuer.

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 2: Minimum capital requirement and risk weighted assets

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**

As at 31.12.09 Risk Type	Capital Requirement £m	RWA £m
Standardised Approach Credit Risk	7,242	90,525
Advanced and Foundation IRB Approach Credit Risk	12,922	161,529
Counterparty Credit Risk	3,636	45,450
Total Credit Risk	23,800	297,504
Market Risk	4,362	54,526
Operational Risk	2,450	30,623
Total	**30,612**	**382,653**

In 2010 the Group's capital requirement increased by £1.2bn to £31.8bn (2009: £30.6bn). The increase in the Group requirement was driven by foreign exchange movements, and methodology and model changes which more than offset efficiency gains in the use of capital. Credit risk and market risk, which increased £0.6bn and £0.5bn respectively, account for the majority of the increase.

Note that the capital requirement for Standardised Approach Credit Risk is different from that shown in table 3. This small difference is due to the inclusion of capital requirements against positions falling under the "aggregation plus" method in the table above.

Note that Barclays had no subsidiaries outside the scope of regulatory consolidation that had capital resources less than their required minimum at 31st December 2010.

Capital Requirements for credit risk

The following table represents the Group's credit risk capital requirement for exposures measured under the Standardised approach method. More details on the calculation of exposures and risk weighting under the Standardised approach may be found on page 56.

Table 3: Minimum capital requirement for credit risk under the Standardised approach

	Minimum Capital	
	As at 31.12.10	As at 31.12.09
Standardised Credit Risk Exposure Class	£m	£m
Central governments or central banks	246	191
Regional governments or local authorities	3	11
Administrative bodies and non-commercial undertakings	5	6
Institutions	108	99
Corporates	3,282	3,328
Retail	1,691	1,732
Secured on real estate property	917	943
Past due items	426	450
Private Equity[1]	146	413
Covered bonds	5	-
Securitisation positions	24	-
Collective investment undertakings	8	11
Other items	37	50
Total Standardised Requirement	**6,898**	**7,234**

The capital requirement for Standardised Approach Credit Risk is different from that shown in table 2 (£6,924m) because positions falling under the "aggregation plus" method are not included in table 3.

In 2010 capital requirements decreased £0.3bn to £6.9bn (2009: £7.2bn), driven mainly by lower capital requirements for private equity (down £0.3bn to £0.1bn, from £0.4bn in 2009) which is now, in the main, treated as a deduction. Exposure amounts in other classes were broadly stable. Exposures under Central Governments and Central Banks increased following enhancements to the Group's liquidity position.

Notes on Table 3:

[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 4: Minimum capital requirement for credit risk under the IRB approach

	Minimum Capital	
	As at 31.12.10	As at 31.12.09
IRB Exposure Class	£m	£m
Central governments or central banks	165	109
Institutions	224	242
Corporates	7,011	7,140
Retail		
- Small and medium enterprises (SME)	672	683
- Secured by real estate collateral	1,961	1,521
- Qualifying revolving retail	1,072	995
- Other retail	894	817
Equity - simple risk weight approach		
- Exchange traded exposures	24	34
- Private equity exposures	179	158
- Other exposures	-	-
Securitisation positions	658	299
Non-credit obligation assets	1,096	924
Total IRB Requirement	**13,956**	**12,922**

In 2010 minimum capital requirements under the IRB approach increased £1.1bn to £14.0bn (2009: £12.9bn). Capital requirements against total retail credit exposures rose by £0.6bn to £4.6bn (2009: £4.0bn), with Absa showing the biggest increase, and against securitisation positions, by £0.4bn to £0.7bn (2009: £0.3bn). Securitisation positions increased within Barclays Capital driven by a change in the regulatory treatment of the Protium transaction. See page 114 in the Annual Report for information on the loan to Protium.

Capital Requirements for Market Risk

Information on the management of market risk is found in the "Market Risk Management" section on page 70. Barclays market risk capital requirements comprise three elements:

1) Trading book positions where the market risk is measured under an FSA approved Daily Value at Risk (DVaR) model.

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

3) 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 requires that the local capital requirement is aggregated with the Group total.

Table 5: Minimum capital requirement for market risk and counterparty risk

	Minimum Capital	
	As at 31.12.10	As at 31.12.09
Market Risk	**£m**	**£m**
DVaR Model Based PRR[1]	1,038	1,280
Interest rate PRR	1,420	1,304
Equity PRR	152	184
Option PRR	5	24
Collective investment schemes PRR	98	101
Commodity PRR	104	87
Foreign exchange PRR	12	1
Local Regulatory Aggregated PRR	2,055	1,381
Total Market Risk Capital Requirement	**4,884**	**4,362**
Counterparty risk capital component	**3,509**	**3,636**

In 2010 the total capital requirement for market risk increased by £0.5bn to £4.9bn (2009: £4.4bn) mainly due to higher requirements for Local Regulatory Aggregated PRR, which stemmed from the equities business of Barclays Capital in the United States. The DVaR model Based PRR decreased by £0.3bn to £1.0bn (2009: £1.3bn), reflecting lower client activity, increased diversification and the rolling off of the 2008, highly volatile, historical data points from the DVaR calculation.

Note on Table 5:

[1] PRR: Position Risk Requirement

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 II 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. More information about Barclays operational risk modelling may be found in pages 78 and 79.

Table 6: Minimum capital requirement for operational risk

	Minimum Capital	
	As at 31.12.10	As at 31.12.09
Operational Risk	£m	£m
Operational Risk - Basic Indicator Approach	131	136
Operational Risk - Standardised Approach	48	26
Operational Risk - Advanced Measurement Approach	2,391	2,288
Total Operational Risk Capital Requirement	**2,570**	**2,450**

In 2010, Barclays operational risk capital requirements increased £0.1bn to £2.6bn (2009: £2.5bn), in line with business risk growth, foreign exchange movements and some small portfolios acquisitions.

Credit Risk Management Strategy

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.

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, 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;
- Repayment plans policy for setting the standards for repayment plans and restructures 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 & Scale limits and triggers that mitigate concentration risk and define appetite in risk sensitive areas of the portfolio such as commercial property finance (see page 7).

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 Group Risk Oversight Committee, the Wholesale Credit Risk Management Committee and the Retail Credit Risk Management Committee. Senior Group and business risk management are represented on the Group Risk Oversight Committee, the Wholesale Credit Risk Management Committee and the Retail Credit Risk Management 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. CRIC is chaired by the 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.

Credit Risk Management

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.

More information on credit risk management is found in pages 82 to 117 of the Annual Report.

Credit Internal Ratings Based Approach

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 2010:

Table 7: The scope of the Standardised and IRB approaches

Business	Standardised Approach	Foundation IRB Approach	Advanced IRB Approach
Barclays Capital	Fund of funds, insurance, certain non-UK or emerging market portfolios	None	Most portfolios
Barclays Wealth	All portfolios	None	None
UK Retail Banking	Certain minor portfolios within personal accounts, mortgages and consumer loans	None	Most portfolios
Barclays Corporate	Non UK portfolios, asset and sales finance, New Markets and Western Europe portfolios	None	Larger and Medium business portfolios, trade finance portfolios
Barclaycard	Non UK portfolios	None	UK retail credit cards
Western Europe Retail Banking	All other portfolios	None	Mortgages Portugal, most Mortgages Italy
Barclays Africa	All portfolios	None	None
Absa	Certain minor portfolios	Wholesale portfolios	Retail portfolios
Head office Functions and other operations	None	None	All portfolios

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 numerous 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 2% 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 £150,000, our models might predict a rise to £200,000 by then; the EAD is then £200,000. 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 50%, the expected loss for this customer is: 2% x £200,000 x 50% or £2,000.

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.

Each PD model outputs an estimate of default probability that is point-in-time (PIT), through-the-cycle (TTC) or a hybrid (e.g. a 50:50 blend). 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.

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 and PIT PDs are employed. For the purposes of calculating regulatory and economic capital, long-run average TTC PDs are generally preferred although we only employ TTC methodologies where the FSA has agreed to the approach. In certain retail portfolios, for example unsecured products, the FSA requires the use of long run average point-in-time PDs.

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 that 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/TTC 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 that 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, comprises 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	Satisfactory
B-, 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.

Once implemented, all 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, more 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 II 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.

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, conservative assumptions are typically used which, wherever possible, are validated against internal and external experience.

Most retail models within Barclays are built in-house, although occasionally external consultants will be contracted to build models on behalf of the businesses. 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 unlikeliness 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 31.12.10	£m	%	%	£m	£m	£m	%
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**

	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 31.12.09	£m	%	%	£m	£m	£m	%
Default Grade 1-3	120,040	15.81	1.23	1,335	86,256	918	-
Default Grade 4-5	1,534	12.26	9.13	156	1,824	4	25.17
Default Grade 6-8	469	39.01	38.74	15	235	-	-
Default Grade 9-11	28	61.21	113.06	-	101	20	69.71
Default Grade 12-14	54	65.37	162.62	16	58	-	-
Default Grade 15-19	-	-	-	-	13	2	139.83
Default Grade 20-21	-	-	-	-	-	-	-
In default	-	-	-	-	-	-	-
Total	**122,125**	**15.89**	**1.57**	**1,522**	**88,487**	**944**	**1.88**

Exposures to central government and central banks have increased by £14.9bn to £137.0bn (2009: £122.1bn) due to a rise in Barclays Capital to enhance the liquidity position. Most of this increase occurred in grades 1 to 3.

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 31.12.10	£m	%	%	£m	£m	£m	%
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**

	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 31.12.09	£m	%	%	£m	£m	£m	%
Default Grade 1-3	57,377	35.37	10.25	2,979	98,825	1,449	8.26
Default Grade 4-5	3,080	35.17	16.59	123	8,126	1,880	8.99
Default Grade 6-8	1,338	49.63	45.84	146	2,233	113	17.12
Default Grade 9-11	385	45.06	54.42	21	4,036	3	60.92
Default Grade 12-14	492	38.89	82.93	27	2,904	45	104.78
Default Grade 15-19	92	43.22	141.82	1	1,622	1	185.34
Default Grade 20-21	7	49.63	270.15	-	992	-	-
In default	97	65.81	-	-	922	-	-
Total	**62,868**	**35.81**	**12.36**	**3,297**	**119,660**	**3,491**	**10.28**

Exposures to institutions under the Advanced IRB approach declined across most grades by £10.4bn to £52.5bn (2009: £62.9bn), principally in default grades 1 to 3 where they fell £10.6bn. Barclays Capital drove this decline following the sale of Certificates of Deposits and bonds to enhance the Group's liquidity position. Exposures to institutions under the Foundation IRB approach decreased £1.8bn to £1.7bn (2009: £3.5bn). This occurred within Absa and was partially offset by the appreciation of the value of the Rand against Sterling.

The average exposure under Advanced IRB decreased by £62.7bn to £56.9bn (2009: £119.7bn), reflecting our continuing strategy to reduce the balance sheet and enhance our liquidity position.

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 31.12.10	£m	%	%	£m	£m	£m	%
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**

	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 31.12.09	£m	%	%	£m	£m	£m	%
Default Grade 1-3	53,436	36.81	13.43	21,685	41,100	1,141	17.74
Default Grade 4-5	34,908	33.13	20.91	21,478	34,356	3,771	27.14
Default Grade 6-8	21,445	37.15	37.84	12,142	19,419	2,051	45.45
Default Grade 9-11	20,121	43.01	59.25	8,569	15,370	1,928	63.59
Default Grade 12-14	26,295	39.36	88.81	8,688	24,986	3,989	90.00
Default Grade 15-19	18,079	39.00	131.97	3,357	17,053	1,724	129.28
Default Grade 20-21	7,529	37.34	193.00	757	5,067	281	174.08
In default	4,868	43.20	59.82	378	3,226	685	-
Total	**186,681**	**37.59**	**53.12**	**77,054**	**160,577**	**15,570**	**62.25**

Exposures to corporates under the Advanced IRB approach increased £4.4bn to £191.1bn (2009: £186.7bn). This mainly occurred in grades 5 or better (grades 15 to 19 also saw an increase), driven by Barclays Capital. Under Foundation IRB, exposures increased £4.5bn to £20.1bn (2009:15.6bn), driven principally by foreign exchange movements and business growth.

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 31.12.10	£m	%	%	£m	£m	£m	%
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**

	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 31.12.09	£m	%	%	£m	£m	£m	%
Default Grade 1-3	230,853	25.46	7.32	25,999	226,181	3,508	9.18
Default Grade 4-5	39,522	32.48	20.12	21,757	44,306	5,655	21.10
Default Grade 6-8	23,252	37.91	38.32	12,303	21,887	2,164	43.97
Default Grade 9-11	20,534	43.07	59.23	8,590	19,507	1,951	63.65
Default Grade 12-14	26,841	39.40	88.85	8,731	27,948	4,034	90.17
Default Grade 15-19	18,171	39.02	132.02	3,358	18,688	1,727	129.31
Default Grade 20-21	7,536	37.35	193.07	757	6,059	281	174.08
In default	4,965	43.64	58.65	378	4,148	685	0.00
Total	**371,674**	**30.16**	**29.29**	**81,873**	**368,724**	**20,005**	**50.33**

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: Analysis of exposures secured on real estate collateral by expected loss grade

	EAD Post CRM Retail exposures secured on real estate collateral	
	As at 31.12.10	**As at 31.12.09**
EL Grade	£m	£m
EL Grade => 0 - < 0.15%	118,393	102,021
EL Grade => 0.15 - < 0.3%	14,282	13,224
EL Grade => 0.3 - < 0.8%	8,228	7,337
EL Grade => 0.8 - < 2.15%	3,657	3,132
EL Grade => 2.15 - < 4.45%	939	681
EL Grade => 4.45 - < 8.65%	728	1,135
EL Grade => 8.65 - < 18.65%	469	2,177
EL Grade => 18.65 - < 100%	3,034	207
Total	**149,730**	**129,914**

Retail exposure secured on real estate collateral increased £19.8bn to £149.7bn (2009: 129.9bn). This occurred primarily in UK Retail Banking, where business growth and the acquisition of the Standard Life book drove the increase in grades 2.15% and better. The 18.65 – 100 band saw a fifteen-fold increase mainly due to the implementation of a new retail model in Absa resulting in a more conservative approach to the estimation of EAD.

