**Capital resources of significant subsidiaries**

For local capital adequacy purposes, a range of approaches are currently being applied in accordance with the regulatory requirements in force in each jurisdiction. Wherever possible, the approaches adopted at the Group level are applied locally.

The capital resources of the Group's more significant subsidiaries are presented in the following sections. These subsidiaries are Standard Chartered Bank (a UK incorporated banking entity including overseas branches, and certain subsidiaries which are permitted to be consolidated for capital adequacy purposes), Standard Chartered Bank (Hong Kong) Limited and Standard Chartered First Bank Korea Limited. The capital resources of these subsidiaries are presented in accordance with the regulatory requirements applicable in the countries in which they are incorporated.

The capital resources of the Group's significant subsidiaries are set out in the following table:

| | 31.12.08 | | |
|---|---|---|---|
| | Standard Chartered Bank $million | Standard Chartered Bank (HK) Ltd $million | Standard Chartered First Bank Korea Ltd $million |
| **Tier 1 capital** | | | |
| Called up ordinary share capital and preference shares | 11,465 | 1,622 | 1,043 |
| Eligible reserves | 4,879 | 2,470 | 2,027 |
| Minority interests | – | 1 | – |
| Innovative Tier 1 securities | 1,646 | – | – |
| Less: restriction of Innovative Tier 1 securities | – | – | – |
| Less: excess expected losses | (227) | (24) | – |
| Goodwill and other intangible assets | (1,321) | (154) | (31) |
| Other regulatory adjustments | 71 | (404) | (82) |
| Total Tier 1 capital | 16,513 | 3,511 | 2,957 |
| **Tier 2 capital** | | | |
| Eligible revaluation reserves | 60 | 15 | – |
| Portfolio impairment provision | 67 | 16 | 421 |
| Less: excess expected losses | (227) | (24) | – |
| Qualifying subordinated liabilities: | | | |
| Perpetual subordinated debt | 2,848 | 797 | – |
| Other eligible subordinated debt | 9,267 | – | 552 |
| Less: amortisation of qualifying subordinated liabilities | (1,127) | – | (167) |
| Restricted Innovative Tier 1 securities | – | – | – |
| Total Tier 2 capital | 10,888 | 804 | 806 |
| Investments in other banks | (24) | – | – |
| Other deductions* | (14,464) | (404) | (36) |
| Total deductions from Tier 1 and Tier 2 capital | (14,488) | (404) | (36) |
| Total Tier 3 capital | – | – | – |
| **Total capital base** | 12,913 | 3,911 | 3,727 |

* Other deductions for Standard Chartered Bank includes investments in subsidiaries of $12.1 billion and lending of a capital nature of $2.0 billion.

## 3. Risk management

The management of risk lies at the heart of Standard Chartered's business. One of the main risks the Group incurs arises from extending credit to customers through its trading and lending operations. Beyond credit risk, it is also exposed to a range of other risk types such as country, market, liquidity, operational, regulatory, pension and reputational risks which are inherent to Standard Chartered's strategy, product range and geographical coverage.

### Risk management framework

Effective risk management is fundamental to being able to generate profits consistently and sustainably – and is thus a central part of the financial and operational management of the Group.

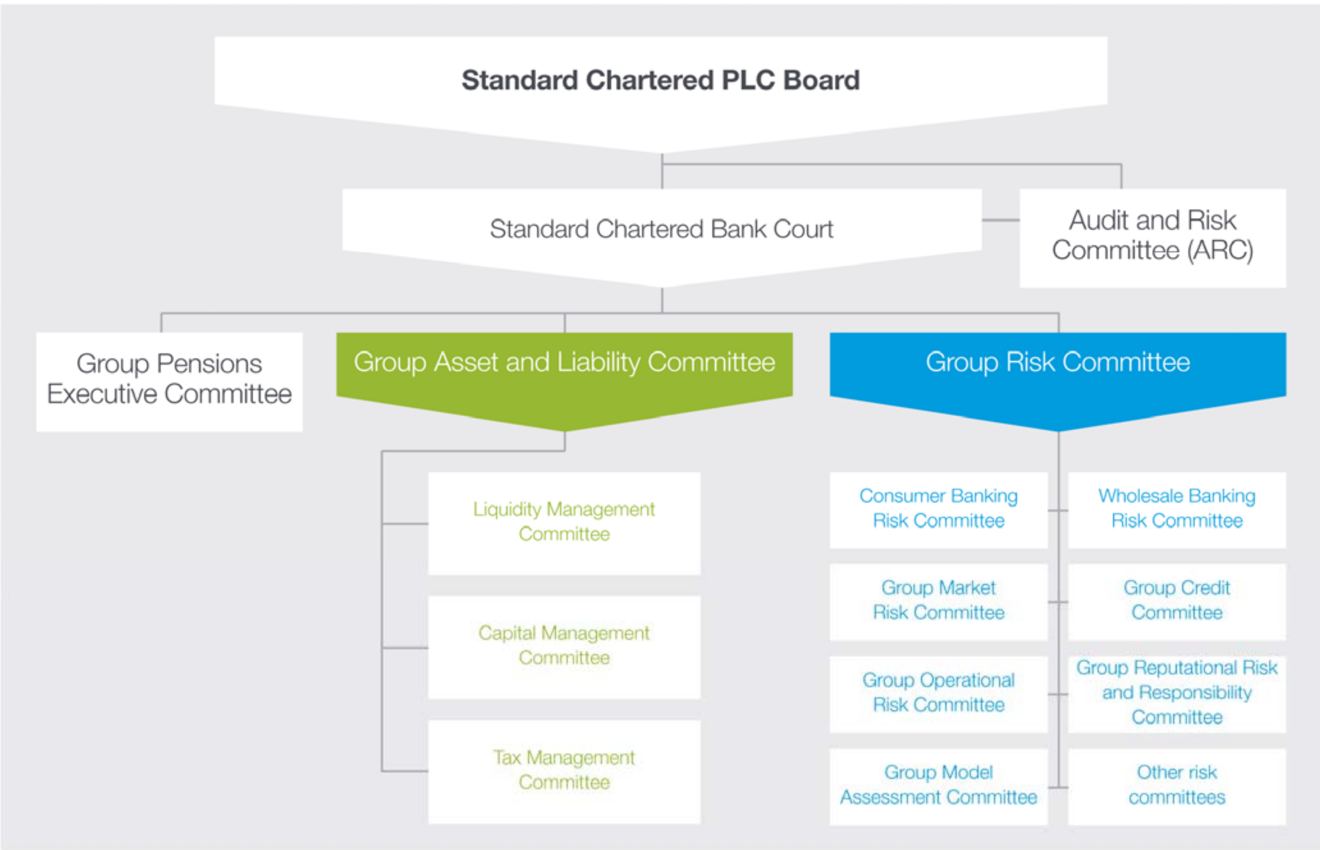
Through its Risk Management Framework (RMF) the Group manages enterprise-wide risks, with the objective of maximising risk-adjusted returns while remaining within its risk appetite.

As part of this framework, the Group uses a set of principles that describe the risk management culture the Group wishes to sustain:

- Balancing risk and reward: risk is taken in support of the requirements of the Group's stakeholders, in line with the Group's strategy and within its risk appetite;
- Responsibility: it is the responsibility of all employees to ensure that risk-taking is disciplined and focused. The Group takes account of its social, environmental and ethical responsibilities in taking risk to produce a return;
- Accountability: risk is taken only within agreed authorities and where there is appropriate infrastructure and resource. All risk-taking must be transparent, controlled and reported;
- Anticipation: the Group looks to anticipate future risks and maximise awareness of all risks; and
- Competitive advantage: the Group seeks competitive advantage through efficient and effective risk management and control.

The following diagram illustrates the high level risk committee structure.

### Group risk committee structure



**Risk governance**

Ultimate responsibility for setting the Group's risk appetite and for the effective management of risk rests with the Board of Standard Chartered PLC (the board). Executive responsibility for risk management is delegated to the Court which comprises the Group executive directors and other directors of Standard Chartered Bank.

The Group Asset and Liability Committee (GALCO), through its authority delegated by the Court, is responsible for the management of capital ratios and the establishment of, and compliance with, policies relating to balance sheet management, including management of the Group's liquidity, capital adequacy and structural foreign exchange rate risk. The Group Pensions Executive Committee, through its authority delegated by the Court, is responsible for the management of pension risk.

The Group Risk Committee (GRC), through its authority delegated by the Court, is responsible for the management of all other risks, including the establishment of, and compliance with, policies relating to credit risk, country risk, market risk, operational risk, regulatory risk and reputational risk. The GRC is also responsible for defining the Group's overall risk management framework.

Members of the Court are also members of both the GRC and GALCO. The GRC is chaired by the Group chief risk officer (GCRO). The GALCO is chaired by the Group finance director.

Acting within an authority delegated by the board, the ARC, whose members are all non-executive directors of the Company, reviews specific risk areas and monitors the activities of the GRC and GALCO. The ARC receives regular reports on risk management, including the Group's portfolio trends, policies and standards, adherence with internal controls, regulatory compliance, liquidity and capital adequacy, and is authorised to investigate or seek any information relating to an activity within its terms of reference.

The committee governance structure ensures that risk-taking authority and risk management policies are cascaded down through the organisation from the board through to the appropriate functional, divisional and country-level committees. Information regarding material risk issues and compliance with policies and standards is communicated through the country, business and functional committees up to the Group-level committees.

Risk limits and risk exposure approval authority frameworks are set by the GRC in respect of credit risk, country risk and market risk. The GALCO sets the approval authority framework in respect of liquidity risk. Risk approval authorities may be exercised by risk committees or authorised individuals.

Business governance and functional heads are accountable for risk management in their businesses and functions, and for countries where they have governance responsibilities. This includes:

- Implementing across all business activities the policies and standards as agreed by the Group level risk committees;
- Managing risk in line with appetite levels agreed by the Group level risk committees; and
- Developing and maintaining appropriate risk management infrastructure and systems to facilitate compliance with risk policies.

The GCRO chairs the GRC and is a member of the Group Management Committee. The GCRO directly manages a risk function which is separate from the origination, trading and sales functions of the businesses. Chief risk officers for both the Wholesale and Consumer Banking businesses have their primary reporting lines into the GCRO. Country chief risk officers take overall responsibility for risk within the Group's principal countries.

The Risk function performs the following core activities:

- Informs and challenges business strategy in order to encourage rigour, quality, optimisation and transparency in relation to the deployment of risk capital;
- Controls risk management processes separately from the businesses and seeks to ensure discipline and consistency with risk standards, policy and appetite;
- Advises on risk management frameworks, the structuring of products and transactions and on the assessment and measurement of risk;
- Facilitates and manages risk processes and seeks to ensure operational efficiency, effectiveness and best practice; and
- Communicates with stakeholders to demonstrate compliance with requirements in relation to risk management.

**Risk policy framework**


The Group's RMF identifies the risk types to which the Group is exposed, each of which is controlled by a designated risk type owner (RTO). The major risk types are described individually in the sections below. The RTOs, who are all approved persons under the FSA regulatory framework, have responsibility for establishing minimum standards and governance and for implementing governance and assurance processes. The RTOs report up through specialist risk committees to the GRC or GALCO.

Group Internal Audit is a separate Group function that reports to the chairman of the ARC and to the Group chief executive officer. It provides independent confirmation of compliance with Group and business standards, policies and procedures. Where necessary, it will recommend corrective action to restore or maintain such standards.

### Risk appetite

Risk appetite is an expression of the amount of risk the Group is willing to take in pursuit of its strategic objectives. Risk appetite reflects the Group's capacity to sustain potential losses arising from a range of potential outcomes under different stress scenarios.

The Group defines its risk appetite in terms of both volatility of earnings and the maintenance of minimum regulatory capital requirements under stress scenarios.

The Group's risk profile is assessed through a 'bottom-up' analytical approach covering all of the Group's major businesses, countries and products. The risk appetite is approved by the board and forms the basis for establishing the risk parameters within which businesses must operate, including policies, concentration limits and business mix.

The GRC is responsible for ensuring that the Group's risk profile is managed in compliance with the risk appetite set by the board.

### Stress testing

Stress testing and scenario analysis are used to assess the financial and management capability of the Group to continue operating effectively under extreme but plausible trading conditions. Such conditions may arise from economic, legal, political, environmental and social factors.

The Group has a stress testing framework designed to:

- Contribute to the setting and monitoring of risk appetite;
- Identify key risks to the Group's strategy, financial position, and reputation;
- Examine the nature and dynamics of the risk profile and assess the impact of stresses on the Group's profitability and business plans;
- Ensure effective governance, processes and systems are in place to co-ordinate and integrate stress testing;
- Inform senior management; and
- Ensure adherence to regulatory requirements.

A stress testing forum is led by the Risk function with participation from the businesses, Finance and Group Treasury. Its primary objective is to ensure that the Group understands the earnings and capital implications of specific stress scenarios. The stress testing forum generates and considers pertinent and plausible scenarios that have the potential to affect the Group adversely.

In view of recent market turbulence, stress testing activity has been intensified at country, business and Group levels, with specific focus on certain asset classes, customer segments and the potential impact of macroeconomic factors. Stress tests have taken into consideration possible future scenarios that could arise as a result of the development of prevailing market conditions.

