

## Risk review

Standard Chartered provided \$20.6 billion of financing to small and medium-sized enterprises across 32 countries in 2013.



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## Risk review

### Our risk profile is in line with our strategy

Risk profile	
<b>Highly diversified and short tenor portfolio</b>	<ul style="list-style-type: none"> <li>We have a well diversified portfolio of loans and advances and income streams across geographies, industry sectors and products; no individual country accounts for more than 21 per cent of our loans and advances to customers or operating income</li> <li>In Consumer Banking 73 per cent of assets are secured and the average loan-to-value ratio on our mortgage portfolio is less than 48 per cent</li> <li>In Wholesale Banking 64 per cent of loans and advances are short-term and we hold a diverse mix of collateral, valued conservatively</li> </ul>
<b>Strong capital and liquidity position</b>	<ul style="list-style-type: none"> <li>We remain well capitalised and our balance sheet remains highly liquid</li> <li>We have a strong advances-to-deposits ratio</li> <li>We remain a net provider of liquidity to interbank markets</li> </ul>
<b>Robust risk governance structure and experienced senior team</b>	<ul style="list-style-type: none"> <li>We have a clear statement of risk appetite which is aligned to the Group's strategy; it is approved by the Board and informs the more granular risk parameters within which our businesses operate</li> <li>We continuously monitor our risk profile to ensure it remains within our risk appetite and regularly conduct stress tests</li> <li>We review and adjust our exposures, underwriting standards and limits in response to observed and anticipated changes in the external environment and expectations</li> </ul>

#### Risk overview

Standard Chartered has a defined risk appetite, approved by the Board, which is an expression of the amount of risk we are prepared to take and plays a central role in the development of our strategic plans and policies. Our overall risk appetite has not changed. We regularly assess our aggregate risk profile, conduct stress tests and monitor concentrations to ensure that we are operating within our approved risk appetite. Further details on our approach to risk appetite and stress testing are set out on page 71.

We review and adjust our underwriting standards and limits in response to observed and anticipated changes in the external environment and the evolving expectations of our stakeholders. During the course of 2013, we maintained a cautious stance overall while continuing to support our core clients. Credit risk management is covered in more detail on page 72.

Our balance sheet and liquidity have remained strong. Over half of total assets mature within one year and of these approximately 70 per cent mature within three months. The balance sheet is highly diversified across a wide range of products, industries, geographies and customer segments, which serves to mitigate risk:

- Customer loans and advances are 44 per cent of total assets
- The manufacturing sector in Wholesale Banking (WB), which is 25 per cent of lending, is diversified by industry and geography
- The largest concentration to any globally correlated industry is to energy at 9 per cent of total WB assets. The exposure is well spread across eight subsectors and over 350 client groups and, reflecting the trade bias in the portfolio, 64 per cent of exposures mature within one year
- Our top 20 corporate exposures are stable as a proportion of Group capital resources and highly diversified, with each, on average, spread across seven markets and five industries

The following parts of the Risk review form part of the financial statements:

- 'Regulatory compliance, review, requests for information and investigations' and 'Risk of fraud and other criminal acts' on pages 67 and 68
- From the start of the 'Risk management' section on page 69 to the end of the 'Pension risk' section on page 125, excluding:
  - Asset Backed Securities, page 106
  - Mapping of market risk items to the balance sheet, page 113
  - Encumbered assets, page 117
  - Liquidity Coverage Ratio and Net Stable Funding Ratio, page 119
- From the start of the 'Capital management' section on page 128 to the end of 'Current compliance with Capital Adequacy Regulations' on page 129
- From the start of the 'Capital base' section on page 131 until the end of 'Movement in total capital' on page 132

- Our cross-border asset exposure is also diversified and reflects our strategic focus on our core markets and customer segments. Further details are set out on page 109
- 44 per cent of customer loans and advances are in Consumer Banking (CB); 73 per cent of these are secured and the overall loan-to-value ratio on our mortgage portfolio is less than 48 per cent
- The unsecured CB portfolio is spread across multiple products in over 30 markets

We have low exposure to asset classes and segments outside our core markets and target customer base. We have no direct sovereign exposure (as defined by the European Banking Authority (EBA)) to Greece, Ireland, Italy, Portugal or Spain (GIIPS). Our exposure in these countries is primarily in trade finance and financial markets. Further details of our eurozone exposures are given on page 107. Our exposure to countries impacted by the political developments in the Middle East and North Africa are also low. Exposures in Syria, Lebanon, Egypt, Libya, Algeria and Tunisia represent less than 0.5 per cent of our total assets.

Our exposures to commercial real estate and leveraged loans account for 2 per cent and 1 per cent of our total assets respectively. The notional value of the Asset Backed Securities (ABS) portfolio, which accounts for 1 per cent of our total assets, increased by \$2 billion in 2013 due to investments in high quality, senior ABS and Residential Mortgage Backed Securities (RMBS) assets in the Group's portfolio of marketable securities. Further details are given on page 106.

We have closely managed our exposures in markets and sectors which have faced downturns during 2013, increasing collateral cover and selectively reducing exposures and limits.

Market risk is tightly monitored using value at risk (VaR) methodologies complemented by sensitivity measures, gross nominal limits and loss triggers at a detailed portfolio level. This is supplemented with extensive stress testing which takes account of more extreme price movements. Our overall trading book risk exposure has not changed significantly during the course of 2013. Further details on market risk are provided on page 110.

We maintained a strong advances-to-deposits ratio in 2013. Liquidity will continue to be deployed to support growth opportunities in our chosen markets. We manage liquidity in each of our branches and operating subsidiaries in each country, ensuring that we can meet all short-term funding and collateral requirements and that our balance sheet remains structurally sound. Our customer deposit base is diversified by type and maturity and we are a net provider of liquidity to the interbank money markets. We have a substantial portfolio of marketable securities that can be realised in the event of liquidity stress. Further details on liquidity risk are provided on pages 115 to 123.

We continue to engage actively with our regulators, including the Prudential Regulation Authority (PRA), the Financial Conduct Authority (FCA), the Bank of England (BoE) and our 'host' regulators in each of the markets in which we operate.

We have a well established risk governance structure, which is set out on page 69, and an experienced senior team. Members of our most senior executive body (the Court) sit on our principal risk executive committees, which ensures that risk oversight is a strong focus for all our executive directors, while common membership between these committees helps us address the inter-relationships between risk types. Board committees provide additional risk management oversight and challenge.

We continue to build on the Group's culture of risk management discipline. During 2013 we refreshed and re-communicated the Group Code of Conduct, reinforcing our values and our brand promise. We recognise that failures of regulatory compliance have damaged the Group's reputation, and continue to pay close attention to this. The management of operational risk, more broadly, continues to be enhanced as we incrementally roll out our new approach across all areas of the Group. We are introducing increased rigour in the process for anticipating a wide variety of operational risks and in our assessments of risks and control effectiveness. Operational risk and reputational risk are covered in more detail on pages 123 to 125.

### Impairment review

The total impairment charge (excluding goodwill impairment) for 2013 has increased by \$354 million compared to 2012. The increase has primarily been in CB partly offset by lower other impairment charges.

In CB, total loan impairment provisions have increased year on year, primarily reflecting the growth and seasoning of loans booked between 2010 and 2012, the ongoing impact of Korea Personal Debt Rehabilitation Scheme (PDRS) filings and effects of reduced loan sales compared to previous years. The increase is otherwise in line with our portfolio growth and growth in unsecured products in selected markets in prior years. Portfolio impairment provisions (PIPs) also reduced as a result of reclassification of consumer finance businesses in Korea as held for sale. We remain disciplined in our approach to risk management and proactive in our collection efforts to minimise account delinquencies.

In WB, total loan impairment provisions have increased by \$61 million compared to 2012. This was concentrated in a few names in India and Africa and was partially offset by a release of an overlay PIP in the Middle East and Other South Asia (MESA) as economic conditions improved. The credit quality of the portfolio remains high in spite of the volatility in commodity prices and currencies.

 Further details of credit risk in respect of the Group's loans portfolio are set out on pages 72 to 77.

Other impairment, excluding goodwill impairment, is lower compared to prior periods, as 2012 was impacted by provision against certain investments in associates. Further details are set out in note 11 on page 254.

## Risk review continued

### Principal uncertainties

**We are in the business of taking selected risks to generate shareholder value, and we seek to contain and mitigate these risks to ensure they remain within our risk appetite and are adequately compensated.**

The key uncertainties we face in the coming year are set out below. This should not be regarded as a complete and comprehensive statement of all potential risks and uncertainties that we may experience.

#### Deteriorating macroeconomic conditions in footprint countries

Macroeconomic conditions have an impact on personal expenditure and consumption, demand for business products and services, the debt service burden of consumers and businesses, the general availability of credit for retail and corporate borrowers and the availability of capital and liquidity funding for our business. All these factors may impact our performance.

The world economy is coming out of a difficult period and uncertainty remains. The unwinding of the US Federal Reserve's (Fed) quantitative easing programme could lead to higher interest rates, volatility in financial markets and capital flight from emerging markets which may threaten the growth trajectory of some vulnerable economies. A slowdown in China's growth may depress prices and trade in a number of commodity sectors such as energy, metals and mining sectors, and a prolonged slowdown could have wider economic repercussions.

The sovereign crisis in the eurozone is not fully resolved and, although acute risks have been addressed by ongoing policy initiatives, there is still a need for substantial new structural reform (see additional information on the risk of redenomination on page 107).

Our exposure to eurozone sovereign debt is very low. However, we remain alert to the risk of secondary impacts from events in the West on financial institutions, other counterparties and global economic growth.

Inflation and property prices appear to be under control in most of the countries in which we operate. Changes in monetary policy could lead to significant increases in interest rates from their currently low historical levels, with resulting impacts on the wider economy and on property values.

We balance risk and return, taking account of changing conditions through the economic cycle, and monitor economic trends in our markets very closely. We conduct stress tests to assess the effects of extreme but plausible trading conditions on our portfolio and also continuously review the suitability of our risk policies and controls. We manage credit exposures following the principle of diversification across products, geographies, client and customer segments. This provides for strong resilience against economic shocks in one or more of our portfolios.

### Regulatory changes

Our business as an international bank will continue to be subject to an evolving and complex regulatory framework comprising legislation, regulation and codes of practice, in each of the countries in which we operate. A key uncertainty relates to the way in which governments and regulators adjust laws, regulations and economic policies in response to macroeconomic and other systemic conditions. The nature and impact of such future changes are not always predictable and could run counter to our strategic interests. Some are anticipated to have a significant impact, such as changes to capital and liquidity regimes, changes to the calculation of risk-weighted assets (RWA), derivatives reform, remuneration reforms, recovery and resolution plans, banking structural reforms in a number of markets (including proposals which could result in (i) deposit-taking entities being ring-fenced from WB activities and (ii) local branches of international banking groups being subsidiarised), the UK bank levy and the US Foreign Account Tax Compliance Act. In relation to the banking structural reforms, the European Commission has published a legislative proposal for a regulation introducing structural reforms to the EU banking sector, including a prohibition on proprietary trading and separation powers for supervisors relating to banks' other trading activities. Uncertainty remains regarding details of the application of the European Union's Capital Requirements Directive and Regulation IV (CRD IV), the proposed Bank Recovery and Resolution Directive (BRRD) and Over the Counter (OTC) derivative reforms across our markets which could potentially have a material impact on the Group and its business model. Proposed changes could also adversely affect economic growth, the volatility and liquidity of the financial markets and, consequently, the way we conduct business, structure our global operating model and manage capital and liquidity. These effects may directly or indirectly impact our financial performance. Despite these concerns, we remain a highly liquid and well capitalised bank under current and currently published future regimes.

It is in the wider interest to have a well-run financial system, and we are supportive of a tighter regulatory regime that enhances the resilience of the international financial system. The Group will continue to participate in the regulatory debate through responses to consultations and working towards an improved and workable regulatory architecture. We are also encouraging our international regulators to work together to develop co-ordinated approaches to regulating and resolving cross-border banking groups. We support changes to laws, regulations and codes of practice that will improve the overall stability of, and the conduct within, the financial system because this provides benefits to our clients and shareholders and the broader geographies and markets in which we operate. However, we also have concerns that certain proposals may not achieve this desired objective and may have unintended consequences, either individually or in terms of aggregate impact.

### Regulatory compliance, reviews, requests for information and investigations

Since the global financial crisis, the banking industry has been subject to increased regulatory scrutiny. There has been an unprecedented volume of regulatory changes and requirements, as well as a more intensive approach to supervision and oversight, resulting in an increasing number of regulatory reviews, requests for information and investigations, often with enforcement consequences, involving banks.

While the Group seeks to comply with the letter and spirit of all applicable laws and regulations at all times, it may be subject to regulatory actions and investigations across our markets, the outcomes of which are generally difficult to predict and can be material to the Group. Where laws and regulations across the geographies in which the Group operates contradict each other or create conflicting obligations, the Group aspires to meet both local requirements and appropriate global standards.

From time to time the Group is the subject of various regulatory reviews, requests for information (including subpoenas and requests for documents) and investigations by various governmental and regulatory bodies arising from the Group's business operations.

In 2012, the Group reached settlements with the US authorities<sup>1</sup> regarding US sanctions compliance in the period 2001 to 2007, involving a Consent Order by the New York Department of Financial Services (NYDFS), a Cease and Desist Order by the Federal Reserve Bank of New York (FRBNY), Deferred Prosecution Agreements with each of the Department of Justice and with the District Attorney of New York (each a 'DPA') and a Settlement Agreement with the Office of Foreign Assets Control. In addition to the civil penalties totalling \$667 million, the terms of these settlements (together the 'Settlements') include a number of conditions and ongoing obligations with regard to improving sanctions and Anti-Money Laundering (AML) and Banking Secrecy Act (BSA) controls such as remediation programmes, reporting requirements, compliance reviews and programmes, banking transparency requirements, training measures, audit programmes, disclosure obligations and the appointment of an independent monitor. These obligations are managed under a programme of work referred to as the US Supervisory Remediation Program (SRP). The SRP comprises workstreams designed to ensure compliance with the remediation requirements contained in all of the Settlements. Provided the Group fulfils all the requirements imposed by the DPAs, the applicable charges against the Group will be dismissed at the end of the two-year term of those agreements.

The Group has established a Financial Crime Risk Mitigation Programme (FCRMP), which is a comprehensive, multi-year, programme designed to review many aspects of the Group's existing approach to anti-money laundering and sanctions compliance and to enhance them as appropriate. One key component of the FCRMP is to oversee and manage the SRP. As part of the FCRMP the Group or its advisers may identify new issues, potential breaches or matters requiring further review or further process improvements that could impact the scope or duration of the FCRMP.

The Group is engaged with all relevant authorities to implement these programmes, meet the obligations under the Settlements and respond to further requests for information and inquiries related to its historic, current and future compliance with sanctions regimes.

The Group recognises that its compliance with historic, current and future sanctions, as well as AML and BSA requirements, and customer due diligence practices, not just in the US but throughout its footprint, is and will remain a focus of the relevant authorities.

As part of their remit to oversee market conduct, regulators and other agencies in certain markets are conducting investigations or requesting reviews into a number of areas of market conduct, including sales and trading, involving a range of financial products, and submissions made to set various market interest rates and other financial benchmarks, such as foreign exchange. At relevant times, certain of the Group's branches and/or subsidiaries were (and are) participants in some of those markets, in some cases submitting data to bodies that set such rates and other financial benchmarks.

The Group is contributing to industry proposals to strengthen financial benchmark processes in certain markets and continues to review its practices and processes in the light of the investigations, reviews and the industry proposals.

The Group is co-operating with all such ongoing reviews, requests for information and investigations. While the Group seeks to comply with the letter and spirit of all applicable laws and regulations, the outcome of these reviews, requests for information and investigations is uncertain and it may not be possible to predict the extent of any liabilities or other consequences that may arise.



For further details on legal and regulatory matters refer to note 45 on page 307.

<sup>1</sup> The US authorities comprise The New York Department of Financial Services (DFS), the Office of Foreign Assets Control (OFAC), the New York County District Attorney's Office (DANY), the United States Department of Justice (DOJ) and the Federal Reserve (NYFED)

## Risk review continued

### Financial markets dislocation

There is a risk that a sudden financial market dislocation, perhaps as a result of a tightening of monetary policy in the major economies or a deterioration of the sovereign debt crisis in the eurozone, could significantly increase general financial market volatility which could affect our performance or the availability of capital or liquidity. In addition, reduction of monetary intervention by the Federal Reserve, or other central banks, could disrupt external funding for some economies leading to lower growth and financial markets volatility. These factors may have an impact on the mark-to-market valuations of assets in our available-for-sale and trading portfolios. The potential losses incurred by certain clients holding derivative contracts during periods of financial market volatility could also lead to an increase in disputes and corporate defaults. At the same time, financial market instability could cause some financial institution counterparties to experience tighter liquidity conditions or even fail. There is no certainty that government action to reduce the systemic risk will be successful and it may have unintended consequences.

We stress test our market risk exposures to highlight the potential impact of extreme market events on those exposures and to confirm that they are within authorised stress triggers. Stress scenarios are regularly updated to reflect changes in risk profile and economic events. Where necessary, overall reductions in market risk exposure are enforced. We closely monitor the performance of our financial institution counterparties and adjust our exposure to these counterparties as necessary. We maintain robust processes to assess the appropriateness and suitability of products and services we provide to clients and customers to mitigate the risk of disputes.

### Geo-political events

We operate in a large number of markets around the world, and our performance is in part reliant on the openness of cross-border trade and capital flows. We face a risk that geo-political tensions or conflicts in our footprint could impact trade flows, our customers' ability to pay, and our ability to manage capital or operations across borders.

We actively monitor the political situation in all our principal markets, such as the development of events in the Middle East and territorial disputes in Northeast Asia. We conduct stress tests of the impact of extreme but plausible geo-political events on our performance and the potential for such events to jeopardise our ability to operate within our stated risk appetite. Further details on stress testing are given on page 71.

### Risk of fraud and other criminal acts

The banking industry has long been a target for third parties seeking to defraud, to disrupt legitimate economic activity, or to facilitate other illegal activities. The risk posed by such criminal activity is growing as criminals become more sophisticated and as they take advantage of the increasing use of technology and the internet. The incidence of cyber crime is rising, becoming more globally co-ordinated, and is a challenge for all organisations.

We seek to be vigilant to the risk of internal and external crime in our management of people, processes, systems and in our dealings with customers and other stakeholders. We have a broad range of measures in place to monitor and mitigate this risk. Controls are embedded in our policies and procedures across a wide range of the Group's activities, such as origination, recruitment, physical and information security.

We have a set of techniques, tools and activities to detect and respond to cyber crime, in its many forms. We actively collaborate with our peers, regulators and other expert bodies as part of our response to this risk.

The Group's controls to address money laundering risks are under review as part of the Group's Financial Crime Risk Mitigation Programme, referred to in the section headed 'Regulatory compliance, reviews, requests for information and investigations' on the previous page.

Fraud and criminal activity may also give rise to litigation impacting the Group. In December 2008, Bernard Madoff confessed to running a Ponzi scheme through Bernard L. Madoff Investment Securities, LLC (BMIS). American Express Bank (AEB), acquired by the Group in February 2008, had provided clients with access to funds that invested in BMIS. BMIS and the funds are in liquidation. Certain clients have brought actions against the Group in various jurisdictions seeking to recover losses based principally on the assertion that inadequate due diligence was undertaken on the funds. In addition, the BMIS bankruptcy trustee and the funds' liquidator have commenced proceedings against the Group, seeking to recover sums paid to clients when they redeemed their investments prior to BMIS' bankruptcy. There is a range of possible outcomes in the litigation described above, with the result that it is not possible for the Group to estimate reliably the liability that might arise. However, the Group considers that it has good defences to the asserted claims and continues to defend them vigorously.



For further details on legal and regulatory matters refer to note 45 on page 307.

### Exchange rate movements

Changes in exchange rates affect, among other things, the value of our assets and liabilities denominated in foreign currencies, as well as the earnings reported by our non-US dollar denominated branches and subsidiaries. Sharp currency movements can also impact trade flows and the wealth of clients, both of which could have an impact on our performance.

We monitor exchange rate movements closely and adjust our exposures accordingly. Under certain circumstances, we may take the decision to hedge our foreign exchange exposures in order to protect our capital ratios from the effects of changes in exchange rates. The effect of exchange rate movements on the capital adequacy ratio is mitigated to the extent there are proportionate movements in RWA.

The table below sets out the year-end and average currency exchange rates per US dollar for India, Korea, Indonesia and Taiwan for the years ended 31 December 2013 and 31 December 2012. These are the markets for which currency exchange rate movements have had the greatest translation impact on the Group's results in 2013.