The following table shows the EAD for unsecured retail exposures.

Table 12: Analysis of unsecured exposures by expected loss grade

	EAD Post CRM			
EL Grade	**Retail SME**	**Qualifying revolving retail**	**Other retail**	**Total Unsecured Retail**
As at 31.12.10	£m	£m	£m	£m
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**

	EAD Post CRM			
EL Grade	**Retail SME**	**Qualifying revolving retail**	**Other retail**	**Total Unsecured Retail**
As at 31.12.09	£m	£m	£m	£m
EL Grade => 0 - < 0.8%	8,290	16,681	3,927	28,898
EL Grade => 0.8 - < 2.15%	2,138	4,890	4,321	11,349
EL Grade => 2.15 - < 3.05%	561	1,207	782	2,550
EL Grade => 3.05 - < 4.45%	494	1,194	1,241	2,929
EL Grade => 4.45 - < 6.35%	473	740	467	1,680
EL Grade => 6.35 - < 8.65%	304	579	386	1,269
EL Grade => 8.65 - < 18.65%	512	1,387	867	2,766
EL Grade => 18.65 - < 100%	482	2,113	1,842	4,437
Total	**13,254**	**28,791**	**13,833**	**55,878**

Unsecured retail exposures increased by £7.5bn to £63.4bn (2009: £55.9bn) driven by qualifying revolving retail exposures that increased £8.4bn to £37.2bn (2009: £28.8bn), principally within Barclaycard. The implementation of a more conservative approach to rescheduled credit card exposures (“forbearance programmes”) has increased the EAD on defaulted exposures. Also, the redemption of a securitisation trade brought assets back onto the book.

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 33 ("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 33 shows impairment and actual value adjustments for both IRB and Standardised approach portfolios.

The majority of businesses reported improvements in credit losses reflecting improving credit conditions in the main sectors and geographies in which Barclays lends. The largest reduction was in the wholesale portfolios, due to lower charges against credit market exposures and fewer large single name charges. This was partially offset by the impact of deteriorating credit conditions within the Spanish property and constructor sectors that resulted in an increase in impairment in Barclays Corporate, and impairment related to the Protium loan in Barclays Capital. In the retail portfolios, impairment performance improved as delinquency rates fell across Barclays businesses, most notable the UK, US, Spanish, Indian and African portfolios.

Table 13: Impairment charges and actual value adjustments

	Actual Value Adjustments and Individual Impairment Charges Year ended	
	As at 31.12.10	As at 31.12.09
IRB Exposure Class	£m	£m
Central governments or central banks	(8)	(11)
Institutions	(7)	112
Corporates	649	3,063
Retail		
- Retail SME	114	111
- Retail exposures secured by real estate collateral	31	206
- Qualifying revolving retail	-	76
- Other retail	-	177
Equity	-	-
Securitisation positions	-	-
Non-credit obligation assets	-	-
Total	**779**	**3,734**

Actual value adjustments and individual impairment charges decreased £2.9bn to £0.8bn (2009: £3.7bn), driven by the corporates category following write-downs made in 2009 coupled with improving market conditions in 2010; this mainly occurred within Barclays Capital. The decrease in impairment charges within the retail sector was primarily driven by improved economic conditions within South Africa.

Loss Analysis – Regulatory Expected Loss versus Actual Losses

The following table shows Barclays Regulatory Expected Loss measure compared with an actual loss measure in 2010 for those portfolios where credit risk is calculated using the IRB approach.

Regulatory Expected Loss

Regulatory Expected Loss is a Basel II 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 31st December 2009 plus the net impairment charge recorded through the income statement in 2010.

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

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**

IRB Exposure Class	Total Expected Loss to 31.12.09 £m	Total Actual Loss to 31.12.09 £m
Central governments or central banks	2	9
Institutions	941	1,146
Corporates	1,375	4,628
Retail		
- SME	369	386
- Secured by real estate collateral	423	570
- Qualifying revolving retail	1,273	1,777
- Other retail	1,123	1,548
Equity	-	-
Securitisation positions	13	-
Non-credit obligation assets	N/A	N/A
Total IRB	**5,519**	**10,064**

The decreases in institutions' expected loss (£0.9bn) and actual loss (£1.1bn) were driven by writedowns made in 2009, coupled with improving market conditions in 2010 (mainly within Barclays Capital). Actual loss for corporates is in excess of expected loss; this is driven by fair value adjustments. The increases within qualifying revolving retail expected loss (£0.7bn) and actual loss (£0.6bn) were driven by current year impairment charges and the roll out of certain portfolios to the IRB approach.

While 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. Also, in times of stress we expect, by definition, actual losses to be higher than the expected loss; actual losses will capture losses beyond the average measures captured by expected loss.

Note that while Barclays has exposure to banking book equity through Absa, no expected loss is shown as such a figure is not defined under South African rules.

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 are typically more conservative 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 credit model performance versus actual results

IRB Exposure Class As at 31.12.10	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	0.12	0.00	15.94	0.00	N/A
Institutions	0.49	0.00	36.99	0.00	N/A
Corporates	2.28	1.26	35.81	30.64	1.19
Retail					
SME	8.49	7.00	57.23	54.23	1.05
Secured by real estate collateral UK[3]	1.92	0.60	15.90	11.40	1.01
Secured by real estate collateral Rest of World[3]	2.69	3.91	13.96	13.64	0.94
Qualifying revolving retail	2.78	3.32	79.61	79.38	1.07
Other retail	5.75	6.56	97.10	96.90	0.96

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 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 59 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

As at 31.12.10	Gross Positive Fair Value of Contracts £m	Potential Future Credit Exposure £m	Netting Benefits £m	Netted Current Credit Exposure £m	Collateral Held £m	Net Derivatives Credit Exposure £m
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
Total	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**69,631**

As at 31.12.09	Gross Positive Fair Value of Contracts £m	Potential Future Credit Exposure £m	Netting Benefits £m	Netted Current Credit Exposure £m	Collateral Held £m	Net Derivatives Credit Exposure £m
Mark to Market Method	4,311	3,017	(2,993)	4,335	15	4,320
Internal Model Method	N/A	N/A	N/A	N/A	N/A	67,423
Total	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**71,743**

Exposures under the Internal Model Method declined £2.9bn to £64.5bn (2009: £67.4bn), driven by a number of closed positions and decreased net exposures.

In addition to the £69.6bn counterparty credit exposure under Mark to Market and Internal Model Methods (2009: £71.7bn), Barclays has additional counterparty credit exposure of £3.5bn (2009: £3.4bn) calculated under other approved approaches.

Credit derivative notionals

The following table shows the notional of the credit derivative transactions outstanding as at year-end.

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 of credit derivative contracts

Outstanding Amount of Exposure held:	Notional Exposure to Credit Derivative Transaction			
	Own Credit Portfolio		Intermediation Activities	
	As Protection Purchaser	As Protection Seller	As Protection Purchaser	As Protection Seller
Credit Derivative Product Type as at 31.12.10	£m	£m	£m	£m
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**

Outstanding Amount of Exposure held:	Notional Exposure to Credit Derivative Transaction			
	Own Credit Portfolio		Intermediation Activities	
	As Protection Purchaser	As Protection Seller	As Protection Purchaser	As Protection Seller
Credit Derivative Product Type as at 31.12.09	£m	£m	£m	£m
Credit Default Swaps	19,372	6,727	995,009	974,610
Total Return Swaps	9	9	18,408	2,652
Total	**19,381**	**6,736**	**1,013,417**	**977,262**

The decrease of £10.1bn to £9.3bn (2009: £19.4bn) in notional exposure to credit derivative transactions on own credit portfolio was driven by the re-deployment of certain exposures previously held for Barclays account towards intermediation activities on behalf of clients.

Counterparty Credit Risk

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 31.12.10	
	EAD Post CRM under Mark to Market Approach	EAD Post CRM under Internal Model Method
Financial Contract Type	£m	£m
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	137	N/A
Other	1,090	N/A
Total	**5,176**	**89,877**

	As at 31.12.09	
	EAD Post CRM under Mark to Market Approach	EAD Post CRM under Internal Model Method
Financial Contract Type	£m	£m
Interest Rate Contracts	994	N/A
Foreign Currency Contracts	764	N/A
Equities Contracts	485	N/A
Precious Metal other than Gold Contracts	150	N/A
Commodities other than Precious Metal Contracts	1,082	N/A
Securities financing transactions	1,064	N/A
Credit Derivatives[1]	231	N/A
Other	614	N/A
Total	**5,384**	**104,481**

Internal Model Method (IMM) exposures reduced £14.6bn to £89.9bn (2009:£104.5bn) as closure of positions more than offset new business.

Barclays has additional counterparty exposure calculated under other approved approaches totalling £6.2bn (2009: £9.1bn after restatement). This is comprised of £3.5bn (2009: £3.4bn) "other" and £2.7bn (2009: £5.7bn) "securities financing transactions". The decrease in securities financing transactions follows a reduction in the level of activity with governments (mainly the Bank of England and the European Investment Bank).

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 31.12.10	As at 31.12.09
Risk Methodology	£m	£m
Notional value of credit derivative hedges for Mark to Market Method	380	-
Notional value of credit derivative hedges under the Internal Model Method	5,810	4,090
Total	**6,190**	**4,090**

The primary driver for the increase of £2.1bn to £6.2bn (2009: £4.1bn) in contracts was an increase in hedges against Euro transactions held by European and US-based financial institution clients.

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

	As at 31.12.10	
	Credit Exposure (EAD) Pre-CRM	Average Credit Exposure (EAD) Pre-CRM over the year
Standardised Approach Credit Risk Exposure Class	£m	£m
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 on real estate property	27,752	27,119
Past due items	4,001	4,206
Private equity	1,214	1,993
Covered bonds	285	100
Securitisation positions	407	81
Short term claims on institutions and corporates	-	-
Collective investment undertakings	653	866
Other items	3,653	3,598
Total Standardised Credit Risk Exposure	**125,312**	**124,055**

	As at 31.12.09	
	Credit Exposure (EAD) Pre-CRM	Average Credit Exposure (EAD) Pre-CRM over the year
Standardised Approach Credit Risk Exposure Class	£m	£m
Central governments or central banks	10,329	6,558
Regional government or local authorities	260	197
Administrative bodies and non-commercial undertakings	384	338
Institutions	2,909	3,375
Corporates	44,777	50,650
Retail	26,130	26,938
Secured on real estate property	26,881	32,041
Past due items	4,116	3,584
Private equity	2,138	2,173
Covered bonds	-	-
Securitisation positions	-	-
Short term claims on institutions and corporates	-	6,553
Collective investment undertakings	921	1,464
Other items	3,643	2,695
Total Standardised Approach Credit Risk Exposure	**122,488**	**136,566**

In 2010 EAD, before CRM, increased by £2.8bn to £125.3bn (2009: £122.5bn). The pre-CRM EAD of central governments or central banks increased by £3.9bn to £14.2bn (2009: £10.3bn), reflecting higher liquidity buffers, with Absa contributing the majority of the increase. Retail exposure decreased in most businesses and overall by £0.9bn to £25.2bn (2009: £26.1bn). Private equity fell by £0.9bn to £1.2bn (2009: £2.1bn) as a significant amount of exposures are now treated as capital deductions. Exposure under "Secured on real estate property" increased by £0.9bn to £27.8bn (2009: £26.9bn) driven by new business in Barclays Wealth.

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 21: Credit risk exposures under the Advanced and Foundation IRB approaches

	Credit Exposure (EAD) Pre-CRM		Average Credit Exposure (EAD) Pre-CRM over the year	
As at 31.12.10	**Advanced IRB**	**Foundation IRB**	**Advanced IRB**	**Foundation IRB**
IRB Exposure Class	**£m**	**£m**	**£m**	**£m**
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**

	Credit Exposure (EAD) Pre-CRM		Average Credit Exposure (EAD) Pre-CRM over the year	
As at 31.12.09	**Advanced IRB**	**Foundation IRB**	**Advanced IRB**	**Foundation IRB**
IRB Exposure Class	**£m**	**£m**	**£m**	**£m**
Central governments or central banks	85,789	919	29,375	619
Institutions	35,545	2,057	57,657	1,678
Corporates	143,208	14,559	116,614	13,054
Retail				
- SME	13,251	N/A	13,567	N/A
- Secured by real estate collateral	129,914	N/A	119,153	N/A
- Qualifying revolving retail	28,791	N/A	29,222	N/A
- Other retail	13,833	N/A	13,976	N/A
Equity	637	N/A	680	N/A
Securitisation positions	31,023	N/A	57,785	N/A
Non-credit obligation assets	12,143	N/A	14,029	N/A
Total IRB Credit Risk Exposure	**494,134**	**17,535**	**452,058**	**15,351**

Exposures treated under the Advanced IRB approach increased by £55.4bn to £549.5bn (2009: £494.1bn). This was driven by an increase of £34.9bn to £120.7bn (2009: £85.8bn) in EAD calculated against central governments or central banks reflecting increased liquidity. Retail exposures increased £27.3bn to £213.1bn (2009: £185.8bn), driven mainly by UK Retail Banking, where secured exposures increased £14.4bn, and Barclaycard where EAD for qualifying revolving retail exposures rose £8.4bn (see table 12). Exposures under institutions for Advanced IRB declined £11.4bn to £24.1bn (2009: £35.5bn) mainly following the sale of Certificates of Deposits and bonds as exposures were moved to the government exposure class to enhance the liquidity position.