Business stress testing themes such as high inflation, low inflation or declines in asset values are coordinated by the stress testing forum to ensure consistency of impacts on different risk types or countries. Specific stress tests for country or risk type are also performed. Examples of risk type stress testing are covered in the section on Market risk.

### Credit risk mitigation

The Group's credit risk mitigation policy, processes and amounts of collateral held are discussed in section 4.5 Credit Risk Mitigation.

**Stress testing framework**

# 4. Credit risk

Credit risk is the risk that the counterparty to a financial transaction will fail to discharge an obligation, resulting in financial loss to the Group. Credit exposures may arise from both the banking book and the trading book.

Credit risk is managed through a framework which sets out policies and procedures covering the measurement and management of credit risk. There is a clear segregation of duties between transaction originators in the businesses and the approvers in the Risk function. All credit exposure limits are approved within a defined credit approval authority framework.

### Credit policies

Group-wide credit policies and standards are considered and approved by the GRC, which also oversees the delegation of credit approval and loan impairment provisioning authorities.

Policies and procedures that are specific to each business are established by authorised risk committees within Wholesale and Consumer Banking. These are consistent with the Group-wide credit policies, but are more detailed and adapted to reflect the different risk environments and portfolio characteristics.

### Risk reporting and measurement systems

Risk measurement plays a central role, along with judgement and experience, in informing risk-taking and portfolio management decisions. It is a primary target for sustained investment and senior management attention.

Various risk measurement systems are available to risk officers to enable them to assess and manage the credit portfolio. These include systems to calculate Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD), RWA and Capital requirements on a transaction, counterparty and portfolio basis. The Group has implemented a single risk reporting system to aggregate risk data. This is used to generate regulatory returns and management information to assist business and Risk users with risk monitoring and management.

A number of internal risk management reports are produced on a regular basis, providing information on; individual counterparty, counterparty group, portfolio exposure, credit grade migration, the status of accounts or portfolios showing signs of weakness or financial deterioration, models performance and updates on credit markets. AIRB portfolio metrics are widely used in these reports. Regular portfolio risk reports are made available at senior management committee meetings including ARC, GRC and functional business and country level risk committees.

Risk measurement models are approved by the responsible risk committee, on the recommendation of the Group Model Assessment Committee (MAC). The MAC supports risk committees in ensuring risk identification and measurement capabilities are objective and consistent, so that risk control and risk origination decisions are properly informed. Prior to review by the MAC, all AIRB models are validated in detail by a model validation team, which is separate from the teams which develop and maintain the models. Models undergo a detailed review at least annually. Such reviews are also triggered if the performance of a model deteriorates materially.

### Credit approval

Major credit exposures to individual counterparties, groups of connected counterparties and portfolios of retail exposures are reviewed and approved by the Group Credit Committee (GCC). The GCC derives its authority from the GRC.

All other credit approval authorities are delegated by the GRC to individuals based on their judgement and experience, and based on a risk-adjusted scale which takes account of the estimated maximum potential loss from a given customer or portfolio. Credit origination and approval roles are segregated in all but a very few authorised cases. In those very few exceptions where they are not, originators can only approve limited exposures within defined risk parameters.

### Concentration risk

Credit concentration risk is managed within concentration caps set by counterparty or groups of connected counterparties, industry sector and country in Wholesale Banking; and by product and country in Consumer Banking. Additional targets are set and monitored for concentrations by credit rating.

Credit concentrations are monitored by the responsible risk committees in each of the businesses and concentration limits that are material to the Group are reviewed and approved at least annually by the GCC.

### Credit monitoring

The Group regularly monitors credit exposures and external trends which may impact risk management outcomes.

Internal risk management reports are presented to risk committees, containing information on key environmental, political and economic trends across major portfolios and countries; portfolio delinquency and loan impairment performance; as well as AIRB portfolio metrics including migration across credit grades.

In Wholesale Banking, accounts or portfolios are placed on Early Alert when they display signs of weakness or financial deterioration, for example where there is a decline in the customer's position within the industry, a breach of covenants, non-performance of an obligation, or there are issues relating to ownership or management.

Such accounts and portfolios are subjected to a dedicated process overseen by Group Special Assets Management (GSAM), the specialist recovery unit. Account plans are re-evaluated and remedial actions are agreed and monitored. Remedial actions include, but are not limited to, exposure reduction, security enhancement, exit of the account or immediate movement of the account into the control of GSAM.

In Consumer Banking, portfolio delinquency trends are monitored continuously at a detailed level. Individual customer behaviour is also tracked and informs lending decisions. Accounts which are past due are subject to a collections process, managed independently by the Risk function. Charged-off accounts are managed by a specialist recovery team. In some countries, aspects of collections and recovery functions are outsourced. Medium Enterprise and Private Banking past due accounts are managed by GSAM.

The Small and Medium Enterprise (SME) business is managed within Consumer Banking in two distinct segments: Small Businesses, and Medium Enterprises, differentiated by the annual turnover of the counterparty. Medium Enterprise accounts are monitored in line with Wholesale Banking procedures, while Small Business accounts are monitored in line with other Consumer Banking accounts.

## 4.1. Internal Ratings Based Approach to credit risk

The Group uses the AIRB approach to manage credit risk for the majority of its portfolios. This allows the Group to use its own internal estimates of PD, LGD, EAD and Credit Conversion Factor (CCF) to determine an asset risk weighting.

PD is the likelihood that an obligor will default on an obligation. All banks must produce an internal estimate of PD for all borrowers in each borrower grade. LGD is the percentage of an exposure that a lender expects to lose in the event of obligor default. EAD is the expected amount of exposure to a particular obligor at the point of default and CCF is an internally modeled parameter based on historical experience to determine the amount that is expected to be further drawn down from the undrawn portion in a committed facility.

All assets under the AIRB approach have sophisticated PD, LGD and EAD/CCF models developed to support the credit decision making process. RWA under the AIRB approach is determined by regulatory specified formulae dependent on the Group's estimates of PD, LGD, EAD and CCF. The development, use and governance of models under the AIRB approach is covered in more detail in section 4.6 Internal Ratings Based Models.

Regulation BIPRU 4.2.30 requires AIRB banks to cover 85 per cent of credit RWA under AIRB approaches. The Group targets a coverage ratio of 90 per cent by 2010, with 10 per cent of the credit RWA remaining permanently exempted.

The permanent exemptions for Consumer Banking include:

- Africa – all retail portfolios;
- Private banking; and
- Portfolios where the size or nature makes application of the advanced approach inefficient; mainly in the Middle East.

For Wholesale Banking, permanent exemptions apply to:

- Alternative investments;
- Private equity;
- Jordan & Lebanon; and
- Purchase receivables.

The Group applies the standardised approach to portfolios classified as permanent exemptions and portfolios in the process of being transitioned to the AIRB approach.

At 31 December 2008, the following portfolios are being transitioned to the AIRB approach. These portfolios are due to be incorporated fully into the AIRB coverage within the next 24 months.

- Credit cards portfolios in Indonesia;
- Mortgages and personal loans in Taiwan;
- A portion of the retail mortgages, credit cards and instalment loans in Pakistan;
- Instalment loan and corporate loan portfolio in Korea;
- SME mortgages in Singapore, Hong Kong and Malaysia;
- A portion of the Permata Bank Wholesale Banking portfolio in Indonesia; and
- A portion of the commercial real estate book in Wholesale Banking.

## 4.2. Standardised Approach to credit risk

The Group applies the standardised approach to portfolios that are classified as permanently exempt from the AIRB approach, and those portfolios that are currently under transition to the AIRB approach in accordance with the Group's 'AIRB Roll Out Plan'. Section 4.1 provides details of such portfolios.

The standardised approach to credit risk measures credit risk pursuant to fixed risk weights and is the least sophisticated of the capital calculation methodologies. The risk weight applied under the standardised approach is given by the FSA and is based on the asset class to which the exposure is assigned.

For Sovereigns, Corporates and Institutions, external ratings are used to assign risk weights. These external ratings must come from FSA approved rating agencies, known as External Credit Assessment Institutions (ECAI); namely Moody's, Standard & Poor's and Fitch. The Group uses ratings from these agencies as part of its day to day business. External ratings for the counterparty are determined as soon as a relationship is established and these ratings are tracked and kept updated. Assessments provided by approved ECAI are mapped to credit quality steps as prescribed by the FSA.

The Group currently does not use assessments provided by export credit agencies for the purpose of evaluating RWA in the standardised approach.

## 4.3. Regulatory capital requirements

The below table presents the minimum regulatory credit risk capital requirements as at 31 December 2008, calculated as 8 per cent of RWA based on the approaches described above in sections 4.1 and 4.2.

| Credit Risk Capital | 31.12.08 Regulatory Capital Requirement $million |
|---|---|
| **AIRB Exposure Class** | |
| Central governments or central banks | 404 |
| Institutions | 1,335 |
| Corporates | 5,001 |
| Retail, of which | 1,436 |
| Secured by real estate collateral | 519 |
| Qualifying revolving retail | 406 |
| Retail SME | 68 |
| Other retail | 443 |
| Equity | – |
| Securitisation positions | 198 |
| Non-credit obligation assets | 17 |
| Total AIRB | 8,391 |
| **Standardised Exposure Class** | |
| Central governments or central banks | 3 |
| Regional government or local authorities | – |
| Administrative bodies and non-commercial undertakings | – |
| Multilateral development banks | – |
| International organisations | – |
| Institutions | 109 |
| Corporates | 617 |
| Retail | 840 |
| Secured on real estate property | 370 |
| Past due items | 135 |
| Items belonging to regulatory high risk categories | 35 |
| Covered bonds | – |
| Securitisation positions | – |
| Short term claims on institutions and corporates | – |
| Collective investment undertakings | – |
| Other items** | 1,014 |
| Total Standardised | 3,123 |
| Counterparty credit risk capital component (credit risk in the trading book) | 1,388 |
| Concentration Risk capital component* | – |
| **Total** | 12,902 |

* The concentration risk capital component is the additional capital requirement to be held where exposure to an individual counterparty exceeds 25 per cent of capital resources.

** 'Other items' includes cash equity holdings, fixed assets, prepayments and accrued income.

The minimum credit risk capital requirements of the Group's significant subsidiaries are presented below in accordance with the regulatory requirements applicable in the countries in which they are incorporated. Although, for local regulatory requirements, Standard Chartered First Bank Korea is obliged to using the standardised approach to credit risk, under FSA guidelines it is treated under the AIRB approach.

| | 31.12.08 | | |
|---|---|---|---|
| **Credit Risk Capital** | Standard Chartered Bank $million | Standard Chartered Bank (HK) Ltd $million | Standard Chartered First Bank Korea $million |
| **AIRB Exposure Class** | | | |
| Central governments or central banks | 167 | 6 | – |
| Institutions | 1,213 | 230 | – |
| Corporates | 2,712 | 887 | – |
| Retail, of which | 350 | 331 | – |
| Secured by real estate collateral | 163 | 101 | – |
| Qualifying revolving retail | 110 | 171 | – |
| Retail SME | – | – | – |
| Other retail | 77 | 59 | – |
| Equity | – | – | – |
| Securitisation positions | 223 | 2 | – |
| Non-credit obligation assets | – | – | – |
| Other* | – | 104 | – |
| Total AIRB | 4,665 | 1,560 | – |
| **Standardised Exposure Class** | | | |
| Central governments or central banks | 2 | – | 1 |
| Regional government or local authorities | – | – | – |
| Administrative bodies and non-commercial undertakings | – | – | – |
| Multilateral development banks | – | – | – |
| International organisations | – | – | – |
| Institutions | 46 | 1 | 55 |
| Corporates | 294 | 89 | 862 |
| Retail | 313 | 35 | 548 |
| Secured on real estate property | 39 | 32 | 251 |
| Past due items | 19 | 29 | – |
| Items belonging to regulatory high risk categories | 2 | – | 49 |
| Covered bonds | – | – | – |
| Securitisation positions | – | – | 80 |
| Short term claims on institutions and corporates | – | – | – |
| Collective investment undertakings | – | – | – |
| Other items | 345 | 27 | 568 |
| Total Standardised | 1,060 | 213 | 2,414 |
| Counterparty credit risk capital component (credit risk in the trading book) | 981 | 1 | – |
| Concentration Risk capital component** | – | – | – |
| **Total** | 6,706 | 1,774 | 2,414 |

* The AIRB exposure class 'Other' is an asset class under the Hong Kong Monetary Authority regulations

** The concentration risk capital component is the additional capital requirement to be held where exposure to an individual counterparty exceeds 25 per cent of capital resources.

## 4.4. Exposure values

The following tables detail the Group's Exposure at Default (EAD) before the effect of credit risk mitigation, broken down by the relevant exposure class against the relevant industry, maturity and geography. EAD is based on the current outstandings and accrued interest and fees, plus a proportion of the undrawn component of the facility. The amount of the undrawn facility included is dependant on the product type, and for AIRB exposure classes this amount is modelled internally.