	2013	2012
Indian rupee		
Average	<b>58.51</b>	53.43
Period end	<b>61.77</b>	54.96
Korean won		
Average	<b>1,094.52</b>	1,126.23
Period end	<b>1,055.08</b>	1,070.34
Indonesian rupiah		
Average	<b>10,414.66</b>	9,394.70
Period end	<b>12,164.29</b>	9,799.42
Taiwan dollar		
Average	<b>29.70</b>	29.57
Period end	<b>29.84</b>	29.07

As a result of our normal business operations, Standard Chartered is exposed to a broader range of risks than those principal uncertainties mentioned above and our approach to managing risk is detailed on the following pages.

### Risk management

The management of risk lies at the heart of Standard Chartered's business. One of the main risks we incur arises from extending credit to customers through our trading and lending operations. Beyond credit risk, we are also exposed to a range of other risk types such as country cross-border, market, liquidity, operational, pension, reputational and other risks that are inherent to our 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 our risk management framework we manage enterprise-wide risks, with the objective of maximising risk-adjusted returns while remaining within our risk appetite.

As part of this framework, we use a set of principles that describe the risk management culture we wish to sustain:

- **Balancing risk and return:** risk is taken in support of the requirements of our stakeholders, in line with our strategy and within our risk appetite
- **Responsibility:** it is the responsibility of all employees to ensure that risk-taking is disciplined and focused. We take account of our social responsibilities and our commitments to customers 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:** we seek to anticipate future risks and ensure awareness of all known risks
- **Competitive advantage:** we seek to achieve competitive advantage through efficient and effective risk management and control

### Risk governance

Ultimate responsibility for setting our risk appetite and for the effective management of risk rests with the Board.

Acting within an authority delegated by the Board, the Board Risk Committee (BRC), whose membership is comprised exclusively of non-executive directors of the Group, has responsibility for oversight and review of prudential risks including but not limited to credit, market, capital, liquidity and operational. It reviews the Group's overall risk appetite and makes recommendations thereon to the Board. Its responsibilities also include reviewing the appropriateness and effectiveness of the Group's risk management systems and controls, considering the implications of material regulatory change proposals, ensuring effective due diligence on material acquisitions and disposals, and monitoring the activities of the Group Risk Committee (GRC) and the Group Asset and Liability Committee (GALCO).

The BRC receives regular reports on risk management, including our portfolio trends, policies and standards, stress testing, liquidity and capital adequacy, and is authorised to investigate or seek any information relating to an activity within its terms of reference. The BRC also conducts 'deep dive' reviews on a rolling basis of different sections of the consolidated Group risk information report.

## Risk review continued

The Brand and Values Committee (BVC) oversees the brand, culture, values and good reputation of the Group. It seeks to ensure that the management of reputational risk is consistent with the risk appetite approved by the Board and with the creation of long-term shareholder value.

The role of the Audit Committee is to have oversight and review of financial, audit and internal control issues. Further details on the role of the Board and its committees in matters of risk governance are covered in the Corporate Governance section in the Group's Annual Report.

Overall accountability for risk management is held by the Standard Chartered Bank Court (the 'Court') which comprises the Group executive directors and other senior executives of Standard Chartered Bank.

The Court is the highest executive body of the Group and its terms of reference are approved by the Board of Standard Chartered PLC. The Court delegates authority for the management of risk to the GRC and the GALCO.

The GRC is responsible for the management of all risks other than those delegated by the Court to the GALCO. The GRC is responsible for the establishment of, and compliance with, policies relating to credit risk, country cross-border risk, market risk, operational risk, pension risk and reputational risk. The GRC also defines our overall risk management framework.

The GALCO is responsible for the management of capital and the establishment of, and compliance with, policies relating to balance sheet management, including management of our liquidity, capital adequacy and structural foreign exchange and interest rate risk.

Members of the GRC and the GALCO are both drawn from the Court. The GRC is chaired by the Group Chief Risk Officer (GCRO). The GALCO is chaired by the Group Finance Director. Risk limits and risk exposure approval authority frameworks are set by the GRC in respect of credit risk, country cross-border risk, market risk and operational 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.

The committee governance structure ensures that risk-taking authority and risk management policies are cascaded down 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 to the country, business, functional and Group-level committees.

Roles and responsibilities for risk management are defined under a Three Lines of Defence model. Each line of defence describes a specific set of responsibilities for risk management and control:

- First line of defence: all employees are required to ensure the effective management of risks within the scope of their direct organisational responsibilities. Business, function and geographic heads are accountable for risk management in their respective businesses and functions, and for countries where they have governance responsibilities
- Second line of defence: this comprises the risk control owners, supported by their respective control functions. Risk control owners are responsible for ensuring that the risks within the scope of their responsibilities remain within appetite. The scope of a risk control owner's responsibilities is defined by a given risk type and the risk management processes that relate to that risk type. These responsibilities cut across the Group and are not constrained by functional, business and geographic boundaries. The major risk types are described individually in the following sections
- Third line of defence: the independent assurance provided by the Group Internal Audit function (GIA). Its role is defined and overseen by the Audit Committee

The findings from the GIA's audits are reported to all relevant management and governance bodies – accountable line managers, relevant oversight function and committee or committees of the Board.

The GIA provides independent assurance of the effectiveness of management's control of its own business activities (the first line) and of the processes maintained by the Risk Control Functions (the second line). As a result, the GIA provides assurance that the overall system of control effectiveness is working as required within the Risk Management Framework.

### The Risk function

The GCRO directly manages a Risk function that is separate from the origination, trading and sales functions of the businesses. The GCRO also chairs the GRC and is a member of the Court.

The role of the Risk function is:

- To maintain the Risk Management Framework, ensuring it remains appropriate to the Group's activities, is effectively communicated and implemented across the Group and for administering related governance and reporting processes
- To uphold the overall integrity of the Group's risk/return decisions, and in particular for ensuring that risks are properly assessed, that risk/return decisions are made transparently on the basis of this proper assessment, and are controlled in accordance with the Group's standards and risk appetite
- To exercise direct Risk Control Ownership for credit, market, country cross-border, short-term liquidity and operational risk types

The independence of the Risk function is to ensure that the necessary balance in risk/return decisions is not compromised by short-term pressures to generate revenues. This is particularly important given that revenues are recognised from the point of sale while losses arising from risk positions typically manifest themselves over time.

In addition, the Risk function is a centre of excellence that provides specialist capabilities of relevance to risk management processes in the wider organisation.

### Risk appetite

We manage our risks to build a sustainable franchise in the interests of all our stakeholders.

Risk appetite is an expression of the amount of risk we are willing to take in pursuit of our strategic objectives, reflecting our capacity to sustain losses and continue to meet our obligations arising from a range of different stress trading conditions.

We define our risk appetite in terms of both volatility of earnings and the maintenance of adequate regulatory capital under stress scenarios. We also define a risk appetite with respect to liquidity risk, operational risk and reputational risk.

Our quantitative risk profile is assessed through a bottom-up analytical approach covering all of our major businesses, countries and products. It is also assessed against a range of exposure concentration thresholds.

The Group's Risk Appetite Statement is approved by the Board and forms the basis for establishing the risk parameters within which the businesses must operate, including policies, concentration limits and business mix.

The Group will not compromise adherence to its risk appetite in order to pursue revenue growth or higher returns.

The GRC and GALCO are responsible for ensuring that our risk profile is managed in compliance with the risk appetite set by

the Board. The BRC advises the Board on the Risk Appetite Statement and oversees that the Group remains within it.

### Stress testing

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

Our stress-testing framework is designed to:

- Contribute to the setting and monitoring of risk appetite
- Identify key risks to our strategy, financial position and reputation
- Support the development of mitigating actions and contingency plans
- Ensure effective governance, processes and systems are in place to co-ordinate and integrate stress testing
- Adhere to regulatory requirements

Our stress-testing activity focuses on the potential impact of macroeconomic, geo-political and physical events on relevant geographies, customer segments and asset classes. Stress tests are also performed at country and business level.

A Stress-Testing Committee, led by the Risk function with members drawn from the business, Finance, Global Research and Group Treasury, aims to ensure that the implications of specific stress scenarios are fully understood allowing informed mitigation actions and construction of contingency plans. The Stress-Testing Committee generates and considers pertinent and plausible scenarios that have the potential to adversely affect our business and considers impact across different risk types and countries.

Stress testing is carried out at multiple levels within the Group to analyse the potential impact of possible stress scenarios at country and business line level and on the Group. During the year, Group-level stress testing covered a considerable range of macroeconomic scenarios. These included the effects of a major downturn in world trade, severe economic stress in emerging markets, a slump in emerging markets, exports sharp appreciation and depreciation in currencies, and the tapering of quantitative easing. Stress testing at business level covered a range of scenarios including the impact of foreign exchange depreciation or appreciation, sustained falls in base metals and energy prices, significant changes in interest rates and drops in counterparty credit quality.

At country level, a number of portfolio reviews were also undertaken, covering the effects of stress on a range of industry sectors, including the shipbuilding, banking, real estate, telecoms, mining and renewable energy sectors.

Market risk and liquidity stress tests are also carried out regularly as described in the sections on market risk on page 110 and liquidity risk on page 115.

## Risk review continued

### Credit risk management

Credit risk is the potential for loss due to the failure of a counterparty to meet its obligations to pay the Group in accordance with agreed terms. Credit exposures arise from both the banking and trading books.

Credit risk is managed through a framework that 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 approvers in the Risk function. All credit exposure limits are approved within a defined credit approval authority framework. The Group manages its credit exposures following the principle of diversification across products, geographies, client and customer segments.

### 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 specific to each business are established by authorised risk committees. These are consistent with our Group-wide credit policies, but are more detailed and adapted to reflect the different risk environments and portfolio characteristics.

### Credit rating and measurement

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

Since 1 January 2008, Standard Chartered has used the advanced Internal Ratings Based (IRB) approach under the Basel II regulatory framework to calculate credit risk capital requirements.

For IRB portfolios, an alphanumeric credit risk grade (CG) system is used across our businesses. The grading is based on our internal estimate of probability of default over a one-year horizon, with customers or portfolios assessed against a range of quantitative and qualitative factors. The numeric grades run from 1 to 14 and some of the grades are further sub-classified. Lower credit grades are indicative of a lower likelihood of default. Credit grades 1 to 12 are assigned to performing customers or accounts, while credit grades 13 and 14 are assigned to non-performing or defaulted customers. An analysis by credit grade of those loans that are neither past due nor impaired is set out on page 81.

Our credit grades are not intended to replicate external credit grades (where these are available), and ratings assigned by external ratings agencies are not used in determining our internal credit grades. Nonetheless, as the factors used to grade a borrower may be similar, a borrower rated poorly by an external rating agency is typically assigned a worse internal credit grade.

Advanced IRB models cover a substantial majority of our exposures and are used extensively in assessing risks at a customer and portfolio level, setting strategy and optimising our risk-return decisions.

IRB 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 IRB models are validated in detail by a model validation team, which is separate from the teams that develop and maintain the models. Models undergo annual periodic review. Reviews are also triggered if the performance of a model deteriorates materially against predetermined thresholds during the ongoing model performance monitoring process.

### 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 both on their judgment and experience and a risk-adjusted scale that 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. Analyses of the loan portfolio by product and counterparty are set out on page 89 for CB and page 96 for WB.

### Credit concentration risk

Credit concentration risk may arise from a single large exposure or from multiple exposures that are closely correlated. This is managed within concentration caps set by counterparty or groups of connected counterparties, and having regard for correlation, by country, industry and product, as applicable. Additional concentration thresholds are set and monitored, where appropriate, by tenor profile, collateralisation levels and credit risk profile.

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

We regularly monitor credit exposures, portfolio performance, and external trends that 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; and IRB portfolio metrics including credit grade migration.

Credit governance committees meet regularly to assess the impact of external events and trends on the Group's credit risk portfolios and to define and implement our response in terms of appropriate changes to portfolio shape, portfolio and underwriting standards, risk policy and procedures.

Clients or portfolios are placed on early alert when they display signs of actual or potential weakness; for example, where there is a decline in the client's position within the industry, financial deterioration, a breach of covenants, non-performance of an obligation within the stipulated period, or there are concerns relating to ownership or management.

Such accounts and portfolios are subjected to a dedicated process overseen by Early Alert Committees in countries. Client account plans and credit grades are re-evaluated. In addition, remedial actions are agreed and monitored. Remedial actions include, but are not limited to, exposure reduction, security enhancement, exiting the account or immediate movement of the account into the control of Group Special Assets Management (GSAM), our specialist recovery unit.

For retail exposures, portfolio delinquency trends are monitored continuously at a detailed level. Individual customer behaviour is also tracked and is considered for lending decisions. Accounts that are past due are subject to a collections process, managed independently by the Risk function. Charged-off accounts are managed by specialist recovery teams. In some countries, aspects of collections and recovery functions are outsourced.

The small and medium-sized enterprise (SME) business is managed in two distinct customer sub-segments: small businesses and medium enterprises, differentiated by the annual turnover of the counterparty. The credit processes are further refined based on exposure at risk. Larger exposures are managed through the Discretionary Lending approach, in line with corporate credit procedures, and smaller exposures are managed through Programmed Lending, in line with retail credit procedures. Discretionary Lending and Private Banking past due accounts are managed by GSAM.

### Credit risk mitigation

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

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.

Collateral is held to mitigate credit risk exposures and risk mitigation policies determine the eligibility of collateral types.

For WB, these policies set out the 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 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
- 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.

Collateral types that 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. Standard Chartered also enters into collateralised reverse repurchase agreements.

All eligible collateral accepted by SME Banking and Private Banking is covered by a product proposal approved by senior credit officers with the relevant delegated authority. New collateral types have to be vetted through a stringent New Business Approval process and approved by the CB Risk Committee.

## Risk review continued

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

For certain types of lending – typically mortgages, asset financing – the right to take charge over physical assets is significant in terms of determining appropriate pricing and recoverability in the event of default. The requirement for collateral is not, however, a substitute for the ability to pay, which is the primary consideration for any lending decisions.

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 those portfolios. Physical collateral is required to be insured at all times and against all risks, with the Group as the loss payee under the insurance policy. Detailed procedures over collateral management must be in place for each business at the country level.

Where appropriate, collateral values are adjusted to reflect current market conditions, the probability of recovery and the period of time to realise the collateral in the event of possession.

Where guarantees or credit derivatives are used as credit risk mitigation, the creditworthiness of the guarantor 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.

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

### Traded products

Credit risk from traded products is managed within the overall credit risk appetite for corporates and financial institutions.

The credit risk exposure from traded products is derived from the positive mark-to-market value of the underlying instruments, and an additional component to cater for potential market movements.

For derivative contracts, we limit our exposure to credit losses in the event of default by entering into master netting agreements with certain counterparties. As required by International Accounting Standards (IAS) 32, exposures are only presented net in the financial statement if there is a legal right to offset and there is an intent to settle on a net basis or realise the assets and liabilities simultaneously. As master netting agreements are generally enforced only in the event of default, they cannot be netted on the balance sheet.

In addition, we enter into Credit Support Annexes (CSAs) with counterparties where collateral is deemed a necessary or desirable mitigant to the exposure. Further details on CSAs are set out on page 76.

### Securities

The portfolio limits and parameters for the underwriting and purchase of all pre-defined securities assets to be held for sale are approved by the Underwriting Committee. The Underwriting Committee is established under the authority of the GRC. The business operates within set limits, which include country, single issuer, holding period and credit grade limits.

Day-to-day credit risk management activities for traded securities are carried out by a specialist team within the Risk function whose activities include oversight and approval within the levels delegated by the Underwriting Committee. Issuer credit risk, including settlement and pre-settlement risk, and price risk are controlled by the Risk function.

The Underwriting Committee approves individual proposals to underwrite new security issues for our clients. Where an underwritten security is held for a period longer than the target sell-down period, the final decision on whether to sell the position rests with the Risk function.

### Restatement of prior year

The tables on pages 76 to 123 and related analyses reflect the restatement of balances as at 31 December 2012 for the impact of equity accounting Permata, the Group's joint venture business in Indonesia (within the Other Asia Pacific region) rather than the previous treatment of proportionate consolidation.

### Credit portfolio

#### Maximum exposure to credit risk

The table overleaf presents the Group's maximum exposure to credit risk for its on-balance sheet and off-balance sheet financial instruments as at 31 December 2013, before and after taking into account any collateral held or other credit risk mitigation. For on-balance sheet instruments, the maximum exposure to credit risk is the carrying amount reported on the balance sheet. For off-balance sheet instruments, the maximum exposure to credit risk generally represents the contractual notional amounts.

The Group's exposure to credit risk is spread across our markets and is affected by the general economic conditions in the geographies 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.

The Group's maximum exposure to credit risk has increased by \$51.5 billion when compared to 2012. Exposure to loans and advances to banks and customers has increased by \$29 billion since 2012 due to growth in the secured lending to banks and broad-based growth across several industry sectors in WB. Further details of the loan portfolio are set out on page 77. The Group's credit risk exposure before risk mitigation arising from derivatives has increased by \$12.3 billion when compared to 2012 with increase in volumes in several markets.

## Risk review continued

	2013				2012			
	Credit risk management				Credit risk management			
	Maximum exposure \$million	Collateral \$million	Master netting agreements \$million	Net exposure \$million	Maximum exposure \$million	Collateral \$million	Master netting agreements \$million	Net exposure \$million
<b>On-balance sheet</b>								
Total loans and advances <sup>1</sup>								
As per balance sheet	<b>374,410</b>	-	-	-	347,435	-	-	-
Included within fair value through profit and loss	<b>7,774</b>	-	-	-	5,752	-	-	-
	<b>382,184</b>	<b>152,926</b>	-	<b>229,258</b>	353,187	139,713	-	213,474
Investment securities <sup>2</sup>								
As per balance sheet	<b>102,716</b>	-	-	<b>102,716</b>	99,225	-	-	99,225
Included within fair value through profit and loss	<b>21,561</b>	-	-	<b>21,561</b>	21,324	-	-	21,324
Less: Equity securities	<b>(6,800)</b>	-	-	<b>(6,800)</b>	(6,432)	-	-	(6,432)
	<b>117,477</b>	-	-	<b>117,477</b>	114,117	-	-	114,117
Derivative financial instruments <sup>3</sup>	<b>61,802</b>	<b>5,147</b>	<b>46,242</b>	<b>10,413</b>	49,495	3,245	35,073	11,177
Total balance sheet	<b>561,463</b>	<b>158,073</b>	<b>46,242</b>	<b>357,148</b>	516,799	142,958	35,073	338,768
<b>Off-balance sheet</b>								
Contingent liabilities	<b>46,938</b>	-	-	<b>46,938</b>	44,293	-	-	44,293
Undrawn irrevocable standby facilities, credit lines and other commitments to lend <sup>4</sup>	<b>61,277</b>	-	-	<b>61,277</b>	56,647	-	-	56,647
Documentary credits and short-term trade-related transactions	<b>7,409</b>	-	-	<b>7,409</b>	7,610	-	-	7,610
Forward asset purchases and forward deposits	<b>459</b>	-	-	<b>459</b>	711	-	-	711
Total off-balance sheet	<b>116,083</b>	-	-	<b>116,083</b>	109,261	-	-	109,261
Total	<b>677,546</b>	<b>158,073</b>	<b>46,242</b>	<b>473,231</b>	626,060	142,958	35,073	448,029

1 An analysis of credit quality is set out on page 79. Further details of collateral held by businesses and held for past due and individually impaired loans are set on page 83

2 Equity shares are excluded as they are not subject to credit risk

3 The Group enters into master netting agreements which, in the event of default, result in a single amount owed by or to the counterparty through netting the sum of the positive and negative mark-to-market values of applicable derivative transactions

4 Excludes unconditionally cancellable facilities

### Credit risk mitigation

#### Loans and advances

The Group has transferred to third parties by way of securitisation the rights to any collection of principal and interest on customer loan assets with a face value of \$779 million (2012: \$1,321 million). The Group continues to recognise these assets in addition to the proceeds and related liability of \$502 million (2012: \$1,093 million) arising from the securitisations. The Group considers the above customer loan assets to be encumbered. Further details of encumbered assets are provided on page 117.

The Group has entered into credit default swaps for portfolio management purposes, referencing loan assets with a notional value of \$21.4 billion (2012: \$22.1 billion). These credit default swaps are accounted for as guarantees as they meet the accounting requirements set out in IAS 39. The Group continues to hold the underlying assets referenced in the credit default swaps as it continues to be exposed to related credit and foreign exchange risk on these assets.

#### Derivatives financial instruments

Cash collateral includes collateral called under a variation margin process from counterparties if total uncollateralised mark-to-market exposure exceeds the threshold and minimum transfer amount specified in the CSA. With certain counterparties, the CSA is reciprocal and requires us to post collateral if the overall mark-to-market value of positions is in the counterparty's favour and exceeds an agreed threshold. The Group holds \$3,068 million (2012: \$2,700 million) under CSAs.

#### Off-balance sheet exposures

For certain types of exposures such as letters of credit and guarantees, the Group obtains collateral such as cash depending on internal credit risk assessments as well as the case of letters of credit holding legal title to the underlying assets should a default take place.