Geographic Analysis

The following tables 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.

Table 22: Geographic analysis of credit risk exposures under the Standardised approach

	Credit Exposure (EAD) Pre-CRM					
As at 31.12.10	United Kingdom	Other European Union	United States	Africa	Rest of the World	Total
Standardised Approach Credit Risk Exposure Class	£m	£m	£m	£m	£m	£m
Central governments or central banks	169	4,751	966	7,735	571	14,192
Regional governments or local authorities	22	98	16	15	-	151
Administrative bodies and non-commercial undertakings	53	235	-	-	-	288
Institutions	649	967	226	544	476	2,862
Corporates	11,521	16,477	3,234	3,390	10,000	44,622
Retail	6,827	8,703	6,556	1,806	1,340	25,232
Secured on real estate property	8,877	16,365	72	376	2,062	27,752
Past due items	1,249	1,471	746	111	424	4,001
Private equity positions	530	161	447	50	26	1,214
Covered bonds	-	285	-	-	-	285
Securitisation positions	380	-	10	-	17	407
Collective investment undertakings	-	653	-	-	-	653
Other items	2,643	346	60	470	134	3,653
Total Standardised Approach Credit Risk Exposure	**32,920**	**50,512**	**12,333**	**14,497**	**15,050**	**125,312**

	Credit Exposure (EAD) Pre-CRM					
As at 31.12.09	United Kingdom	Other European Union	United States	Africa	Rest of the World	Total
Standardised Approach Credit Risk Exposure Class	£m	£m	£m	£m	£m	£m
Central governments or central banks	134	3,706	493	5,500	496	10,329
Regional governments or local authorities	12	140	65	43	-	260
Administrative bodies and non-commercial undertakings	53	331	-	-	-	384
Institutions	479	1,061	131	521	717	2,909
Corporates	11,681	17,872	2,401	3,442	9,381	44,777
Retail	7,294	8,933	6,717	1,854	1,332	26,130
Secured on real estate property	8,310	16,629	224	276	1,442	26,881
Past due items	1,164	1,833	714	47	358	4,116
Private equity positions	883	307	847	40	61	2,138
Covered bonds	-	-	-	-	-	-
Securitisation positions	-	-	-	-	-	-
Collective investment undertakings	-	921	-	-	-	921
Other items	2,816	381	-	313	133	3,643
Total Standardised Approach Credit Risk Exposure	**32,826**	**52,114**	**11,592**	**12,036**	**13,920**	**122,488**

In 2010 Standardised approach EAD increased £2.8bn to £125.3bn (2009: £122.5bn), driven by increases in –Africa (£2.5bn), Rest of the World (£1.1bn) and the United States (£0.7bn). This is partly offset by decreases in other European Union countries (£1.6bn). Increases in central governments or central banks portfolios' exposures across geographies during 2010 are due to higher liquidity requirements. Declines in retail portfolios' exposures across most geographies reflect transitions to Advanced IRB and closure of certain secured portfolios. Private equity exposures in both United Kingdom and the United States declined as a result of a significant amount of exposures now treated as capital deductions.

Table 23: Geographic analysis of credit risk exposures under the Foundation IRB approach

	Credit Exposure (EAD) Pre-CRM					
As at 31.12.10	**United Kingdom**	**Other European Union**	**United States**	**Africa**	**Rest of the World**	**Total**
Foundation IRB Approach Credit Risk Exposure Class	£m	£m	£m	£m	£m	£m
Central governments or central banks	-	0	-	1,358	0	1,358
Institutions	113	87	198	542	29	969
Corporates	15	72	-	19,018	54	19,159
Total Foundation Approach Credit Risk Exposure	**128**	**159**	**198**	**20,918**	**83**	**21,486**

	Credit Exposure (EAD) Pre-CRM					
As at 31.12.09	**United Kingdom**	**Other European Union**	**United States**	**Africa**	**Rest of the World**	**Total**
Foundation IRB Approach Credit Risk Exposure Class	£m	£m	£m	£m	£m	£m
Central governments or central banks	-	-	-	919	-	919
Institutions	-	-	-	2,057	-	2,057
Corporates	72	-	-	14,487	-	14,559
Total Foundation Approach Credit Risk Exposure	**72**	**-**	**-**	**17,463**	**-**	**17,535**

The figures above relate to wholesale credit risk in Absa. Total exposure under the Foundation IRB approach increased £4.0bn to £21.5bn (2009: £17.5bn), driven by the appreciation of the value of the Rand against Sterling and business growth.

Table 24: Geographic analysis of credit risk exposures under the Advanced IRB approach

	Credit Exposure (EAD) Pre-CRM					
As at 31.12.10	**United Kingdom**	**Other European Union**	**United States**	**Africa**	**Rest of the World**	**Total**
Advanced IRB Approach Credit Risk Exposure Class	£m	£m	£m	£m	£m	£m
Central governments or central banks	30,206	18,682	43,402	1,339	27,076	120,705
Institutions	13,639	5,714	1,459	269	3,068	24,149
Corporates	76,956	22,226	36,056	378	10,989	146,605
Retail	153,227	19,773	18	40,033	39	213,090
Equity	1	9	33	616	-	659
Securitisation positions	3,704	4,131	18,418	1,239	2,402	29,894
Non-credit obligation assets	9,201	1,291	1,121	2,468	316	14,397
Total Advanced IRB Credit Risk Exposure	**286,934**	**71,826**	**100,507**	**46,342**	**43,890**	**549,499**

	Credit Exposure (EAD) Pre-CRM					
As at 31.12.09	**United Kingdom**	**Other European Union**	**United States**	**Africa**	**Rest of the World**	**Total**
Advanced IRB Approach Credit Risk Exposure Class	£m	£m	£m	£m	£m	£m
Central governments or central banks	38,270	4,303	32,574	1,348	9,294	85,789
Institutions	16,949	8,091	6,815	111	3,579	35,545
Corporates	81,317	22,187	27,927	217	11,560	143,208
Retail	131,986	16,515	8	37,263	17	185,789
Equity	-	-	-	637	-	637
Securitisation positions	4,996	4,163	17,646	1,222	2,996	31,023
Non-credit obligation assets	6,236	1,651	1,206	2,568	482	12,143
Total Advanced IRB Credit Risk Exposure	**279,754**	**56,910**	**86,176**	**43,366**	**27,928**	**494,134**

Exposure treated under Advanced IRB increased £55.4bn to £549.5bn (2009: £494.1bn), reflecting increases in Rest of the World (£16.0bn), Europe (£14.9bn), and the United States (£14.3bn). However, exposure classes within the various regions showed offsetting movements. Exposure to UK retail customers increased £21.2bn to £153.2bn (2009: £132.0bn), driven mainly by secured exposures in UK Retail Banking that rose by £15.5bn. US exposure to corporates increased £8.1bn, reflecting business growth. Exposures to institutions in the US and Europe declined due to a strategy to sell exposures to institutions and hold more government and central bank assets to enhance the liquidity position of Barclays.

Credit Risk Exposures

Industry Analysis

The following table represents 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.

Table 25: Industry analysis of credit exposure under the Standardised approach

As at 31.12.10 Credit Exposure (EAD) Pre-CRM	Financial institutions/ services £m	Agriculture, forestry and fishing £m	Manufacturing £m	Construction £m	Property £m	Energy and water £m	Wholesale and retail, distribution and leisure £m	Transport £m	Postal and communication £m	Business and other services £m	Home loans £m	Other personal £m	Non-customer assets £m	Total £m
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 on real estate property	735	103	490	239	1,181	38	609	174	42	3,576	14,622	5,943	-	27,752
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**

As at 31.12.09 Credit Exposure (EAD) Pre-CRM	Financial institutions/ services £m	Agriculture, forestry and fishing £m	Manufacturing £m	Construction £m	Property £m	Energy and water £m	Wholesale and retail, distribution and leisure £m	Transport £m	Postal and communication £m	Business and other services £m	Home loans £m	Other personal £m	Non-customer assets £m	Total £m
Central governments or central banks	7,002	-	-	-	-	-	-	-	-	3,327	-	-	-	10,329
Regional governments or local authorities	2	-	-	1	-	-	-	-	9	248	-	-	-	260
Administrative bodies and non-commercial undertakings	-	-	26	1	-	80	29	47	-	201	-	-	-	384
Institutions	2,684	-	-	-	-	-	-	-	-	90	-	131	4	2,909
Corporates	6,300	285	5,475	2,264	5,989	2,079	3,701	4,428	906	11,678	68	1,604	-	44,777
Retail	94	73	423	214	253	325	348	1,417	15	1,047	766	21,155	-	26,130
Secured on real estate property	427	105	443	230	1,098	30	601	147	35	3,024	16,169	4,572	-	26,881
Past due items	187	11	127	89	525	13	81	357	4	192	946	1,584	-	4,116
Private equity positions	1,213	-	205	16	5	39	97	15	18	530	-	-	-	2,138
Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Securitisation positions	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investment undertakings	921	-	-	-	-	-	-	-	-	-	-	-	-	921
Other items	109	-	-	-	151	-	-	-	-	6	-	-	3,377	3,643
Total Standardised Approach Credit Exposure	**18,939**	**474**	**6,699**	**2,815**	**8,021**	**2,566**	**4,857**	**6,411**	**987**	**20,343**	**17,949**	**29,046**	**3,381**	**122,488**

The £2.8bn increase in exposures to £125.3bn (2009: £122.5bn) was driven by financial institutions and services, mainly to central governments or central banks reflecting a strategy to enhance the Group's liquidity position.

Table 26: Industry analysis of credit exposure under the Foundation IRB approach

As at 31.12.10 Credit Exposure (EAD) Pre-CRM	Financial institutions/ services £m	Agriculture, forestry and fishing £m	Manufacturing £m	Construction £m	Property £m	Energy and water £m	Wholesale and retail, distribution and leisure £m	Transport £m	Postal and communication £m	Business and other services £m	Other personal £m	Total £m
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**

As at 31.12.09 Credit Exposure (EAD) Pre-CRM	Financial institutions/ services £m	Agriculture, forestry and fishing £m	Manufacturing £m	Construction £m	Property £m	Energy and water £m	Wholesale and retail, distribution and leisure £m	Transport £m	Postal and communication £m	Business and other services £m	Other personal £m	Total £m
Central governments or central banks	917	-	-	-	-	-	-	-	-	2	-	919
Institutions	2,057	-	-	-	-	-	-	-	-	-	-	2,057
Corporates	3,414	764	1,492	396	1,774	454	-	86	2,240	3,177	762	14,559
Total Foundation IRB Approach Credit Exposure	**6,388**	**764**	**1,492**	**396**	**1,774**	**454**	**-**	**86**	**2,240**	**3,179**	**762**	**17,535**

The figures above relate to wholesale credit risk in Absa. Total exposure under the Foundation IRB approach increased £4.0bn to £21.5bn (2009: £17.5bn), driven by the appreciation of Rand against Sterling and business growth.

Table 27: Industry analysis of credit exposure under the Advanced IRB approach

As at 31.12.10 Credit Exposure (EAD) Pre-CRM	Financial institutions/ services £m	Agriculture, forestry and fishing £m	Manufacturing £m	Construction £m	Property £m	Energy and water £m	Wholesale and retail, distribution and leisure £m	Transport £m	Postal and communication £m	Business and other services £m	Home loans £m	Other personal £m	Non-customer assets £m	Total £m
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**

As at 31.12.09 Credit Exposure (EAD) Pre-CRM	Financial institutions/ services £m	Agriculture, forestry and fishing £m	Manufacturing £m	Construction £m	Property £m	Energy and water £m	Wholesale and retail, distribution and leisure £m	Transport £m	Postal and communication £m	Business and other services £m	Home loans £m	Other personal £m	Non-customer assets £m	Total £m
Central governments or central banks	72,858	-	-	-	-	-	-	-	-	12,931	-	-	-	85,789
Institutions	35,545	-	-	-	-	-	-	-	-	-	-	-	-	35,545
Corporates	18,900	1,290	21,159	4,546	28,864	14,646	14,662	5,041	4,685	28,836	-	579	-	143,208
Retail	494	2,073	831	814	2,064	15	2,729	291	277	3,587	129,914	42,700	-	185,789
Equity	74	-	324	-	199	-	31	-	-	9	-	-	-	637
Securitisation positions	30,183	-	-	-	728	-	-	-	-	112	-	-	-	31,023
Non-credit obligation assets	-	-	-	-	-	-	-	-	-	-	-	-	12,143	12,143
Total Advanced IRB Approach Credit Exposure	**158,054**	**3,363**	**22,314**	**5,360**	**31,855**	**14,661**	**17,422**	**5,332**	**4,962**	**45,475**	**129,914**	**43,279**	**12,143**	**494,134**

The £55.4bn to £549.5bn (2009: £494.1bn) increase in exposures under the Advanced IRB approach occurred mainly in business and other services, home loans, financial institutions and services, and other personal. Other personal and home loans are both retail categories where increases were driven mainly by UKRB and Absa. The increase within central governments or central banks across industries reflects the enhancement in the Group's liquidity position.

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.