**Geographical analysis**
The below table provides EAD analysed by the booking location of the exposure. The Group's exposure to credit risk is concentrated in Hong Kong, Korea, Singapore, Other Asia Pacific region and Americas, UK & Europe. The Group is affected by the general economic conditions in the territories in which it operates. The Group sets limits on the exposure to any counterparty and credit risk is spread over a variety of different personal and commercial customers. For corporates and institutions the undrawn component of a global facility is generally booked in Americas, UK & Europe region. The Wholesale Banking portfolio is well diversified across geography. Single borrower concentration risk has been mitigated by active distribution of assets to banks and institutional investors, some of which is achieved through credit-default swaps and synthetic risk transfer structures.

| | 31.12.08 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Asia Pacific | | | | | | | | | | |
| | Hong Kong $million | Singapore $million | Malaysia $million | Korea $million | Other Asia Pacific $million | India $million | Middle East & Other S Asia $million | Africa $million | Americas UK & Europe $million | Period end Total $million | Average Total $million |
| **AIRB Exposure Class** | | | | | | | | | | | |
| Central governments or central banks | 8,482 | 4,959 | 3,890 | 7,062 | 15,933 | 3,858 | 3,636 | 1,936 | 14,875 | 64,631 | 54,573 |
| Institutions | 27,110 | 14,904 | 1,947 | 9,062 | 9,445 | 3,025 | 5,575 | 1,187 | 54,212 | 126,467 | 118,592 |
| Corporates | 12,549 | 9,138 | 3,090 | 12,545 | 14,985 | 8,138 | 17,257 | 3,398 | 39,014 | 120,114 | 111,542 |
| Retail | 21,035 | 8,232 | 4,097 | 25,179 | 1,373 | 2,139 | 856 | – | – | 62,911 | 64,854 |
| Equity | – | – | – | – | – | – | – | – | – | – | – |
| Securitisation positions | – | – | – | – | – | – | – | – | 18,533 | 18,533 | 14,248 |
| Non-credit obligation assets | – | – | – | 25 | – | – | – | – | – | 25 | 13 |
| Total AIRB | 69,176 | 37,233 | 13,024 | 53,873 | 41,736 | 17,160 | 27,324 | 6,521 | 126,634 | 392,681 | 363,822 |
| **Standardised Exposure Class** | | | | | | | | | | | |
| Central governments or central banks | – | – | – | 1 | – | 45 | – | – | 134 | 180 | 91 |
| Regional governments or local authorities | – | – | – | – | – | – | – | – | – | – | – |
| Administrative bodies and non-commercial undertakings | – | – | – | – | – | – | – | – | – | – | – |
| Multilateral development banks | – | – | – | – | – | – | – | – | 7 | 7 | 4 |
| International organisations | – | – | – | – | – | – | – | – | – | – | – |
| Institutions | 7 | 129 | – | – | 7 | 167 | – | – | 3,305 | 3,615 | 1,809 |
| Corporates | 1,107 | 3,673 | 262 | 1,413 | 1,037 | 410 | 367 | 18 | 3,976 | 12,263 | 9,404 |
| Retail | 1,090 | 1,248 | 1,340 | 2,166 | 3,730 | 978 | 3,257 | 762 | 553 | 15,124 | 17,291 |
| Secured on real estate | 353 | 612 | 154 | 616 | 6,950 | 254 | 41 | 34 | 130 | 9,144 | 8,409 |
| Past due items | 460 | 18 | 54 | 130 | 614 | 53 | 111 | 27 | 2 | 1,469 | 1,305 |
| Items belong to regulatory high risk category | 162 | – | – | – | 91 | 21 | – | – | 22 | 296 | 148 |
| Covered bonds | – | – | – | – | – | – | – | – | – | – | – |
| Securitisation positions | – | – | – | – | – | – | – | – | – | – | – |
| Short term claims on institutions and corporates | – | – | – | – | – | – | – | – | – | – | – |
| Collective investment undertakings | – | – | – | – | – | – | – | – | – | – | – |
| Other items | 2,174 | 574 | 143 | 2,334 | 2,546 | 1,049 | 1,109 | 685 | 3,692 | 14,306 | 13,893 |
| Total Standardised | 5,353 | 6,254 | 1,953 | 6,660 | 14,975 | 2,977 | 4,885 | 1,526 | 11,821 | 56,404 | 52,354 |
| **Total** | 74,529 | 43,487 | 14,977 | 60,533 | 56,711 | 20,137 | 32,209 | 8,047 | 138,455 | 449,085 | 416,176 |

### Industry analysis

The Wholesale Banking portfolio is well diversified across industry, with no significant concentration within the industry classifications of Manufacturing; Financing, insurance and business services; Commerce; or Transport, storage and communication.

| | 31.12.08 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Loans to Individuals – Mortgage $million | Loans to Individuals – Other $million | SME $million | Commerce $million | Manufacturing $million | Commercial Real Estate $million | Government $million | Financing Insurance & Business Services $million | Transport & Storage & Communication $million | Other $million | Total $million |
| **AIRB Exposure Class** | | | | | | | | | | | |
| Central governments or central banks | – | – | – | – | – | – | 63,766 | 157 | – | 708 | 64,631 |
| Institutions | – | 4 | – | 9 | 5 | 328 | 118 | 116,505 | 7 | 9,491 | 126,467 |
| Corporates | 32 | 17 | 1,568 | 26,309 | 34,765 | 5,954 | 594 | 14,684 | 8,953 | 27,238 | 120,114 |
| Retail | 42,787 | 19,490 | 634 | – | – | – | – | – | – | – | 62,911 |
| Equity | – | – | – | – | – | – | – | – | – | – | – |
| Securitisation positions | – | – | – | – | – | – | – | 448 | – | 18,085 | 18,533 |
| Non-credit obligation assets | – | – | – | – | – | – | – | – | – | 25 | 25 |
| Total AIRB | 42,819 | 19,511 | 2,202 | 26,318 | 34,770 | 6,282 | 64,478 | 131,794 | 8,960 | 55,547 | 392,681 |
| **Standardised Exposure Class** | | | | | | | | | | | |
| Central governments or central banks | – | – | – | – | – | – | – | – | – | 180 | 180 |
| Regional governments or local authorities | – | – | – | – | – | – | – | – | – | – | – |
| Administrative bodies and non-commercial undertakings | – | – | – | – | – | – | – | – | – | – | – |
| Multilateral development banks | – | – | – | – | – | – | – | – | – | 7 | 7 |
| International organisations | – | – | – | – | – | – | – | – | – | – | – |
| Institutions | – | – | – | – | – | – | – | 572 | – | 3,043 | 3,615 |
| Corporates | – | – | 7,498 | 1,312 | 1,084 | – | – | 18 | 101 | 2,250 | 12,263 |
| Retail | – | 8,609 | 6,515 | – | – | – | – | – | – | – | 15,124 |
| Secured on real estate | 7,618 | – | 1,523 | – | – | – | – | – | – | 3 | 9,144 |
| Past due items | 4 | 577 | 800 | 8 | 30 | 3 | – | 1 | – | 46 | 1,469 |
| Items belonging to regulatory high risk category | – | – | – | – | 41 | 129 | – | – | – | 126 | 296 |
| Covered bonds | – | – | – | – | – | – | – | – | – | – | – |
| Securitisation positions | – | – | – | – | – | – | – | – | – | – | – |
| Short term claims on institutions and corporates | – | – | – | – | – | – | – | – | – | – | – |
| Collective investment undertakings | – | – | – | – | – | – | – | – | – | – | – |
| Other items | – | – | – | 279 | 198 | – | – | 835 | 50 | 12,944 | 14,306 |
| Total Standardised | 7,622 | 9,186 | 16,336 | 1,599 | 1,353 | 132 | – | 1,426 | 151 | 18,599 | 56,404 |
| **Total** | 50,441 | 28,697 | 18,538 | 27,917 | 36,123 | 6,414 | 64,478 | 133,220 | 9,111 | 74,146 | 449,085 |

### Maturity analysis

Approximately 64 per cent of the Group's exposure to customers is short term, having contractual maturity of one year or less. The Wholesale Banking portfolio is predominately short term with 75 per cent of EAD having a remaining contractual maturity of one year or less. In Consumer Banking the longer maturity profile of the AIRB portfolio is driven by the mortgage book which makes up 68 per cent of the portfolio and is traditionally longer term in nature and well secured.

The following tables show the maturity of EAD by each principal category of exposure class.

| | 31.12.08 | | | |
|---|---|---|---|---|
| | One year or less $million | One to five years $million | Over five years $million | Total $million |
| **AIRB Exposure Class** | | | | |
| Central governments or central banks | 56,572 | 7,556 | 503 | 64,631 |
| Institutions | 106,072 | 17,122 | 3,273 | 126,467 |
| Corporates | 83,927 | 27,640 | 8,547 | 120,114 |
| Retail | 6,898 | 15,803 | 40,210 | 62,911 |
| Equity | – | – | – | – |
| Securitisation positions | 701 | 15,760 | 2,072 | 18,533 |
| Non-credit obligation assets | 25 | – | – | 25 |
| Total AIRB | 254,195 | 83,881 | 54,605 | 392,681 |
| **Standardised Exposure Class** | | | | |
| Central governments or central banks | 180 | – | – | 180 |
| Regional governments or local authorities | – | – | – | – |
| Administrative bodies and non-commercial undertakings | – | – | – | – |
| Multilateral development banks | 7 | – | – | 7 |
| International organisations | – | – | – | – |
| Institutions | 3,070 | 524 | 21 | 3,615 |
| Corporates | 10,139 | 275 | 1,849 | 12,263 |
| Retail | 7,244 | 3,874 | 4,006 | 15,124 |
| Secured on real estate | 784 | 290 | 8,070 | 9,144 |
| Past due items | 433 | 173 | 863 | 1,469 |
| Items belonging to regulatory high risk category | 154 | 142 | – | 296 |
| Covered bonds | – | – | – | – |
| Securitisation positions | – | – | – | – |
| Short term claims on institutions and corporates | – | – | – | – |
| Collective investment undertakings | – | – | – | – |
| Other items | 10,720 | – | 3,586 | 14,306 |
| Total Standardised | 32,731 | 5,278 | 18,395 | 56,404 |
| **Total** | 286,926 | 89,159 | 73,000 | 449,085 |

## 4.5. Credit risk mitigation

Potential credit losses from any given account, customer or portfolio are mitigated using a range of tools such as collateral, credit insurance, credit derivatives and other guarantees. The reliance that can be placed on these mitigants is carefully assessed in light of issues such as legal enforceability, market value and counterparty risk of the guarantor.

Collateral types which are eligible for risk mitigation include: cash; residential, commercial and industrial property; fixed assets such as motor vehicles, aircraft, plant and machinery; marketable securities; commodities; bank guarantees and letters of credit. The Group also enters into collateralised reverse repurchase agreements. Risk mitigation policies control the approval of collateral types.

Where guarantees or credit derivatives are used as Credit Risk Mitigation (CRM) the creditworthiness is assessed and established using the credit approval process in addition to that of the obligor or main counterparty. The main types of guarantors include bank guarantees, insurance companies, parent companies, shareholders and Export Credit Agencies.

Collateral is valued in accordance with the Group's risk mitigation policy, which prescribes the frequency of valuation for different collateral types. The valuation frequency is driven by the level of price volatility of each type of collateral and the nature of the underlying product or risk exposure. Collateral held against impaired loans is maintained at fair value.

Certain credit exposures are mitigated using credit default insurance.

Where appropriate, credit derivatives are used to reduce credit risks in the portfolio. Due to their potential impact on income volatility, such derivatives are used in a controlled manner with reference to their expected volatility.

The Group uses bilateral and multilateral netting to reduce pre-settlement and settlement counterparty risk. Pre-settlement risk exposures are normally netted using the bilateral netting documentation in legally approved jurisdictions. Settlement exposures are generally netted using Delivery vs Payments or Payment vs Payments systems.

The following table discloses the amount of exposure after the effect of CRM (excluding the impact of guarantees and credit derivatives) in the AIRB portfolio. For the AIRB portfolios, there is no requirement to disclose the value of collateral as this is typically captured within the LGD models. The amount of the exposure that is covered by guarantees/credit derivatives is also shown by asset class.

| | 31.12.08 | |
|---|---|---|
| | EAD after the effect of CRM $million | EAD covered by guarantees/credit derivatives $million |
| **AIRB Exposure Class** | | |
| Central governments or central banks | 63,753 | 26 |
| Institutions | 116,105 | 1,913 |
| Corporates | 105,764 | 3,820 |
| Retail | 23,368 | – |
| Equity | – | – |
| Securitisation positions | 18,152 | 2,863 |
| Non-credit obligation assets | 25 | – |
| Total AIRB | 327,167 | 8,622 |

*Wholesale Banking*
The process of managing and recognising credit risk mitigation is governed by policies which set out the eligibility criteria that must be met. The credit risk mitigation policy sets out clear criteria that must be satisfied if the mitigation is to be considered effective:

- Excessive exposure to any particular risk mitigants or counterparties should be avoided. Collateral concentration mitigation standards are maintained at both the portfolio and counterparty level;
- Risk mitigants should not be correlated with the underlying assets such that default would coincide with a lowering of the Forced Sale Value (FSV) of the collateral;
- Where there is a currency mismatch, haircuts should be applied to protect against currency fluctuations;
- Legal opinions and documentation must be in place; and
- Ongoing review and controls exist where there is a maturity mismatch between the collateral and exposure.