## Loan portfolio

This section provides qualitative and quantitative information on the Group's exposure to credit risk for loans and advances to banks and customers, including the impact of credit risk mitigation and problem credit management.

WB exposures are typically managed on an individual basis and consequently credit grade migration is a key component of credit risk management (as discussed on page 86). In CB, where loans are typically managed on a portfolio basis, delinquency trends are monitored consistently as part of risk

management (as discussed on page 85). In both businesses, credit risk is mitigated to some degree through collateral, further details of which are set out on page 83.

Pages 78 to 82 set out a high level overview of the Group's loans to banks and customers, segmented by business and by credit quality type (neither past due not impaired; past due; and impaired). The Group manages its loan portfolio between those assets that are performing in line with their contractual terms (whether original or renegotiated) and those that are non-performing.

## Review of key credit risk tables

	Group	Consumer Banking	Wholesale Banking
	Page reference	Page reference	Page reference
Overview	78	89	96
Geographic analysis	78	90	96
Maturity analysis			
By business	78	–	–
By category of borrower	–	90	97
Credit quality analysis			
By business, internal credit grades and days past due	80	–	–
By product and geography	–	91	98
Credit risk mitigation			
Collateral by business and credit quality	83	–	–
Analysis of secured/unsecured loans by category of business	–	92	–
Collateral held by type	–	–	101
Geographic analysis of mortgage and commercial real estate loan-to-value ratios	–	93	101
Problem credit management and provisioning			
Policies on credit management and provisioning	84	84	84
Non-performing loans			
Definition	84	–	–
By business	84	–	–
By geography	–	95	104
Movement in non-performing loans and total impaired loans by business	84,86	84,86	84,86
Loan impairment			
Movement in total impairment provisions	87	–	–
Movement in individual impairment provision by geography	87	–	–
Loan impairment charge – by geography	–	94	102
Loan impairment movement – by category of borrower	–	94	104
Renegotiated and forborne loans			
Definition	88	–	–
By business	–	89	89

## Risk review continued

### Group overview

This section covers a summary of the Group's loan portfolio broadly analysed by business and geography, along with an analysis of the maturity profile, credit quality and provisioning of the loan book. A more detailed analysis is set out for CB on pages 89 to 95 and WB on pages 96 to 104.

### Geographic analysis

Loans and advances to customers grew by \$11.4 billion since 31 December 2012 to \$296 billion. The CB portfolio in 2013 has reduced by \$0.6 billion, or 0.5 per cent since 2012 as strong growth in Hong Kong, Singapore and the Middle East region was offset by lower levels of Mortgages in Korea (down \$4 billion). The WB portfolio has continued to grow in 2013, increasing by \$12 billion, or 8 per cent compared to 31 December 2012. The increase was noted primarily in Singapore and Hong Kong across a number of sectors. Loans and advances to banks have increased by \$17.6 billion since 31 December 2012 to \$86.1 billion mainly in the Americas, UK and Europe and Other Asia Pacific regions with an increase in reverse repurchase trades and negotiated credit bills.

2013									
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Consumer Banking	34,105	28,762	23,178	25,149	5,085	6,456	2,083	4,984	129,802
Wholesale Banking	25,154	33,451	6,688	24,248	6,768	14,271	6,077	50,252	166,909
Portfolio impairment provision	(86)	(59)	(106)	(156)	(38)	(100)	(67)	(84)	(696)
<b>Total loans and advances to customers<sup>1,2</sup></b>	<b>59,173</b>	<b>62,154</b>	<b>29,760</b>	<b>49,241</b>	<b>11,815</b>	<b>20,627</b>	<b>8,093</b>	<b>55,152</b>	<b>296,015</b>
<b>Total loans and advances to banks<sup>1,2</sup></b>	<b>17,658</b>	<b>4,501</b>	<b>4,192</b>	<b>14,891</b>	<b>399</b>	<b>2,273</b>	<b>742</b>	<b>41,513</b>	<b>86,169</b>
2012									
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Consumer Banking	31,324	27,567	28,587	26,702	5,190	5,418	1,710	3,919	130,417
Wholesale Banking	21,515	28,321	7,710	22,526	6,827	14,672	6,327	47,023	154,921
Portfolio impairment provision	(74)	(47)	(132)	(166)	(39)	(138)	(63)	(63)	(722)
<b>Total loans and advances to customers<sup>1,2</sup></b>	<b>52,765</b>	<b>55,841</b>	<b>36,165</b>	<b>49,062</b>	<b>11,978</b>	<b>19,952</b>	<b>7,974</b>	<b>50,879</b>	<b>284,616</b>
<b>Total loans and advances to banks<sup>1,2</sup></b>	<b>19,356</b>	<b>6,205</b>	<b>4,633</b>	<b>8,133</b>	<b>571</b>	<b>3,172</b>	<b>378</b>	<b>26,123</b>	<b>68,571</b>

1 Amounts net of impairment provision include financial instruments held at fair value through profit or loss (see note 15 on page 258)

2 Loans and advances to customers in the above table are presented on the basis of booking location of the loan. The analysis of loans and advances by geography presented on page 245 in note 2 to the financial statements

### Maturity analysis

Approximately half of our loans and advances to customers are short-term having a contractual maturity of one year or less. The WB portfolio remains predominantly short-term, with 64 per cent (2012: 62 per cent) of loans and advances having a contractual maturity of one year or less.

In CB, 54 per cent (2012: 56 per cent) of the portfolio is in the mortgage book, which is traditionally longer term in nature and well secured. While 'Other' and 'SME loans' in CB have short contractual maturities, typically they may be renewed and repaid over longer terms in the normal course of business.

	2013			
	One year or less \$million	One to five years \$million	Over five years \$million	Total \$million
Consumer Banking	42,240	22,397	65,165	129,802
Wholesale Banking	106,951	48,449	11,509	166,909
Portfolio impairment provision				(696)
Total loans and advances to customers				296,015

	2012			
	One year or less \$million	One to five years \$million	Over five years \$million	Total \$million
Consumer Banking	38,475	23,592	68,350	130,417
Wholesale Banking	96,194	46,195	12,532	154,921
Portfolio impairment provision				(722)
Total loans and advances to customers				284,616

### Credit quality

The following table illustrates the basis on which the Group's loans and advances to customers are analysed, both in terms of credit quality and in terms of risk management, together with how impairment provisions are determined.

Credit quality loan status	Analysis	Risk management	Impairment provisioning			
			CB specific	CB PIP <sup>3</sup> collective	WB Specific	CB and WB PIP <sup>3</sup>
Neither past due nor impaired	Credit grade	Performing	○	○	○	●
Up to 90 days past due, with no other evidence of impairment	Past due	Performing	○	●	○	●
Renegotiated loans where there has been no loss or principal haircut <sup>1</sup>	Business	Performing	○	○	○	●
Forborne loans where there has been no loss of principal, and which have performed under new terms for more than 180 days <sup>1</sup>	Business	Performing	●	○	●	●
Forborne loans where there has been no loss of principal, but which have performed under new terms for less than 180 days <sup>1</sup>	Business	Non-performing	●	○	●	○
Evidence of impairment on a specific loan		Non-performing	●	○	●	○
Over 90 days past due <sup>2</sup>	Business/geography within non-performing disclosure	Non-performing	●	●	●	○
Over 150 days past due <sup>2</sup>		Non-performing	●	○	●	○

● Yes ○ No

- Renegotiated loans are primarily those where extended tenure is granted to a client or customer who is facing some difficulties but who we do not believe is impaired. Forborne loans represent those loans that are renegotiated on terms that are not consistent with those readily available in the market and/or where we have granted a concession compared with the original terms of the loan, resulting in impairment
- For CB, unsecured products are generally written off by 150 days past due. Individual impairment provisions (IIP) for mortgage loans are raised at 150 days past due and secured Wealth Management loans at 90 days past due. For WB, IIP is raised for all loans more than 90 days past due, unless there is sufficient collateral
- For CB, portfolio impairment provisions (PIP) comprise provisions to cover losses inherent in the neither past due/impaired portfolio and also a collective portfolio provision for the past due portfolio based on the number of days past due. WB PIP only represents losses inherent in the neither past due nor impaired portfolio

**Risk review** continued**Analysis of credit quality**

The table on the following page sets out an analysis of the Group's loan portfolio between those loans that are: (i) neither past due nor impaired; (ii) past due but not individually impaired; and (iii) individually impaired. Within each category we have also highlighted those loans that have been renegotiated or are considered forborne.

A loan is considered to be past due when a client or customer has failed to make a payment of principal or interest when contractually due. The amount reported in this category relates to the entire loan amount and not just the amount that is past due.

Further disclosures in respect of forborne and renegotiated loans, including the definitions applied to those categories, are set out on page 88.

**Loans to banks**

Loans to banks form part of the WB loan portfolio. Most of the Group's loans to banks are in the credit grade 1–5 category as we lend in the interbank market to highly rated counterparties. Exposure in the credit grade 6–8 category predominantly relates to trade finance business with financial institutions in our core markets.

**Loans and advances to WB customers**

As at 31 December 2013, 96 per cent (2012: 95 per cent) of loans to customers are classified as neither past due nor impaired. Within this, lending to clients within credit grades 9–11 increased by \$6.6 billion compared to 2012, approximately half of which relates to lending to a connected group of companies that were reported as past due in 2012 (within the 61–90 days category) and which were renegotiated, without loss, in 2013.

Past due but not individually impaired loans decreased by \$1.2 billion compared to 2012. Loans within the 61–90 days past due category decreased by \$2.5 billion, primarily reflecting the renegotiated loan exposure within the neither past due nor impaired category referred to above. Loans past due up to 30 days increased by \$1.1 billion compared to 2012, largely due to a small number of exposures (part of which are held at fair value) where principal had been renegotiated but where a small amount of interest remained past due. Over 85 per cent of the loans reported in the up to 30 days past due category, including those relating to renegotiated loans, had been cured by the end of January 2014.

Net impaired loans have increased by \$743 million, primarily relating to a small number of exposures in Africa and India. Within this, forborne loans remained low at less than 1 per cent of total Wholesale Banking loans. Forborne loans increased by \$583 million, over half of which relates to loans held at fair value.

**Consumer Banking**

As at 31 December 2013, 97 per cent (2012: 96 per cent) of CB loans are neither past due nor impaired and the spread across credit grades remains consistent with 2012.

Loans past due but not individually impaired fell by \$593 million, primarily in the up to 30 days category, which predominantly relates to loans where there is a temporary timing difference in payments.

Net individually impaired loans fell by \$29 million, despite the increase in the impairment charge in the income statement as impaired unsecured loans (such as those impacted by the PDRS in Korea) are written off after 150 days. Forborne loans remained low, at around 0.5 per cent of CB lending.

	2013				2012			
	Loans to customers				Loans to customers			
	Loans to banks \$million	Wholesale Banking \$million	Consumer Banking \$million	Total \$million	Loans to banks \$million	Wholesale Banking \$million	Consumer Banking \$million	Total \$million
<b>Neither past due nor individually impaired loans</b>								
Grades 1–5	73,862	61,741	58,860	120,601	59,118	63,216	59,280	122,496
Grades 6–8	10,325	68,706	42,458	111,164	7,757	61,739	41,696	103,435
Grades 9–11	1,825	27,964	21,321	49,285	1,457	21,324	21,596	42,920
Grade 12	35	1,738	2,629	4,367	32	1,400	2,689	4,089
	<b>86,047</b>	<b>160,149</b>	<b>125,268</b>	<b>285,417</b>	68,364	147,679	125,261	272,940
Of which:								
Renegotiated loans	–	4,233	389	4,622	–	773	319	1,092
<b>Past due but not individually impaired loans</b>								
Up to 30 days past due	17	2,507	2,968	5,475	3	1,434	3,559	4,993
31–60 days past due	–	276	511	787	–	114	493	607
61–90 days past due	–	598	220	818	–	3,058	230	3,288
91–150 days past due	–	–	198	198	–	–	208	208
	<b>17</b>	<b>3,381</b>	<b>3,897</b>	<b>7,278</b>	3	4,606	4,490	9,096
Of which:								
Renegotiated loans	–	583	–	583	–	–	–	–
Individually impaired loans	207	5,486	1,279	6,765	309	4,400	1,232	5,632
Individual impairment provisions	(100)	(2,107)	(642)	(2,749)	(103)	(1,764)	(566)	(2,330)
Net individually impaired loans	<b>107</b>	<b>3,379</b>	<b>637</b>	<b>4,016</b>	206	2,636	666	3,302
Of which:								
Forborne loans	–	1,317	631	1,948	–	779	673	1,452
Total loans and advances	<b>86,171</b>	<b>166,909</b>	<b>129,802</b>	<b>296,711</b>	68,573	154,921	130,417	285,338
Portfolio impairment provision	(2)	(300)	(396)	(696)	(2)	(300)	(422)	(722)
Total net loans and advances	<b>86,169</b>	<b>166,609</b>	<b>129,406</b>	<b>296,015</b>	68,571	154,621	129,995	284,616

## Risk review continued

The following table sets out loans and advances held at fair value through profit and loss which are included within the table on page 81.

	2013				2012			
	Loans to customers				Loans to customers			
	Loans to banks \$million	Wholesale Banking \$million	Consumer Banking \$million	Total \$million	Loans to banks \$million	Wholesale Banking \$million	Consumer Banking \$million	Total \$million
<b>Neither past due nor individually impaired</b>								
Grades 1–5	2,271	1,026	–	1,026	555	1,237	–	1,237
Grades 6–8	196	3,321	–	3,321	219	3,048	–	3,048
Grades 9–11	–	211	–	211	–	692	–	692
Grade 12	–	25	–	25	–	1	–	1
	<b>2,467</b>	<b>4,583</b>	<b>–</b>	<b>4,583</b>	<b>774</b>	<b>4,978</b>	<b>–</b>	<b>4,978</b>
<b>Past due but not individually impaired loans</b>								
Up to 30 days past due	–	405	–	405	–	–	–	–
<b>Individually impaired loans (including forborne loans)</b>	<b>–</b>	<b>319</b>	<b>–</b>	<b>319</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>

The following table sets out how total loans and advances are analysed between performing and non-performing:

## Performing loans:

Neither past due nor individually impaired	86,047	160,149	125,268	285,417	68,364	147,679	125,261	272,940
Past due less than 90 days	17	3,381	3,699	7,080	3	4,606	4,282	8,888
Performing forborne loans, net of provision	–	474	151	625	–	436	133	569
	<b>86,064</b>	<b>164,004</b>	<b>129,118</b>	<b>293,122</b>	<b>68,367</b>	<b>152,721</b>	<b>129,676</b>	<b>282,397</b>

## Non-performing loans:

Non-performing forborne loans	–	843	480	1,323	–	343	540	883
Other individually impaired loans, net of provisions	107	2,062	204	2,266	206	1,857	201	2,058
	<b>107</b>	<b>2,905</b>	<b>684</b>	<b>3,589</b>	<b>206</b>	<b>2,200</b>	<b>741</b>	<b>2,941</b>

Total loans and advances	86,171	166,909	129,802	296,711	68,573	154,921	130,417	285,338
Portfolio impairment provision	(2)	(300)	(396)	(696)	(2)	(300)	(422)	(722)
Total net loans and advances	<b>86,169</b>	<b>166,609</b>	<b>129,406</b>	<b>296,015</b>	<b>68,571</b>	<b>154,621</b>	<b>129,995</b>	<b>284,616</b>

## Collateral

The requirement for collateral is not a substitute for the ability to pay, which is the primary consideration for any lending decisions. In determining the financial effect of collateral held against loans neither past due nor impaired, we have assessed the significance of the collateral held in relation to the type of lending.

For loans and advances to banks and customers (including those held at fair value through profit or loss), the table below sets out the fair value of collateral held by the Group adjusted where appropriate in accordance with the risk mitigation policy as outlined on page 73 and for the effect of over-collateralisation.

In CB, collateral levels have remained stable compared to 31 December 2012. The proportion of collateral held over

impaired loans has declined compared to 2012 as the increase in impaired loan primarily relates to the unsecured portfolio. 73 per cent of the loans to customers are fully secured and around 86 per cent of collateral across the portfolio is property based.

Collateral held against WB loans also covers off-balance sheet exposures including undrawn commitments and trade related instruments. As at 31 December 2013, collateral coverage increased from 23 per cent to 25 per cent reflecting a shift in mix with higher levels of reverse repurchase collateral as a proportion of total lending in WB compared to 31 December 2012. The unadjusted market value of collateral, which does not take into consideration over-collateralisation or adjustments outlined on page 101, was \$197 billion (2012: \$186 billion).

Further details on collateral are explained in the CB and WB sections on page 92 and 101 respectively.

	Consumer Banking			Wholesale Banking			Total		
	Total \$million	Past due but not individually impaired loans \$million	Individually impaired loans \$million	Total \$million	Past due but not individually impaired loans \$million	Individually impaired loans \$million	Total \$million	Past due but not individually impaired loans \$million	Individually impaired loans \$million
As at 31 December 2013									
Collateral	89,536	2,889	564	63,390	642	695	152,926	3,531	1,259
Amount outstanding <sup>1</sup>	129,802	3,897	1,279	253,080	3,398	5,693	382,882	7,295	6,972
Of which:									
Loans to customers	129,802	3,897	1,279	166,909	3,381	5,486	296,711	7,278	6,765
Loans to banks	–	–	–	86,171	17	207	86,171	17	207
As at 31 December 2012									
Collateral	88,119	2,799	563	51,594	1,823	573	139,713	4,622	1,136
Amount outstanding <sup>1</sup>	130,417	4,490	1,232	223,494	4,609	4,709	353,911	9,099	5,941
Of which:									
Loans to customers	130,417	4,490	1,232	154,921	4,606	4,400	285,338	9,096	5,632
Loans to banks	–	–	–	68,573	3	309	68,573	3	309

<sup>1</sup> Includes loans held at fair value through profit or loss

## Collateral and other credit enhancements possessed or called upon

The Group obtains assets by taking possession of collateral or calling upon other credit enhancements (such as guarantees). Repossessed properties are sold in an orderly fashion. Where the proceeds are in excess of the outstanding loan balance, they are returned to the borrower. Certain equity securities

acquired may be held by the Group for investment purposes and are classified as available-for-sale, and the related loan written off.

The table below details the carrying value of collateral possessed and held by the Group as at 31 December 2013 and 31 December 2012:

	2013			2012		
	Consumer Banking \$million	Wholesale Banking \$million	Total \$million	Consumer Banking \$million	Wholesale Banking \$million	Total \$million
Property	44	–	44	62	9	71
Other	–	–	–	3	–	3
	44	–	44	65	9	74

## Risk review continued

### Problem credit management and provisioning

#### Non-performing loans

A non-performing loan is any loan that is more than 90 days past due or is otherwise individually impaired. This excludes loans renegotiated at or after 90 days past due, but on which there has been no default in interest or principal payments for more than 180 days since renegotiation, and against which no loss of principal is expected. These loans may have a provision reflecting the time value of money and if so, are reported as part of forbore loans on page 89.

The gross non-performing loans in CB have increased by 1 per cent since 31 December 2012 mainly reflecting the impact of the Personal Debt Rehabilitation Scheme (PDRS) in Korea and seasoning of the unsecured loan portfolio. In WB, non-performing loans have increased by \$933 million mainly due to a small number of large exposures in India and Africa.

The cover ratio is a common metric used in considering trends in provisioning and non-performing loans. It should be noted,

a significant proportion of the PIP is intended to reflect losses inherent in the loan portfolio that is less than 90 days delinquent and hence recorded as performing. This metric should be considered in conjunction with other credit risk information including that contained on page 85.

The cover ratio for CB remained broadly stable compared to 2012 while the cover ratio for WB was 48 per cent as at 31 December 2013, down from 51 per cent as at 31 December 2012. The balance of non-performing loans not covered by individual impairment provisions (IIPs) represents the adjusted value of collateral held and the Group's estimate of the net outcome of any workout strategy. The cover ratio after taking into account collateral is 61 per cent (2012: 64 per cent).

The table below presents a movement of the gross non-performing loans to banks and customers, together with the provisions held for CB and WB and the respective cover ratios.

Further details by geography are set out in pages 95 and 104 for CB and WB respectively.