Table 28: Residual maturity analysis of credit exposures under the Standardised approach

	EAD Pre-CRM by Standardised Approach Credit Risk Exposure Class						
As at 31.12.10	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
Credit Exposure (EAD) Pre-CRM	£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 on real estate property	232	2,343	1,540	2,213	2,458	18,966	27,752
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**

	EAD Pre-CRM by Standardised Approach Credit Risk Exposure Class						
As at 31.12.09	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
Credit Exposure (EAD) Pre-CRM	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	3,053	3,784	1,284	1,840	368	-	10,329
Regional governments or local authorities	1	139	51	-	3	66	260
Administrative bodies and non-commercial undertakings	-	214	8	108	6	48	384
Institutions	342	1,620	169	648	37	93	2,909
Corporates	1,426	22,152	8,074	5,269	5,414	2,442	44,777
Retail	12,185	3,175	3,376	3,099	3,157	1,138	26,130
Secured on real estate property	27	1,675	1,042	1,889	4,135	18,113	26,881
Past due items	1,586	621	345	337	294	933	4,116
Private equity	-	25	9	24	128	1,952	2,138
Covered Bonds	-	-	-	-	-	-	-
Securitisation positions	-	-	-	-	-	-	-
Collective investment undertakings	-	832	7	-	82	-	921
Other items	2,942	272	94	-	-	335	3,643
Total Standardised Approach Credit Risk Exposure	**21,562**	**34,509**	**14,459**	**13,214**	**13,624**	**25,120**	**122,488**

Overall requirements increased £2.8bn to £125.3bn (2009: £122.5bn), driven by exposures to central governments or central banks as the Group enhanced its liquidity position. Exposures increased in all maturity bands except for a £4.7bn decline in the 5 to 10 years maturity band driven by Western Europe, where corporate exposures and exposures secured on real estate property declined in 2010.

Table 29: Residual maturity analysis of credit exposures under the Foundation IRB approach

	EAD Pre-CRM by Foundation Approach Credit Risk Exposure Class						
As at 31.12.10	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
Credit Exposure (EAD) Pre-CRM	£m	£m	£m	£m	£m	£m	£m
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**

	EAD Pre-CRM by Foundation Approach Credit Risk Exposure Class						
As at 31.12.09	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
Credit Exposure (EAD) Pre-CRM	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	919	-	-	-	-	-	919
Institutions	1,089	99	869	-	-	-	2,057
Corporates	6,745	2,367	2,173	748	1,931	595	14,559
Total Foundation IRB Approach Credit Risk Exposure	**8,753**	**2,466**	**3,042**	**748**	**1,931**	**595**	**17,535**

The figures above relate to wholesale credit risk in Absa. Total exposure under the Foundation IRB approach increased £4.0bn to £21.5bn (2009: £17.5bn), driven by the appreciation in the value of the Rand against Sterling and business growth. The implementation of an enhanced data system led to reclassifications between maturities, as discussed on page 2.

Table 30: 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 as at 31.12.10	**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**
Advanced IRB Exposure Class	£m	£m	£m	£m	£m	£m	£m
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**

	EAD Pre-CRM by Advanced Approach Credit Risk Exposure Class						
Credit exposure (EAD) Pre-CRM as at 31.12.09	**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**
Advanced IRB Exposure Class	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	71,771	4,394	3,121	2,429	2,391	1,683	85,789
Institutions	1,732	18,574	13,712	613	447	467	35,545
Corporates	10,223	20,096	47,493	27,100	13,113	25,183	143,208
Retail	37,424	1,852	7,147	9,209	18,774	111,383	185,789
Equity	637	-	-	-	-	-	637
Securitisation positions	-	10,229	3,177	895	12,632	4,090	31,023
Non-credit obligation assets	177	67	-	-	-	11,899	12,143
Total Advanced IRB Credit Risk Exposure	**121,964**	**55,212**	**74,650**	**40,246**	**47,357**	**154,705**	**494,134**

The £55.4bn increase in exposures treated under the Advanced IRB approach to £549.5bn (2009: £494.1bn) occurred in all maturity bands except 1-3 years, with the highest increase in the over ten years or undated maturity band. This was principally driven by increases in: central governments/banks, mainly within Barclays Capital and Group Treasury; retail, driven by UKRB secured loans; and corporates, within Barclays Capital.

Impaired exposures

At each balance sheet date, the Group assesses whether there is objective evidence that loans and receivables or available for sale financial investments are impaired. These are considered to be impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more loss events that occurred after the initial recognition of the asset and prior to the balance sheet date that have adversely impacted the estimated future cash flows of the financial asset or the portfolio. The criteria that the Group uses to determine that there is objective evidence of an impairment loss include:

- significant financial difficulty of the issuer or obligor;
- a breach of contract, such as a default or delinquency in interest or principal payments;
- the lender, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender 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; or
- observable data indicating that there is a measurable decrease in the estimated future cash flows from a portfolio of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the portfolio, including:
  - adverse changes in the payment status of borrowers in the portfolio;
  - national or local economic conditions that correlate with defaults on the assets in the portfolio.

For loans and receivables the Group first assesses whether objective evidence of impairment exists individually for loans and receivables that are individually significant, and individually or collectively for loans and receivables that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed loan and receivable, whether significant or not, it then includes the asset in a group of loans and receivables with similar credit risk characteristics and collectively assesses them for impairment. Loans and receivables that are individually assessed for impairment and for which an impairment loss is or continues to be recognised are not included in a collective assessment of impairment. The amount of impairment loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The amount of the loss is recognised using an allowance account and recognised in the income statement.

Where appropriate, the calculation of the present value of the estimated future cash flows of a collateralised loan and receivable asset reflects the cash flows that may result from foreclosure costs for obtaining and selling the collateral, whether or not foreclosure is probable.

For the purposes of a collective evaluation of impairment, loans and receivables are grouped on the basis of similar risk characteristics, taking into account asset type, industry, geographical location, collateral type, past due status and other relevant factors. These characteristics are relevant to the estimation of future cash flows for groups of such assets by being indicative of the counterparty's ability to pay all amounts due according to the contractual terms of the assets being evaluated.

Future cash flows in a group of loans and receivables that are collectively evaluated for impairment are estimated on the basis of the contractual cash flows of the assets in the group and historical loss experience for assets with credit risk characteristics similar to those in the group. Historical loss experience is adjusted based on current observable data to reflect the effects of current conditions that did not affect the period on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not currently exist.

The methodology and assumptions used for estimating future cash flows are reviewed regularly to reduce any differences between loss estimates and actual loss experience.

Following impairment, interest income is recognised using the effective rate of interest that was used to discount the future cash flows for the purpose of measuring the impairment loss.

When a loan is uncollectable, it is written off against the related allowance for loan impairment. Such loans are written off after all the necessary procedures have been completed and the amount of the loss has been determined. Subsequent recoveries of amounts previously written off are credited to the income statement.

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.

Equity securities or properties acquired in exchange for loans in order to achieve an orderly realisation are accounted for as a disposal of the loan and an acquisition of equity securities or investment properties. Where control is obtained over an entity as a result of the transaction, the entity is consolidated. Any further impairment of the assets or business acquired is treated as an impairment of the relevant asset or business and not as an impairment of the original instrument.

In the case of available for sale equity securities, a significant or prolonged decline in the fair value of the security below its cost is also considered in determining whether impairment exists. Where such evidence exists, the cumulative net loss that has been previously recognised directly in equity is removed from equity and recognised in the income statement. In the case of debt instruments classified as available for sale, impairment is assessed based on the same criteria as all other financial assets.

Reversals of impairment of debt instruments are recognised in the income statement. Reversals of impairment of equity shares are not recognised in the income statement, increases in the fair value of equity shares after impairment are recognised directly in equity.

The table below shows an analysis of impaired exposures, past due exposures and allowance for impairment. Impaired exposures comprise loans where individual identified impairment allowance has been raised and also include loans that are fully collateralised or where indebtedness has already been written down to the expected realisable value. The impaired loan category may include loans, which, while impaired, are still performing. Loans are past due when a counterparty has failed to make a payment when contractually due. Impairment allowances are a provision held on the balance sheet as a result of the raising of a charge against profit for the incurred loss inherent in the lending book. An impairment allowance may either be identified or unidentified and individual or collective.

Table 31: Analysis of impaired and past due exposures and allowance for impairment by exposure type

	Impaired Exposures	Past Due Exposures	Allowance for Impairment
As at 31.12.10	£m	£m	£m
Financial assets designated at fair value	-	79	-
Loans and advanced to banks	35	663	48
Home Loans	2,513	9,488	854
Credit card receivables	3,112	1,253	2,441
Other personal lending	3,397	2,098	3,127
Wholesale and Corporate loans and advances	18,010	6,623	5,611
Finance lease receivables	427	589	351
Total	**27,494**	**20,793**	**12,432**

	Impaired Exposures	Past Due Exposures	Allowance for Impairment
As at 31.12.09	£m	£m	£m
Financial assets designated at fair value	-	180	-
Loans and advanced to banks	57	2,280	61
Home Loans[1]	1,854	8,839	639
Credit card receivables	2,459	1,544	2,309
Other personal lending	2,372	2,175	2,908
Wholesale and Corporate loans and advances	10,088	7,598	4,558
Finance lease receivables	402	664	321
Total	**17,232**	**23,280**	**10,796**

The £7.9bn increase in wholesale and corporate impaired exposures to £18.0bn (2009: £10.1bn) is driven by the impairment related to Protium loan. The £0.6bn increase in home loans impaired exposures to £2.5bn (2009: £1.9bn) and the £0.3bn increase in the allowance for impairment to £0.9bn (2009: £0.6bn) are primarily attributable to the deteriorating property market in Spain, the acquisition of Standard Life Bank and increased lending within UK Retail Banking. The increases in other personal lending are all driven by impairment charges raised on unsecured lending. The decrease in past due exposures to banks is a result of reduced settlement balances at the end of 2010.

Note on table 31:

[1] The 2009 figures have been restated – see page 105 of the Annual Report.

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

Table 32: Geographic analysis of impaired and past due exposures and allowance for impairment

As at 31.12.10	Impaired Exposures £m	Past Due Exposures £m	Allowance for Impairment £m
UK	6,406	9,531	4,429
Other European Union	5,218	3,298	2,760
United States	12,056	3,725	2,958
Africa	2,917	3,699	1,631
Rest of the World	897	540	654
Total	**27,494**	**20,793**	**12,432**

As at 31.12.09	Impaired Exposures £m	Past Due Exposures £m	Allowance for Impairment £m
UK[1]	5,262	10,607	4,083
Other European Union	4,045	5,198	2,014
United States	4,792	3,098	2,518
Africa	2,192	3,777	1,349
Rest of the World	941	600	832
Total	**17,232**	**23,280**	**10,796**

The £7.3bn increase in impaired exposures within the United States to £12.1bn (2009: £4.8bn) is driven by the loan to Protium. The £1.2bn increase in impaired exposures within Other European Union to £5.2bn (2009 £4.0bn) is driven by the deteriorating property market in Spain and impairment on unsecured lending. The £1.1bn increase in impaired exposures within the United Kingdom to £6.4bn (2009: £5.3bn) is driven by the acquisition of Standard Life Bank, increased lending within UK Retail Banking and impairment raised on unsecured lending.

Note on table 32:

[1] The 2009 figures have been restated– see page 105 of the Annual Report.

The table below shows the movement of impairment in 2010 as well as amounts directly written off or recovered to profit and loss.

Table 33: Analysis of movement on impairment and amounts taken directly to profit and loss

	Allowance for Impairment	
	As at 31.12.10	As at 31.12.09
Impairment Movement	£m	£m
Starting period	10,796	6,574
Acquisitions & Disposals	78	434
Exchange and other adjustments	331	(127)
Unwind of discount	(213)	(185)
Amounts written off	(4,310)	(3,380)
Recoveries	201	150
Amounts charged against profit	5,549	7,330
Ending period	**12,432**	**10,796**

	P&L Impact	
	As at 31.12.10	As at 31.12.09
Direct P&L Impacts	£m	£m
Direct write-offs	126	2,522
Direct recoveries	-	-

The £2.4bn decrease in direct write offs to £0.1bn (2009: £ 2.5bn) is driven by reduced value adjustments, primarily within Barclays Capital.

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.

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 34: 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 35: 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.

Credit Quality Assessment Scale

The following table 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).

Table 36: 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 31.12.10	£m	£m	£m	£m	£m	£m	£m	£m	£m
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 on real estate property	N/A	N/A	N/A	N/A	N/A	N/A	27,752	27,752	-
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**

	Credit Exposure								Capital
Credit Exposure / 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 31.12.09	£m	£m	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	3,692	846	3,312	1,066	535	-	878	10,329	-
Regional governments or local authorities	1	7	42	-	-	-	210	260	-
Administrative bodies and non-commercial undertakings	-	-	-	-	-	-	384	384	-
Institutions	328	482	61	41	-	-	1,997	2,909	-
Corporates	83	675	486	90	64	76	43,303	44,777	-
Retail	N/A	N/A	N/A	N/A	N/A	N/A	26,130	26,130	-
Secured on real estate property	N/A	N/A	N/A	N/A	N/A	N/A	26,881	26,881	-
Past due items	N/A	N/A	N/A	N/A	N/A	N/A	4,116	4,116	-
Private Equity	N/A	N/A	N/A	N/A	N/A	N/A	2,138	2,138	-
Covered Bonds	-	-	-	-	-	-	-	-	-
Collective investment undertakings	762	155	-	-	-	-	4	921	-
Other items	N/A	N/A	N/A	N/A	N/A	N/A	3,643	3,643	-
Securitisation positions	-	-	-	-	-	-	-	-	1,237
Total Standardised Approach Credit Exposure / Capital	**4,866**	**2,165**	**3,901**	**1,197**	**599**	**76**	**109,684**	**122,488**	**1,237**

Under the Basel rules most of the exposures under the Standardised approach are classified as "unrated". Information on the drivers of the £2.8bn increase to £125.3bn (2009: £122.5bn) can be found in tables 20, 22, 25 and 28.