For all credit risk mitigants that meet the policy criteria, a clear set of procedures are applied to ensure that the value of the underlying collateral is appropriately recorded and updated regularly.

*Consumer Banking*
The effective use of collateral is a key tool by which credit risk is mitigated in Consumer Banking. All eligible collateral accepted by Consumer Banking is covered by a product proposal approved by senior credit officers delegated with the relevant authority. New collateral types have to be vetted through a stringent 'New Business Approval' process and approved by the Consumer Banking Risk Committee.

In order to be recognised as security and for the loan to be classified as secured, all items pledged must be valued and there must exist an active secondary resale market for the collateral. Documentation must be held to enable Consumer Banking to realise the asset without the cooperation of the asset owner in the event that this is necessary.

Regular valuation of collateral is required in accordance with the Group's risk mitigation policy, which prescribes both the process of valuation and the frequency of valuation for different collateral types. The valuation frequency is driven by the level of price volatility of each type of collateral and the nature of the underlying product or risk exposure. Stress tests are performed on changes in collateral values for key portfolios to assist senior management in managing the risks in our portfolios. Where applicable, collateral is required to be insured at all times and against all risks, with Standard Chartered as the loss payee under the insurance policy.

Detailed procedures over collateral management must be in place for each business at the country level.

The table below identifies the effect of credit risk mitigation on EAD for the standardised portfolio. Eligible financial collateral consists primarily of cash, debt securities, equities and gold. All collateral shown below meets FSA Handbook BIPRU Chapter 5 eligibility rules.

The main type of collateral for the Group's standardised portfolio is real estate property which accounts for 65 per cent of all credit risk mitigants.

| | 31.12.08 | | | | |
|---|---|---|---|---|---|
| | EAD before the effect of CRM $million | EAD covered by eligible financial collateral $million | EAD covered by other eligible collateral $million | EAD after the effect of CRM $million | EAD covered by guarantees/credit derivatives $million |
| **Standardised Exposure Class** | | | | | |
| Central governments or central banks | 180 | – | – | 180 | 1 |
| Regional government or local authorities | – | – | – | – | – |
| Administrative bodies and non-commercial undertakings | – | – | – | – | – |
| Multilateral development banks | 7 | – | – | 7 | – |
| International organisations | – | – | – | – | – |
| Institutions | 3,615 | 26 | – | 3,589 | 48 |
| Corporates | 12,263 | 3,212 | – | 9,051 | – |
| Retail | 15,124 | 1,013 | – | 14,111 | 1 |
| Secured on real estate property | 9,144 | 48 | 8,920 | 176 | – |
| Past due items | 1,469 | 47 | 525 | 897 | – |
| Items belonging to regulatory high risk categories | 296 | 1 | – | 295 | – |
| Covered bonds | – | – | – | – | – |
| Securitisation positions | – | – | – | – | – |
| Short term claims on institutions and corporates | – | – | – | – | – |
| Collective investment undertakings | – | – | – | – | – |
| Other items | 14,306 | – | – | 14,306 | – |
| Total Standardised | 56,404 | 4,347 | 9,445 | 42,612 | 50 |

## 4.6. Internal Ratings Based models

### Model governance

The AIRB models used by the Group calculate a conservative Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD), as borne out by the model performance data contained in this section. The product of this is a conservative view of Regulatory Expected Loss, which is considered necessary for the prudent calculation of regulatory capital.

Models are developed by analytics teams within Group Risk and the Consumer Banking and Wholesale Banking risk functions. The model development process is conducted and documented in line with specific criteria setting out the minimum standards for model development. All AIRB models are validated annually by a model validation team reporting to the Group Chief Credit Officer, thereby maintaining independence from the model build processes. Model validation findings are presented to the Group Model Assessment Committee (MAC) which in turn makes approval recommendations to the Consumer Banking and Wholesale Banking Risk Committees. These decision making bodies are comprised of divisional senior management whose role is to challenge model assumptions and performance and agree on appropriate model use for business decision making. The GRC and ARC periodically review overall model performance.

The model validation process involves a qualitative and quantitative assessment of the model, data, systems and governance. This would typically include an assessment of the:

- Model assumptions;
- Validity of the technical approach used;
- Statistical and empirical measures of performance;
- Appropriateness of intended model use;
- Model application and infrastructure;
- Data integrity and history;
- Model response to changes in internal and external environment: i.e., the extent to which the model provides point in time or through the cycle measures of risk;
- Model monitoring standards and triggers; and
- Levels of conservatism applied.

Statistical testing is used to determine a model's discriminatory power, predicted versus actual performance and stability over time with pre-defined thresholds for passing such tests. The model development teams also conduct annual model reviews, which are informed by regular monitoring, to ascertain whether the model is fit for purpose and performing within acceptable boundaries or whether there are potential improvements in performance.

### PD model development

The Group employs a variety of techniques to develop its Probability of Default (PD) models. In each case the appropriate approach is dictated by the availability and appropriateness of both internal and external data.

In all cases, where there is a perceived weakness in the data – for example shorter histories or fewer instances of default, an appropriate amount of conservatism is applied to predicted default rates.

The general approaches fall into three categories:

Default History Based ('Good-Bad') – where a sufficient number of defaults is available, the Group deploys a variety of statistical methods to determine the likelihood of default on existing exposures. These methods afford very high discriminatory power by identifying exposure characteristics that have a significant predictive ability. The majority of the Group's consumer and corporate exposures are rated under such an approach.

Shadow Rating Approach – if it is determined that the Group's internal data does not provide a sufficient default history (for example, so called 'low default portfolios'), then the Group develops models which are designed to reflect ratings made by established external credit assessment institutions, those agencies having access to large databases of defaults on a variety of credit obligations. These external ratings are customised to develop the Group's own customer rating systems.

Constrained Expert Judgement – for certain types of exposure there is little or no internal or external default history, and therefore no reliable external ratings. In such rare cases, the Group develops quantitative frameworks which include the expert opinions of the Group's credit risk management personnel. These frameworks are called 'knowledge based systems' and are regularly reviewed with respect to historical outcomes.

### LGD model development

The Group develops Loss Given Default (LGD) models by assessing unsecured recoveries and the forced sale value of collateral together with the economic costs in securing these recoveries, and the timing with which such cash flows occur. All such cash values are then measured at net present value using a suitable discount rate to derive a recovery rate. Loss given default is therefore the EAD less these estimated recoveries.

Unsecured recoveries are estimated based upon empirical evidence which has shown that factors such as customer segment, product and geography have predictive content.

All LGD models are conservatively calibrated to a 'downturn' – with lower assumed collateral values and lower recoveries on unsecured exposures than would normally prevail.

### EAD model development

An EAD model is developed for uncertain exposure products such as lines of credit, credit cards, overdrafts and other commitments. Based on the Group's experience (and supplemented by external data), EAD models assess changes to limits and the likely draw-down of committed and uncommitted limits as an exposure approaches default. The factor generated by the model and applied to the undrawn limit is referred to as the credit conversion factor (CCF).

The Group has used conservative assumptions in assessing EAD, in keeping with the expected experience in an economic downturn.

### Model use

In addition to supporting credit decisions, AIRB models also support risk-based pricing methodologies and measures used to assess business performance such as Economic Capital, Economic Revenue and Economic Profit.

The use of models is governed by a suite of policies:

- Each model is governed by a separate policy and procedure which defines the applicability of that model and details the procedure for use;
- The model review policy governs the regular review of models and specifies statistical thresholds and other triggers which determine when models need to be redeveloped;
- The model override policy sets the conditions and approval authority required to override model output; and

- The parental support policy, for Wholesale Banking, determines the extent to which parental support may be utilised to adjust the credit grade of corporates' and financial institutions' subsidiaries.

### Wholesale Banking model results

Wholesale Banking models have been developed from a dataset which runs to over a decade, including default and recovery experience from the 1997 Asian financial crisis. These data have been used to calibrate estimates of PD to the Group's long run experience. Actual ('point in time') default rates will typically differ from this 'through the cycle' experience as economies move above or below cyclical norms.

AIRB PD estimates are computed as of 1 January 2008 and are compared with default observations through 31 December 2008. The observed default rate is higher than estimated PD for Institutions due to a handful of unexpected defaults in this sector during the year. For central governments or central banks, there were no defaults during 2008. The actual default rate among Corporate exposures was maintained below AIRB model predictions.

The calculation of actual versus predicted LGD presents the difficulty that it takes a number of years for the workout process to complete. The recovery process on defaults in 2008 is too immature to compute meaningful actual versus realised outcomes.

To obviate this difficulty the predicted LGD is based on the most recently deployed model outputs as of 31 December 2008 compared with long run actual realisations of LGD including downturn periods, since 1995. The predicted LGD estimate takes into account the impact of enhanced risk mitigation techniques in use today, and as a result LGD estimates for Institutions are lower than the long run actual.

To be consistent with the approach taken for LGD, the predicted CCF is computed based on model outputs as of 31 December 2008. Actual CCFs are similarly based on long run realisations of CCF since 1995. Estimated CCF is higher than actual owing to the regulatory requirement to assign conservatism to certain exposure types.

| | Wholesale Banking PD | | Wholesale Banking LGD | | Wholesale Banking CCF* | |
|---|---|---|---|---|---|---|
| AIRB Exposure Class | Predicted PD % | Actual PD % | Predicted LGD % | Actual LGD % | Predicted CCF % | Actual CCF % |
| Central governments or central banks | 0.09 | 0.00 | 26.34 | 0.00 | 15.35 | 0.00 |
| Institutions | 0.18 | 0.27 | 18.91 | 32.45 | 17.73 | 0.00 |
| Corporates | 1.23 | 0.69 | 45.38 | 46.99 | 14.07 | 1.52 |

### Consumer Banking model results

Seven years of performance data is held for the majority of Consumer Banking portfolios and this history has been used to develop the AIRB model suite. These data include 'credit bubbles' in Taiwan and Hong Kong as well as stress that arose during the avian flu outbreak. This experience therefore features in the calibration of the models.

The comparisons of predicted against actual outcomes are shown at an asset class level for each of the PD, LGD and EAD model suites. For LGD, the predicted value reflects estimates of LGD for defaults over the period 2006 and 2007, compared with realised LGDs in 2008 when the recoveries process was terminated.

Asset class results below comprise many individual portfolios which during the year were affected by a number of influencing factors including changes in underwriting policies, business mix, economic conditions and modelling approach. The tables below exclude analysis of Retail SME risk parameters due to the recent implementation of AIRB models meaning there is insufficient historical data to compare predicted rates against actual outcomes.

| | Consumer Banking PD | |
|---|---|---|
| AIRB Exposure Class | 31.12.07 Predicted PD % | 31.12.08 Actual PD % |
| Secured by real estate collateral | 1.16 | 0.70 |
| Qualifying revolving retail exposures | 3.86 | 2.76 |
| Other retail | 5.67 | 3.85 |

Across the various asset classes, the actual default rate experienced during the 12 months from December 2007 is lower than the predicted PD. With any rating system, there is a tendency to over predict or under predict based on different economic conditions. Economic conditions in 2008 were not as severe as the long run average that the Group has used to calibrate its models. A measure of conservatism is also built into rating systems where empirical default histories are insufficient to satisfy the Group's statistical measures of accuracy. This conservatism together with prevailing economic conditions over last year leads the prediction to over estimate the actual default rate.

| AIRB Exposure Class | Consumer Banking LGD 2008 Predicted LGD % | Actual LGD % |
|---|---|---|
| Secured by real estate collateral | 20.54 | 7.21 |
| Qualifying revolving retail exposures | 81.05 | 64.33 |
| Other retail | 78.81 | 56.94 |

Actual LGDs are lower than predicted values as the model LGDs use 'Downturn' parameter settings. This is most evident in the mortgage portfolios where the predicted LGDs include both a significant assumed reduction in property values in addition to the application of the regulatory minimum LGD floor of 10 per cent.

| AIRB Exposure Class | Consumer Banking EAD 2008 Predicted EAD $million | Actual EAD $million |
|---|---|---|
| Secured by real estate collateral | 203 | 198 |
| Qualifying revolving retail exposures | 223 | 216 |
| Other retail | 135 | 123 |

There is only a small variance between the predicted and actual EAD for the year 2008. The predicted EAD for revolving products is based on limit utilisation whilst for loans the outstanding balance at the time of prediction is used. Since there is very close control of credit limit increases (using AIRB models), the EAD for revolving products tends to be very close to outstanding balance also.