	2013			2012		
	Consumer Banking \$million	Wholesale Banking \$million	Total \$million	Consumer Banking \$million	Wholesale Banking \$million	Total \$million
Gross non-performing loans at 1 January	1,266	4,272	5,538	1,069	3,043	4,112
Exchange translation differences	(29)	(141)	(170)	4	(43)	(39)
Transfer to assets held for sale	(111)	-	(111)			
Classified as non-performing during the year	1,024	1,912	2,936	659	1,533	2,192
Recoveries on loans and advances previously written off	29	-	29	27	148	175
Additions	1,053	1,912	2,965	686	1,681	2,367
Transferred to performing during the year	(130)	(86)	(216)	(88)	(175)	(263)
Net repayments	(108)	(614)	(722)	(86)	(163)	(249)
Amounts written off	(578)	(44)	(622)	(265)	(66)	(331)
Disposals of loans	(89)	(94)	(183)	(54)	(5)	(59)
Reductions	(905)	(838)	(1,743)	(493)	(409)	(902)
Gross non-performing loans at 31 December	1,274	5,205	6,479	1,266	4,272	5,538
Individual impairment provisions <sup>1</sup>	(590)	(2,193)	(2,783)	(525)	(1,866)	(2,391)
Net non-performing loans	684	3,012	3,696	741	2,406	3,147
Portfolio impairment provision	(396)	(302)	(698)	(422)	(302)	(724)
Total	288	2,710	2,998	319	2,104	2,423
Cover ratio	77%	48%	54%	75%	51%	56%

<sup>1</sup> The difference to total individual impairment provision reflects provisions against performing forbore loans that are not included within non-performing loans as they have been performing for 180 days. Details on renegotiated and forbore are set out on page 89

## Loan impairment

The Group's loan loss provisions are established to recognise incurred impairment losses either on specific loan assets or within a portfolio of loans and advances. Individually impaired loans are those loans against which individual impairment provisions have been raised.

Estimating the amount and timing of future recoveries involves significant judgment, and considers the level of arrears as well as the assessment of matters such as future economic conditions and the value of collateral, for which there may not be a readily accessible market.

Loan losses that have been incurred but have not been separately identified at the balance sheet date are determined on a portfolio basis, which takes into account past loss experience as a result of uncertainties arising from the economic environment, and defaults based on portfolio trends. Actual losses identified could differ significantly from the impairment provisions reported as a result of uncertainties arising from the economic environment.

The total amount of the Group's impairment allowances is inherently uncertain, being sensitive to changes in economic and credit conditions across the geographies in which the Group operates. Economic and credit conditions are interdependent within each geography and as a result there is no single factor to which the Group's loan impairment allowances as a whole are sensitive. It is possible that actual events over the next year differ from the assumptions built into the model resulting in material adjustments to the carrying amount of loans and advances.

## Consumer Banking

Medium-sized entities among SME customers and Private Banking customers are assessed for impairment in the same way as WB loans, based on the individual circumstances of each borrower (see WB on the following page).

All other CB product portfolios consist of a large number of comparatively small exposures, where it is impractical to monitor each loan on an individual basis for impairment. The primary indicator of potential impairment in these portfolios is therefore delinquency. A loan is considered delinquent (or 'past due'), when the customer has failed to make a principal or interest payment in accordance with the loan contract. For delinquency reporting purposes we follow industry standards measuring delinquency as of one, 30, 60, 90, 120 and 150 days past due. Impairment is measured against these buckets in two stages:

- In the first stage we raise PIPs. These are calculated by applying expected loss rates to delinquency buckets. These are based on past experience of loss supplemented by an assessment of specific factors that affect each portfolio and that in particular aim to adjust historic data for current market conditions. Loss rates are generally calculated separately for each product in each country (either through the use of historical data or using proxies) and separate loss rates are used for renegotiated and forbore loans to reflect their increased risk. PIPs take into account the fact that, while delinquency is an indication of impairment, not all delinquent

loans (particularly those in the early stages of delinquency) will in fact be impaired. This will only become apparent with the passage of time and as we investigate the causes of delinquency on a case-by-case basis (accounts that are overdue by more than 30 days are more closely monitored and subject to specific collections processes for this purpose). At the outset of delinquency therefore it is not possible to determine whether a loan is impaired; it is only possible to estimate the likelihood that it is. This is taken account of in the PIP method, which estimates loss by extrapolating past experience over whole portfolios, rather than analysing individual loans on a case-by-case basis

- In the second stage we are able to replace PIP with IIP as we develop more knowledge about each individual account. We apply IIP after the following number of days' delinquency:
  - For mortgages after 150 days
  - For secured wealth management products after 90 days
  - For unsecured consumer finance loans after 90 days
  - For all other unsecured loans and loans secured on automobiles, after 150 days

IIP provisions are based on the estimated present values of future cash flows, in particular those resulting from the realisation of security. The days past due used to trigger IIP are driven by past experience, which shows that once an account reaches the relevant number of days past due, the probability of recovery (other than by raising security as appropriate) is low. For all products there are certain situations where the IIP process is accelerated, such as in cases involving bankruptcy, customer fraud and death. IIP is also accelerated for all restructured accounts to 90 days past due (unsecured and automobile finance) and 120 days past due (secured loans) respectively.

Loan write off is again broadly driven by past experience of the point at which further recovery is unlikely. Write off occurs at the same time that IIP is established for all products except mortgage loans, which have not been restructured. The latter is fully impaired after 720 days past due.

The fact that it is not possible to be certain that a loan is impaired until several months after it becomes delinquent means that it is also not possible to be certain which delinquent loans are fully non-performing. The Group has determined that it is more likely than not that a loan is non-performing after 90 days and therefore uses 90 days' delinquency as the distinguishing feature between performing and non-performing CB loans. This is however, only an approximate measure and it also means that, for CB, impaired loans do not equate to non-performing loans, because impairment cannot be finally determined on an individual basis until a later date.

It is inevitable that at the balance sheet date, the non-delinquent portfolio will include a few impaired loans that have not manifested themselves as delinquent. These are known as 'incurred, but not reported' losses. A PIP is raised against these in the same way as a PIP is raised for delinquent loans by applying past experience adjusted for current conditions to non-delinquent loans on a portfolio basis.

## Risk review continued

### Wholesale Banking

Loans are classified as impaired 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 our specialist recovery unit, GSAM, which is separate from our main businesses. Where any amount is considered irrecoverable, an IIP is raised. This provision is the difference between the loan carrying amount and the present value of estimated future cash flows.

The individual circumstances of each customer are taken into account when GSAM estimates future cash flow. All available sources, such as cash flow arising from operations, selling assets or subsidiaries, realising collateral or payments under guarantees, are considered. In any decision relating to the raising of provisions, we attempt 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 a portion of an exposure against which an impairment provision has been raised, that amount will be written off.

As with CB, 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 WB, this is set with reference to historic loss rates and subjective factors such as the economic environment and the trends in key portfolio indicators. The PIP methodology provides for accounts for which an IIP has not been raised.

### Impaired loans

In CB, individual impaired loans broadly remained stable compared to 2012 at \$1.5 billion. WB individually impaired loans increased by \$1 billion during the year primarily due to a small number of large exposures in India and Africa.

The following table sets out the movement in individually impaired loans for banks and customers by business.

	2013			2012		
	Consumer Banking \$million	Wholesale Banking \$million	Total \$million	Consumer Banking \$million	Wholesale Banking \$million	Total \$million
Gross impaired loans at 1 January	1,440	4,709	6,149	1,223	3,450	4,673
Exchange translation differences	(32)	(140)	(172)	12	(40)	(28)
Transferred to assets held for sale	(111)	–	(111)	–	–	–
Classified as impaired during the year	1,104	1,967	3,071	682	1,561	2,243
Transferred to performing during the year	(118)	(87)	(205)	(47)	(175)	(222)
Other movements <sup>1</sup>	(806)	(756)	(1,562)	(430)	(87)	(517)
Gross impaired loans at 31 December	1,477	5,693	7,170	1,440	4,709	6,149

<sup>1</sup> Other movement includes repayments, amounts written off and disposals of loans

### Individual and portfolio impairment provisions

IIPs increased by \$416 million as compared to 31 December 2012. This was primarily in India (\$83 million increase) and Africa (\$223 million increase) as a result of a small number of WB exposures and within CB in Korea (\$44 million increase) due to higher levels of filings under the PDRS. PIP remained at similar levels as 2012 with the reduction due to the transfer of certain businesses in Korea as held for sale. The amounts written off primarily related to CB relating to higher levels of write-offs in unsecured lending which are written off after 150 days past due.

The following tables sets out the movements in total IIPs and PIPs:

	2013			2012		
	Individual impairment provisions \$million	Portfolio impairment provision \$million	Total \$million	Individual impairment provisions \$million	Portfolio impairment provision \$million	Total \$million
Provisions held as at 1 January	2,433	724	3,157	1,926	746	2,672
Exchange translation differences	(81)	(16)	(97)	4	13	17
Amounts written off	(1,173)	-	(1,173)	(935)	-	(935)
Releases of acquisition fair values	(3)	-	(3)	(3)	-	(3)
Recoveries of amounts previously written off	211	-	211	288	-	288
Discount unwind	(93)	-	(93)	(77)	-	(77)
Transfer to assets held for sale	(42)	(25)	(67)	-	-	-
New provisions	2,007	170	2,177	1,678	116	1,794
Recoveries/provisions no longer required	(410)	(155)	(565)	(448)	(151)	(599)
Net impairment charge/(release) against profit	1,597	15	1,612	1,230	(35)	1,195
Provisions held as at 31 December	2,849	698	3,547	2,433	724	3,157

The table below sets out the movement in IIPs by geography:

	2013								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Provisions held as at 1 January	74	89	246	437	270	1,173	49	95	2,433
Exchange translation differences	-	-	6	(36)	(37)	(11)	(3)	-	(81)
Amounts written off	(161)	(154)	(339)	(364)	(46)	(59)	(28)	(22)	(1,173)
Releases of acquisition fair values	-	-	-	(1)	-	(2)	-	-	(3)
Recoveries of amounts previously written off	31	21	30	80	7	26	8	8	211
Discount unwind	(3)	(5)	(10)	(21)	(22)	(26)	(3)	(3)	(93)
Transfer to asset held for sale	-	-	(42)	-	-	-	-	-	(42)
New provisions	169	106	522	544	205	173	265	23	2,007
Recoveries/provisions no longer required	(48)	(29)	(92)	(130)	(21)	(68)	(14)	(8)	(410)
Net impairment charge against profit	121	77	430	414	184	105	251	15	1,597
Provisions held as at 31 December	62	28	321	509	356	1,206	274	93	2,849

	2012								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Provisions held as at 1 January	78	38	136	425	112	972	61	104	1,926
Exchange translation differences	-	5	17	1	(7)	(9)	(4)	1	4
Amounts written off	(155)	(57)	(175)	(319)	(42)	(123)	(29)	(35)	(935)
Releases of acquisition fair values	-	-	-	(2)	-	(2)	-	1	(3)
Recoveries of amounts previously written off	44	44	28	124	11	29	5	3	288
Discount unwind	(2)	(3)	(13)	(17)	(13)	(28)	(1)	-	(77)
New provisions	158	111	334	390	235	387	31	32	1,678
Recoveries/provisions no longer required	(49)	(49)	(81)	(165)	(26)	(53)	(14)	(11)	(448)
Net impairment charge against profit	109	62	253	225	209	334	17	21	1,230
Provisions held as at 31 December	74	89	246	437	270	1,173	49	95	2,433

## Risk review continued

### Renegotiated and forbore loans

In certain circumstances, the Group may renegotiate client and customer loans.

Loans that are renegotiated for commercial reasons, which may occur, for example, if a client had a credit rating upgrade, are not included within this disclosure because they are not indicative of any credit stress.

Loans that are renegotiated primarily to grant extended tenor to a client or customer who is facing some difficulties but who we do not believe is impaired are reported in 'other renegotiated loans' in the disclosures below.

Loans that are renegotiated on terms that are not consistent with those readily available in the market and/or where we have granted a concession compared to the original terms of the loans, are considered to be subject to forbearance strategies and are disclosed as 'Loans subject to forbearance' in the disclosures below, which is a subset of impaired loans.

Forbearance strategies assist customers who are temporarily in financial distress and are unable to meet their original contractual repayment terms. Forbearance can be initiated by the customer, the bank or a third party (including government sponsored programmes or a conglomerate of credit institutions) and includes debt restructuring, such as a new repayment schedule, payment deferrals, tenor extensions and interest only payments.

Once a loan is subject to forbearance or is renegotiated, the loan continues to be reported as such, until the loan matures or is otherwise derecognised.

Loans subject to forbearance are initially managed as part of the Group's non-performing portfolio. If a forbore loan meets the criteria (past due more than 90 days or otherwise impaired), it is no longer managed as a non-performing loan although it remains impaired.

### Consumer Banking

In CB, excluding Medium Enterprises and Private Banking, all loans subject to forbearance (in addition to other renegotiated loans) are managed within a separate portfolio. If such loans subsequently become past due, write off and IIP is accelerated to 90 days past due (unsecured loans and automobile finance) or 120 days past due (secured loans). The accelerated loss rates applied to this portfolio are derived from experience with other renegotiated loans, rather than the CB portfolio as a whole, to recognise the greater degree of inherent risk.

As at 31 December 2013, \$728 million (2012: \$769 million) of CB loans were subject to forbearance programmes which required impairment provisions to be recognised. This represents 0.5 per cent of total loans and advances to CB customers. These loans were largely concentrated in countries that have active government sponsored forbearance programmes and arise from unsecured lending including credit cards and Consumer Finance.

Provision coverage against these loans was 13 per cent (2012: 12 per cent), reflecting collateral held and expected recovery rates.

### Wholesale Banking

For WB including Medium Enterprises and Private Banking accounts, forbearance and other renegotiations are applied on a case by case basis and are not subject to business-wide programmes. In some cases, a new loan is granted as part of the restructure and in others, the contractual terms and repayment of the existing loans are changed or extended (for example, interest only for a period).

Loans classified as subject to forbearance are managed by GSAM and are kept under constant close review to assess and confirm the client's ability to adhere to the restructured repayment strategy. Accounts are reviewed if there is a significant event that could result in deterioration in their ability to repay.

If the terms of the renegotiation are such that, where the present value of the new cash flows is lower than the present value of the original cash flows, the loan would be considered to be impaired and at a minimum a discount provision would be raised and shown under 'Loans subject to forbearance'. These accounts are monitored as described on page 73.

Loans subject to renegotiated and forbearance loans increased by \$4,581 million compared to 2012, of which \$4,043 million was in other renegotiated loans.

The increase in other renegotiated loans primarily relates to a connected group of companies where the amounts outstanding were subject to renegotiation in 2013. We recognised no impairment at the time of renegotiation and we continue to be comfortable from an impairment perspective. As at 31 December 2012, these amounts were reported within the past due 61–90 days category. As these counterparties have complied with the revised terms for more than 180 days, the renegotiated lending is deemed to be performing and is classified within 'Neither past due nor impaired'.

The remainder of the increase includes loans on which the payment dates for principal payments have been extended pending a more wide-ranging renegotiation of the exposure. A small number of these loans are reported as past due within the up to 30 days category as an amount of interest remained outstanding at the year end which has since been paid.

Forborne loans increased by \$538 million compared to 2012. Over half of the increase relates to loans that are held at fair value, which consequently do not have an IIP.

The table below shows an analysis of renegotiated and forbore loans by business:

	2013			2012		
	Consumer Banking \$million	Wholesale Banking \$million	Total \$million	Consumer Banking \$million	Wholesale Banking \$million	Total \$million
<b>Managed as performing</b>						
Neither past due nor impaired	389	4,233	4,622	319	773	1,092
Past due but not impaired	–	583	583	–	–	–
<b>Other renegotiated loans</b>	<b>389</b>	<b>4,816</b>	<b>5,205</b>	<b>319</b>	<b>773</b>	<b>1,092</b>
Impaired loans						
Performing forbore loans (gross)	203	488	691	174	437	611
Individual impairment provisions	(52)	(14)	(66)	(41)	(1)	(42)
<b>Net performing forbore loans</b>	<b>151</b>	<b>474</b>	<b>625</b>	<b>133</b>	<b>436</b>	<b>569</b>
<b>Total performing renegotiated and forbore loans</b>	<b>540</b>	<b>5,290</b>	<b>5,830</b>	<b>452</b>	<b>1,209</b>	<b>1,661</b>
<b>Managed as non-performing</b>						
Impaired:						
Forbore loans (gross)	525	1,228	1,753	595	574	1,169
Individual impairment provisions	(45)	(385)	(430)	(55)	(231)	(286)
<b>Net non-performing forbore loans</b>	<b>480</b>	<b>843</b>	<b>1,323</b>	<b>540</b>	<b>343</b>	<b>883</b>
<b>Total non-performing forbore loans</b>	<b>480</b>	<b>843</b>	<b>1,323</b>	<b>540</b>	<b>343</b>	<b>883</b>
<b>Total renegotiated and forbore loans</b>	<b>1,020</b>	<b>6,133</b>	<b>7,153</b>	<b>992</b>	<b>1,552</b>	<b>2,544</b>
<b>Other renegotiated loans</b>	<b>389</b>	<b>4,816</b>	<b>5,205</b>	<b>319</b>	<b>773</b>	<b>1,092</b>
<b>Loans subject to forbearance</b>	<b>631</b>	<b>1,317</b>	<b>1,948</b>	<b>673</b>	<b>779</b>	<b>1,452</b>
<b>Total renegotiated and forbore loans</b>	<b>1,020</b>	<b>6,133</b>	<b>7,153</b>	<b>992</b>	<b>1,552</b>	<b>2,544</b>

### Consumer Banking loan portfolio

The CB portfolio in 2013 was marginally down compared to 2012. Mortgages declined by \$2.8 billion compared to 2012 as regulatory restrictions continued to impact growth in a number of markets, particularly in Korea and Singapore. We did however continue to originate and sell \$3 billion of fixed-rate mortgages in Korea under the Mortgage Purchase Program to the Korea Housing Finance Corporation. Other loans, which include credit cards and personal loans, (including those related to Private Banking), increased by \$1.6 billion since 2012 mainly due to higher level of Private Banking particularly in Singapore and the Americas, UK & Europe. Africa also saw strong growth in unsecured products, up 22 per cent compared to 2012. SME lending rose 3 per cent, mainly in Hong Kong.

PIPs fell \$26 million, largely due to the transfer of the Consumer Finance business in Korea to held for sale. Excluding this, the PIP was broadly flat compared to 2012.

## Risk review continued

### Geographic analysis

	2013								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Loans to individuals									
Mortgages	23,252	13,983	12,641	14,224	2,176	1,868	290	1,355	69,789
Other	7,468	11,471	5,663	5,590	854	3,397	1,367	3,559	39,369
Small and medium enterprises	3,385	3,308	4,874	5,335	2,055	1,191	426	70	20,644
	<b>34,105</b>	<b>28,762</b>	<b>23,178</b>	<b>25,149</b>	<b>5,085</b>	<b>6,456</b>	<b>2,083</b>	<b>4,984</b>	<b>129,802</b>
Portfolio impairment provision	(57)	(28)	(93)	(124)	(21)	(45)	(25)	(3)	(396)
<b>Total loans and advances to customers</b>	<b>34,048</b>	<b>28,734</b>	<b>23,085</b>	<b>25,025</b>	<b>5,064</b>	<b>6,411</b>	<b>2,058</b>	<b>4,981</b>	<b>129,406</b>

	2012								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Loans to individuals									
Mortgages	21,441	14,278	16,686	14,832	2,284	1,629	256	1,221	72,627
Other	6,843	10,038	6,936	6,387	806	2,902	1,152	2,696	37,760
Small and medium enterprises	3,040	3,251	4,965	5,483	2,100	887	302	2	20,030
	<b>31,324</b>	<b>27,567</b>	<b>28,587</b>	<b>26,702</b>	<b>5,190</b>	<b>5,418</b>	<b>1,710</b>	<b>3,919</b>	<b>130,417</b>
Portfolio impairment provision	(50)	(26)	(116)	(140)	(20)	(44)	(22)	(4)	(422)
<b>Total loans and advances to customers</b>	<b>31,274</b>	<b>27,541</b>	<b>28,471</b>	<b>26,562</b>	<b>5,170</b>	<b>5,374</b>	<b>1,688</b>	<b>3,915</b>	<b>129,995</b>

### Maturity analysis

The proportion of CB loans maturing in less than one year increased by \$3.8 billion compared to 31 December 2012, reflecting higher levels of lending to SME and Private Banking clients which are typically of short tenor.

The following tables show the contractual maturity of loans and advances to customers by each principal category of borrower.

	2013			Total \$million
	One year or less \$million	One to five years \$million	Over five years \$million	
Loans to individuals				
Mortgages	4,273	8,640	56,876	69,789
Other	26,709	10,346	2,314	39,369
Small and medium enterprises	11,258	3,411	5,975	20,644
	<b>42,240</b>	<b>22,397</b>	<b>65,165</b>	<b>129,802</b>
Portfolio impairment provision				(396)
<b>Total loans and advances to customers</b>				<b>129,406</b>

	2012			Total \$million
	One year or less \$million	One to five years \$million	Over five years \$million	
Loans to individuals				
Mortgages	3,612	9,140	59,875	72,627
Other	24,082	10,923	2,755	37,760
Small and medium enterprises	10,781	3,529	5,720	20,030
	38,475	23,592	68,350	130,417
Portfolio impairment provision				(422)
<b>Total loans and advances to customers</b>				<b>129,995</b>

### Credit quality analysis

The tables below set out the loan portfolio for CB by product and by geography between those loans that are neither past due nor impaired, those that are past due but not individually impaired and those that are individually impaired.