Table 37: 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 31.12.10	£m	£m	£m	£m	£m	£m	£m	£m	£m
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 on real estate property	-	N/A	N/A	N/A	N/A	N/A	27,449	27,449	-
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**

	Credit Exposure								Capital
Credit Exposure / 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 31.12.09	£m	£m	£m	£m	£m	£m	£m	£m	£m
Central governments or central banks	3,692	846	3,312	1,066	535	-	878	10,329	-
Regional governments or local authorities	1	7	42	-	-	-	210	260	-
Administrative bodies and non-commercial undertakings	-	-	-	-	-	-	384	384	-
Institutions	328	482	61	41	-	-	1,921	2,833	-
Corporates	83	675	486	90	64	76	41,121	42,595	-
Retail	N/A	N/A	N/A	N/A	N/A	N/A	25,860	25,860	-
Secured on real estate property	N/A	N/A	N/A	N/A	N/A	N/A	26,735	26,735	-
Past due items	N/A	N/A	N/A	N/A	N/A	N/A	4,103	4,103	-
Private Equity	N/A	N/A	N/A	N/A	N/A	N/A	2,138	2,138	-
Covered Bonds	-	-	-	-	-	-	-	-	-
Collective investment undertakings	762	155	-	-	-	-	4	921	-
Other items	N/A	N/A	N/A	N/A	N/A	N/A	3,643	3,643	-
Securitisation positions	-	-	-	-	-	-	-	-	1,237
Total Standardised Approach Credit Exposure / Capital	**4,866**	**2,165**	**3,901**	**1,197**	**599**	**76**	**106,997**	**119,801**	**1,237**

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

Credit Risk Mitigation

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

- netting and set-off;
- collateral; and
- risk transfer.

In many jurisdictions in which Barclays operates, credit risk exposures can be reduced by applying netting and set off which uses Barclays obligations to a counterparty to produce a lower, net, credit exposure. This technique is commonly used in derivative transactions.

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. Assets taken as collateral include cash, financial assets (subject to an appropriate margin or 'haircut' to reflect their price volatility) and physical assets, particularly property but also vehicles, aircraft, ships and physical commodities amongst many others. 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).

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

- firstly, if the risk is transferred to a counterparty that is more creditworthy than the original counterparty, then overall credit risk will be reduced; and
- secondly, where recourse to the first counterparty remains, a default of both counterparties is required before a loss materialises. This will be less likely than the default of either counterparty individually so credit risk is reduced.

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

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 31.12.10	As at 31.12.09
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	6	76
Corporates	2,566	2,182
Retail	316	270
Secured on real estate property	303	146
Past due items	0	13
Private equity positions	-	-
Covered Bonds	-	-
Collective investment undertakings	-	-
Other items	-	-
Total	**3,191**	**2,687**

Collateral and guarantees under the Standardised approach mainly relate to Barclays Wealth business. The £0.5bn increase to £3.2bn (2009: £2.7bn) was driven by new lending secured by eligible collateral types, market movements affecting the value of collateral and increased recognition of collateral within existing lending.

Credit Risk Mitigation

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 31.12.10	£m	£m	£m	£m
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**	-	-

	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 31.12.09	£m	£m	£m	£m
Central governments or central banks	-	-	-	-
Institutions[1]	-	1,490	-	-
Corporates[1]	-	7,126	-	-
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	-	**8,616**	-	-

The Foundation IRB figures above relate to wholesale credit risk in Absa. The £3.9bn increase to £12.5bn (2009: £8.6bn) was principally driven by business growth and the appreciation in the value of the Rand against Sterling. 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.

Note on Table 39

[1] Figures were restated.

Securitisations

This section discloses information about Barclays securitisation activities distinguishing between the various roles Barclays plays in this business. It includes traditional securitisations as well as synthetic transactions effected through the use of derivatives.

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 and to generate term liquidity for the Group balance sheet.

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 2010, 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.

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 2010

Due to a strong overall capital and liquidity position, Barclays has undertaken selective securitisation activity in all forms during 2010, taking advantage of market conditions when it has been attractive to do so.

Approaches to calculating RWAs

RWAs reported for securitised assets at 31st December 2010 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 Internal Assessment Approach and the Supervisory Formula Approach to calculate its regulatory capital requirements arising from its securitisation exposures. Barclays also makes extensive use of ratings based approach while some items are calculated on a standard rules basis.

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 2010 Annual Report. To the extent that these interests are measured at fair value, they will be included within the fair value disclosures in Note 41 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.

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 and Fitch 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.

Quantitative tables

The securitisations disclosed below are those whose capital requirement has been calculated by reference to the BIPRU 9 securitisation framework under FSA regulations. The amounts are typically higher than those shown in the Annual Report as disclosure guidance requires all underlying exposures to be shown where a securitisation has been created during the year regardless of any accounting de-recognition treatment. The exposures are calculated on the basis of financial statement values, gross of the application of provisions.

Table 40: Outstanding amount of exposures securitised

	Outstanding Amount of Exposures Securitised			
	Traditional Transactions		Synthetic Transactions	
Exposure Type	**Originator**	**Sponsor**	**Originator**	**Sponsor**
As at 31.12.10	£m	£m	£m	£m
Residential Mortgages	10,610	-	-	-
Commercial Mortgages	9,695	-	-	-
Credit Card Receivables	-	-	-	-
Leasing	-	-	-	-
Loans to Corporates or SMEs	4,691	-	1,403	-
Consumer Loans	-	7,871	-	-
Trade Receivables	-	-	-	-
Securitisations/ Re-securitisations	1,050	-	-	-
Other Assets	249	-	-	-
Total	**26,295**	**7,871**	**1,403**	**-**

	Outstanding Amount of Exposures Securitised			
	Traditional Transactions		Synthetic Transactions	
Exposure Type	**Originator**	**Sponsor**	**Originator**	**Sponsor**
As at 31.12.09	£m	£m	£m	£m
Residential Mortgages[1]	14,468	-	-	-
Commercial Mortgages[1]	10,217	-	-	-
Credit Card Receivables	8,533	-	-	-
Leasing	94	-	-	-
Loans to Corporates or SMEs[1]	4,570	-	5,003	-
Consumer Loans	-	8,793	-	-
Trade Receivables	-	-	-	-
Securitisations/ Re-securitisations	1,214	-	-	-
Other Assets	480	-	-	-
Total	**39,576**	**8,793**	**5,003**	**-**

During 2010 the total amount of securitised exposures subject to Pillar 3 reporting decreased £17.8bn to £35.6bn (2009: £53.4bn) across both traditional and synthetic transactions. This includes transactions of third-party assets where Barclays acts as a sponsor.

The £14.2bn reduction in traditional securitisations exposures to £34.2bn (2009: £48.4bn) was primarily driven by the credit card and residential mortgage asset classes, which decreased due to bond amortisation and maturities in 2010.

The £3.6bn reduction in synthetic securitisation exposures to £1.4bn (31 December 2010: £5.0bn) is principally due to bond maturities in securitisations of loans to corporates or SMEs.

Note on Table 40

[1] Figures were restated.

Table 41: Analysis of impaired, past due and losses recognised on exposures securitised

	Outstanding Amount of Exposures Securitised			
	Past Due		Recognised Losses	
Exposure Type	**Originator**	**Sponsor**	**Originator**	**Sponsor**
As at 31.12.10	**£m**	**£m**	**£m**	**£m**
Residential Mortgages	925	-	97	-
Commercial Mortgages	949	-	5	-
Credit Card Receivables	-	-	-	-
Leasing	-	-	-	-
Loans to Corporates or SMEs	14	-	3	-
Consumer Loans	-	179	-	-
Trade Receivables	-	-	-	-
Securitisations/ Re-securitisations	237	-	23	-
Other Assets	-	-	-	-
Total	**2,125**	**179**	**128**	**-**

	Outstanding Amount of Exposures Securitised			
	Past Due		Recognised Losses	
Exposure Type	**Originator**	**Sponsor**	**Originator**	**Sponsor**
As at 31.12.09	£m	£m	£m	£m
Residential Mortgages[1]	1,113	-	1,144	-
Commercial Mortgages[1]	13	-	-	-
Credit Card Receivables	581	-	-	-
Leasing	6	-	-	-
Loans to Corporates or SMEs[1]	106	-	-	-
Consumer Loans	-	263	-	-
Trade Receivables	-	-	-	-
Securitisations/ Re-securitisations	436	-	338	-
Other Assets	-	-	-	-
Total	**2,255**	**263**	**1,482**	**-**

During 2010, the most marked movement has been a £1.4bn reduction in the value of recognised losses to £0.1bn (2009: £1.5bn) reflecting a stabilisation in market conditions and improved asset impairment performance.

Note on Table 41:

[1] Figures were restated.

Table 42: Aggregate amount of securitised positions retained or purchased

	Aggregate Amount of Securitised Positions Retained or Purchased		
Exposure Type	**Retained**	**Purchased**	**Total**
As at 31.12.10	£m	£m	£m
Residential Mortgages	912	33,878	34,790
Commercial Mortgages	677	1,144	1,821
Credit Card Receivables	-	100	100
Leasing	-	58	58
Loans to Corporates or SMEs	2,398	7,169	9,568
Consumer Loans	7,530	376	7,906
Trade Receivables	-	14	14
Securitisations/ Re-securitisations	640	7,811	8,450
Other Assets	23	418	442
Total	**12,180**	**50,968**	**63,149**

	Aggregate Amount of Securitised Positions Retained or Purchased		
Exposure Type	**Retained**	**Purchased**	**Total**
As at 31.12.09	£m	£m	£m
Residential Mortgages	2,332	26,372	28,704
Commercial Mortgages	63	980	1,043
Credit Card Receivables	13	42	55
Leasing	-	41	41
Loans to Corporates or SMEs	3,092	6,469	9,561
Consumer Loans	8,941	2,393	11,334
Trade Receivables	-	-	-
Securitisations/ Re-securitisations	202	219	421
Other Assets	12	2,186	2,198
Total	**14,655**	**38,702**	**53,357**

During 2010 the total amount of securitisation positions increased by £9.7bn to £63.1bn (2009: £53.4bn). This was driven by a £12.3bn increase in purchased positions to £51.0bn (2009: £38.7bn), principally due to an updated regulatory calculation of Exposure at Default (EAD) for existing CDO positions held; the approach now references the underlying collateral pool rather than the ABS positions making up the CDO. The increase in purchased positions was partially offset by a £2.5bn decrease in retained positions to £12.2bn (2009: £14.7bn) driven by bond amortisation and maturities in 2010 relating to residential mortgage, loans to corporates or SMEs and consumer loan asset classes.

Purchased securitisations / re-securitisations increased by £7.6bn to £7.8bn (2009:£0.2bn) following reclassifications due to a change in the regulatory treatment of the Protium transaction.

Table 43: Analysis of securitised positions retained or purchased by risk weight

Risk Weight Band	Aggregate Amount of Securitised Positions Retained or Purchased		Guidance for Risk Weight Bands	
	Retained	Purchased		
As at 31.12.10	£m	£m	**IRB S&P Equiv Rating**	**STD S&P Equiv Rating**
<= 10%	9,864	9,542	AAA to A+ (Senior Positions Only)	N/A
> 10% <= 20%	1,130	2,636	A to A- (Senior Positions Only) / AAA to A+ (Base Case)	N/A
> 20% <= 50%	485	2,341	A to A- (Base Case)	AAA to AA-
> 50% <= 100%	34	5,960	BBB+ to BBB (Base Case)	A+ to A-
>100% <= 650%	68	489	BBB- (Base Case) to BB (Base Case)	BBB+ to BB-
> 650% <= 1250%	-	32	BB- (Base Case)	N/A
> 1250% / Deducted	599	29,968	B+ & Below (Base Case)	B+ & Below
Total	**12,180**	**50,968**		

Risk Weight Band	Aggregate Amount of Securitised Positions Retained or Purchased		Guidance for Risk Weight Bands	
	Retained	Purchased		
As at 31.12.09	£m	£m	**IRB S&P Equiv Rating**	**STD S&P Equiv Rating**
<= 10%	10,466	12,410	AAA to A+ (Senior Positions Only)	N/A
> 10% <= 20%	896	5,488	A to A- (Senior Positions Only) / AAA to A+ (Base Case)	N/A
> 20% <= 50%	501	489	A to A- (Base Case)	AAA to AA-
> 50% <= 100%	1,695	337	BBB+ to BBB (Base Case)	A+ to A-
>100% <= 650%	94	277	BBB- (Base Case) to BB (Base Case)	BBB+ to BB-
> 650% <= 1250%	41	58	BB- (Base Case)	N/A
> 1250% / Deducted	962	19,643	B+ & Below (Base Case)	B+ & Below
Total	**14,655**	**38,702**		

The increase of £10.4bn in the 1250%/Deducted risk weight band for the purchased positions to £30.0bn (2009: £19.6bn) is mainly due to the change in the reporting treatment of existing CDO positions, as explained under Table 42.

Table 44: Aggregate amount of securitised revolving exposures

	Outstanding Amount of Securitised Revolving Exposures	
Underlying Asset Type	Originator's Amount	Investor's Interest
As at 31.12.10	£m	£m
Retail	-	-
Non-retail	-	-
Total	**-**	**-**

	Outstanding Amount of Securitised Revolving Exposures	
Underlying Asset Type	Originator's Amount	Investor's Interest
As at 31.12.09	£m	£m
Retail	7,446	1,087
Non-retail	-	-
Total	**7,446**	**1,087**

The securitised revolving exposures reportable under the Pillar 3 framework have reduced to zero during 2010.

The prior year exposures related to our Gracechurch Cards programme and other trades comprised in the 2009 totals have been repaid in 2010.