**Regulatory Expected Loss versus Individual Impairment charges**

The table below shows regulatory expected loss as at 31 December 2007 and net individual impairment charges raised during the 2008 financial year for the AIRB exposure classes. It should be noted that these measures are calculated using different methodologies and from different internal systems and cannot be necessarily compared. The Regulatory Expected Loss is calculated by Risk models using a through-the-cycle methodology based on risk parameters and observations over a period of time, as previously described in this section. Individual impairment charges and actual losses are made based on accounting standards that require the Group to either provide for or write-off debts when certain conditions are met as described in section 4.8 Problem Credit Management and Provisioning.

| AIRB Exposure Class | 31.12.07 Regulatory Expected Loss $million | 31.12.08 Net Individual Impairment Charge $million |
|---|---|---|
| Central governments or central banks | 26 | – |
| Institutions | 83 | 19 |
| Corporates | 915 | 286 |
| Retail, of which | 721 | 381 |
| Secured by real estate collateral | 110 | 8 |
| Qualifying revolving retail | 317 | 204 |
| Retail SME | – | – |
| Other retail | 294 | 169 |
| Equity | – | – |
| Securitisation positions | – | – |
| Non-credit obligation assets | – | – |
| Total AIRB | 1,745 | 686 |

## 4.7. Risk grade profile

### Exposures by internal credit grading

A standard alphanumeric credit risk-grading system is used in both Wholesale and Consumer Banking. The grading is based on the Group's internal estimate of probability of default, with customers or portfolios assessed against a range of quantitative and qualitative factors. The numeric grades run from one to 14 and the grades are sub-classified A, B or C. Lower credit grades are indicative of a lower likelihood of default. Credit grades 1A to 12C are assigned to performing customers or accounts, while credit grades 13 and 14 are assigned to non-performing or defaulted customers.

There is no direct relationship between the Group's internal credit grades and those used by external rating agencies. The Group's credit grades are not intended to replicate external credit grades although, as the factors used to grade a borrower may be similar, a borrower rated poorly by an external rating agency is typically rated in the lower rank of the Group's internal credit grades. As a guide the table below maps the Group's credit grades to that of Standard and Poor's credit ratings.

| | Standard and Poor's Mapping | |
|---|---|---|
| Credit Grade | Corp/NBFIs | Banks |
| 1A | AAA | AAA, AA+ |
| 1B | AA+ | AA, AA– |
| 2A | AA | A+ |
| 2B | AA– | A |
| 3A | A+ | A– |
| 3B | A | BBB+ |
| 4A | A– | BBB+, BBB |
| 4B | BBB+ | BBB |
| 5A | BBB | BBB– |
| 5B | BBB– | BB+ |
| 6A | BB+ | BB+, BB |
| 6B | | BB |
| 7A | BB | BB,BB– |
| 7B | | BB– |
| 8A | BB– | B+ |
| 8B | | B+, B |
| 9A | B+ | B |
| 9B | | B, B– |
| 10A | B | B– |
| 10B | | B–, CCC |
| 11A - C | B– | CCC |
| 12A - C | N/A | N/A |

Credit grades for the majority of Consumer Banking accounts are based on a probability of default calculated using AIRB models. These models are based on application and behavioural scorecards which make use of credit bureau information as well as the Group's own data. For Consumer Banking portfolios where AIRB models have not yet been developed, the probability of default is calculated using historical portfolio delinquency flow rates and expert judgement, where applicable.

AIRB models cover a substantial majority of the Group's loans and are used extensively in assessing risks at customer and portfolio level, setting strategy and optimising the Group's risk-return decisions.

Standard Chartered makes use of internal risk estimates of PD, LGD and EAD extensively in the areas of:

- Credit Approval and Decision – The level of authority required for the sanctioning of credit requests and the decision made is based on a combination of PD, LGD and EAD of the obligor;
- Pricing – In Wholesale Banking a pre-deal pricing calculator is used which takes into consideration PD, LGD and EAD in the calculation of expected loss and economic capital for the proposed transactions to ensure appropriate return. In Consumer Banking a scorecard approach is taken to assess the level of risk using PD, LGD and EAD;
- Limit Setting – In Wholesale Banking concentration limits for some portfolios, as counterparty limits are determined by PD, LGD and EAD. The limits operate on a sliding scale to ensure that the Group does not have over concentration of low credit quality assets. This process operates similarly in Consumer Banking;
- Provisioning – Portfolio Impairment Provisions (PIP) are raised at the portfolio level and are set with reference to expected loss which is based on PD, LGD and EAD amongst other quantitative and qualitative factors;
- Risk Appetite – PD, LGD and EAD models provide some of the key inputs into the risk-based methodologies used in the assessment of business and market variables which in turn are key components in the approach taken to Risk Appetite; and
- Economic Capital – These metrics are key components of the model used to calculate Economic Capital which is used in the strategic planning, budgeting, pricing and performance measurement processes at business unit, portfolio and client relationship level.

The following table sets out analysis of EAD within the AIRB portfolios by internal credit grading and Basel II exposure classes. EAD has been calculated after taking into account the impact of credit risk mitigation. 75 per cent of exposures are classified as credit grades 1 to 5.

| | 31.12.08 | | | | | |
|---|---|---|---|---|---|---|
| | Grades 1-5 $million | Grades 6-8 $million | Grades 9-11 $million | Grade 12 $million | Grades 13-14 $million | Total $million |
| **Total exposure** | | | | | | |
| Central government and central banks | 61,213 | 1,924 | 616 | – | – | 63,753 |
| Institutions | 103,047 | 9,967 | 2,609 | 65 | 417 | 116,105 |
| Corporates | 59,404 | 36,206 | 8,812 | 647 | 695 | 105,764 |
| Retail, of which | 11,391 | 6,439 | 4,526 | 597 | 415 | 23,368 |
| Retail exposures secured by real estate collateral | 1,852 | 1,099 | 237 | 12 | 44 | 3,244 |
| Qualifying revolving retail | 6,871 | 2,970 | 2,037 | 326 | 224 | 12,428 |
| Retail SME | – | 464 | 103 | 29 | 38 | 634 |
| Other retail | 2,668 | 1,906 | 2,149 | 230 | 109 | 7,062 |
| Equity | – | – | – | – | – | – |
| Securitisation positions | 11,690 | 15 | 6,437 | – | 10 | 18,152 |
| Non-credit obligation assets | – | – | – | – | 25 | 25 |
| Total AIRB | 246,745 | 54,551 | 23,000 | 1,309 | 1,562 | 327,167 |

The following table sets out analysis of undrawn commitments by internal credit grading and Basel II exposure classes.

| | 31.12.08 | | | | | |
|---|---|---|---|---|---|---|
| | Grades 1-5 $million | Grades 6-8 $million | Grades 9-11 $million | Grade 12 $million | Grades 13-14 $million | Total $million |
| **Undrawn commitments** | | | | | | |
| Central government and central banks | 47 | 15 | – | – | – | 62 |
| Institutions | 4,977 | 900 | 146 | – | – | 6,023 |
| Corporates | 23,365 | 11,915 | 2,937 | 23 | 160 | 38,400 |
| Retail, of which | 2,435 | 1,216 | 597 | 15 | 4 | 4,267 |
| Retail exposures secured by real estate collateral | 1,478 | 708 | 455 | 2 | 2 | 2,645 |
| Qualifying revolving retail | – | – | – | – | – | – |
| Retail SME | – | – | – | – | – | – |
| Other retail | 957 | 508 | 142 | 13 | 2 | 1,622 |
| Equity | – | – | – | – | – | – |
| Securitisation positions | – | – | – | – | – | – |
| Non-credit obligation assets | – | – | – | – | – | – |
| Total AIRB | 30,824 | 14,046 | 3,680 | 38 | 164 | 48,752 |

The following tables set out exposure weighted average LGD and exposure weighted average risk weight of the credit risk trading and non-trading books. These weighted averages have been calculated using EAD before taking into account the impact of credit risk mitigation. The average exposure weighted LGD across the AIRB portfolio is 31.6 per cent.

| | 31.12.08 | | | | | |
|---|---|---|---|---|---|---|
| | Grades 1-5 % | Grades 6-8 % | Grades 9-11 % | Grade 12 % | Grades 13-14 % | Total % |
| **Exposure weighted average LGD** | | | | | | |
| Central government and central banks | 25.8 | 39.5 | 40.0 | – | – | 26.3 |
| Institutions | 25.8 | 39.3 | 28.1 | 34.7 | 26.6 | 26.8 |
| Corporates | 48.2 | 44.8 | 35.2 | 49.0 | 50.1 | 46.0 |
| Retail, of which | 34.7 | 38.5 | 60.8 | 71.9 | 54.4 | 38.8 |
| Retail exposures secured by real estate collateral | 18.4 | 17.5 | 19.9 | 21.6 | 23.0 | 17.8 |
| Qualifying revolving retail | 86.5 | 82.9 | 84.2 | 87.2 | 83.4 | 85.3 |
| Retail SME | – | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Other retail | 78.2 | 79.5 | 79.3 | 78.6 | 79.5 | 78.9 |
| Equity | – | – | – | – | – | – |
| Securitisation positions | 97.2 | 95.5 | 99.0 | – | 95.5 | 95.3 |
| Non-credit obligation assets | – | – | – | – | 70.0 | 70.0 |
| Total AIRB | 36.5 | 50.6 | 58.2 | 63.8 | 47.4 | 31.6 |

| | 31.12.08 | | | | | |
|---|---|---|---|---|---|---|
| | Grades 1-5 % | Grades 6-8 % | Grades 9-11 % | Grade 12 % | Grades 13-14 % | Total % |
| **Exposure weighted average risk weight** | | | | | | |
| Central government and central banks | 4.7 | 80.6 | 120.2 | – | – | 8.1 |
| Institutions | 10.1 | 60.9 | 83.4 | 207.9 | 185.9 | 17.1 |
| Corporates | 35.7 | 80.8 | 104.6 | 269.7 | 201.1 | 59.4 |
| Retail, of which | 7.9 | 36.0 | 106.0 | 213.9 | 110.5 | 28.5 |
| Retail exposures secured by real estate collateral | 6.9 | 23.6 | 69.5 | 129.4 | 110.6 | 15.2 |
| Qualifying revolving retail | 7.1 | 35.7 | 120.0 | 256.6 | 108.1 | 40.8 |
| Retail SME | – | 120.0 | 160.5 | 251.6 | 155.8 | 134.7 |
| Other retail | 22.2 | 86.7 | 127.0 | 202.6 | 90.4 | 78.4 |
| Equity | – | – | – | – | – | – |
| Securitisation positions | 11.6 | 315.8 | 19.3 | – | 597.4 | 18.9 |
| Non-credit obligation assets | – | – | – | – | 849.5 | 849.5 |
| Total AIRB | 13.4 | 67.4 | 81.9 | 240.4 | 178.0 | 31.3 |

## 4.8. Problem credit management and provisioning

*Consumer Banking*
Within Consumer Banking an account is considered to be delinquent when payment is not received on the due date. For delinquency reporting purposes the Group follows industry standards, measuring delinquency as of 1, 30, 60, 90, 120 and 150 days past due. Accounts that are overdue by more than 30 days are more closely monitored and subject to specific collections processes.

The process used for raising individual impairment provisions (IIP) is dependent on the product. For unsecured products and loans secured by automobiles, individual provisions are raised for the entire outstanding amount at 150 days past due. For mortgages, IIP are generally raised at 150 days past due based on the difference between the outstanding amount of the loan, and the present value of the estimated future cash flows which includes the realisation of collateral. For other secured loans (excluding those secured by mortgage and automobiles), IIP are raised at 90 days past due based on the forced sale value of the collateral without further discounting, as the collateral value is typically realised in less than 12 months. For all products there are certain situations where the individual impairment provisioning process is accelerated, such as in cases involving bankruptcy, fraud and death.

A portfolio impairment provision (PIP) is held to cover the inherent risk of losses which, although not specifically identified, are known through experience to be present in the loan portfolio. PIP is calculated with reference to past flow-rate and recovery rate experience, and is adjusted to take account of a number of forward looking factors. These include the economic and business environment in the Group's markets, and trends in a range of portfolio indicators such as portfolio loss severity, collections and recovery performance trends.

The procedures for managing problem credits for the Medium Enterprises in the SME segment of Consumer Banking are similar to those adopted in Wholesale Banking. For unsecured loans to Small Businesses within the SME segment, the problem credit management process is similar to that of other unsecured products in Consumer Banking.

The following table shows impaired loans and advances, and the movement in impairment provisions by each principal category of borrowers' business or industry for Consumer Banking. This section follows International Financial Reporting Standards (IFRS) definitions used in the Annual Report and Accounts.

| | Impaired Loans and Advances as at 31.12.08 $million | Individual Impairment Provision held as at 01.01.08 $million | Net individual impairment charge 2008 $million | Amounts written off/other movements 2008 $million | Individual Impairment Provision held as at 31.12.08 $million |
|---|---|---|---|---|---|
| Loans to individuals | | | | | |
| Mortgages | 302 | 99 | 23 | (34) | 88 |
| Other | 175 | 200 | 705 | (713) | 192 |
| Small and medium enterprises | 585 | 356 | 170 | (263) | 263 |
| Consumer Banking | 1,062 | 655 | 898 | (1,010) | 543 |

*Wholesale Banking*
Loans are classified as impaired and considered non-performing where analysis and review indicates that full payment of either interest or principal is questionable, or as soon as payment of interest or principal is 90 days overdue. Impaired accounts are managed by GSAM, which is separate from the main businesses of the Group. Where any amount is considered irrecoverable, an individual impairment provision is raised, being the difference between the loan carrying amount and the present value of estimated future cash flows.