The overall credit quality of the portfolio remains good with over 95 per cent of the portfolio neither past due nor impaired. The mortgage portfolio is well collateralised and has an average loan-to-value ratio of 47.7 per cent.

The proportion of the past due but not individually impaired loans decreased to \$3.9 billion or 3 per cent of the loan portfolio. Three-quarters of the decrease of \$593 million arose

in the less than 30 days past due category, primarily due to variation in timing differences in payments in Korea, Malaysia and Singapore.

Individually impaired loans increased by \$47 million primarily in Singapore and Hong Kong due to the seasoning of the unsecured loan portfolio and the majority of the \$76 million increase in individual impairment provision was due to increased levels of PDRS filings in Korea. The PIP was flat with an increase in Hong Kong offset by reduced provisions in the other regions.

The PIP declined marginally due to the impact of exchange rates.

	2013				2012			
	Neither past due nor individually impaired loans \$million	Past due but not individually impaired loans \$million	Individually impaired loans \$million	Total \$million	Neither past due nor individually impaired loans \$million	Past due but not individually impaired loans \$million	Individually impaired loans \$million	Total \$million
Loans to individuals								
Mortgages	67,844	1,766	295	69,905	70,313	2,104	347	72,764
Other	37,742	1,366	565	39,673	35,810	1,709	469	37,988
Small and medium enterprises	19,682	765	419	20,866	19,138	677	416	20,231
	125,268	3,897	1,279	130,444	125,261	4,490	1,232	130,983
Individual impairment provision				(642)				(566)
Portfolio impairment provision				(396)				(422)
<b>Total loans and advances to customers</b>				<b>129,406</b>				<b>129,995</b>

	2013								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Neither past due nor individually impaired loans	33,622	28,245	22,263	23,636	4,587	6,025	2,006	4,884	125,268
Past due but not individually impaired loans	419	454	778	1,251	472	386	52	85	3,897
Individually impaired loans	88	82	322	416	58	209	39	65	1,279
Individual impairment provisions	(24)	(19)	(185)	(154)	(32)	(164)	(14)	(50)	(642)
Portfolio impairment provision	(57)	(28)	(93)	(124)	(21)	(45)	(25)	(3)	(396)
<b>Total loans and advances to customers</b>	<b>34,048</b>	<b>28,734</b>	<b>23,085</b>	<b>25,025</b>	<b>5,064</b>	<b>6,411</b>	<b>2,058</b>	<b>4,981</b>	<b>129,406</b>

## Risk review continued

	2012								Total \$million
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	
Neither past due nor individually impaired loans	30,878	26,956	27,340	25,142	4,825	4,772	1,629	3,719	125,261
Past due but not individually impaired loans	404	569	1,059	1,283	342	587	69	177	4,490
Individually impaired loans	66	57	329	417	52	224	24	63	1,232
Individual impairment provisions	(24)	(15)	(141)	(140)	(29)	(165)	(12)	(40)	(566)
Portfolio impairment provision	(50)	(26)	(116)	(140)	(20)	(44)	(22)	(4)	(422)
<b>Total loans and advances to customers</b>	<b>31,274</b>	<b>27,541</b>	<b>28,471</b>	<b>26,562</b>	<b>5,170</b>	<b>5,374</b>	<b>1,688</b>	<b>3,915</b>	<b>129,995</b>

## Credit risk mitigation

A secured loan is one where the borrower pledges an asset as collateral of which the Group is able to take possession in the event that the borrower defaults. All secured loans are considered fully secured if the fair value of the collateral is equal to or greater than the loan at the time of origination. Other

secured loans are considered to be partially secured. Within CB, 73 per cent of lending is fully secured and 9 per cent is partially secured. The following tables present an analysis of CB loans by product split between fully secured, partially secured and unsecured.

	2013				2012			
	Fully secured \$million	Partially secured \$million	Unsecured \$million	Total <sup>1</sup> \$million	Fully secured \$million	Partially secured \$million	Unsecured \$million	Total <sup>1</sup> \$million
Loans to individuals								
Mortgages	<b>69,789</b>	–	–	<b>69,789</b>	72,627	–	–	72,627
Other	<b>17,737</b>	–	<b>21,632</b>	<b>39,369</b>	15,509	–	22,251	37,760
Small and medium enterprises	<b>6,540</b>	<b>11,756</b>	<b>2,348</b>	<b>20,644</b>	5,985	11,634	2,411	20,030
	<b>94,066</b>	<b>11,756</b>	<b>23,980</b>	<b>129,802</b>	94,121	11,634	24,662	130,417
<b>Percentage of total loans</b>	<b>73%</b>	<b>9%</b>	<b>18%</b>		72%	9%	19%	

<sup>1</sup> Amounts net of individual impairment provisions

### Mortgage loan-to-value ratios by geography

The following table provides an analysis of loan-to-value (LTV) ratios by geography for the mortgages portfolio. LTV ratios are determined based on the ratio of the current mortgage outstanding to the current fair value of the properties on which they are secured.

Overall the average LTV ratio for the portfolio is 47.7 per cent compared to 47.8 per cent in 2012. Our major mortgage markets of Hong Kong, Singapore and Korea have an average LTV of less than 50 per cent. The proportion of the portfolio with average LTVs in excess of 100 per cent has declined from 0.5 per cent to 0.3 per cent primarily within the MESA region due to improving economic conditions, particularly in UAE, in the current year. In Hong Kong, average LTVs increased reflecting an increased focus on first time buyers in 2013.

	2013								
	Hong Kong %	Singapore %	Korea %	Other Asia Pacific %	India %	Middle East & Other S Asia %	Africa %	Americas, UK & Europe %	Total %
Less than 50 per cent	66.3	55.4	48.8	46.9	65.8	35.4	27.0	21.6	54.9
50 per cent to 59 per cent	13.0	17.6	22.7	18.6	12.9	16.7	13.6	38.3	17.6
60 per cent to 69 per cent	7.5	13.5	19.1	16.9	10.5	18.4	21.3	25.6	13.7
70 per cent to 79 per cent	5.4	11.8	5.6	10.3	7.7	14.3	22.4	14.5	8.2
80 per cent to 89 per cent	4.5	1.6	2.2	5.9	2.7	6.6	15.1	–	3.7
90 per cent to 99 per cent	3.2	–	1.1	1.1	0.2	3.0	0.2	–	1.6
100 per cent and greater	–	–	0.5	0.1	0.2	5.6	0.4	–	0.3
Average portfolio loan-to-value	44.8	44.5	49.3	51.3	40.6	59.8	64.3	52.3	47.7
Loans to individuals – Mortgages (\$million)	23,252	13,983	12,641	14,224	2,176	1,868	290	1,355	69,789

	2012								
	Hong Kong %	Singapore %	Korea %	Other Asia Pacific %	India %	Middle East & Other S Asia %	Africa %	Americas, UK & Europe %	Total %
Less than 50 per cent	75.4	52.5	49.0	37.9	55.8	24.1	28.2	25.4	54.3
50 per cent to 59 per cent	11.4	18.4	24.6	19.1	15.4	15.9	13.9	32.8	18.2
60 per cent to 69 per cent	6.1	13.8	18.5	21.0	12.7	17.3	20.1	21.1	14.3
70 per cent to 79 per cent	3.2	12.7	5.0	14.5	10.5	13.3	18.8	20.7	8.5
80 per cent to 89 per cent	3.2	2.6	2.0	5.9	4.7	8.0	17.0	–	3.5
90 per cent to 99 per cent	0.7	–	0.7	1.3	0.9	5.2	1.2	–	0.8
100 per cent and greater	–	–	0.2	0.3	–	16.2	0.8	–	0.5
Average portfolio loan-to-value	41.2	46.1	48.9	54.1	45.6	72.1	63.9	50.9	47.8
Loans to individuals – Mortgages (\$million)	21,441	14,278	16,686	14,832	2,284	1,629	256	1,221	72,627

## Risk review continued

### Loan impairment

#### Consumer Banking

The total net impairment charge in CB in 2013 increased by \$360 million, or 53 per cent, over 2012. The increase is mainly driven by the ongoing impact of PDRS in Korea, the growth and maturity of unsecured business acquired in previous years,

lower loan sales compared to prior periods in Taiwan and increased levels of provisioning in Thailand relating to a specific segment for which sales have been discontinued. There was a portfolio impairment increase of \$19 million in 2013 (2012: \$nil) due to the release in the prior period in the MESA region.

	2013								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Gross impairment charge	162	104	457	447	53	115	30	16	1,384
Recoveries/provisions no longer required	(30)	(27)	(87)	(127)	(18)	(54)	(12)	(4)	(359)
Net individual impairment charge	132	77	370	320	35	61	18	12	1,025
Portfolio impairment provision charge/(release)	7	1	1	(10)	3	2	4	1	9
Net impairment charge	139	78	371	310	38	63	22	13	1,034

	2012								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Gross impairment charge	135	109	289	352	43	122	29	13	1,092
Recoveries/provisions no longer required	(44)	(49)	(72)	(157)	(19)	(52)	(12)	(3)	(408)
Net individual impairment charge	91	60	217	195	24	70	17	10	684
Portfolio impairment provision charge/(release)	4	2	6	(9)	3	(19)	3	–	(10)
Net impairment charge	95	62	223	186	27	51	20	10	674

The following table sets out the movement in total impairment provisions for CB loans and advances as at 31 December by each principal category of borrower:

	Impairment provision held as at 1 January 2013 \$million	Net impairment charge 2013 \$million	Amounts written off/ other movements 2013 \$million	Impairment provision held as at 31 December 2013 \$million
Loans to individuals				
Mortgages	137	12	(33)	116
Other	228	889	(813)	304
Small and medium enterprises	201	124	(103)	222
	566	1,025	(949)	642
Portfolio impairment provision	422	9	(35)	396
	988	1,034	(984)	1,038

	Impairment provision held as at 1 January 2012 \$million	Net impairment charge/(release) 2012 \$million	Amounts written off/ other movements 2012 \$million	Impairment provision held as at 31 December 2012 \$million
Loans to individuals				
Mortgages	135	10	(8)	137
Other	149	565	(486)	228
Small and medium enterprises	197	109	(105)	201
	481	684	(599)	566
Portfolio impairment provision	424	(10)	8	422
	905	674	(591)	988

### Non-performing loans

Gross non-performing loans have marginally increased, up \$8 million compared to 2012, largely due to the seasoning of the unsecured portfolio, particularly in Hong Kong and Singapore.

This was partly offset by a decline in the UAE where credit quality has improved due to economic recovery.

The following tables set out the total non-performing loans and related provisions for CB by geography:

	2013								Total \$million
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	
Loans and advances									
Gross non-performing loans	84	86	360	333	69	237	39	66	1,274
Individual impairment provision <sup>1</sup>	(24)	(14)	(185)	(107)	(32)	(164)	(14)	(50)	(590)
Non-performing loans net of individual impairment provision	60	72	175	226	37	73	25	16	684
Portfolio impairment provision									(396)
Net non-performing loans and advances									288
Cover ratio									77%

<sup>1</sup> The difference to total individual impairment provision as at 31 December 2013 reflects provisions against restructured loans that are not included within non-performing loans as they have been performing for 180 days in line with the definition provided on page 84

	2012								Total \$million
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	
Loans and advances									
Gross non-performing loans	67	70	376	344	65	253	26	65	1,266
Individual impairment provision <sup>1</sup>	(24)	(14)	(141)	(100)	(29)	(165)	(12)	(40)	(525)
Non-performing loans net of individual impairment provision	43	56	235	244	36	88	14	25	741
Portfolio impairment provision									(422)
Net non-performing loans and advances									319
Cover ratio									75%

<sup>1</sup> The difference to total individual impairment provision as at 31 December 2012 reflects provisions against restructured loans that are not included within non-performing loans as they have been performing for 180 days in line with the definition provided on page 84

## Risk review continued

### Wholesale Banking loan portfolio

The WB loan portfolio has increased by \$12 billion, or 8 per cent, compared to December 2012. Over two-thirds of the growth is due to Trade Finance and Corporate Finance as Wholesale Banking continues to deepen relationships with clients in core markets.

Growth in the loan portfolio has been broadly spread, with growth in Hong Kong, Singapore and the Americas, UK & Europe regions partly offset by a decline in Korea. Growth in Hong Kong and Singapore is mainly in trade loans and is concentrated in the commerce and manufacturing industry segments. Korea loans fell in the manufacturing segment as we continue to optimise the portfolio. The growth in the Americas, UK & Europe region is as a result of a certain number of large ticket leveraged finance deals primarily relating to clients across our network.

Single borrower concentration risk has been mitigated by active distribution of assets to banks and institutional investors.

The WB loan portfolio remains diversified across both geography and industry. There are no significant concentrations within the broad industry classifications of manufacturing; financing, insurance and business services; commerce; or transport, storage and communication. The largest sector exposure is to manufacturing which is spread across many sub-industries.

The industry classification below only represents loans and advances to customers. As such, the transport, storage and communication sector does not include the Group's transport leasing business. This business leases aircraft and ships to clients under operating leases. These assets are held on the Group's balance sheet as part of 'Property, plant and equipment' (see note 27 on page 287) and income generated is recognised within 'other operating income'.

Exposure to bank counterparties at \$86.1 billion increased by \$17.6 billion compared to 31 December 2012 mainly due to higher reverse repurchase activities in the Americas, UK & Europe. The Group continues to be a net lender in the interbank money markets.

### Geographic analysis

	2013								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Agriculture, forestry and fishing	23	755	–	362	31	221	559	783	2,734
Construction	271	171	408	403	627	1,520	133	434	3,967
Commerce	5,948	16,693	475	3,978	881	4,776	779	9,679	43,209
Electricity, gas and water	503	711	41	897	31	438	308	2,481	5,410
Financing, insurance and business services	3,778	854	567	4,355	392	1,744	331	9,918	21,939
Governments	–	339	–	776	22	313	–	249	1,699
Mining and quarrying	1,217	2,605	–	1,018	13	562	870	9,819	16,104
Manufacturing	6,891	4,136	3,700	9,399	2,939	2,604	2,086	10,311	42,066
Commercial real estate	4,023	2,959	1,181	1,813	1,311	1,006	10	1,327	13,630
Transport, storage and communication	2,312	3,260	230	1,181	502	995	721	4,952	14,153
Other	188	968	86	66	19	92	280	299	1,998
	25,154	33,451	6,688	24,248	6,768	14,271	6,077	50,252	166,909
Portfolio impairment provision	(29)	(31)	(13)	(32)	(17)	(55)	(42)	(81)	(300)
<b>Total loans and advances to customers</b>	<b>25,125</b>	<b>33,420</b>	<b>6,675</b>	<b>24,216</b>	<b>6,751</b>	<b>14,216</b>	<b>6,035</b>	<b>50,171</b>	<b>166,609</b>
<b>Total loans and advances to banks</b>	<b>17,658</b>	<b>4,501</b>	<b>4,192</b>	<b>14,891</b>	<b>399</b>	<b>2,273</b>	<b>742</b>	<b>41,513</b>	<b>86,169</b>

	2012								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Agriculture, forestry and fishing	54	806	4	392	13	261	785	2,079	4,394
Construction	374	484	487	508	629	1,183	259	659	4,583
Commerce	4,983	11,773	665	3,937	815	4,428	768	6,229	33,598
Electricity, gas and water	510	407	–	552	7	366	251	2,723	4,816
Financing, insurance and business services	2,702	2,184	52	4,272	378	2,295	455	10,149	22,487
Governments	50	790	651	765	2	319	47	630	3,254
Mining and quarrying	700	1,938	–	928	394	778	602	9,495	14,835
Manufacturing	6,018	3,845	4,182	8,690	2,864	2,893	2,208	8,941	39,641
Commercial real estate	3,524	2,296	1,354	1,413	1,270	1,082	64	540	11,543
Transport, storage and communication	2,400	3,330	194	920	447	965	809	5,411	14,476
Other	200	468	121	149	8	102	79	167	1,294
	21,515	28,321	7,710	22,526	6,827	14,672	6,327	47,023	154,921
Portfolio impairment provision	(24)	(21)	(16)	(26)	(19)	(94)	(41)	(59)	(300)
<b>Total loans and advances to customers</b>	21,491	28,300	7,694	22,500	6,808	14,578	6,286	46,964	154,621
<b>Total loans and advances to banks</b>	19,356	6,205	4,633	8,133	571	3,172	378	26,123	68,571

### Maturity analysis

The WB portfolio remains predominantly short-term, with 64 per cent (2012: 62 per cent) of loans and advances having a remaining contractual maturity of one year or less driven by short-dated loans and trade finance transactions primarily within commerce, manufacturing and mining and quarrying.

The following tables show the contractual maturity of loans and advances to customers by each principal category of borrowers' business or industry.

	2013			
	One year or less \$million	One to five years \$million	Over five years \$million	Total \$million
Agriculture, forestry and fishing	1,788	839	107	2,734
Construction	2,883	938	146	3,967
Commerce	38,348	4,359	502	43,209
Electricity, gas and water	1,587	1,690	2,133	5,410
Financing, insurance and business services	13,343	8,128	468	21,939
Governments	1,342	272	85	1,699
Mining and quarrying	8,210	5,993	1,901	16,104
Manufacturing	29,343	10,761	1,962	42,066
Commercial real estate	4,062	8,943	625	13,630
Transport, storage and communication	5,077	5,599	3,477	14,153
Other	968	927	103	1,998
	106,951	48,449	11,509	166,909
Portfolio impairment provision				(300)
<b>Total loans and advances to customers</b>				166,609

## Risk review continued

	2012			Total \$million
	One year or less \$million	One to five years \$million	Over five years \$million	
Agriculture, forestry and fishing	3,274	965	155	4,394
Construction	3,159	1,256	168	4,583
Commerce	28,941	4,239	418	33,598
Electricity, gas and water	1,863	1,043	1,910	4,816
Financing, insurance and business services	13,839	7,581	1,067	22,487
Governments	2,873	303	78	3,254
Mining and quarrying	6,873	5,275	2,687	14,835
Manufacturing	26,629	11,187	1,825	39,641
Commercial real estate	4,180	6,842	521	11,543
Transport, storage and communication	3,852	6,951	3,673	14,476
Other	711	553	30	1,294
	96,194	46,195	12,532	154,921
Portfolio impairment provision				(300)
Total loans and advances to customers				154,621

### Credit quality analysis

The tables on the following pages set out an analysis of the loans to customers and banks between those loans that are neither past due nor impaired, those that are past due but not individually impaired and those that are individually impaired by industry type and by geography.

In WB, the overall portfolio quality remains good and 95 per cent of the portfolio is neither past due nor individually impaired.

Neither past due nor impaired loans have increased by \$12.5 billion in line with portfolio growth, and the growth is primarily concentrated within the commerce and manufacturing sectors and within credit grades 1–5.

Loans past due but not individually impaired decreased by \$1.2 billion compared to 2012. This was primarily due to the renegotiation in 2013 of a small number of exposures which were reported with the 60–90 days past due category in 2012 within financing, insurance and business services sectors in Hong Kong, the Americas, UK & Europe. No impairment was recognised following these negotiations. Past due exposure in the mining and quarrying sector increased \$500 million compared to 2012, the majority of which was in Singapore and concentrated in the 0–30 days past due category. Over 85 per cent of the loans reported in the up to 30 days past due category, including those relating to renegotiated loans, had been cured by the end of January 2014.

Individually impaired loans increased by \$1.1 billion, mainly due to an increase in a small number of exposures in India and Africa and this flowed into higher individual impairment provisions of \$343 million. PIP remained flat as a release in MESA of provisions created in 2009 in respect of market uncertainties was offset by increases in Africa, Singapore and the Other Asia Pacific region.

Loans to banks remain predominantly high quality with more than 99 per cent of the portfolio held as neither past due nor individually impaired.