Table 45: Analysis of securitisation activity

	Securitisation Activity in 2010 (exposures securitised)				
	Traditional			Synthetic	
Exposure Type	Originator	Sponsor	Recognised Gain / Loss on Traditional Securitisation	Originator	Sponsor
As at 31.12.10	£m	£m	£m	£m	£m
Residential Mortgages	169	-	-	-	-
Commercial Mortgages	-	-	-	-	-
Credit Card Receivables	-	-	-	-	-
Leasing	-	-	-	-	-
Loans to Corporates or SMEs	-	-	-	-	-
Consumer Loans	-	-	-	-	-
Trade Receivables	-	-	-	-	-
Securitisations/ Re-securitisations	798	-	-	-	-
Other Assets	-	-	-	-	-
Total	**967**	**-**	**-**	**-**	**-**

	Securitisation Activity in 2009 (exposures securitised)				
	Traditional			Synthetic	
Exposure Type	Originator	Sponsor	Recognised Gain / Loss on Traditional Securitisation	Originator	Sponsor
As at 31.12.09	£m	£m	£m	£m	£m
Residential Mortgages	2,029	-	-	-	-
Commercial Mortgages	-	-	-	-	-
Credit Card Receivables	-	-	-	-	-
Leasing	-	-	-	-	-
Loans to Corporates or SMEs	329	-	-	-	-
Consumer Loans	-	-	-	-	-
Trade Receivables	-	-	-	-	-
Securitisations/ Re-securitisations	-	-	-	-	-
Other Assets	-	-	-	-	-
Total	**2,358**	**-**	**-**	**-**	**-**

Activity in new securitisation trades decreased in 2010 compared to prior year. This trend reflects both a lack of material investor demand for the higher risk securitisation tranches, which would support a transfer of significant risk and RWA relief, and Barclays strong overall capital position.

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, credit spreads, commodity prices, equity prices and foreign exchange rates.

The main sources of risk are traded market risk, non-traded interest rate risk, translational foreign exchange risk and pension risk. Traded risk resides primarily in Barclays Capital while non-traded market risk resides mainly in Global Retail Banking, Barclays Corporate, Barclays Wealth and Group Treasury. Translational foreign exchange risk is managed by 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 and the setting of limits;
- facilitate business growth within a controlled and transparent risk management framework;
- ensure traded market risk resides primarily in Barclays Capital; and
- minimise non-traded market risk.

Organisation and structure

The Board approves market risk appetite for trading and non-trading activities. 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. A daily market risk report summarises Barclays market risk exposures against agreed limits. This daily report is sent to the Chief Risk Officer, the Group Market Risk Director, the Group Finance Director and the appropriate Business Risk Directors.

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 setting 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 118 of the Annual Report gives an overview of the business control structure.

Traded market risk

Traded market risk is predominantly the result of client facilitation in wholesale markets. This involves market making, offering hedge solutions, pre-hedging and assisting clients to execute large trades. Not all client trades are hedged completely, giving rise to market risk. In Barclays Capital, trading risk is measured for the trading book, as defined for regulatory purposes, and certain banking books. Barclays policy is to concentrate trading activities in Barclays Capital.

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, Primary and Secondary risk factor stress testing and Combined scenario stress testing.

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.

The historical simulation methodology can be split into three parts:

- calculate hypothetical daily profit or loss for each position over the most recent two years, using observed daily market moves;
- sum all hypothetical profits or losses for day one across all positions, giving one total profit or loss. Repeat for all other days in the two-year history; and
- DVaR is the 95th percentile selected from the two-year history of daily hypothetical total profit or loss.

Market volatility in 2010 was impacted by concerns over future economic growth and the sovereign debt crisis, but remained below the high levels observed in 2008. During 2010, the high volatility observations of 2008 rolled out of the two year DVaR historical data set and were replaced in the data time series by less volatile 2010 observations.

Barclays Capital's DVaR model has been approved by the FSA to calculate regulatory capital for certain trading book portfolios. The 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. For internal management purposes DVaR is also calculated for certain banking books as well as all trading book portfolios.

The FSA categorises a DVaR model as green, amber or red. A green model is consistent with a good working DVaR 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 2010 and 2009.

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

When reviewing DVaR estimates, a number of considerations should be taken into account. These are:

- 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; and
- 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 testing applies stress moves to key liquid risk factors for each of the major trading asset classes including interest rate, credit spread, commodity, equity and foreign exchange. Secondary stress testing applies stress moves to less liquid risks such as option volatility skew. Combined scenario stress testing applies simultaneous shocks to several risk factors, reflecting a defined extraordinary, but plausible scenario e.g. what is the estimated impact on profits of a fixed exchange rate becoming floating. This is assessed by applying respective changes on foreign exchange rates, interest rates, credit spreads and equities to the portfolio.

Risk Control

Market Risk is controlled through the use of limits, where appropriate, on the above risk measures. 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 many book limits, such as foreign exchange and interest rate sensitivity limits, are also in place.

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

In 2010, to further improve the application of the market risk control framework, Group Market Risk initiated an ongoing programme of conformance visits to Barclays Capital 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.

The oversight and governance of Barclays Capital's market risk models was also improved in 2010. This included making the model committee more granular by having two distinct committees, one specifically for model methodology and the other specifically for data integrity and infrastructure. Group Market Risk is a member of both these committees.

Risk Reporting

Barclays Capital Market Risk team produces a number of detailed and summary market risk reports daily, weekly, fortnightly and monthly. These include, new for 2010, the Executive Key Risk Report (daily) and the Senior Management Significant Risk Pack (monthly). These reports summarise the positions, risks and top stresses covering interest rate, credit spread, commodity, equity and foreign exchange. Barclays Capital market risk reports are sent to Group Market Risk for review and inclusion in the Group Daily Market Risk Report.

Equity investments

Barclays holds equity positions in non-trading books to generate capital gains for private equity subsidiaries. It can also hold positions as a result of debt to equity conversions, or to maintain strategic relationships. The following table shows the Group exposure to equities not held in the trading book. All equities are held at fair value.

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 46: Risk weighted exposures of equity investments

	Risk Weighted Exposure Amount for Equities Exposures using Simple Risk Weight Approach	
	As at 31.12.10	As at 31.12.09
Risk Weight Category	£m	£m
Exchange Traded Exposures	300	427
Non Exchange Traded Exposures	2,236	1,980
Other Exposures	-	-
Total Risk Weighted Exposure Amount for Equities	**2,536**	**2,407**

These exposures relate to the Absa book. The increase reflects the appreciation in the value of the Rand against Sterling. In Rand terms, exposures have decreased almost 10% following revaluation of the listed equity books and sales.

The £4.6bn stake that Barclays retains in BlackRock, Inc. following the sale of BGI is deducted from capital requirements, hence not risk weighted.

Table 47: Fair value of and gains and losses on equity investments

Non Trading Book Equity Investments	**As at 31.12.10**	**As at 31.12.09**
Fair Value	£m	£m
Exchange Traded	154	194
Private Equity	1,648	2,633
Other	502	491
Total	**2,304**	**3,318**
Cumulative Realised Gains / Losses from Sale and Liquidations of equity investments	(169)	65
Unrealised gains/(losses)		
Total Gains or Losses	(749)	309
Amount included in Tier 1, 2 or 3 Capital	(749)	309

The decrease in private equity is driven by a change in the treatment of certain private equity exposures, which are now deducted from capital rather than risk weighted.

Non-traded interest rate risk

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 when the base rate changes. The risk resides mainly in Global Retail Banking, Barclays Corporate, Barclays Wealth 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 treasury 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.

Risk measurement

The risk in each business is measured and controlled using both an income metric (Annual Earnings at Risk) and a present value metric (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 months. 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.

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.

Daily Value at Risk (DVaR) and risk factor stress testing methodologies are consistent with those used by Barclays Capital. DVaR and stress testing are used by Treasury functions that operate within liquid currencies such as Sterling, US Dollar and Euros while for those that operate in less liquid currencies, stress risk is the only present value 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 2010, a range of formal present value limits was extended to include stress and EVE limits. Compliance with limits is monitored by the respective business market risk team with oversight provided by Group Market Risk.

Market Risk is also controlled through an ongoing programme of conformance visits by both the business market risk departments and Group Market Risk. These visits review both the current market risk profile and potential market risk developments, as well as verifying conformance with Barclays policies and standards as detailed in the Barclays Market Risk Control Framework.

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 below.

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 48: Sensitivity of the banking book to interest rate changes

	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%**	**3.25%**

	Change in Economic Value of Equity £m	
	As at 31.12.09	
Currency	+ 200 basis points	- 200 basis points
GBP	(1,357)	1,287
USD	(710)	720
Euro	(55)	194
Rand	(183)	203
Other	(98)	(4)
Total Economic Value of Equity (EVE)	**(2,403)**	**2,400**
Percentage of EVE to Tier 1 and Tier 2 Capital	**-3.73%**	**3.73%**

Enhancement to the modelling of margin compression exposure is the retail bank are the primary driver in the observed reduction in EVE sensitivity from 2009 to 2010. This is due to the offset between this risk and the group equity hedge under an EVE sensitivity framework. A contributory factor to the overall reduction in EVE sensitivity was the temporary sale of gilts, used for hedging group equity, following concerns surrounding economic conditions in Q3 2010 and Q4 2010.

"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 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 49: Analysis of regulatory DVaR

Entity / Business Area	Regulatory Daily Value-at-risk (DVaR), Un-Diversified			
	Year-end	Average	Maximum	Minimum
As at 31.12.10	£m	£m	£m	£m
Barclays Bank PLC Trading and Barclays Capital Securities Ltd	62	89	202	47
- Fixed Income Rates	26	35	54	23
- Foreign Exchange	10	10	22	4
- Equities	37	24	51	11
- Commodities	24	25	41	15
- Emerging Markets	17	35	58	15
- Consolidated Credit Businesses	21	39	73	19

Note that the DVaR shown above is at the 99% confidence level, and hence will be higher than the measures shown in the results announcement. Commentary on year-on-year movements in Barclays market risk profile based on 95% DVaR can be found on page 120 of the Annual Report.

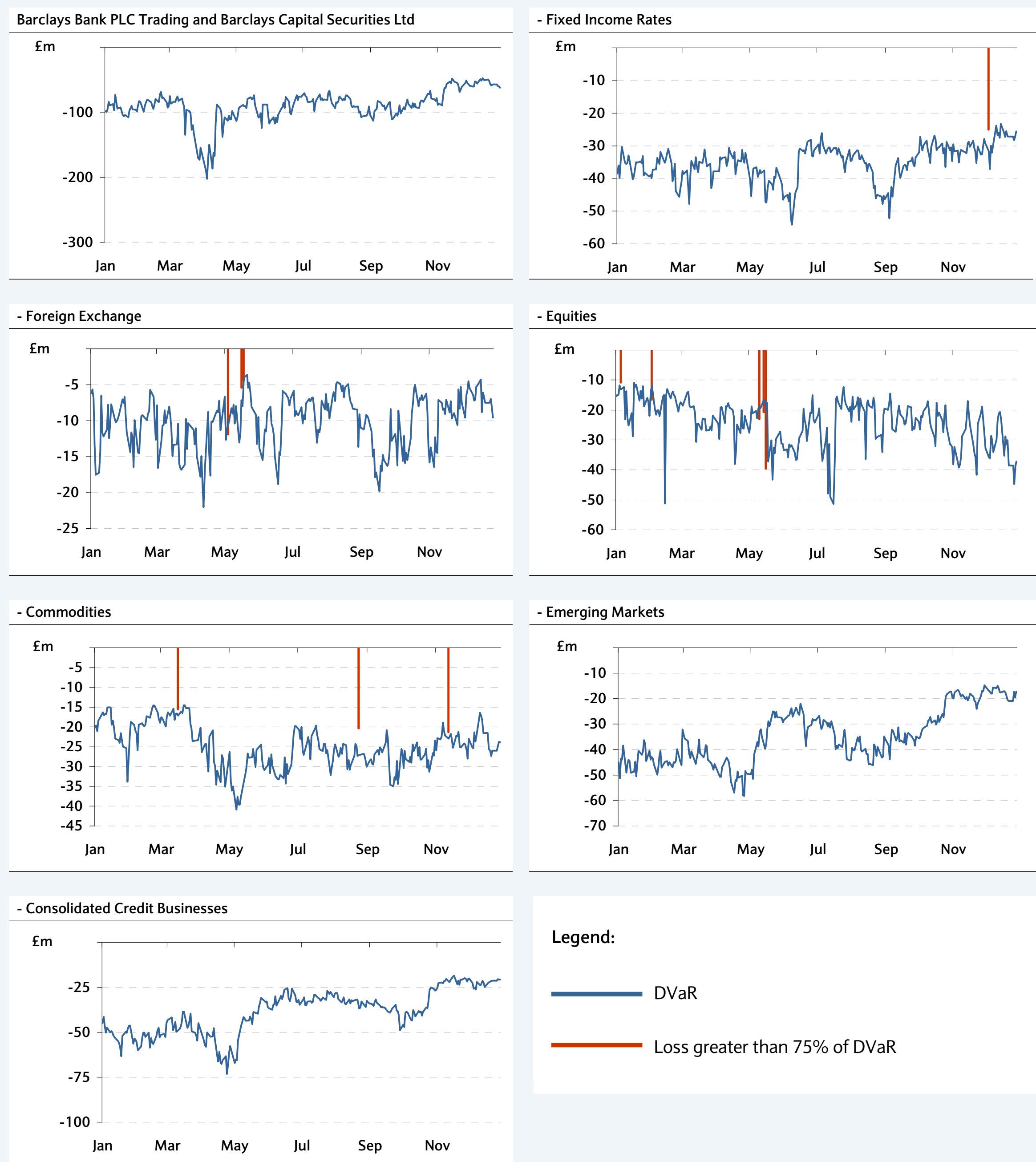
Note that in the table below, sub-portfolios feed up to the consolidated portfolio and the exceptions do not have to add up to the number of exceptions in the consolidated portfolio.