Future cash flows are estimated by taking into account the individual circumstances of each customer and can arise from operations, sales of assets or subsidiaries, realisation of collateral, or payments under guarantees. Cash flows from all available sources are considered. In any decision relating to the raising of provisions, the Group attempts to balance economic conditions, local knowledge and experience, and the results of independent asset reviews.

Where it is considered that there is no realistic prospect of recovering an element of an exposure against which an impairment provision has been raised, then that amount will be written off.

As with Consumer Banking, a PIP is held to cover the inherent risk of losses which, although not identified, are known through experience to be present in any loan portfolio. In Wholesale Banking, the PIP is set with reference to past experience using loss rates, and judgemental factors such as the economic environment and the trends in key portfolio indicators.

The following table shows impaired loans and advances, and the movement in impairment provisions during the reporting period by each principal category of borrowers' business or industry for Wholesale Banking.

| | Impaired Loans and Advances 31 December 2008 $million | Individual Impairment Provision 1 January 2008 $million | Net individual impairment charge/(release) $million | Amounts written off/other movements $million | Individual Impairment Provision 31 December 2008 $million |
|---|---|---|---|---|---|
| Agriculture, forestry and fishing | 158 | 33 | 20 | (14) | 39 |
| Banks | 35 | 2 | 15 | – | 17 |
| Construction | 47 | 10 | 3 | 5 | 18 |
| Commerce | 229 | 152 | 15 | (33) | 134 |
| Electricity, gas and water | 6 | 25 | (5) | 8 | 28 |
| Financing, insurance and business services | 286 | 27 | 2 | 2 | 31 |
| Mining and quarrying | – | 12 | – | (12) | – |
| Manufacturing | 756 | 290 | 231 | (63) | 458 |
| Commercial real estate | 40 | 23 | 2 | (4) | 21 |
| Transport, storage and communication | 22 | 22 | 15 | (13) | 24 |
| Other | 32 | 22 | 7 | (18) | 11 |
| Wholesale Banking | 1,611 | 618 | 305 | (142) | 781 |

**Impaired loans and advances by geography**
The following table shows a geographical breakdown of the impaired loans and advances net of individual impairment provisions for the Group by geography, along with loans and advances that are past due but not individually impaired by geography. Past due but not individually impaired loans total $5,235 million, of which over 70 per cent are 30 days or less past due.

| | 31.12.08 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Asia Pacific | | | | | | | | | |
| | Hong Kong $million | Singapore $million | Malaysia $million | Korea $million | Other Asia Pacific $million | India $million | Middle East & Other S Asia $million | Africa $million | Americas UK & Europe $million | Total $million |
| Gross Impaired Loans | 272 | 54 | 148 | 357 | 907 | 85 | 368 | 102 | 380 | 2,673 |
| Individual impairment provision | (164) | (20) | (57) | (154) | (548) | (44) | (170) | (54) | (113) | (1,324) |
| Net Impaired Loans | 108 | 34 | 91 | 203 | 359 | 41 | 198 | 48 | 267 | 1,349 |
| Total past due but not individually impaired | 386 | 476 | 587 | 1,075 | 812 | 392 | 1,257 | 193 | 57 | 5,235 |
| Total past due & impaired loans net of individual impairment provisions | 494 | 510 | 678 | 1,278 | 1,171 | 433 | 1,455 | 241 | 324 | 6,584 |

**Movement in Group Impairment provisions**

The following table sets out the movements in the Group's total individual and portfolio impairment provisions against loans and advances

| | 2008 $million |
|---|---|
| At 1 January | 1,809 |
| Exchange translation differences | (179) |
| Acquisitions | 109 |
| Amounts written off | (1,119) |
| Recoveries of acquisition fair values | (78) |
| Recoveries of amounts previously written off | 180 |
| Discount unwind | (40) |
| Other | 13 |
| New provisions | 1,796 |
| Recoveries/provisions no longer required | (510) |
| Net charge against profit | 1,286 |
| Provisions held at 31 December | 1,981 |
| Of which: | |
| Individual Impairment Provision | 1,324 |
| Portfolio Impairment Provision | 657 |

**Loans and advances past due**

The following table sets out the industry analysis of loans and advances which are past due including those assets on which an individual impairment provision has been raised. A loan is considered to be past due when the counterparty has failed to make a principal or interest payment when contractually due. Past due does not necessarily mean that the counterparty is impaired. Past due but not individually impaired loans total $5,235 million, of which over 70 per cent are 30 days or less past due.

| | 31.12.08 $million |
|---|---|
| Loans to individuals | |
| Mortgages | 2,301 |
| Other | 1,945 |
| Small and medium enterprises | 1,207 |
| Consumer Banking | 5,453 |
| Agriculture, forestry and fishing | 195 |
| Banks | 88 |
| Construction | 80 |
| Commerce | 315 |
| Electricity, gas and water | 6 |
| Financing, insurance and business services | 542 |
| Governments | – |
| Mining and quarrying | 11 |
| Manufacturing | 1,048 |
| Commercial real estate | 43 |
| Transport, storage and communication | 95 |
| Other | 32 |
| Wholesale Banking | 2,455 |
| Total | 7,908 |

## 4.9. Counterparty credit risk in the trading book

Counterparty credit risk (CCR) is the risk that the Group's counterparty in a foreign exchange, interest rate, commodity, equity or credit derivative contract defaults prior to maturity date of the contract and that the Group at the time has a claim on the counterparty. CCR arises predominately in the trading book, but also arises in the non-trading book due to hedging of external funding.

The credit risk arising from all financial derivatives is managed as part of the overall lending limits to banks and corporate customers.

The Group will seek to negotiate Credit Support Annexes (CSA) with counterparties on a case by case basis, where collateral is deemed a necessary or desirable mitigant to the exposure. The credit terms of the CSA are specific to each legal document and determined by the credit risk approval unit responsible for the counterparty. The nature of the collateral will be specified in the legal document and will typically be cash or highly liquid securities.

The Group further reduces its credit exposures to counterparties by entering into contractual netting agreements which result in a single amount owed by or to the counterparty through netting the sum of the positive (amounts owed by the counterparty) and negative (amounts owed by the Group) mark-to-market (MTM) values of these transactions. Following International Accounting Standard (IAS) 32 requirements, exposures are however presented on a gross basis in the financial statements as such transactions are not intended to be settled net in the ordinary course of business.

A daily operational process takes place to calculate the MTM on all trades captured under the CSA. Additional collateral will be called from the counterparty if total uncollateralised MTM exposure exceeds the threshold and minimum transfer amount specified in the CSA. Additional collateral may be required from the counterparty to provide an extra buffer to the daily variation margin process.

### Credit reserves

Using risk factors such as PD and LGD a Regulatory Expected Loss is calculated for each counterparty across the CCR portfolio, and based on this calculation credit reserves are set aside for traded products. The reserve is a dynamic calculation based on the EAD risk profile for each counterparty, alongside PD and LGD factors.

In line with market convention, the Group negotiates CSA terms for certain counterparties where the thresholds related to each party are dependent on their ECAI long term rating. Such clauses are typically mutual in nature. It is therefore recognised that a downgrade in the Group's rating could result in counterparties seeking additional collateral calls to cover negative MTM portfolios where thresholds are lowered.

### Wrong way risk

Wrong way risk occurs where the EAD is positively correlated to the PD of the counterparty or general market conditions. So as the credit worthiness of the counterparty deteriorates the exposure to this counterparty increases. The Group employs various policies and procedures to ensure that deterioration in credit grading is alerted to management.

In Wholesale Banking where Early Alert symptoms are detected, Wholesale Banking's scorecard will be used to immediately re-assess credit grade. The account plan is reassessed and remedial action agreed and monitored. Remedial actions include, but are not limited to: exposure reduction; security enhancement; exit of the account or immediate movement of the account into the control of GSAM.

### Exposure value calculation

Exposure values for regulatory capital purposes on over the counter traded products are calculated according to the CCR mark to market method. This is calculated as a sum of the current replacement cost and the potential future credit exposure. The current replacement cost is the USD equivalent amount owed by the counterparty to the Group for various financial derivative transactions. The potential future credit exposure is an add-on based on a percentage of the notional principal of each transaction. Such percentages are prescribed by the FSA in the BIPRU guidelines and vary according to the underlying asset class and tenor of each trade. The benefit from master netting agreements is applied to the portfolio of counterparty trades in the CCR calculation according to the Net to Gross Ratio rules provided in the FSA Handbook BIPRU 13 guidelines.

The following tables cover the credit exposure on derivative transactions after taking into account the benefits from legally enforceable netting agreements and collateral arrangements.

| | 31.12.08 | | | | |
|---|---|---|---|---|---|
| | Gross Positive Fair Value of Contracts $million | Netting Benefits $million | Netted Current Credit Exposure $million | Collateral Held $million | Net Derivatives Credit Exposure $million |
| Derivative contracts | 89,463 | 50,998 | 38,465 | 1,545 | 36,920 |
| Repo style transactions | 9,429 | – | 9,429 | 7,199 | 2,230 |
| Credit derivatives* | 1,820 | 1,020 | 800 | – | 800 |
| Total | 100,712 | 52,018 | 48,694 | 8,744 | 39,950 |

| | 31.12.08 | | |
|---|---|---|---|
| | Notional Value $million | Current credit exposures $million | Regulatory Capital requirement $million |
| Derivative contracts: | | | |
| Interest rate contracts | 1,502,801 | 8,602 | 372 |
| Foreign exchange contracts | 1,361,872 | 28,118 | 861 |
| Equity and stock index options | 1,075 | – | – |
| Commodity contracts | 16,200 | 1,745 | 108 |
| Repo style transactions: | | | |
| Repo | n/a | 5,086 | 12 |
| Reverse repo | n/a | 4,343 | 18 |
| Credit derivatives*: | | | |
| Credit default swaps | 28,944 | 787 | 17 |
| Total return swaps | 89 | 13 | – |
| Credit linked notes | – | – | – |
| Total | 2,910,981 | 48,694 | 1,388 |

* Of the $800 million credit derivatives, $791 million of protection has been purchased, and $9 million of protection has been sold during the year.

## 4.10. Securitisation

Securitisation is defined as a structure where the cash flow from a pool of assets is used to service obligations to at least two different tranches or classes of creditors.

Securitisations may be categorised as either:

- Traditional securitisation: assets are sold to a Special Purpose Entity (SPE), which finances the purchase by issuing notes in different tranches with different risk and return profiles. Cash flow arising from those assets is used by the SPE to service its debt obligations.; or
- Synthetic transaction: a securitisation whereby only the credit risk, or part of the credit risk of a pool of assets is transferred to a third party via credit derivatives. The pool of assets remains on the Group's balance sheet.

Securitisation activities undertaken by the Group are for a variety of purposes, by various businesses acting in a different capacity;

- Risk Mitigation, Funding and Capital Management (as Originator)
- Fee Generation (as Arranger/ Lead Manager)
- Risk Taking (as Investor)
- Liquidity (as Account Bank)

The Group has $18.5 billion of EAD classified as securitisation positions, as detailed in section 4.4 Exposure Values. These qualify for recognition under the FSA's securitisation framework and the particulars of these transactions are discussed below. In addition to these positions, the Group has originated Residential Mortgage Backed Securities (RMBS) with a face value of $4.2 billion, which do not qualify and are not detailed within this section. The Group's securitisation positions are rated by Moody's, Standard & Poor's and Fitch.

**Asset Backed Securities**
Wholesale Banking through the Capital Markets unit has purchased as investments or arranged for clients and held Asset Backed Securities (ABS) of $4.45 billion, the carrying value of which represents 0.9 per cent of the Group's total assets.

The credit quality of the ABS exposures remains strong. With the exception of those securities which have been subject to an impairment charge, 81 per cent of the overall portfolio is rated A, or better, and 67 per cent of the overall portfolio is rated as AAA.

The portfolio is broadly diversified across asset classes and geographies, and there is no direct exposure to the US sub-prime market.

25 per cent of the overall portfolio is invested in RMBS, with a weighted average credit rating of AA+. 58 per cent of the RMBS exposures were originated in 2005 or earlier.

18 per cent of the overall portfolio is in Commercial Mortgage Backed Securities (CMBS), of which $147 million is in respect of US CMBS with a weighted average credit grade of AAA. The weighted average credit rating of the remaining CMBS exposure is AA.

14 per cent of the overall portfolio is in Collateralised Debt Obligations (CDOs). This includes $208 million of exposures to CDOs of ABS (Mezzanine and High Grade), of which $173 million have been impaired. The remainder of the other CDOs amounting to $378 million has a weighted average credit rating of AA+.

43 per cent of the overall portfolio is in Other ABS, which includes securities backed by credit card receivables, loans to corporates or corporate SMEs, student loans, auto loans, and diversified payment types, with a weighted credit rating of AA.