	2013				2012			
	Neither past due nor individually impaired \$million	Past due but not individually impaired \$million	Individually impaired loans \$million	Total \$million	Neither past due nor individually impaired \$million	Past due but not individually impaired \$million	Individually impaired loans \$million	Total \$million
Agriculture, forestry and fishing	2,410	87	420	2,917	4,286	54	83	4,423
Construction	3,502	238	295	4,035	4,121	301	233	4,655
Commerce	42,413	544	940	43,897	33,027	306	933	34,266
Electricity, gas and water	5,272	113	35	5,420	4,735	4	85	4,824
Financing, insurance and business services	20,670	256	1,259	22,185	18,897	2,616	1,139	22,652
Governments	1,645	54	–	1,699	3,254	–	–	3,254
Mining and quarrying	14,918	1,074	158	16,150	14,253	574	17	14,844
Manufacturing	40,249	686	1,731	42,666	38,342	684	1,176	40,202
Commercial real estate	13,580	14	67	13,661	11,379	30	158	11,567
Transport, storage and communication	13,534	297	518	14,349	14,105	25	543	14,673
Other	1,956	18	63	2,037	1,280	12	33	1,325
	<b>160,149</b>	<b>3,381</b>	<b>5,486</b>	<b>169,016</b>	147,679	4,606	4,400	156,685
Individual impairment provision				(2,107)				(1,764)
Portfolio impairment provision				(300)				(300)
Total loans and advances to customers				<b>166,609</b>				154,621
Loans and advances to banks	<b>86,047</b>	<b>17</b>	<b>207</b>	<b>86,271</b>	68,364	3	309	68,676
Individual impairment provision				(100)				(103)
Portfolio impairment provision				(2)				(2)
Total loans and advances to banks				<b>86,169</b>				<b>68,571</b>

The tables below set out an analysis of the loan to customers and banks between those loans that are neither past due nor

impaired, those that are past due but not individually impaired and those that are individually impaired by geography.

#### Loans to customers

	2013								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Neither past due nor individually impaired	24,982	32,586	6,606	23,798	5,923	12,607	5,614	48,033	160,149
Past due but not individually impaired loans	37	826	5	68	239	442	167	1,597	3,381
Individually impaired loans	173	48	213	659	930	2,264	556	643	5,486
Individual impairment provisions	(38)	(9)	(136)	(277)	(324)	(1,042)	(260)	(21)	(2,107)
Portfolio impairment provision	(29)	(31)	(13)	(32)	(17)	(55)	(42)	(81)	(300)
Total loans and advances to customers	<b>25,125</b>	<b>33,420</b>	<b>6,675</b>	<b>24,216</b>	<b>6,751</b>	<b>14,216</b>	<b>6,035</b>	<b>50,171</b>	<b>166,609</b>

## Risk review continued

	2012								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Neither past due nor individually impaired	20,674	28,036	7,554	22,171	6,186	12,697	6,212	44,149	147,679
Past due but not individually impaired loans	769	160	–	87	134	657	20	2,779	4,606
Individually impaired loans	122	199	261	487	748	2,326	132	125	4,400
Individual impairment provisions	(50)	(74)	(105)	(219)	(241)	(1,008)	(37)	(30)	(1,764)
Portfolio impairment provision	(24)	(21)	(16)	(26)	(19)	(94)	(41)	(59)	(300)
Total loans and advances to customers	21,491	28,300	7,694	22,500	6,808	14,578	6,286	46,964	154,621

## Loans to banks

	2013								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Neither past due nor individually impaired loans	17,648	4,488	4,192	14,805	399	2,274	742	41,499	86,047
Past due but not individually impaired loans	4	13	–	–	–	–	–	–	17
Individually impaired loans	6	–	–	165	–	–	–	36	207
Individual impairment provisions	–	–	–	(78)	–	–	–	(22)	(100)
Portfolio impairment provision	–	–	–	(1)	–	(1)	–	–	(2)
Total loans and advances to banks	17,658	4,501	4,192	14,891	399	2,273	742	41,513	86,169

	2012								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Neither past due nor individually impaired loans	19,349	6,205	4,633	8,048	570	3,076	378	26,105	68,364
Past due but not individually impaired loans	2	–	–	–	1	–	–	–	3
Individually impaired loans	5	–	–	164	–	97	–	43	309
Individual impairment provisions	–	–	–	(78)	–	–	–	(25)	(103)
Portfolio impairment provision	–	–	–	(1)	–	(1)	–	–	(2)
Total loans and advances to banks	19,356	6,205	4,633	8,133	571	3,172	378	26,123	68,571

### Credit risk mitigation

Collateral held against WB exposures amounted to \$63.4 billion (December 2012: \$51.6 billion). This represents the fair value of collateral adjusted in accordance with our risk mitigation policy (page 73) and for the effects of over collateralisation. The unadjusted current market value of collateral without over collateralisation is \$197 billion at 31 December 2013 (2012: \$186 billion).

Our underwriting standards encourage taking specific charges on assets and we constantly seek high quality, investment grade secured collateral. 49 per cent of collateral held is comprised of physical assets or is property based, with the remainder held largely in investment securities.

Non-tangible collateral – such as guarantees and letters of credit – may also be held against corporate exposures although the financial effect of this type of collateral is less significant in terms of recoveries. However this type of collateral is considered when determining probability of default and other credit related factors.

The increase in collateral compared to 2012 is broadly in line with growth in the loan portfolio. The proportion of highly rated debt securities of 15.3 per cent on collateral increased compared to 2012 due to higher levels of reverse repo transactions.

The following table provides an analysis of the types of collateral held against WB loan exposures.

	2013 \$million	2012 \$million
Cash	12,278	9,039
Property	15,125	13,141
Debt securities		
AAA	45	4
AA- to AA+	9,652	3,390
BBB- to BBB+	2,785	713
Lower than BBB-	865	1,313
Unrated	5,004	6,151
	18,351	11,571
Other (asset based)	17,636	17,843
Total value of collateral	63,390	51,594

### Commercial real estate (CRE)

The Group has lending to commercial real estate (CRE) counterparties of \$13,630 million (31 December 2012: \$11,543 million). Of this exposure, \$6,758 million is to counterparties where the source of repayment is substantially derived from rental or sale of real estate and is secured by real estate collateral. The remaining CRE exposure comprises

working capital loans to real estate corporates, exposure with non-property collateral, unsecured exposure and exposure to real estate entity of diversified conglomerate.

The following table presents a geographical analysis of the LTV ratios for such loans. The average LTV of the exposure remains low.

	2013								Total %
	Hong Kong %	Singapore %	Korea %	Other Asia Pacific %	India %	Middle East & Other S Asia %	Africa %	Americas, UK & Europe %	
Less than 50 per cent	94.2	45.9	97.8	82.7	57.5	40.4	59.6	93.0	71.3
50 per cent to 59 per cent	5.8	48.0	2.2	13.3	22.2	51.0	–	–	20.8
60 per cent to 69 per cent	–	6.1	–	3.9	20.3	4.8	40.4	7.0	7.5
70 per cent to 79 per cent	–	–	–	–	–	–	–	–	–
80 per cent to 89 per cent	–	–	–	–	–	–	–	–	–
90 per cent to 99 per cent	–	–	–	–	–	–	–	–	–
100 per cent and greater	–	–	–	–	–	3.8	–	–	0.4
Average portfolio loan-to-value	38.2	45.8	27.6	38.6	40.9	59.0	46.8	35.1	41.1
Loans (\$million)	1,165	1,154	440	1,072	1,338	728	10	851	6,758

## Risk review continued

	2012								Total %
	Hong Kong %	Singapore %	Korea %	Other Asia Pacific %	India %	Middle East & Other S Asia %	Africa %	Americas, UK & Europe %	
Less than 50 per cent	77.5	62.5	37.7	69.9	48.6	59.5	68.8	97.3	62.7
50 per cent to 59 per cent	18.8	24.1	34.4	15.1	25.5	34.2	0.7	2.7	23.3
60 per cent to 69 per cent	3.8	13.5	9.1	14.9	25.9	4.2	30.5	–	12.5
70 per cent to 79 per cent	–	–	18.7	–	–	–	–	–	1.1
80 per cent to 89 per cent	–	–	–	–	–	–	–	–	–
90 per cent to 99 per cent	–	–	–	–	–	–	–	–	–
100 per cent and greater	–	–	–	–	–	2.1	–	–	0.4
Average portfolio loan-to-value	40.8	44.3	53.0	43.4	48.9	48.5	48.0	40.1	45.7
Loans (\$million)	779	1,560	384	927	1,263	1,267	40	364	6,584

## Loan impairment

The individual impairment charge increased by \$26 million or 5 per cent compared with 31 December 2012, primarily due to higher provisions in India and Africa, relating to a small number of exposures. Increase in portfolio impairment provision was offset by release in the MESA, due to an improvement in the credit environment.

The table below sets out the net impairment charge for WB loans and advances and other credit risk provisions by geography.

	2013								Total \$million
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	
Gross impairment charge	7	2	65	97	152	58	235	7	623
Recoveries/provisions no longer required	(18)	(2)	(5)	(3)	(3)	(14)	(2)	(4)	(51)
Net individual impairment charge/(credit)	(11)	–	60	94	149	44	233	3	572
Portfolio impairment provision charge/(release)	6	10	(4)	10	7	(40)	15	2	6
Net loan impairment charge/(release)	(5)	10	56	104	156	4	248	5	578
Other credit risk provisions	1	–	–	1	1	–	–	2	5
Net impairment charge/(release)	(4)	10	56	105	157	4	248	7	583

	2012								Total \$million
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	
Gross impairment charge	23	2	45	38	192	265	2	19	586
Recoveries/provisions no longer required	(5)	–	(9)	(8)	(7)	(1)	(2)	(8)	(40)
Net individual impairment charge	18	2	36	30	185	264	–	11	546
Portfolio impairment provision charge/(release)	(3)	2	(10)	5	(45)	(3)	18	11	(25)
Net loan impairment charge	15	4	26	35	140	261	18	22	521
Other credit risk provisions	(1)	–	–	–	(2)	4	–	–	1
Net impairment charge	14	4	26	35	138	265	18	22	522

### Impairment provisions on loans and advances

The following table sets out the impairment provision on loans and advances by each principal category of borrowers business or industry:

	Impairment provision held as at 1 January 2013 \$million	Net impairment charge 2013 \$million	Amounts written off/ other movements 2013 \$million	Impairment provision held as at 31 December 2013 \$million
Agriculture, forestry and fishing	29	178	(24)	183
Construction	72	13	(17)	68
Commerce	668	20	–	688
Electricity, gas and water	8	8	(6)	10
Financing, insurance and business services	165	25	56	246
Mining and quarrying	9	35	2	46
Manufacturing	561	248	(209)	600
Commercial real estate	24	9	(2)	31
Transport, storage and communication	197	24	(25)	196
Other	31	13	(5)	39
Individual impairment provision against loans and advances to customers	1,764	573	(230)	2,107
Portfolio impairment provision against loans and advances to customers	300	6	(6)	300
Total impairment provisions on loans and advances to customers	2,064	579	(236)	2,407
Individual impairment provision against loans and advances to banks	103	(1)	(2)	100
Portfolio impairment provision against loans and advances to banks	2	–	–	2
Total impairment provisions on loans and advances to banks	105	(1)	(2)	102

	Impairment provision held as at 1 January 2012 \$million	Net impairment charge 2012 \$million	Amounts written off/ other movements 2012 \$million	Impairment provision held as at 31 December 2012 \$million
Agriculture, forestry and fishing	24	–	5	29
Construction	65	19	(12)	72
Commerce	464	136	68	668
Electricity, gas and water	6	–	2	8
Financing, insurance and business services	167	118	(120)	165
Mining and quarrying	1	–	8	9
Manufacturing	542	101	(82)	561
Commercial real estate	24	–	–	24
Transport, storage and communication	40	162	(5)	197
Other	29	4	(2)	31
Individual impairment provision against loans and advances to customers	1,362	540	(138)	1,764
Portfolio impairment provision against loans and advances to customers	321	(23)	2	300
Total impairment provisions on loans and advances to customers	1,683	517	(136)	2,064
Individual impairment provision against loans and advances to banks	82	6	15	103
Portfolio impairment provision against loans and advances to banks	2	(2)	2	2
Total impairment provisions on loans and advances to banks	84	4	17	105

## Risk review continued

### Non-performing loans

Gross non-performing loans in WB, the definition of which is set out on page 84, increased by \$933 million, or 22 per cent, since December 2012. These increases were primarily driven by a small number of large exposures in India and in Africa and the Americas, UK & Europe regions.

The following tables set out the total non-performing loans to banks and customers for WB on the basis of the geographic regions to which the exposure relates to rather than the booking location:

	2013								Total \$million
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	
Loans and advances									
Gross non-performing	179	20	213	824	928	1,793	570	678	5,205
Individual impairment provision <sup>1</sup>	(38)	(9)	(136)	(355)	(324)	(1,028)	(260)	(43)	(2,193)
Non-performing loans net of individual impairment provision	141	11	77	469	604	765	310	635	3,012
Portfolio impairment provision									(302)
Net non-performing loans and advances									2,710
Cover ratio									48%

<sup>1</sup> The difference to total individual impairment provision as at 31 December 2013 reflects provisions against restructured loans that are not included within non-performing loans as they have been performing for 180 days in line with the definition provided on page 84

	2012								Total \$million
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	
Loans and advances									
Gross non-performing	128	21	261	707	754	2,089	147	165	4,272
Individual impairment provision <sup>1</sup>	(50)	(14)	(105)	(304)	(240)	(1,061)	(37)	(55)	(1,866)
Non-performing loans net of individual impairment provision	78	7	156	403	514	1,028	110	110	2,406
Portfolio impairment provision									(302)
Net non-performing loans and advances									2,104
Cover ratio									51%

<sup>1</sup> The difference to total individual impairment provision as at 31 December 2012 reflects provisions against restructured loans that are not included within non-performing loans as they have been performing for 180 days in line with the definition provided on page 84

## Debt securities and treasury bills

Debt securities and treasury bills are analysed as follows:

	2013			2012		
	Debt securities \$million	Treasury bills \$million	Total \$million	Debt securities \$million	Treasury bills \$million	Total \$million
Net impaired securities:						
Impaired securities	389	–	389	404	–	404
Impairment	(204)	–	(204)	(159)	–	(159)
	185	–	185	245	–	245
Securities neither past due nor impaired:						
AAA	23,772	4,455	28,227	20,755	6,516	27,271
AA- to AA+	23,274	19,226	42,500	20,232	6,594	26,826
A- to A+	21,392	1,087	22,479	23,570	10,694	34,264
BBB- to BBB+	5,913	4,238	10,151	10,122	3,818	13,940
Lower than BBB-	3,293	898	4,191	3,027	502	3,529
Unrated	8,244	1,500	9,744	6,471	1,571	8,042
	85,888	31,404	117,292	84,177	29,695	113,872
	86,073	31,404	117,477	84,422	29,695	114,117
Of which:						
Assets at fair value <sup>1</sup>						
Trading	12,407	5,161	17,568	14,882	2,955	17,837
Designated at fair value	292	–	292	333	–	333
Available-for-sale	70,546	26,243	96,789	65,356	26,740	92,096
	83,245	31,404	114,649	80,571	29,695	110,266
Assets at amortised cost <sup>1</sup>						
Loans and receivables	2,828	–	2,828	3,851	–	3,851
	86,073	31,404	117,477	84,422	29,695	114,117

<sup>1</sup> See notes 15, 16 and 21 of the financial statements for further details

Net impaired securities reduced by \$60 million compared to 2012 primarily due to increased provisions against a bond exposure in India arising from credit concerns around the issuer.

The above table analyses debt securities and treasury bills that are neither past due nor impaired by external credit rating. The standard credit ratings used by the Group are those used by Standard & Poor's or their equivalent. Debt securities held that have a short-term rating are reported against the long-term rating of the issuer. For securities that are unrated, the Group applies an internal credit rating as described under credit rating and measurement on page 72.

Debt securities in the AAA rating category increased by \$3.0 billion to \$23.8 billion in 2013 mainly due to an increase in higher quality corporate bonds in Hong Kong and Singapore. This was offset by a low level of AAA trading business as funds were deployed into higher quality assets in Singapore and as part of the restructuring of the balance sheet in Korea.

Unrated securities primarily relate to corporate issuers. Using internal credit ratings \$9,275 million (2012: \$7,208 million) of these securities are considered to be equivalent to investment grade.

## Risk review continued

### Asset Backed Securities

#### Total exposures to Asset Backed Securities

	2013				2012			
	Percentage of notional value of portfolio	Notional \$million	Carrying value \$million	Fair value <sup>1</sup> \$million	Percentage of notional value of portfolio	Notional \$million	Carrying value \$million	Fair value <sup>1</sup> \$million
Residential Mortgage Backed Securities (RMBS)	46%	3,059	3,052	3,045	46%	2,160	2,114	2,120
Collateralised Debt Obligations (CDOs)	3%	223	181	190	5%	260	203	219
Commercial Mortgage Backed Securities (CMBS)	5%	321	242	235	10%	478	355	351
Other Asset Backed Securities (Other ABS)	46%	3,126	3,081	3,124	39%	1,869	1,847	1,861
	<b>100%</b>	<b>6,729</b>	<b>6,556</b>	<b>6,594</b>	<b>100%</b>	<b>4,767</b>	<b>4,519</b>	<b>4,551</b>
Of which included within:								
Financial assets held at fair value through profit or loss	2%	158	158	158	4%	190	191	191
Investment securities – available-for-sale	79%	5,295	5,202	5,202	61%	2,905	2,786	2,786
Investment securities – loans and receivables	19%	1,276	1,196	1,234	35%	1,672	1,542	1,574
	<b>100%</b>	<b>6,729</b>	<b>6,556</b>	<b>6,594</b>	<b>100%</b>	<b>4,767</b>	<b>4,519</b>	<b>4,551</b>

1 Fair value reflects the value of the entire portfolio, including assets redesignated to loans and receivables

The carrying value of ABS represents 1 per cent (2012: 0.7 per cent) of our total assets.

The Group has an existing portfolio of ABS which it reclassified from trading and available-for-sale to loans and receivables with effect from 1 July 2008. No assets have been reclassified since 2008. This portfolio has been gradually managed down since 2010. The carrying value and fair value for this part of the portfolio were \$614 million and \$647 million respectively as at the end of 2013. Note 15 to the financial statements provide details of the remaining balance of those assets reclassified in 2008.

The Group has also extended its investment to a limited amount of trading in ABS and has also acquired an additional \$4.8 billion of ABS during 2013 for liquidity reasons. This is classified as available-for-sale and primarily related to high quality RMBS assets with an average credit grade of AAA. The credit quality of the ABS portfolio remains strong. With the exception of those securities subject to an impairment charge, over 95 per cent of the overall portfolio is rated A- or better, and 80 per cent of the overall portfolio is rated as AAA. The portfolio is broadly diversified across asset classes and geographies, with an average credit grade of AA.

The decline in the bank's legacy portfolios and significant increase in asset purchases for liquidity reasons in the available-for-sale book makes the fair value of the entire portfolio similar to the carrying value.

#### Financial statement impact of Asset Backed Securities

	Available-for-sale \$million	Loans and receivables \$million	Total \$million
<b>31 December 2013</b>			
Charge to available-for-sale reserves	26	–	26
Credit to the profit and loss account	(1)	–	(1)
<b>31 December 2012</b>			
Credit to available-for-sale reserves	(3)	–	(3)
Charge to the profit and loss account	5	–	5

### Selected European country exposures

The following tables summarise the Group's direct exposure (both on- and off-balance sheet) to certain specific countries within the eurozone that have been identified on the basis of their higher bond yields, higher sovereign debt to GDP ratio and external credit ratings compared with the rest of the eurozone.

Total gross exposure represents the amount outstanding on the balance sheet (including any accrued interest but before provisions) and positive mark-to-market amounts on derivatives before netting. To the extent gross exposure does not represent the maximum exposure to loss, this is disclosed separately. Exposures are assigned to a country based on the country of incorporation of the counterparty as at 31 December 2013.

The Group has no direct sovereign exposure (as defined by the EBA) to the eurozone countries of GIIPS and only \$0.5 billion direct sovereign exposure to other eurozone countries.

The Group's non-sovereign exposure to GIIPS is \$2.4 billion (\$2.0 billion after collateral and netting) and \$37.7 billion (\$22 billion after collateral and netting) to the remainder of the eurozone. This exposure primarily consists of balances with corporates. The substantial majority of the Group's total gross

GIIPS exposure has a tenor of less than five years, with approximately 32 per cent having a tenor of less than one year. The Group has no direct sovereign exposure and \$260 million (2012: \$263 million) of non-sovereign exposure (after collateral and netting) to Cyprus.

The exit of one or more countries from the eurozone or ultimately its dissolution could potentially lead to significant market dislocation, the extent of which is difficult to predict. Any such exit or dissolution, and the redenomination of formerly euro-denominated rights and obligations in replacement national currencies, would cause significant uncertainty in any exiting country, whether sovereign or otherwise. Such events are also likely to be accompanied by the imposition of capital, exchange and similar controls. While the Group has limited eurozone exposure as disclosed above, the Group's earnings could be impacted by the general market disruption if such events should occur. We monitor the situation closely and we have prepared contingency plans to respond to a range of potential scenarios, including the possibility of currency redenomination. Local assets and liability positions are carefully monitored by in-country asset and liability and risk committees with appropriate oversight by GALCO and GRC at the Group level.