Table 50: Regulatory DVaR – exceptions and model status

Entity / Business Area	Exceptions and Model Status	
	Exceptions	Model Status
As at 31.12.10		
Barclays Bank PLC Trading and Barclays Capital Securities Ltd	0	Green
- Fixed Income Rates	0	Green
- Foreign Exchange	2	Green
- Equities	4	Green
- Commodities	0	Green
- Emerging Markets	0	Green
- Consolidated Credit Businesses	0	Green

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

Figure 1: Regulatory DVaR against associated P/L



Exceptions occur on days where a loss exceeds the DVaR. The graphs show when this occurred within foreign exchange and equities.

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.

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.

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;
- 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 II, which commenced in January 2008. The majority of the Group calculates regulatory capital using AMA, however in specific areas we apply the Standardised approach or Basic Indicator approach. In certain joint ventures and associates, Barclays may not be able to apply the AMA.

Areas where the roll-out of AMA is still continuing and the Standardised approach is currently applied are Barclays Bank Mozambique, National Bank of Commerce (Tanzania), and the portfolio of assets purchased from Woolworths Financial Services in South Africa, Citi Cards and Standard Life Bank, while these are integrated into our infrastructure.

Areas where the Group is working towards the rollout of AMA and the Basic Indicator approach is applied are Barclays Bank PLC Pakistan, Barclays Bank LLC Russia, Barclays Investment and Loans India Limited, the ABSA Africa businesses and the 'new-to-bank' business activities acquired from Lehman Brothers.

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.

Structure and governance

The Operational Risk framework comprises a number of elements that 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: 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 laterally, with Group Principal Risk Owners required to ensure that the Group Operational Risk policies are reflected in the Control Framework for their Principal Risk.

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) that 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. Front line risk managers are widely distributed throughout the Group. They service and support these areas, assisting line managers in 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 Group Operational Risk Executive Committee (GOREC) assists with the oversight of Operational Risk. GOREC is a sub-committee of the Group Risk Oversight Committee (GROC), which presents to the Board Risk Committee (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, GROC, 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 II 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 controls in place and assess whether the risks are effectively managed to 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 that 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 that 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.

Insurance

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

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.

More information on operational risk can be found on pages 137 and 138 of the Annual Report.

Liquidity risk is the risk that the Group is unable to meet its obligations when they fall due as a result of a sudden, and potentially protracted, increase in net cash outflows. Such outflows would deplete available cash resources for client lending, trading activities, investments and deposits. In extreme circumstances lack of liquidity could result in reductions in balance sheet and sales of assets, or potentially an inability to fulfil lending commitments. The risk that it will be unable to do so is inherent in all banking operations and can be affected by a range of institutionspecific and market-wide events.

Organisation and structure

Barclays Treasury operates a centralised governance and control process that covers all of the Group's liquidity risk management activities. Businesses assist Barclays Treasury in policy formation and limit setting by providing relevant and expert input for their local markets and customers. Execution of the Group's liquidity risk management strategy is carried out at country level within agreed policies, controls and limits, with the Country Treasurer providing reports directly to Barclays Treasury to evidence conformance with the agreed risk profile. Liquidity risk is a standing agenda item at Country and Cluster Asset and Liability Committees and on a consolidated basis is reported to the Group's Treasury Committee.

The objective of the Group's liquidity risk management strategy is to ensure that the funding profile of individual businesses and the Group as a whole is appropriate to underlying market conditions and the profile of our business in each given country. Liquidity risk limits and controls are flexed to achieve that profile and are based on regular qualitative and quantitative assessments of conditions under both normal and stressed conditions. Businesses are only allowed to have funding exposure to wholesale markets where they can demonstrate that their market is sufficiently deep and liquid and then only relative to the size and complexity of their business.

Liquidity limits reflect both local regulatory requirements as well as the behavioural characteristics of their balance sheets. Breaches of limits are reported to Treasury Committee together with details of the requirements to return to compliance.

Liquidity risk framework

Barclays has a comprehensive Liquidity Risk Management Framework (the Liquidity Framework) for managing the Group's liquidity risk. The objective of the Liquidity Framework is for the Group to have sufficient liquidity to continue to operate for at least the minimum period specified by the FSA in the event that the wholesale funding markets are neither open to Barclays nor to the market as a whole. Stress tests applied under the Liquidity Framework consider a range of possible wholesale and retail factors leading to loss of financing including:

- maturing of wholesale liabilities;
- loss of secured financing and widened haircuts on remaining book;
- retail and commercial outflows from savings and deposit accounts;
- drawdown of loans and commitments;
- potential impact of a 2 notch ratings downgrade[c]; and
- withdrawal of initial margin amounts by counterparties.

These stressed scenarios are used to assess the appropriate level for the Group's liquidity pool, which comprises unencumbered assets and central bank deposits. Barclays regularly uses these assets to access secured funding markets, thereby testing the liquidity assumptions underlying pool composition. The Group does not presume the availability of central bank borrowing facilities to monetise the liquidity pool in any of the stress scenarios under the Liquidity Framework.

Liquidity pool

The Group liquidity pool as at 31st December 2010 was £154bn gross (2009: £127bn) and comprised the cash and unencumbered assets detail on page 131 of the Annual Report (of which £140bn are FSA eligible). The Group maintains additional liquid assets to support ongoing business requirements such as payment services. The cost of the Group liquidity pool for 2010 has been allocated on the basis of the projected stress outflows arising in each relevant business.

Liquidity regulation

Since June 2010, the Group has reported its liquidity position against backstop Individual Liquidity Guidance (ILG) provided by the FSA. Calibration of the Group's Liquidity Framework anticipated final FSA rules and is therefore broadly consistent with current FSA standards.

[c] This is modeled on an ongoing basis; Barclays ensures that it always holds sufficient surplus liquidity to more than cover the impact of this stress outcome.

Liquidity Risk Management

The Basel Committee of Banking Supervisors (BCBS) issued its final guidelines for liquidity risk management, standards and monitoring in December 2010. These guidelines include a short term liquidity stress metric (the Liquidity Coverage Ratio (LCR)) and a longer term liquidity metric (the Net Stable Funding Ratio (NSFR)). The BCBS guidelines have yet to be implemented into European and UK law and therefore remain subject to refinement and change.

However, the Group monitors compliance against these BCBS metrics and the FSA is expected to bring its ILG metrics into line with the Basel LCR over time. Applying the expected BCBS guidelines to the Group's liquidity position as at 31st December 2010, the relevant ratios were estimated at 80% of the LCR requirement and 94% of the NSFR requirement.

Term financing

The Group continues to attract deposits in unsecured money markets and to raise additional secured and unsecured term funding in a variety of markets. As at 31st December 2009, the Group had £15bn of publicly issued term debt maturing during 2010. The corresponding figure for 2011 is £25bn. During 2010, the Group issued approximately £35bn of term funding, comprising:

- £8bn equivalent of public senior term funding;
- £4bn equivalent of public covered bonds/ABS;
- £2bn equivalent of public subordinated debt; and
- £21bn equivalent of structured notes.

This £35bn of term funding refinanced the 2010 requirement, both maturities and early repayments, as well as pre-financed some of the 2011 and 2012 maturities. Additional term funding raised in 2011 will support balance sheet growth, further extension of liability maturities and strengthening of our liquidity position.

The Group liquidity pool is sufficient to cover more than one year of wholesale maturities.

Funding structure

Global Retail Banking, Barclays Corporate, Barclays Wealth and Head Office Functions are structured to be self-funded through customer deposits, Barclays equity and other long term funding. Barclays Capital and, in part, Absa are funded through the wholesale secured and unsecured funding markets.

The loan to deposit and long term funding ratio improved to 77% at 31st December 2010 (2009: 81%). The loan to deposit ratio also improved to 124% at 31st December 2010 (2009: 130%).

More information on liquidity risk can be found on pages 131-136 of the Annual Report.

Differences between regulatory consolidation and IFRS consolidation

Table 51: Differences between the scope of statutory and regulatory consolidation

Entity	Statutory accounting treatment	Basel II regulatory treatment
Subsidiaries engaged in non-financial activities such as insurance	Fully consolidated	An investment in an unconsolidated subsidiary deducted from capital
Associates, joint ventures and participations in businesses which are financial in nature	Accounted for on an equity basis	Consolidated in proportion to the participation
Associates, joint ventures and participations in businesses which are not financial in nature	Accounted for on an equity basis	Deducted from capital
Private equity investments treated as associates	Accounted for on an equity basis	Deducted from capital

Presentation of 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 reported as 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

'ABS CDO Super Senior' – The super senior tranches of debt linked to collateralised debt obligations of asset backed securities (defined below). Payment of super senior tranches takes priority over other obligations.

'Absa' – The South African segment of Barclays PLC.

'Absa Group Limited' – Refers to the consolidated results of the South African group of which the parent company is listed on the Johannesburg Stock Exchange (JSE Limited) in which Barclays owns a controlling stake.

'Africa' – Geographic segment comprising countries where Barclays operates within Africa and the Indian Ocean.

'Alphabet Ratings' – Refers to non-numeric credit ratings used by external ratings agencies.

'Alt-A' – Loans regarded as lower risk than sub-prime, but with higher risk characteristics than lending under normal criteria.

'Annual Earnings at Risk (AEaR)' – The sensitivity of annual earnings to shocks in market rates, at approximately 99th percentile for change over one year. For interest rates this equates to a 2% parallel shift in rates. For equity indices, it equates to a 25% change from one-year end to the next, or 15% from one-year end to the next year's average.

'Arrears' – Customers are said to be in arrears when they are behind in fulfilling their obligations with the result that an outstanding loan is unpaid or overdue. Such a customer is also said to be in a state of delinquency. When a customer is in arrears, his entire outstanding balance is said to be delinquent, meaning that delinquent balances are the total outstanding loans on which payments are overdue.

'Asset Backed Securities (ABS)' – Securities that represent an interest in an underlying pool of referenced assets. The referenced pool can comprise any assets which attract a set of associated cash flows but are commonly pools of residential or commercial mortgages and, in the case of Collateralised Debt Obligations (CDOs), the referenced pool may be ABS or other classes of assets.

'Available For Sale (AFS)' – Available for sale investments are non-derivative financial investments that are designated as available for sale and are not categorised as held at fair value through profit and loss, loans and receivables or held to maturity.

'Backstop facility' – A standby facility, that is a liquidity arrangement whereby another party agrees to make a payment should the primary party not do so.

'Barclays Business' – A business unit within UK Retail Banking providing banking services to small and medium enterprises.

'Barclays Corporate' – A business unit that provides global banking services across 10 countries grouped into three regions: UK & Ireland, Continental Europe (Spain, Italy, Portugal and France) and New Markets (India, Pakistan, Russia and the UAE).

'Basis Point' – One hundredth of a per cent (0.01 per cent), so 100 basis points is 1 per cent. Used in quoting movements in interest rates or yields on securities.

'BCBS' Basel Committee of Banking Supervisors ('BCBS', or 'The Basel Committee') – A forum for regular cooperation on banking supervisory matters and develops global supervisory standards for the banking industry. Its members are officials from central banks or prudential supervisors from 27 countries and territories.

'Called Up Share Capital' – Ordinary shares, issued and fully paid.

'Capital Adequacy' – The Group manages its capital resources to ensure that those Group entities that are subject to local capital adequacy regulation in individual countries meet their minimum capital requirements.

'Capital Instruments' – Security (bonds, notes, shares) issued to obtain equity capital or loan capital

'Capital ratios' – Key financial ratios measuring the Group's capital adequacy or financial strength. These include the Core Tier 1 ratio, Tier 1 ratio and Risk asset ratio.

'Capital Requirement' – Amount to be held by the bank to cover the risk of losses to a certain confidence level.

'Capital Resources' – Financial instruments on balance sheet that are eligible to satisfy capital requirements.

'Collateralised Debt Obligations (CDOs)' – Securities issued by a third party which reference Asset Backed Securities (ABSs) (defined above) and/or certain other related assets purchased by the issuer. CDOs may feature exposure to sub-prime mortgage assets through the underlying assets. CDO^2 securities represent investments in CDOs that have been securitised by a third party.

'Collectively Assessed Impairment Allowances' – Impairment is measured collectively where a portfolio comprises homogenous assets and where appropriate statistical techniques are available.

'Commercial Paper' – An unsecured promissory note issued to finance short-term credit needs. It specifies the face amount paid to investors on the maturity date.

'Conduits' – A financial vehicle that holds asset-backed debt such as mortgages, vehicle loans, and credit card receivables, all financed with short-term loans (generally commercial paper) that use the asset-backed debt as collateral. The profitability of a conduit depends on the ability to roll over maturing short-term debt at a cost that is lower than the returns earned from asset-backed securities held in the portfolio.

'Core Tier 1 Capital' – Called-up share capital and eligible reserves plus equity non-controlling interests, less intangible assets and deductions relating to the excess of expected loss over regulatory impairment allowance and securitisation positions as specified by the FSA.

'Core Tier 1 Capital Ratio' – Core Tier 1 capital as a percentage of risk weighted assets.

'Covered bonds' – Debt securities backed by a portfolio of mortgages that is segregated from the issuer's other assets solely for the benefit of the holders of the covered bonds.

'Credit Conversion Factor (CCF)' – The portion of an off-balance sheet commitment drawn in the event of a future default. The conversion factor is expressed as a percentage. The conversion factor is used to calculate the exposure at default (EAD).

'Credit Default Swap (CDS)' – A credit derivative is an arrangement whereby the credit risk of an asset (the reference asset) is transferred from the buyer to the seller of protection. A credit default swap is a contract where the protection seller receives premium or interest-related payments in return for contracting to make payments to the protection buyer in the event of a defined credit event. Credit events normally include bankruptcy, payment default on a reference asset or assets, or downgrades by a rating agency.

'Credit Enhancements' – see 'Liquidity and Credit enhancements'

'Credit Equivalent Exposure (CEE)' – The magnitude of trading 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 CEE for such exposures using a stochastic method.