The notional and carrying value of the asset backed securities purchased or retained by the Group are shown in the table below analysed by underlying asset type, alongside any recognised net gain or loss on sale in the period.

| | 31.12.08 | | | |
|---|---|---|---|---|
| | | Notional amount | | |
| | Carrying Value of asset backed securities $million | Traditional Securitisation Programs $million | Synthetic securitisation Programs $million | Recognised net gain/(loss) on sale $million |
| Residential mortgages | 1,027 | 1,110 | – | (1) |
| Commercial mortgages | 654 | 786 | 32 | (5) |
| CDOs of ABS – RMBS | 32 | 209 | – | (28) |
| CDOs Other: Leveraged loans/Trust preferred/Real Estate | 306 | 367 | 11 | – |
| Credit card receivables | 343 | 356 | – | (1) |
| Loans to corporates or corporate SMEs | 169 | 52 | 139 | (1) |
| Student loans | 237 | 263 | – | (1) |
| Auto loans | 391 | 400 | – | – |
| Diversified payment types | 442 | 515 | – | (2) |
| Other assets | 158 | 210 | – | – |
| Total | 3,759 | 4,268 | 182 | (39) |

ABS are accounted for as financial assets, for further details regarding recognition and impairment refer to Note 1 of the financial statements. Following an amendment to IAS 39 in 2008, the Group reclassified certain of its asset backed securities from trading and available-for-sale to loans and receivables. The securities were reclassified at their fair value on the date of reclassification. On disposal, where proceeds differ from carrying value the gain or loss is recognised in the income statement during the period.

At 31 December 2008 the total recognised loss on disposal was $39 million. The ABS portfolio is assessed frequently for objective evidence of impairment. At 31 December 2008 $173 million of CDOs (RMBS) and $10 million of CMBS were deemed impaired.

Valuation of retained interest is initially and subsequently determined using market price quotations where available or internal pricing models that utilise variables such as yield curves, prepayment speeds, default rates, loss severity, interest rate volatilities and spreads. The assumptions used for valuation are based on observable transactions in similar securities and are verified by external pricing sources, where available.

The ABS portfolio is closely managed by a centralised dedicated team. This team has all the capabilities (Legal, Risk, GSAM, Credit Analysis, Asset Surveillance, Trading and Distribution) and authority to manage this portfolio effectively. The team has developed a detailed analysis and reporting framework of the underlying portfolio to allow senior management to make an informed holding decision with regards to specific assets, asset classes or parts of an asset class.

**Portfolio management**

Wholesale Banking via its Portfolio Management unit buys synthetic protection for its banking book credit portfolio. Securitisation provides capacity for client-focused growth and improves efficiency of economic and regulatory capital. The Group as the originator performs multiple roles, including Protection Buyer, Calculation Agent and Credit Event Monitor Agent. The Protection Buyer executes and maintains securitisation transactions. The Calculation Agent computes periodic coupon payments and loss payouts. The Credit Event Monitor Agent validates and provides notifications of credit events.

The Asset & Liability Management unit (ALM), performs a different role, and acts as deposit taker for funds collected from the credit protection provider for certain funded securitisation transactions. Deposits collected enhance the liquidity position of the Group and eliminates counterparty risk for deals where the Group is the protection buyer.

Wholesale Banking has eight securitisation transactions listed in the table below, with an aggregate hedge capacity of $15.6 billion. Of the eight transactions, three are private deals with bilateral investors and five are public deals distributed to a broad spectrum of investors and rated by Moody's, Standard & Poor's and Fitch. In 2008 the Group originated three synthetic securitisation programmes with a maximum notional value of $6.5 billion.

At December 2008 $44 million of securitised exposures were classified as impaired and past due.

All eight transactions are structured as synthetic protection to facilitate the hedging of commercial loans and trade finance facilities extended to clients by the Group's branches and subsidiaries. All transactions are also structured as non-disclosed pools for reason of client confidentiality.

The table below provides detail of securitisation programmes that have been originated by the Group.

| | | | | | 31.12.08 | | |
|---|---|---|---|---|---|---|---|
| | Underlying facilities hedged | Public/private | Start Date | Scheduled maturity | Max Notional $million | Outstanding Exposures* $million | Retained Exposures $million |
| START III | Commercial Loan | Public | Dec 2006 | June 2010 | 1,500 | 1,401 | 18 |
| START IV | Commercial Loan | Public | June 2007 | Dec 2010 | 1,500 | 1,366 | 1,219 |
| TF5 | Trade Finance | Private | May 2008 | Dec 2010 | 3,000 | 2,563 | 2,864 |
| SEALANE | Trade Finance | Public | Nov 2007 | May 2011 | 3,000 | 2,651 | 2,708 |
| START II | Commercial Loan | Public | June 2006 | June 2011 | 1,600 | 1,469 | 1,370 |
| START V | Commercial Loan | Public | July 2008 | Jan 2012 | 1,000 | 924 | 928 |
| SHANGREN | Trade Finance | Private | Aug 2008 | Feb 2012 | 2,500 | 2,247 | 2,231 |
| ASIAMEA | Commercial Loan | Private | Dec 2007 | Dec 2012 | 1,500 | 1,438 | 1,399 |
| | | | | | 15,600 | 14,059 | 12,737 |

* The underlying exposures that have been securitised in the programmes.

** The exposures that have not been sold to investors but have been retained by the Group.

### Accounting policy

The Group securitises various financial assets as part of credit risk mitigation activities. These securitisations serve to transfer the credit risk associated with specific financial assets to an SPE via the use of credit derivatives. The SPE then issues various tranches of notes or credit linked notes which offer recourse to investors whose claims to payment are backed by the underlying financial assets, via a waterfall structure.

The financial assets included in a securitisation programme will be fully or partially derecognised in the consolidated balance sheet when rights to receive cash flows from the financial assets have expired or where the Group has transferred substantially all risks and rewards of ownership.

Through the use of synthetic securitisation, the Group buys protection without actual transference of any assets to an SPE. These exposures are hedged by the SPE through the issue of credit linked notes. As a result, the Group remains the owner of the assets but has transferred a substantial part of the credit risk to the SPE. Third party investors in securities issued by the SPE have recourse only to the assets of the SPE and not to the Group.

Valuation of retained interest is initially valued at cost and subsequently determined using market price quotations where available or dealer quotes. The assumptions used for valuation are based on observable transactions in similar securities and are verified by external pricing sources, where available.

### Governance of securitisation activities

Securitisation transactions proposed for funding and capital management of the Group must first obtain support from the respective Capital Management Committee (CMC), that manages the capital requirements of the business, before going to Group Liquidity Management Committee (LMC) for final approval. LMC ensures timing of deal execution is co-ordinated with capital raising activities of Group Treasury.

Execution of each securitisation transaction must either be under the Individual Transaction Approval or Product Program Framework; such that all relevant support, control and risk functions are involved in the transaction. Specifically, Compliance covers issues like confidentiality of clients' information and insider information, Finance advises on the accounting treatment, Credit advises on the regulatory treatment, Group Tax provides an opinion on taxation and Group Regulatory Reporting facilitates communication with the regulator.

### Basel II for securitisation positions

The calculation of risk-weighted exposure amounts for securitisation positions is based on the following two IRB securitisation calculation methods advised by the FSA:

- IRB method for certain senior securitisation positions; and
- Standardised Approach for all other securitisation positions.

All existing securitisation transactions originated by Wholesale Banking, detailed in the table on page 36, meet the credit risk transfer requirement to be accounted for as securitisation under the Basel II regulatory capital regime.

The table below presents a summary of the securitisation positions retained or purchased by the Group analysed by risk weight band. The majority of the exposures are rated AAA.

| | 31.12.08 | | |
|---|---|---|---|
| Risk weight bands | Securitisation Programmes* $million | ABS** $million | Total $million |
| 0% – 20% | 12,268 | 3,233 | 15,501 |
| 20% – 40% | 135 | 440 | 575 |
| 40% – 60% | – | 419 | 419 |
| 60% – 80% | 75 | 58 | 133 |
| 80% – 100% | 14 | 107 | 121 |
| 100% and above | 75 | 72 | 147 |
| 1250% or Deducted | 170 | 121 | 291 |
| Total | 12,737 | 4,450 | 17,187 |

* Retained exposures that are included in the securitisation programmes originated by the Group and have not been sold to investors.

** ABS exposures purchased from a third party by the Group.

# 5. Market risk

Standard Chartered recognises market risk as the risk of loss resulting from changes in market prices and rates. The Group is exposed to market risk arising principally from customer driven transactions. The objective of the Group's market risk policies and processes is to obtain the best balance of risk and return while meeting customers' requirements.

The primary categories of market risk for Standard Chartered are:

- Interest rate risk: arising from changes in yield curves, credit spreads and implied volatilities on interest rate options;
- Currency exchange rate risk: arising from changes in exchange rates and implied volatilities on foreign exchange options;
- Commodity price risk: arising from changes in commodity prices and commodity option implied volatilities; covering energy, precious metals, base metals and agricultural; and
- Equity price risk: arising from changes in the prices of equities, equity indices, equity baskets and implied volatilities on related options.

### Market risk governance

Market risk is governed by the GRC, which agrees policies and levels of risk appetite in terms of VaR and stress loss. The Group Market Risk Committee (GMRC) provides market risk oversight and sets market risk policies. These policies cover both trading and non-trading books of the Group. The trading book is defined as per the FSA handbook and BIPRU. This is more restrictive than the broader definition within IAS39 'Financial Instruments: Recognition and Measurement', as the FSA only permits certain types of financial instruments or arrangements to be included within the trading book. Limits by location and portfolio are proposed by the businesses within the terms of agreed policy.

Group Market Risk (GMR) approves the limits within delegated authorities and monitors exposures against these limits. Additional limits are placed on specific instruments and position concentrations where appropriate. Sensitivity measures are used in addition to VaR as risk management tools. For example, interest rate sensitivity is measured in terms of exposure to a one basis point increase in yields, whereas foreign exchange, commodity and equity sensitivities are measured in terms of the underlying values or amounts involved. Option risks are controlled through revaluation limits on underlying price and volatility shifts, limits on volatility risk and other variables that determine the options' value.

### Value at Risk

The Group measures the risk of losses arising from future potential adverse movements in market rates, prices and volatilities using a VaR methodology. VaR, in general, is a quantitative measure of market risk which applies recent historic market conditions to estimate potential future loss in market value that will not be exceeded in a set time period at a set statistical confidence level. VaR provides a consistent measure that can be applied across trading businesses and products over time and can be set against actual daily trading profit and loss outcome.

VaR is calculated for expected movements over a minimum of one business day and to a confidence level of 97.5 per cent. This confidence level suggests that potential daily losses, in excess of the VaR measure, are likely to be experienced six times per year.

The Group uses historic simulation as its VaR methodology with an observation period of one year. Historic simulation involves the revaluation of all unmatured contracts to reflect the effect of historically observed changes in market risk factors on the valuation of the current portfolio.

VaR is calculated as the Group's exposure as at the close of business, generally London time. Intra-day risk levels may vary from those reported at the end of day.

### Back testing

To ensure their predictive power, VaR models are back tested against actual results. In 2008 there have been only three exceptions in the regulatory back testing. This is well within the 'green zone' applied internationally to internal models by bank supervisors, and implies that model reliability is statistically greater than 95 per cent.

Back testing is conducted daily against clean profit and loss, which is the actual profit and loss for a given business day adjusted to remove the effect of certain items unrelated to market risk. Back testing is also conducted against clean hypothetical profit and loss which is the clean profit and loss that would have occurred for a given business day if the portfolio on which the VaR number for that business day is based remained unchanged.

### Stress testing

Losses beyond the confidence interval are not captured by a VaR calculation, which therefore gives no indication of the size of unexpected losses in these situations.

GMR complements the VaR measurement by regularly stress testing market risk exposures to highlight potential risk that may arise from extreme market events that are rare but plausible.

Stress testing is an integral part of the market risk management framework and considers both historical market events and forward looking scenarios. A consistent stress testing methodology is applied to trading and non-trading books.

Stress scenarios are regularly updated to reflect changes in risk profile and economic events. The GMRC has responsibility for reviewing stress exposures and, where necessary, enforcing reductions in overall market risk exposure. The GRC considers stress testing results as part of its supervision of risk appetite.

The stress testing methodology assumes that scope for management action would be limited during a stress event, reflecting the decrease in market liquidity that often occurs.

Regular stress test scenarios are applied to each interest rates, credit spreads, exchange rates, commodity prices and equity prices. This covers all asset classes in the Financial Markets banking and trading books.

Ad hoc scenarios are also prepared reflecting specific market conditions and for particular concentrations of risk that arise within the businesses.

**Market risk changes**
Trading, non-trading and total VaR continued to rise in 2008 as a consequence of rising market volatility across the wider global markets. The one year observation period applied for VaR increasingly reflected the increased volatility.

The acquisition of American Express Bank in 2008 increased Group VaR by $1.1 million.

From 2008, reported Group VaR reflects adjustments made for the inclusion of credit spread VaR arising from non-trading book activity, and the exclusion of structural Group Treasury debt capital issuance positions.

**Market risk regulatory capital**
At Group and Solo Consolidated levels, the FSA specifies minimum capital requirements against market risk. The FSA has granted the Group Capital Adequacy Directive 2 (CAD2) internal model approval covering the majority of general interest rate and foreign exchange risk in the trading book. CAD2 internal model approval allows the Group to calculate the market risk capital requirement using VaR at the 99 per cent confidence level for positions within the scope of approval granted by the FSA. In 2008 the scope was extended to include precious and base metals market risk. Positions outside the CAD2 scope are assessed according to standard FSA rules and currently this includes all specific interest rate and equity risks amongst others. At 31 December 2008 the Group's market risk regulatory capital requirement was $735 million.