Country	Greece \$million	Ireland \$million	Italy \$million	Portugal \$million	Spain \$million	Total \$million
<b>As at 31 December 2013</b>						
Direct sovereign exposure	-	-	-	-	-	-
Banks	-	-	719	-	402	1,121
Other financial institutions	-	951	5	-	-	956
Other corporate	15	207	93	-	52	367
<b>Total gross exposure</b>	<b>15</b>	<b>1,158</b>	<b>817</b>		<b>454</b>	<b>2,444</b>
Direct sovereign exposure	-	-	-	-	-	-
Banks	-	-	(70)	-	(167)	(237)
Other financial institutions	-	(192)	(5)	-	-	(197)
Other corporate	(1)	(16)	(1)	-	(3)	(21)
<b>Total collateral/netting</b>	<b>(1)</b>	<b>(208)</b>	<b>(76)</b>		<b>(170)</b>	<b>(455)</b>
Direct sovereign exposure	-	-	-	-	-	-
Banks	-	-	649	-	235	884
Other financial institutions	-	759 <sup>1</sup>	-	-	-	759
Other corporate	14	191	92	-	49	346
<b>Total net exposure as at 31 December 2013</b>	<b>14</b>	<b>950</b>	<b>741</b>		<b>284</b>	<b>1,989</b>
Total net exposure as at 31 December 2012	29	1,391	610	21	221	2,272

1 This represents a single exposure which is part of a wider structured finance transaction and is unaffected by Irish economic risk

## Risk review continued

The Group's exposure to GIIPS as at 31 December 2013 is analysed by financial asset as follows:

<b>At 31 December 2013</b>	<b>Greece \$million</b>	<b>Ireland \$million</b>	<b>Italy \$million</b>	<b>Portugal \$million</b>	<b>Spain \$million</b>	<b>Total \$million</b>
<b>Loans and advances</b>						
Loans and receivables	9	143	265	–	11	428
Held at fair value through profit or loss	–	–	11	–	–	11
<b>Total gross loans and advances</b>	<b>9</b>	<b>143</b>	<b>276</b>	<b>–</b>	<b>11</b>	<b>439</b>
Collateral held against loans and advances	(1)	(4)	(53)	–	(2)	(60)
<b>Total net loans and advances</b>	<b>8</b>	<b>139</b>	<b>223</b>	<b>–</b>	<b>9</b>	<b>379</b>
<b>Debt securities</b>						
Trading						
Designated at fair value	–	–	–	–	36	36
Available-for-sale	–	51	–	–	–	51
Loans and receivables	–	–	–	–	6	6
<b>Total gross debt securities</b>	<b>–</b>	<b>51</b>	<b>–</b>	<b>–</b>	<b>42</b>	<b>93</b>
Collateral held against debt securities	–	–	–	–	–	–
<b>Total net debt securities</b>	<b>–</b>	<b>51</b>	<b>–</b>	<b>–</b>	<b>42</b>	<b>93</b>
<b>Derivatives</b>						
Gross exposure	–	212	24	–	168	404
Collateral/netting <sup>1</sup>	–	(204)	(23)	–	(168)	(395)
<b>Total derivatives</b>	<b>–</b>	<b>8</b>	<b>1</b>	<b>–</b>	<b>–</b>	<b>9</b>
<b>Contingent liabilities and commitments</b>	<b>6</b>	<b>752</b>	<b>517</b>	<b>–</b>	<b>233</b>	<b>1,508</b>
<b>Total net exposure (on- and off-balance sheet)<sup>1</sup></b>	<b>14</b>	<b>950</b>	<b>741</b>	<b>–</b>	<b>284</b>	<b>1,989</b>
<b>Total balance sheet exposure</b>	<b>9</b>	<b>406</b>	<b>300</b>	<b>–</b>	<b>221</b>	<b>936</b>
As at 31 December 2012						
Net loans and advances	18	53	294	20	22	407
Net debt securities	–	51	–	–	119	170
Net derivatives	2	33	5	–	5	45
Contingent liabilities and commitments	9	1,254	311	1	75	1,650
<b>Total net exposure (on- and off-balance sheet)<sup>1</sup></b>	<b>29</b>	<b>1,391</b>	<b>610</b>	<b>21</b>	<b>221</b>	<b>2,272</b>

<sup>1</sup> Based on International Swaps and Derivatives Association netting

### Other selected eurozone countries

A summary analysis of the Group's exposure to France, Germany, the Netherlands and Luxembourg is also provided as

these countries are considered to have significant sovereign debt exposure to GIIPS.

	France \$million	Germany \$million	Netherlands \$million	Luxembourg \$million	Total \$million
Direct sovereign exposure	–	305	–	–	305
Banks	2,911	4,303	1,695	1,122	10,031
Other financial institutions	79	72	105	148	404
Other corporate	1,526	710	5,935	646	8,817
<b>Total net exposure as at 31 December 2013</b>	<b>4,516</b>	<b>5,390</b>	<b>7,735</b>	<b>1,916</b>	<b>19,557</b>
Total net exposure as at 31 December 2012	3,738	12,809	12,114	2,594	31,255

The Group's lending to these selected eurozone countries primarily takes the form of repurchase agreements, inter-bank loans and bonds. The substantial majority of the Group's total gross exposures to these selected countries have a tenor of less than three years, with over 57 per cent having a tenor of less than one year. The Group's exposure in Germany is primarily with the central bank.

Other than all these specifically identified countries, the Group's residual net exposure to the eurozone is \$3 billion, which primarily comprises bonds and export structured financing to banks and corporates.

### Country cross-border risk

Country cross-border risk is the risk that we will be unable to obtain payment from our customers or third parties on their contractual obligations as a result of certain actions taken by foreign governments, chiefly relating to convertibility and transferability of foreign currency.

The GRC is responsible for our country cross-border risk limits and delegates the setting and management of country limits to the Group Country Risk function.

The business and country chief executive officers manage exposures within these limits and policies. Countries designated as higher risk are subject to increased central monitoring.

Cross-border assets comprise loans and advances, interest-bearing deposits with other banks, trade and other bills, acceptances, amounts receivable under finance leases, derivatives, certificates of deposit and other negotiable paper, investment securities and formal commitments where the counterparty is resident in a country other than where the assets are recorded. Cross-border assets also include exposures to local residents denominated in currencies other than the local currency. Cross-border exposure also includes the value of commodity, aircraft and shipping assets owned by the Group that are held in a given country.

The profile of our country cross-border exposures greater than one per cent of total assets as at 31 December 2013 remained consistent with our strategic focus on core franchise countries, and with the scale of the larger markets that we operate in. Changes in the pace of economic activity had an impact on growth of cross-border exposure for certain territories.

Steady progress in the internationalisation of the renminbi continues to present opportunities, and contributed to the growth in cross-border exposure to China. Increased country cross-border exposure to China and Hong Kong also reflected an expansion of our corporate client base, increased trade finance activity and transactions with local and foreign banks in these markets. India remains a core territory for the Group where our competitive advantage positions us to offer US dollar facilities in the domestic market, and to facilitate overseas investment and trade flows supported by parent companies in India.

Reported cross-border exposure to Korea and Singapore reflects an emphasis on trade finance and short-term lending.

Cross-border exposure to the UAE decreased slightly during 2013, due to a decrease in trade financing transactions and longer-term exposures arising from financial markets activity.

Malaysia benefited from an increase in trade finance activities amidst rising intra-region trade flows with ASEAN member countries, China, India and Africa. Higher exposures in this market are also representative of an expanded corporate customer base and interbank money market positions booked in the United Kingdom and Singapore. Growth in underlying cross-border business activity in Indonesia was attributable to an expansion of the corporate client base in Indonesia and continued growth in corporate finance assets. Since 30 June 2013, in line with a change in accounting treatment, the country cross-border exposure to Indonesia arising from Permata, a joint venture in which the Group holds 44.56 per cent, is now counted at the value of the Group's equity in the joint venture.

The increase in exposure to Brazil is attributable to trade and investment flows with our core markets. Cross-border exposure to countries in which we do not have a major presence predominantly relates to short-dated money market treasury activities, which can change significantly from period to period. Exposure also represents global corporate business for customers with interests in our footprint. This explains our significant exposure in the US, Switzerland and Australia.

## Risk review continued

The table below, which is based on our internal cross-border country risk reporting requirements, shows cross-border exposures that exceed 1 per cent of total assets.

	2013			2012		
	Less than One year \$million	More than one year \$million	Total \$million	Less than One year \$million	More than one year \$million	Total \$million
China	32,220	14,449	46,669	23,809	11,783	35,592
India	12,566	18,295	30,861	12,230	18,200	30,430
US	19,001	7,287	26,288	22,485	6,730	29,215
Hong Kong	21,164	8,210	29,374	18,096	8,458	26,554
Singapore	19,328	5,749	25,077	16,561	5,508	22,069
United Arab Emirates	6,281	10,997	17,278	6,580	11,293	17,873
Korea	9,093	7,415	16,508	9,696	6,693	16,389
Switzerland	5,770	3,006	8,776	5,050	4,983	10,033
Indonesia <sup>1</sup>	3,959	4,958	8,917	4,094	4,410	8,504
Australia	1,943	5,919	7,862	1,456	4,189	5,645
Brazil	6,175	2,002	8,177	4,157	1,613	5,770
Malaysia	3,878	3,396	7,274	2,255	2,111	4,366

<sup>1</sup> Prior year has been restated to reflect the change in accounting treatment of cross-border exposure to Indonesia arising from Permata

### Market risk

We recognise market risk as the potential for loss of earnings or economic value due to adverse changes in financial market rates or prices. Our exposure to market risk arises principally from customer-driven transactions. The objective of our 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 agriculture
- Equity price risk: arising from changes in the prices of equities, equity indices, equity baskets and implied volatilities on related options

### Market risk governance

The GRC approves our market risk appetite taking account of market volatility, the range of products and asset classes, business volumes and transaction sizes.

The Group Market Risk Committee (GMRC), under authority delegated by the GRC, is responsible for setting VaR and stress loss triggers for market risk within our risk appetite. The GMRC is also responsible for policies and other standards for the control of market risk and overseeing their effective implementation. These policies cover both trading and non-trading books of the Group.

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 option's value.

### Value at risk

We measure 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 that applies recent historical market conditions to estimate the 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.

We apply two VaR methodologies:

- **Historical simulation:** involves the revaluation of all existing positions to reflect the effect of historically observed changes in market risk factors on the valuation of the current portfolio. This approach is applied for general market risk factors and from the fourth quarter of 2012 has been extended to cover also the majority of specific (credit spread) risk VaR
- **Monte Carlo simulation:** this methodology is similar to historical simulation but with considerably more input risk factor observations. These are generated by random sampling techniques, but the results retain the essential variability and correlations of historically observed risk factor changes. This approach is now applied for some of the specific (credit spread) risk VaR in relation to idiosyncratic exposures in credit markets

In both methods an historical observation period of one year is chosen and applied.

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

A small proportion of market risk generated by trading positions is not included in VaR or cannot be appropriately captured by VaR. This is recognised through a Risks-not-in-VaR framework which conservatively estimates and then capitalises these risks where material.

### Back testing

To assess their predictive power, VaR models are back tested against actual results. In 2013 there was one exception in the regulatory back testing (none in 2012). This is within the 'green zone' applied internationally to internal models by bank supervisors. The daily loss associated with the single 2013 back testing exception was 3 per cent in excess of the corresponding VaR, and came from a combination of unexceptional losses across interest rates, foreign exchange and commodities.

### Stress testing

Losses beyond the 97.5 per cent 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 weekly stress testing of market risk exposures to highlight the 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. 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.

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 the results of stress tests as part of its supervision of risk appetite.

Regular stress-test scenarios are applied to 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

The average levels of total VaR and non-trading VaR were higher in 2013 than 2012 by 14 per cent and 8 per cent respectively. This was primarily due to increased market volatility following comments by the chairman of the Federal Reserve on 22 May 2013 that it was considering tapering its quantitative easing programme.

The average level of trading VaR in 2013 was 23 per cent lower than 2012, with reduction in both interest rate and foreign exchange risk.

As at 31 December, 2013, the total VaR, non-trading VaR and trading VaR were up 31 per cent, 37 per cent and 14 per cent respectively as compared to at the end of 2012. This again was primarily due to the increase in market volatility observed after 22 May 2013 rather than increases in positions.

## Risk review continued

## Daily value at risk (VaR at 97.5%, one day)

By risk type	2013				2012			
	Average \$million	High <sup>4</sup> \$million	Low <sup>4</sup> \$million	Actual <sup>5</sup> \$million	Average \$million	High <sup>4</sup> \$million	Low <sup>4</sup> \$million	Actual <sup>5</sup> \$million
<b>Trading and non-trading</b>								
Interest rate risk <sup>2</sup>	25.0	37.4	18.2	23.3	25.8	31.1	20.7	24.4
Foreign exchange risk	4.2	7.6	2.3	7.0	4.8	7.7	2.3	4.2
Commodity risk	1.5	2.6	0.9	1.5	1.7	3.0	1.0	1.0
Equity risk	15.4	18.4	13.0	18.3	15.9	18.5	13.9	16.4
Total <sup>3</sup>	32.8	44.8	22.1	38.5	28.8	38.5	22.6	29.5
<b>Trading</b>								
Interest rate risk <sup>2</sup>	9.1	15.0	6.5	8.1	10.4	15.7	6.1	8.2
Foreign exchange risk	4.2	7.6	2.3	7.0	4.8	7.7	2.3	4.2
Commodity risk	1.5	2.6	0.9	1.5	1.7	3.0	1.0	1.0
Equity risk	1.5	2.1	1.1	1.8	1.5	2.8	0.6	1.9
Total <sup>3</sup>	9.8	14.9	7.3	9.1	12.8	20.8	6.8	8.0
<b>Non-trading</b>								
Interest rate risk <sup>2</sup>	22.6	34.3	16.9	22.1	22.2	26.7	17.8	21.4
Equity risk	14.9	17.6	12.4	17.4	16.7	18.0	14.4	16.9
Total <sup>3</sup>	29.2	34.9	19.6	32.7	27.1	33.5	21.9	23.9

The following table sets out how trading and non-trading VaR is distributed across the Group's products:

	2013				2012			
	Average \$million	High <sup>4</sup> \$million	Low <sup>4</sup> \$million	Actual <sup>5</sup> \$million	Average \$million	High <sup>4</sup> \$million	Low <sup>4</sup> \$million	Actual <sup>5</sup> \$million
<b>Trading and non-trading</b>	32.8	44.8	22.1	38.5	28.8	38.5	22.6	29.5
<b>Trading<sup>1</sup></b>								
Rates	6.4	12.2	3.5	5.5	7.9	12.0	4.6	7.1
Global Foreign Exchange	4.2	7.6	2.3	7.0	4.8	7.7	2.3	4.2
Credit & Capital Markets	3.1	4.3	2.2	3.4	4.2	7.0	2.7	3.7
Commodities	1.5	2.6	0.9	1.5	1.7	3.0	1.0	1.0
Equities	1.5	2.1	1.1	1.8	1.5	2.8	0.6	1.9
Total <sup>3</sup>	9.8	14.9	7.3	9.1	12.8	20.8	6.8	8.0
<b>Non-trading</b>								
Asset & Liability Management	22.2	33.9	17.1	21.2	20.9	25.8	16.3	20.2
Other Financial Markets	1.6	2.4	1.0	1.3	1.9	4.9	0.4	2.0
Listed private equity	14.9	17.6	12.4	17.4	16.7	18.0	14.4	16.9
Total <sup>3</sup>	29.2	34.9	19.6	32.7	27.1	33.5	21.9	23.9

1 Trading book for market risk is defined in accordance with the relevant section of the PRA Handbook's Prudential Sourcebook for Banks, Building Societies and Investment Firms. On 1 January 2014 this regulation will be superseded by the EU Capital Requirements Regulation (CRD IV/CRR). The PRA permits only certain types of financial instruments or arrangements to be included within the trading book, so this regulatory definition is narrower than the accounting definition of the trading book within IAS 39 *Financial Instruments: Recognition and Measurement*.

2 Interest rate risk VaR includes credit spread risk arising from securities held for trading or available-for-sale

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

4 Highest and lowest VaR for each risk factor are independent and usually occur on different days

5 Actual one-day VaR at year-end date

### Average daily income earned from market risk related activities<sup>1</sup>

	2013 \$million	2012 <sup>2</sup> \$million
<b>Trading</b>		
Interest rate risk <sup>2</sup>	4.7	5.2
Foreign exchange risk	5.5	5.1
Commodity risk	1.5	1.6
Equity risk	0.5	0.4
<b>Total</b>	<b>12.2</b>	<b>12.3</b>
<b>Non-trading</b>		
Interest rate risk	2.8	3.8
Equity risk	0.5	0.1
<b>Total</b>	<b>3.3</b>	<b>3.9</b>

1 Reflects total product income which is the sum of client income and own account income. Includes elements of trading income, interest income and other income which are generated from market risk related activities

2 Comparatives have been restated to exclude certain items of fee income

### Market risk VaR coverage

Interest rate risk from 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). ALM deals 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 therefore applied to these non-trading book exposures (except Group Treasury, see below) in the same way as for the trading book, including available-for-sale securities. Securities classed as loans and receivables or held to maturity are not reflected in VaR or stress tests since they are accounted on an amortised cost basis, so market price movements have limited effect on either profit and loss or reserves.

Structural foreign exchange currency risks are managed by Group Treasury, as described below, and are not included within Group VaR. Otherwise, the non-trading book does not run open foreign exchange positions.

Equity risk relating to non-listed Private Equity and strategic investments is not included within the VaR. It is separately managed through delegated limits for both investment and divestment, and is also subject to regular review by an investment committee. These are included as Level 3 assets as disclosed in note 15 to the financial statements.

### Mapping of market risk items to the balance sheet

Market risk contributes only 7 per cent of the Group's regulatory capital risk-weighted assets (RWA) requirement (see RWA table on page 132). As highlighted in the VaR disclosure, the majority of market risk is managed within Financial Markets, which spans both trading book and non-trading book. The non-trading equity market risk is generated by listed private equity holdings within Principal Finance. Group Treasury manages the market risk associated with debt and equity capital issuance. The disclosures below are subject to change. The Group is exploring the possibility of presenting quantitative information in the tables below.

	2013		
	Amounts as per financial statements \$million	Exposure to trading risk \$million	Exposure to non-trading risk \$million
<b>Financial assets</b>			
Derivative financial instruments	61,802	61,059	743
Loans and advances to banks	86,169	13,472	72,697
Loans and advances to customers	296,015	8,643	287,372
Debt securities	86,073	11,638	74,435
Treasury bills	31,404	5,151	26,253
Equities	6,800	1,348	5,452
Other assets	36,080	10,918	25,162
<b>Total</b>	<b>604,343</b>	<b>112,229</b>	<b>492,114</b>
<b>Financial liabilities</b>			
Deposits by banks	44,526	–	44,526
Customer accounts	390,971	–	390,971
Debt securities in issue	71,412	–	71,412
Derivative financial instruments	61,236	60,563	673
Short positions	5,293	5,139	154
<b>Total</b>	<b>573,438</b>	<b>65,702</b>	<b>507,736</b>

### Group Treasury market risk

Group Treasury raises debt and equity capital and the proceeds are invested within the Group as capital or placed with ALM. Interest rate risk arises due to the investment of equity and reserves into rate-sensitive assets, as well as some tenor mismatches between debt issuance and placements. This risk is measured as the impact on net interest income (NII) of an unexpected and instantaneous adverse parallel shift in rates and is monitored over a rolling one-year time horizon (see table on the following page).

This risk is monitored and controlled by the Group's Capital Management Committee (CMC).

## Risk review continued

### Group Treasury NII sensitivity to parallel shifts in yield curves

	2013 \$million	2012 \$million
+25 basis points	<b>33.9</b>	33.1
-25 basis points	<b>(33.9)</b>	(33.1)

Group Treasury also manages the structural foreign exchange risk that arises from non-US dollar currency net investments in branches and subsidiaries. The impact of foreign exchange movements is taken to reserves which form part of the capital base. The effect of exchange rate movements on the capital ratio is partially mitigated by the fact that both the value of these investments and the RWA in those currencies follow broadly the same exchange rate movements. With the approval of CMC, Group Treasury may hedge the net investments if it is anticipated that the capital ratio will be materially affected by exchange rate movements. As at 31 December 2013, the Group had taken net investment hedges (using a combination of derivative and non-derivative financial investments) of \$1,280 million (2012: \$971 million) to partly cover its exposure to the Korean won.

The table below sets out the principal structural foreign exchange exposures (net of investment hedges) of the Group:

	2013 \$million	2012 \$million
Hong Kong dollar	<b>7,079</b>	6,619
Korean won	<b>5,194</b>	6,301
Indian rupee	<b>3,793</b>	4,025
Taiwanese dollar	<b>2,853</b>	2,946
Chinese renminbi	<b>3,084</b>	2,245
Singapore dollar	<b>2,925</b>	1,195
Thai baht	<b>1,640</b>	1,662
UAE dirham	<b>1,766</b>	1,598
Malaysian ringgit	<b>1,650</b>	1,360
Indonesian rupiah	<b>993</b>	1,164
Pakistani rupee	<b>530</b>	586
Other	<b>4,010</b>	3,648
	<b>35,517</b>	33,349

An analysis has been performed on these exposures to assess the impact of a 1 per cent change in the US dollar exchange rates adjusted to incorporate the impacts of correlations of these currencies to the US dollar. The impact on the positions above would be an increase or decrease in value of \$247 million (2012: \$255 million). Changes in the valuation of these positions are taken to reserves.