'Credit Market Exposures' – Relates to commercial real estate and leveraged finance businesses that have been significantly impacted by the continued deterioration in the global credit markets. The exposures include positions subject to fair value movements in the Income Statement, positions that are classified as loans and advances and available for sale.

'Credit Risk Loans (CRLs)' – A loan becomes a credit risk loan when evidence of deterioration has been observed, for example a missed payment or other breach of covenant. A loan may be reported in one of three categories: impaired loans; accruing past due 90 days or more; or impaired and restructured loans. These may include loans which, while impaired, are still performing but have associated individual impairment allowances raised against them.

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

'Customer Deposits' – Money deposited by all individuals and companies that are not credit institutions. Such funds are recorded as liabilities in the Group's balance sheet under Customer Accounts.

'Daily Value at Risk (DVaR)' – An estimate of the potential loss which might arise from market movements under normal market conditions, if the current positions were to be held unchanged for one business day, measured to a confidence level. (Also see VaR).

'Debt securities in issue' – Transferable certificates of indebtedness of the Group to the bearer of the certificates. These are liabilities of the Group and include certificates of deposits.

'Delinquency' – See 'Arrears'.

'Economic Capital' – An internal measure of the minimum equity and preference capital required for the Group to maintain its credit rating based upon its risk profile.

'Economic Profit' – Profit after tax and non-controlling interests excluding amortisation of acquired intangible assets less a capital charge representing adjusted average shareholders' equity excluding non-controlling interests multiplied by the Group cost of capital.

'Equity products' – As used in Note 41 of the Annual Report, these products are linked to equity markets. This category includes listed equities, exchange traded derivatives, equity derivatives, preference shares and contract for difference (CFD) products.

'Expected loss' – The Group measure of anticipated loss for exposures captured under an internal ratings based credit risk approach for capital adequacy calculations. It is measured as the Barclays modelled view of anticipated loss based on Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD), with a one-year time horizon.

'Exposure at Default (EAD)' – The estimation of the extent to which Barclays may be exposed to a customer or counterparty in the event of, and at the time of, that counterparty's default. At default, the customer may not have drawn the loan fully or may already have repaid some of the principal, so that exposure is typically less than the approved loan limit.

'External Credit Assessment Institutions (ECAI)' – Agencies whose credit assessment banks can use for the purpose of calculating regulatory capital requirements under certain conditions.

'Forbearance' – Forbearance programmes assist customers in financial difficulty through agreements to accept less than contractual amounts due where financial distress would otherwise prevent satisfactory repayment within the original terms and conditions of the contract. These agreements may be initiated by the customer, Barclays or a third party and include approved debt counselling plans, minimum due reductions, interest rate concessions and switches from capital and interest repayments to interest-only payments.

'FSA-eligible pool assets (liquid assets buffer)' – High quality unencumbered assets that meet the FSA's requirements for liquidity. These assets include, for example, high quality government or central bank securities, certain sight deposits with central banks, and securities issued by designated multilateral development banks.

'Funded/Unfunded' – Exposures where the notional amount of the transaction is either funded or unfunded. Represents exposures where a commitment to provide future funding has been made and the funds have been released/not released.

'Global Retail Banking (GRB)' – UK Retail Banking, Barclaycard, Western Europe Retail Banking and Barclays Africa.

'Home Loans' – A loan to purchase a residential property which is then used as collateral to guarantee repayment of the loan. The borrower gives the lender a lien against the property, and the lender can foreclose on the property if the borrower does not repay the loan per the agreed terms. Also known as a residential mortgage.

'Impairment Allowances' – A provision held on the balance sheet as a result of the raising of a charge against profit for the incurred loss inherent in the lending book. An impairment allowance may either be identified or unidentified and individual or collective.

'Income' – Total income net of insurance claims, unless otherwise specified.

'Individual liquidity guidance (ILG)' – Guidance given to a firm about the amount, quality and funding profile of liquidity resources that the FSA has asked the firm to maintain.

'Individually/Collectively Assessed' – Impairment is measured individually for assets that are individually significant, and collectively where a portfolio comprises homogenous assets and where appropriate statistical techniques are available.

'Internal Ratings' –refers to internally calculated estimates of PD, EAD and LGD.

'Investment Banking' Fee generating businesses encompassing Advisory, Debt and Equity Origination.

'Investment Grade' – A debt security, treasury bill or similar instrument with a credit rating measured by external agencies of AAA to BBB (or equivalent).

'ISDA Master Agreement' – Is used to document transactions between parties in different jurisdictions and/or transactions involving different currencies.

'Liquidity and Credit Enhancements' – Credit enhancement facilities are used to enhance the creditworthiness of financial obligations and cover losses due to asset default. Two general types of credit enhancement are third-party loan guarantees and self-enhancement through over collateralization. Liquidity enhancement makes funds available if required, for other reasons than asset default, e.g. to ensure timely repayment of maturing commercial paper.

'Liquidity Coverage Ratio (LCR)' The ratio of the stock of high quality liquid assets expected to net cash outflows over the following 30 days. High quality liquid assets should be unencumbered, liquid in markets during a time of stress and, ideally, be central bank eligible. These include, for example, cash and claims on central governments and central banks. The Basel III guidelines require this ratio to be at least 100% and it is expected to apply from 2015.

'Liquidity Pool/Buffer' – The group liquidity pool comprises cash at central banks and highly liquid collateral specifically held by the group as contingency to enable the bank to meet cash outflows in the event of stressed market conditions.

'Loan Capital' – Part of capital, excluding equity capital employed that earns a fixed rate of interest instead of dividends, and must be repaid within a specified period, irrespective of financial position.

'Loan Loss Rate (LLR)' – Defined as total credit impairment charge (excluding available for sale assets and reverse repurchase agreements) divided by gross loans and advances to customers and banks (at amortised cost).

'Loan to value ratio (LTV)' – The amount of a first mortgage lien as a percentage of the total appraised value of real property. The LTV ratio is used in determining the appropriate level of risk for the loan and therefore the price of the loan to the borrower. LTV ratios may be expressed in a number of ways, including origination LTV and mark to market (MTM) LTV. Origination LTVs use the current outstanding loan balance and the value of the property at origination of the loan. MTM LTVs use the current outstanding loan value and the current value of the property (which is estimated using one or more external house price indices).

'Loss Given Default (LGD)' – The fraction of Exposure at Default (EAD) (defined above) that will not be recovered following default. LGD comprises the actual loss (the part that is not expected to be recovered), together with the economic costs associated with the recovery process.

'Monoline' – An entity which specialises in providing credit protection to the holders of debt instruments in the event of default by a debt security counterparty. This protection is typically held in the form of derivatives such as credit default swaps (CDS) referencing the underlying exposures held.

'Mortgage Backed Securities (MBS)' – Securities that represent interests in a group of mortgages. Investors in these securities have the right to cash received from future mortgage payments (interest and/or principal).

'Net Interest Income' – The difference between interest received on assets and interest paid on liabilities including the interest income on Group equity.

'Net Investment Income' – Includes the net result of revaluing financial instruments designated at fair value, dividend income and the net result on disposal of available for sale assets.

'Net Stable Funding Ratio (NSFR)' – The ratio of available stable funding to required stable funding over a one year time horizon, assuming a stressed scenario. The ratio is required to be over 100% with effect from 2015. Available stable funding would include such items as equity capital, preferred stock with a maturity of over 1 year, or liabilities with a maturity of over 1 year. The required amount of stable funding is calculated as the sum of the value of the assets held and funded by the institution, multiplied by a specific required stable funding (RSF) factor assigned to each particular asset type, added to the amount of potential liquidity exposure multiplied by its associated RSF factor.

'Net Trading Income' – Arises from trading positions which are held at fair value, including market-making and customer business. The resulting gains and losses are included in the income statement together with interest, dividends and funding costs relating to trading activities.

'Non-Credit obligation assets' – Non-credit assets which attract regulatory capital in the same manner as credit assets (for instance, private equity holdings)

'Own Credit' – The effect of the Group's own credit standing on the fair value of financial liabilities.

'Point-In-Time (PIT)' – refers to credit risk measures which do not factor longer-term average risk characteristics of a credit asset.

'Position Risk' – Probability of loss associated with a particular trading (long or short) position due to price changes.

'Potential Credit Risk Loans (PCRLs)' – Comprise the outstanding balances to Potential Problem Loans (defined

below) and the three categories of Credit Risk Loans (defined above).

'Potential Problem Loans (PPLs)' – Loans where serious doubt exists as to the ability of the borrowers to continue to comply with repayment terms in the near future.

'Prime' – Loans of a higher credit quality and would be expected to satisfy the criteria for inclusion into Government programmes.

'Private Equity Exposures' – Amounts on balance sheet for private equity holdings, after any value adjustments required by regulations.

'Private Equity Investments' – As used in Note 41 of the Annual Report, private equity is equity securities in operating companies not quoted on a public exchange. Investment in private equity often involves the investment of capital in private companies or the acquisition of a public company that results in the delisting of public equity. Capital for private equity investment is raised by retail or institutional investors and used to fund investment strategies such as leveraged buyouts, venture capital, growth capital, distressed investments and mezzanine capital.

'Probability of Default (PD)' – The likelihood that a loan will not be repaid and will fall into default. PD may be calculated for each client who has a loan (normally applicable to wholesale customers/clients) or for a portfolio of clients with similar attributes (normally applicable to retail customers). To calculate 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 rating decision on individual large credits, such as internal and external models, rating agency ratings, and for wholesale assets market information such as credit spreads. For smaller credits, a single source may suffice such as the result from an internal rating model.

'Qualifying Revolving Retail' – Retail exposures treated under BIPRU 4.6.44 R (2). Amongst their characteristics they are revolving, unsecured, and, to the extent they are not drawn, immediately and unconditionally cancellable by the lender.

'Qualifying Subordinated Liabilities' – Liabilities held by a bank that can be counted toward capital requirements.

'Regulatory Capital' – The amount of capital that a bank holds to satisfy regulatory requirements.

'Retail Loans' – Loans to individuals rather than to financial institutions. It includes both secured and unsecured loans such as mortgages and credit card balances, as well as loans to certain smaller business customers.

'Revaluation Reserves' – Reserve created when an asset has been revalued and an increase in value is brought to account.

'Risk-Weighted Assets' – A measure of a bank's assets adjusted for their associated risks. Risk weightings are established in accordance with the Basel Capital Accord as implemented by the FSA.

'Securitisation' – A process by which debt instruments are aggregated into a pool, which is used to back new securities. A company sells assets to an SPV (special purpose vehicle) which then issues securities backed by the assets based on their value. This allows the credit quality of the assets to be separated from the credit rating of the original company and transfers risk to external investors.

'Special Purpose Entities (SPE)' – Entities that are created to accomplish a narrow and well defined objective. There are often specific restrictions or limits around their ongoing activities. Transactions with SPEs take a number of forms, including:

- The provision of financing to fund asset purchases, or commitments to provide finance for future purchases.
- Derivative transactions to provide investors in the SPE with a specified exposure.
- The provision of liquidity or backstop facilities which may be drawn upon if the SPE experiences future funding difficulties.
- Direct investment in the notes issued by SPEs.

'Structural Liquidity' – The liquidity available from current positions – principally unpledged marketable assets and holdings of term liabilities with long remaining lives.

'Subordinated Liabilities' – Liabilities which, in the event of insolvency or liquidation of the issuer, are subordinated to the claims of depositors and other creditors of the issuer.

'Subordination' – The state of prioritising repayments of principal and interest on debt to a creditor lower than repayments to other creditors by the same debtor. That is, claims of a security are settled by a debtor to a creditor only after the claims of securities held by other creditors of the same debtor have been settled.

'Sub-Prime' – Defined as loans to borrowers typically having weakened credit histories that include payment delinquencies and potentially more severe problems such as court judgements and bankruptcies. They may also display reduced repayment capacity as measured by credit scores, high debt-to-income ratios, or other criteria indicating heightened risk of default.

'Through-The-Cycle (TTC)' – Refers to credit risk measures which seek to capture the average risk characteristics of a credit asset over a credit cycle.

'Tier 1 Capital' – A measure of a bank's financial strength defined by the FSA. It captures Core Tier 1 capital plus other Tier 1securities in issue, but is subject to a deduction in respect of material holdings in financial companies.

'Tier 1 Capital Ratio' – The ratio expresses Tier 1 capital as a percentage of risk weighted assets.

'Tier 1 Capital Resources' – Capital resources that count toward satisfying Tier 1 capital requirements.

'Tier 1 Notes' – Hybrid capital instruments that can be counted toward Tier 1 capital.

'Tier 2 Capital' – Defined by the FSA. Broadly, it includes qualifying subordinated debt and other Tier 2 securities in issue, eligible collective impairment allowances, unrealised available for sale equity gains and revaluation reserves. It is subject to deductions relating to the excess of expected loss over regulatory impairment allowance, securitisation positions and material holdings in financial companies.

Glossary of terms

'Tier 2 Capital Resources' – Capital resources that count toward satisfying Tier 2 capital requirements.

'Value Adjustments' – Adjustment to accounting values made for regulatory purposes.

'Value at Risk (VaR)' – An estimate of the potential loss which might arise from market movements under normal market conditions, if the current positions were to be held unchanged for one business day, measured to a confidence level. (Also see DVaR).

'Wholesale Loans' – Lending to larger businesses, financial institutions and sovereign entities.

Note on 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 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, changes in legislation, the further development of standards and interpretations under International Financial Reporting Standards (IFRS) applicable to past, current and future periods, evolving practices with regard to the interpretation and application of standards under IFRS, the outcome of pending 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 speak only as of the date they are made. Except as required by the UK Financial Services Authority (FSA), the London Stock Exchange or applicable law, Barclays expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained in this announcement 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 SEC.