**Valuation framework**
Products may only be traded subject to a formally approved Product Programme which identifies the risks, controls and regulatory treatment. The control framework is assessed by the relevant Group functions as well as Group Internal Audit on an ongoing basis. It is Group policy that all assets and liabilities held are to be recorded in the financial accounts on a fair-value basis that is consistent with IFRS.

The Product control function is responsible for valuation controls in accordance with policy. Where possible, positions held are marked to market on a consistent and daily basis using quoted prices within active markets. Where this is not possible, positions are marked to model using models which have been independently and periodically validated by GMR. Product Control ensure adherence to the Group Policy for valuation adjustments to incorporate counterparty risk, bid/ask spreads, market liquidity and where appropriate model risk reserves to mark all positions on a prudent basis. The GMRC provides oversight and governance of all policy and performs a monthly review of the valuation adjustments.

The minimum regulatory market risk capital requirements for the trading book is presented below for the Group.

| | 31.12.08 | |
|---|---|---|
| **Market Risk Capital Requirements for Trading Book** | Regulatory Capital Requirement $million | Risk Weighted Assets $million |
| Interest rate* | 257 | 3,217 |
| Equity | 28 | 350 |
| Options | 143 | 1,792 |
| Collective investment schemes | 1 | 13 |
| Commodity** | 45 | 563 |
| Foreign exchange*,** | 59 | 739 |
| Other | – | – |
| Internal Models Approach | 202 | 2,531 |
| Total | 735 | 9,205 |

* Interest rate and foreign currency capital requirements for positions which are not within the scope of permission to use a VaR model granted by the FSA.

** Commodity and foreign currency covers all business activities across trading and non-trading books.

The minimum regulatory market risk capital requirement for the trading book is presented below for the Group's significant subsidiaries.

| | 31.12.08 | | |
|---|---|---|---|
| **Market Risk Capital Requirements for Trading Book** | Standard Chartered Bank $million | Standard Chartered Bank (HK) Ltd $million | Standard Chartered First Bank Korea Ltd $million |
| Interest rate* | 199 | 30 | – |
| Equity | 28 | – | – |
| Options | 149 | – | – |
| Collective investment schemes | 1 | – | – |
| Commodity** | 45 | – | – |
| Foreign exchange*,** | 66 | 6 | – |
| Other | – | – | – |
| Internal Models Approach | 207 | 4 | 64 |
| Total | 695 | 40 | 64 |
| | | | |
| Market Risk – RWA | 8,688 | 498 | 800 |

* Interest rate and foreign currency capital requirements for positions which are not within the scope of permission to use a VaR model granted by the FSA.

** Commodity and foreign currency covers all business activities across trading and non-trading books.

The tables below show the average, high and low trading and non-trading VAR over the year 2008, and the actual position on 31 December 2008. The highest and lowest VaR are independent and could have occurred on different days.

Trading and Non-trading (VaR at 97.5 per cent, 1 day)

| | 31.12.08 | | | |
|---|---|---|---|---|
| **Daily value at risk** | Average $million | High $million | Low $million | Actual^^ $million |
| Interest rate risk* | 25.1 | 37.6 | 14.2 | 36.7 |
| Foreign exchange risk | 6.0 | 8.7 | 3.3 | 4.8 |
| Commodity risk | 1.3 | 2.4 | 0.6 | 2.1 |
| Equity risk | 1.4 | 2.4 | 0.5 | 0.8 |
| Total** | 31.5^ | 42.5^ | 17.8 | 41.7 |

Trading (VaR at 97.5 per cent, 1 day)

| | 31.12.08 | | | |
|---|---|---|---|---|
| **Daily value at risk** | Average $million | High $million | Low $million | Actual^^ $million |
| Interest rate risk* | 12.0 | 16.0 | 8.5 | 9.3 |
| Foreign exchange risk | 6.0 | 8.7 | 3.3 | 4.8 |
| Commodity risk | 1.3 | 2.4 | 0.6 | 2.1 |
| Equity risk | 1.4 | 2.4 | 0.5 | 0.8 |
| Total** | 14.2^ | 20.6 | 9.2 | 9.8 |

* Interest rate risk VaR includes credit spread risk.

** The total book VaR shown in the tables above is not a sum of the component risks due to offsets between them.

^ Standard Chartered took an economic hedge against the GBP proceeds of the 2008 rights issue into US dollars. The foreign exchange hedge was excluded from VaR. Including it would result in a Group VaR of a peak level of $71.1 million and average Group VaR for 2008 would have increased by $1.3 million.

^^ This represents the actual one day VaR as at 31 December.

The highest and lowest VaR are independent and could have occurred on different days

### Interest rate risk in the non-trading book

Interest rate risk from across the non-trading book portfolios is transferred to Financial Markets where it is managed by local Asset and Liability Management (ALM) desks under the supervision of local Asset and Liability Committees (ALCO). The ALM desks deal in the market in approved financial instruments in order to manage the net interest rate risk, subject to approved VaR and risk limits.

VaR and stress tests are applied to non-trading book exposures in the same way as for the trading book.

Until 2008 non-trading VaR measured general interest rate price risk only. Specific risk in the non-trading book, or the risk of a price change in an investment due to factors related to the issuer, has also been measured with a separate VaR model since 2008. This VaR model uses the Monte Carlo simulation approach and measures risk to the 97.5 per cent confidence level, the same as the general VaR model. Basis risk, or the risk arising from hedging exposure to one interest rate with exposure to a rate which reprices under slightly different conditions, is also analysed.

Non Trading (VaR at 97.5 per cent, 1 day)

| | 31.12.08 | | | |
|---|---|---|---|---|
| **Daily value at risk** | Average $million | High $million | Low $million | Actual^ $million |
| Interest rate risk * | 19.8 | 39.6 | 10.6 | 38.8 |

^ This represents the actual one day VaR as at 31 December.

* Interest rate risk VaR includes credit spread risk.

The highest and lowest VaR are independent and could have occurred on different days.

## 6. Operational risk

Operational risk is the 'risk of direct or indirect loss due to an event or action resulting from inadequate or failed internal processes, people and systems, or from external events'. The Group seeks to ensure that key operational risks are managed in a timely and effective manner through a framework of policies, procedures and tools to identify, assess, monitor, control and report such risks.

The Group Operational Risk Committee (GORC) supervises and directs the management of operational risks across the Group.

GORC is also responsible for ensuring adequate and appropriate policies and procedures are in place for the identification, assessment, monitoring, control and reporting of operational risks.

Group Operational Risk is responsible for setting the operational risk policy, defining standards for measurement and for operational risk capital calculation. A Group Operational Risk Assurance function, independent from the businesses, is responsible for deploying and assuring the operational risk management framework, and for monitoring the Group's key operational risk exposures.

Standard Chartered uses The Standardised Approach to assess its regulatory and internal capital requirements for Operational Risk. The Standardised Approach for operational risk capital calculation applies a beta to the average income that was achieved in the previous three years by the Group. Following BIPRU 6, the average income is categorised into FSA business lines in accordance with the Group policy.

The table below details the operational risk capital requirement for Consumer Banking and Wholesale Banking.

| | 31.12.08<br>Operational Risk Capital Requirement $million |
|---|---|
| Consumer Banking | 670 |
| Wholesale Banking | 797 |
| Total | 1,467 |

## 7. Immaterial portfolios

**Non Trading Book Equities & Specialised Lending Exposures**

For the purposes of BIPRU requirements 11.5.15 & 11.5.11 the holdings of non-trading book equities and the specialised lending portfolio are considered immaterial. At 31 December 2008, non-trading book equity holdings amount to $2.0 billion and specialised lending exposure total $1.7 billion, which together total less than 1 per cent of the Group's total exposure.

## 8. Forward looking statements

It is possible that this document could or may contain forward-looking statements that are based on current expectations or beliefs, as well as assumptions about future events. These forward-looking statements can be identified by the fact that they do not relate only to historical or current facts. Forward-looking statements often use words such as anticipate, target, expect, estimate, intend, plan, goal, believe, will, may, should, would, could or other words of similar meaning. Undue reliance should not be placed on any such statements because, by their very nature, they are subject to known and unknown risks and uncertainties and can be affected by other factors that could cause actual results, and the Group's plans and objectives, to differ materially from those expressed or implied in the forward-looking statements.

There are several factors which could cause actual results to differ materially from those expressed or implied in forward looking statements. Among the factors that could cause actual results to differ materially from those described in the forward looking statements are changes in the global, political, economic, business, competitive, market and regulatory forces, future exchange and interest rates, changes in tax rates and future business combinations or dispositions.

The Group undertakes no obligation to revise or update any forward looking statement contained within this document, regardless of whether those statements are affected as a result of new information, future events or otherwise.

## 9. Acronyms

| | |
|---|---|
| ABS | Asset Backed Security |
| AIRB | Advanced Internal Ratings Based |
| ALCO | Asset and Liability Committee |
| ALM | Asset and Liability Management |
| ARC | Audit and Risk Committee |
| ARROW | Advanced Risk Response Operating Framework |
| BIPRU | Prudential Sourcebook for Banks, Building Societies and Investment Firms |
| CAD2 | Capital Adequacy Directive 2 |
| CCF | Credit Conversion Factor |
| CCR | Counterparty Credit Risk |
| CDOs | Collateralised Debt Obligations |
| CMBS | Commercial Mortgage Backed Securities |
| CMC | Capital Management Committee |
| CRD | Capital Requirements Directive |
| CRM | Credit Risk Mitigation |
| CSA | Credit Support Annexes |
| EAD | Exposure at Default |
| ECAI | External Credit Assessment Institutions |
| FSA | Financial Services Authority |
| FSV | Forced Sale Value |
| GALCO | Group Asset and Liability Committee |
| GCC | Group Credit Committee |
| GCRO | Group Chief Risk Officer |
| GMR | Group Market Risk |
| GMRC | Group Market Risk Committee |
| GORC | Group Operational Risk Committee |
| GRC | Group Risk Committee |
| GSAM | Group Special Asset Management |
| IAS | International Accounting Standard |
| ICAAP | Internal Capital Adequacy Assessment Process |
| ICG | Individual Capital Guidance |
| IIP | Individual Impairment Provision |
| IRB | Internal Ratings Based |
| IFRS | International Financial Reporting Standards |
| LGD | Loss Given Default |
| LMC | Liquidity Management Committee |
| MAC | Model Assessment Committee |
| MTM | Mark-to-Market |
| PD | Probability of Default |
| PIP | Portfolio Impairment Provision |
| RMBS | Residential Mortgage Backed Securities |
| RMF | Risk Management Framework |
| RTO | Risk Type Owner |
| RWA | Risk Weighted Assets |
| SME | Small and Medium Enterprises |
| SPE | Special Purpose Entity |
| SREP | Supervisory Review and Evaluation Process |
| VaR | Value at Risk |

## Appendix 1 – Group entities

At 31 December 2008, the principal subsidiary undertakings, all indirectly held and principally engaged in the business of banking and provision of other financial services, were as follows:

| Country and place of incorporation or registration | Main areas of operation | Group interest in ordinary share capital % |
|---|---|---|
| Standard Chartered Bank, England and Wales | United Kingdom, Middle East, South Asia, Asia Pacific, Americas and, through Group companies, Africa | 100.00 |
| Standard Chartered First Bank Korea Limited, Korea | Korea | 100.00 |
| Standard Chartered Bank Malaysia Berhad, Malaysia | Malaysia | 100.00 |
| Standard Chartered Bank (Pakistan) Limited, Pakistan | Pakistan | 98.99 |
| Standard Chartered Bank (Taiwan) Limited, Taiwan | Taiwan | 100.00 |
| Standard Chartered Bank (Hong Kong) Limited, Hong Kong | Hong Kong | 100.00 |
| Standard Chartered Bank (China) Limited, China | China | 100.00 |
| Standard Chartered Bank (Thai) Public Company Limited, Thailand | Thailand | 99.97 |
| Standard Chartered Receivables (UK) Limited, England and Wales | United Kingdom | 100.00 |
| Standard Chartered Financial Investments Limited, England and Wales | United Kingdom | 100.00 |
| Standard Chartered Debt Trading Limited, England and Wales | Hong Kong | 100.00 |
| Standard Chartered Private Equity Limited, Hong Kong | Hong Kong | 100.00 |

The below table lists the entities where accounting treatment differs from the prudential treatment.

| Associate | Prudential Treatment | Main areas of operation | Group interest in ordinary share capital % |
|---|---|---|---|
| Asia Commercial Bank | Deducted from capital resources | Vietnam | 15.00 |
| China Bohai Bank | Deducted from capital resources | China | 19.90 |
| Fleming Family & Partners | Proportionally consolidated | Asia | 20.00 |
| MCashback Limited | Proportionally consolidated | UK | 30.00 |
| mReferral Corporation Limited | Proportionally consolidated | Hong Kong | 33.00 |
| Merchant Solutions Limited | Proportionally consolidated | Hong Kong | 44.00 |