### Derivatives

Derivatives are contracts with characteristics and value derived from underlying financial instruments, interest and exchange rates or indices. They include futures, forwards, swaps and options transactions. Derivatives are an important risk management tool for banks and their customers because they can be used to manage market price risk. The market risk of derivatives is managed in essentially the same way as other traded products.

Our derivative transactions are principally in instruments where the mark-to-market values are readily determinable by reference to independent prices and valuation quotes.

We enter into derivative contracts in the normal course of business to meet customer requirements and to manage our exposure to fluctuations in market price movements.

Derivatives are carried at fair value and shown in the balance sheet as separate totals of assets and liabilities. Recognition of fair value gains and losses depends on whether the derivatives are classified as trading or held for hedging purposes.

The credit risk arising from all financial derivatives is managed as part of the overall lending limits to financial institutions and corporate customers. This is covered in more detail in the Credit risk section.

### Hedging

Countries within the Group use futures, forwards, swaps and options transactions primarily to mitigate interest and foreign exchange risk arising from their in-country exposures. The Group also uses futures, forwards and options to hedge foreign exchange and interest rate risk.

In accounting terms under IAS 39, hedges are classified into three types: fair value hedges, predominantly where fixed rates of interest or foreign exchange are exchanged for floating rates; cash flow hedges, predominantly where variable rates of interest or foreign exchange are exchanged for fixed rates; and hedges of net investments in overseas operations translated to the parent company's functional currency, US dollars.

The notional value of interest rate swaps for the purpose of fair value hedging increased by \$6 billion as at 31 December 2013 compared to 31 December 2012. Fair value hedges largely hedge the interest-rate risk on our sub-debt and debt securities in the UK which form part of the Group's liquidity buffers and are used to manage fixed-rate securities and loan portfolios in our key markets. Currency and interest rate swaps used for cash flow hedging have increased by \$2 billion as at 31 December 2013 compared to 31 December 2012. The increase of cash flow hedges is attributable to floating-rate loans, bonds and deposits mainly in Korea and Singapore.

We may also, under certain individually approved circumstances, enter into economic hedges that do not qualify for IAS 39 hedge accounting treatment, and which are accordingly marked to market through the profit and loss account, thereby creating an accounting asymmetry. These are entered into primarily to ensure that residual interest rate and foreign exchange risks are being effectively managed. Current economic hedge relationships include hedging the foreign exchange risk on certain debt issuances and on other monetary instruments held in currencies other than US dollars.

### Liquidity risk

Liquidity risk is the risk that we either do not have sufficient financial resources available to meet our obligations as they fall due, or can only access these financial resources at excessive cost.

It is our policy to maintain adequate liquidity at all times, in all geographic locations and for all currencies, and hence to be in a position to meet obligations as they fall due. We manage liquidity risk both on a short-term and structural basis. In the short term, our focus is on ensuring that the cash flow demands can be met where required. In the medium term, the focus is on ensuring that the balance sheet remains structurally sound and is aligned to our strategy.

The GALCO is the responsible governing body that approves our liquidity management policies. The Liquidity Management Committee (LMC) receives authority from the GALCO and is responsible for setting or delegating authority to set liquidity limits and proposing liquidity risk policies. Liquidity in each country is managed by the country ALCO within pre-defined liquidity limits and in compliance with Group liquidity policies and practices, as well as local regulatory requirements. GMR and Group Treasury propose and oversee the implementation of policies and other controls relating to the above risks.

We seek to manage our liquidity prudently in all geographical locations and for all currencies. Exceptional market events could impact us adversely, thereby potentially affecting our ability to fulfil our obligations as they fall due. The principal uncertainties for liquidity risk are that customers withdraw their deposits at a substantially faster rate than expected, or that asset repayments are not received on the expected maturity date. To mitigate these uncertainties, our funding base is diverse and largely customer-driven, while customer assets are of short tenor (50 per cent of assets have a contractual maturity of less than one year). In addition we have contingency funding plans including a portfolio of liquid assets that can be realised if a liquidity stress occurs, as well as ready access to wholesale funds under normal market conditions.

### Policies and procedures

Our liquidity risk management framework requires limits to be set and monitored. There are limits on:

- The local and foreign currency cash flow gaps
- The level of external wholesale borrowing to ensure that the size of this funding is proportionate to the local market and our local operations
- The level of borrowing from other countries within the Group to contain the risk of contagion from one country to another
- Commitments and contingents to ensure that sufficient funds are available in the event of drawdown
- The advances-to-deposits ratio to ensure that commercial advances are funded by stable sources and that customer lending is funded by customer deposits
- The amount of assets that may be funded from other currencies
- The amount of medium-term assets that have to be funded by medium-term funding

In addition, we prescribe a liquidity stress scenario that includes accelerated withdrawal of deposits over a period of time. Each country has to ensure on a daily basis that cash inflows would exceed outflows under such a scenario.

All limits are reviewed at least annually, and more frequently if required, to ensure that they remain relevant given market conditions and business strategy. Compliance with limits is monitored independently on a regular basis by GMR and Finance. Limit excesses are escalated and approved under a delegated authority structure and reported to the ALCO. Excesses are also reported monthly to the LMC which provides further oversight.

We have significant levels of marketable securities, including government securities that can be monetised or pledged as collateral in the event of a liquidity stress. In addition, a Funding Crisis Response and Recovery Plan (FCRRP), reviewed and approved annually, is maintained by Group Treasury. The FCRRP strengthens existing governance processes by providing a broad set of Early Warning Indicators, an escalation framework and a set of management actions that could be effectively implemented by the appropriate level of senior management in the event of a liquidity stress. A similar plan is maintained within each country.

## Risk review continued

### Primary sources of funding

A substantial portion of our assets are funded by customer deposits, largely made up of current and savings accounts. Of total customer deposits, 42.5 per cent are retail deposits and 57.5 per cent wholesale customer deposits (31 December 2012: retail 43.1 per cent, wholesale customer deposits 56.9 per cent). Wholesale customer deposits are widely diversified by type and maturity and represent a stable source of funds for the Group. In addition, the short-term nature of our wholesale assets results in a balance sheet that is funded conservatively (64 per cent of wholesale banking loans and advances have a contractual maturity of less than one year).

The ALCO in each country monitors trends in the balance sheet and ensures that any concerns that might impact the stability of these customer deposits are addressed effectively. The ALCO also reviews balance sheet plans to ensure that projected asset growth is matched by growth in customer deposits.

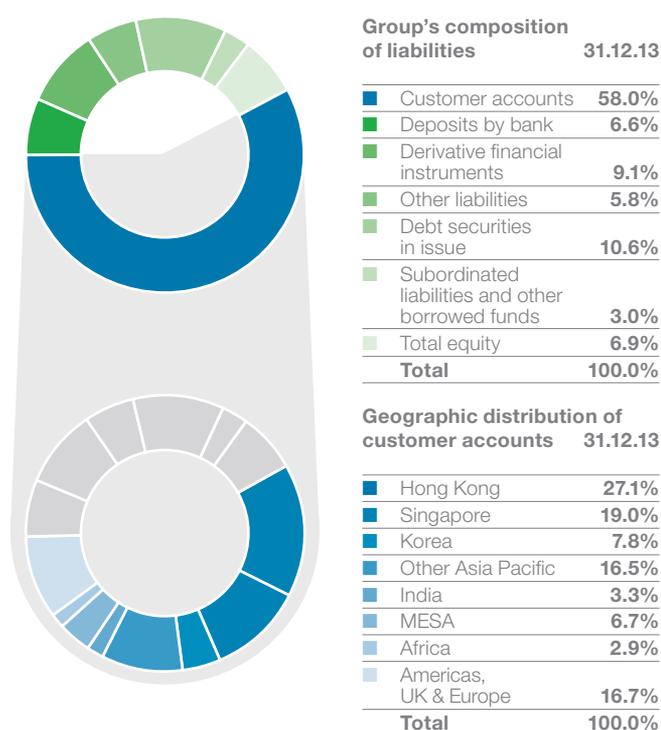
Customer assets are as far as possible funded in the same currency. Where mismatches arise, they are controlled by limits in each country on the amount of foreign currency that can be swapped to local currency and vice versa. Such limits are therefore a means of controlling reliance on foreign exchange markets, which minimises the risk that obligations could not be met in the required currency in the event that access to foreign exchange markets becomes restricted. In sizing the limits we consider a range of factors including:

- The size and depth of local Foreign Exchange markets
- The local regulatory environment, particularly the presence or risk of imposition of foreign exchange controls

We maintain access to wholesale funding markets in all major financial centres and countries in which we operate. This seeks to ensure that we have market intelligence, maintain stable funding lines and can obtain optimal pricing when we perform our interest rate risk management activities.

Debt refinancing levels are low. In the next 12 months approximately \$6.7 billion of the Group's senior and subordinated debt is falling due for repayment either contractually or callable by the Group. Further details of the Group's senior and subordinated debt by geography are provided in note 2 to the financial statements on page 248.

The table below shows the diversity of funding by type and by geography. Customer deposits make up 58 per cent of total liabilities as at 31 December 2013, the majority of which are current accounts, savings accounts and time deposits. Our largest customer deposit base by geography is Hong Kong, which holds 27.1 per cent of Group customer accounts.



## Encumbered assets

Encumbered assets represent those on-balance sheet assets pledged or used as collateral in respect of certain Group liabilities. Hong Kong government certificates of indebtedness which secure the equivalent amount of Hong Kong currency notes in circulation, and cash collateral pledged against

derivatives are classified as encumbered and included within other assets. Taken together, these encumbered assets represent 3.1 per cent (2012: 2.2 per cent) of total assets, continuing the Group's historical low level of encumbrance.

The following table provides a reconciliation of the Group's encumbered assets to total assets.

	2013				2012			
	Unencumbered assets		Encumbered assets \$million	Total assets \$million	Unencumbered assets		Encumbered assets \$million	Total assets \$million
	Not readily available to secure funding \$million	Readily available to secure funding \$million			Not readily available to secure funding \$million	Readily available to secure funding \$million		
Cash and balances at central banks	9,946	44,588	–	54,534	9,336	51,201	–	60,537
Derivative financial instruments	61,802	–	–	61,802	49,495	–	–	49,495
Loans and advances to banks	46,917	36,890	2,362	86,169	37,456	30,392	723	68,571
Loans and advances to customers	294,884	–	1,131	296,015	282,238	–	2,378	284,616
Investment securities	48,699	72,062	3,516	124,277	48,910	70,041	1,598	120,549
Other assets	19,870	–	13,700	33,570	19,289	–	9,259	28,548
Current tax assets	234	–	–	234	215	–	–	215
Prepayments and accrued income	2,510	–	–	2,510	2,552	–	–	2,552
Interests in associates	1,767	–	–	1,767	1,684	–	–	1,684
Goodwill and intangible assets	6,070	–	–	6,070	7,145	–	–	7,145
Property, plant and equipment	6,903	–	–	6,903	6,620	–	–	6,620
Deferred tax assets	529	–	–	529	676	–	–	676
<b>Total</b>	<b>500,131</b>	<b>153,540</b>	<b>20,709</b>	<b>674,380</b>	<b>465,616</b>	<b>151,634</b>	<b>13,958</b>	<b>631,208</b>

In addition to the above, the Group received \$17,835 million (2012: \$10,949 million) as collateral under reverse repurchase agreements that was eligible for repledging. Of this the Group repledged \$1,804 million (2012: \$1,378 million) under repurchase agreements.

## Readily available to secure funding

Readily available to secure funding includes unencumbered assets that can be sold outright or under repo within a few days, in line with regulatory definitions. The Group's readily available assets comprise cash and balances at central banks, loans and advances to banks and investment securities.

Assets classified as not readily available to secure funding include:

- Assets which have no restrictions for funding and collateral purposes, such as loans and advances to customers, which are not acquired or originated with the intent of generating liquidity value
- Assets that cannot be encumbered, such as derivatives, goodwill and intangible and deferred tax assets

## Liquidity metrics

Key liquidity metrics are monitored on a regular basis, both on a country basis and in aggregate across the Group. These include:

### Advances-to-deposits ratio

This is defined as the ratio of total loans and advances to customers relative to total customer deposits. A low advances-to-deposits ratio demonstrates that customer deposits exceed customer loans resulting from emphasis placed on generating a high level of stable funding from customers.

	2013 \$million	2012 \$million
Loans and advances to customers <sup>1</sup>	296,015	284,616
Customer accounts <sup>2</sup>	390,971	385,117
	%	%
Advances-to-deposits ratio	75.7	73.9

1 See note 19 to the financial statements on page 277

2 See note 30 to the financial statements on page 289

## Risk review continued

### Liquid asset ratio (LAR)

The liquid asset ratio (LAR) ensures that a proportion of the Group's total assets are held in liquid assets, on a consolidated currency basis.

Liquid assets are the total cash (less restricted balances), treasury bills, loans and advances to banks (including net unsecured interbank and trade finance) and debt securities (less illiquid securities). Illiquid securities are debt securities

that cannot be sold or exchanged easily for cash without substantial loss in value.

The Group LAR remained at similar levels as in the previous year, reflecting an increase in liquid assets holdings to match balance sheet growth.

The following table sets an analysis of the Group's liquid assets by geographic region:

	2013								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Total \$million
Cash and balances at central banks	2,099	2,074	887	12,716	700	2,439	1,621	31,998	54,534
Restricted balances	(6)	(2,028)	(542)	(4,361)	(478)	(1,591)	(644)	(296)	(9,946)
Loans and advances to banks – net of non-performing loans	17,652	4,501	4,192	14,804	399	2,273	742	41,499	86,062
Deposits by banks	(2,091)	(4,792)	(1,479)	(6,926)	(459)	(1,574)	(566)	(26,639)	(44,526)
Treasury bills	10,244	3,627	6,794	1,618	2,167	1,620	2,777	2,557	31,404
Debt securities	20,273	11,391	5,271	15,179	2,495	4,387	2,803	24,274	86,073
of which :									
Issued by governments	4,256	2,988	3,664	12,590	1,760	3,784	1,307	3,525	33,874
Issued by banks	11,207	3,750	935	1,560	327	265	267	13,860	32,171
Issued by corporate and other entities	4,810	4,653	672	1,029	408	338	1,229	6,889	20,028
Illiquid securities and other assets	(170)	(348)	–	–	(769)	(43)	–	(1,051)	(2,381)
<b>Liquid assets</b>	<b>48,001</b>	<b>14,425</b>	<b>15,123</b>	<b>33,030</b>	<b>4,055</b>	<b>7,511</b>	<b>6,733</b>	<b>72,342</b>	<b>201,220</b>
<b>Total assets</b>	<b>141,261</b>	<b>117,296</b>	<b>62,018</b>	<b>110,753</b>	<b>22,747</b>	<b>41,914</b>	<b>19,346</b>	<b>159,045</b>	<b>674,380</b>
<b>Liquid assets to total asset ratio (%)</b>	<b>34.0</b>	<b>12.3</b>	<b>24.4</b>	<b>29.8</b>	<b>17.8</b>	<b>17.9</b>	<b>34.8</b>	<b>45.5</b>	<b>29.8</b>

	2012								
	Hong Kong \$million	Singapore \$million	Korea \$million	Other Asia Pacific \$million	India \$million	Middle East & Other S Asia \$million	Africa \$million	Americas, UK & Europe \$million	Group \$million
Cash and balances at central banks	1,880	1,932	494	11,783	845	2,138	1,463	40,002	60,537
Restricted balances	(4)	(1,759)	(182)	(4,477)	(571)	(1,483)	(508)	(352)	(9,336)
Loans and advances to banks – net of impairment	19,351	6,205	4,633	8,047	571	3,075	378	26,105	68,365
Deposits by banks	(1,585)	(2,005)	(1,769)	(5,628)	(441)	(1,934)	(540)	(23,493)	(37,395)
Treasury bills	5,454	4,102	9,119	2,737	1,996	1,928	2,260	2,099	29,695
Debt securities	21,207	11,352	4,299	14,303	3,617	4,472	2,810	22,362	84,422
of which :									
Issued by governments	4,916	3,152	2,194	11,961	2,651	3,721	1,134	3,959	33,688
Issued by banks	12,537	4,453	1,083	1,497	366	561	319	11,445	32,261
Issued by corporate and other entities	3,754	3,747	1,022	845	600	190	1,357	6,958	18,473
Illiquid securities and other assets	(357)	(655)	–	(320)	(828)	(27)	–	(1,353)	(3,540)
<b>Liquid assets</b>	<b>45,946</b>	<b>19,172</b>	<b>16,594</b>	<b>26,445</b>	<b>5,189</b>	<b>8,169</b>	<b>5,863</b>	<b>65,370</b>	<b>192,748</b>
<b>Total assets</b>	<b>129,821</b>	<b>111,997</b>	<b>69,173</b>	<b>106,406</b>	<b>23,812</b>	<b>40,779</b>	<b>17,495</b>	<b>131,725</b>	<b>631,208</b>
<b>Liquid assets to total asset ratio (%)</b>	<b>35.4</b>	<b>17.1</b>	<b>24.0</b>	<b>24.9</b>	<b>21.8</b>	<b>20.0</b>	<b>33.5</b>	<b>49.6</b>	<b>30.5</b>

### Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR)

The Group monitors the LCR and NSFR in line with the Bank of International Settlements' BCBS238 guidelines. The Group already meets the Basel III requirements for both the NSFR and the LCR, well ahead of the required implementation date. As at 31 December 2013 both Group LCR and NSFR were between 110 and 120 per cent.

### Liquidity management – stress scenarios

The Group conducts a range of liquidity related stress analyses, both for internal and regulatory purposes.

Internally, three stress tests are run routinely: an acute eight-day name-specific stress, a 30-day market-wide stress and a more chronic 90-day combined name-specific and market-wide stress. Liquidity and funding risks are also considered as part of the Group's wider periodic scenario analysis, including reverse stress testing. In addition, the Group runs a range of stress tests to meet regulatory requirements, as defined by the PRA and local regulators.

The eight-day stress is specifically designed to determine a minimum quantity of marketable securities that must be held at all times in all countries. This stress is computed daily, and the minimum marketable securities requirement is observed daily. This is intended to ensure that, in the unlikely event of an acute loss of confidence in the Group or any individual entity within it, there is sufficient time to take corrective action. Every country must pass, on a stand-alone basis, with no presumption of Group support. As at 31 December 2013 all countries passed the stress test.

The Group's resilience to market-wide disruption, such as loss of interbank money or foreign exchange markets, is tested using the 30-day market-wide stress scenario, and is monitored by country ALCOs.

Finally, the 90-day stress test considers more prolonged stresses that affect markets across a number of the Group's main footprint countries and in which the Group itself may come under some sustained pressure. This pressure may be unwarranted or may be because the Group is inextricably linked with those markets/countries. This stress is managed at a Group rather than individual country level. It tests the adequacy of contingency funding arrangements beyond the marketable securities held to cover the eight-day stress, including the ability to support countries from elsewhere in the Group.

Our country stress testing considers potential currency mismatches between outflows and inflows. Particular focus is paid to mismatches in less liquid currencies and those which are not freely convertible. Mismatches are controlled by management action triggers set by Group Market Risk (GMR). Group-wide stress tests also consider the portability of liquidity surpluses between Group entities, taking account of regulatory restrictions on large and intra-group exposures.

Standard Chartered Bank's credit ratings as at end of December 2013 were AA- (Fitch), A+ (S&P) and A1 (Moody's). A downgrade in credit rating would increase derivative collateral requirements and outflows due to conditional liabilities. The impact of a two-notch downgrade results in an estimated outflow of \$1.2 billion.

## Risk review continued

### Liquidity analysis of the Group's balance sheet

#### Contractual maturity of assets and liabilities

The tables below analyses assets and liabilities into relevant maturity groupings based on the remaining period to the contractual maturity date as at the balance sheet date. The Group seeks to manage its liabilities both on a contractual and behavioural basis primarily by matching the maturity profile of assets and liabilities.

The tables indicate the relatively short-term nature of our asset book; over half of total assets mature within one year, and of these approximately 70 per cent mature within three months. The net funding surplus evident in the one month or less bucket is largely reflective of on-demand customer liabilities. The net mismatch between assets and liabilities (or net gap) with a contractual maturity greater than one month is managed conservatively with internal limits.

	2013								
	One month or less \$million	Between one month and three months \$million	Between three months and six months \$million	Between six months and nine months \$million	Between nine months and one year \$million	Between one year and two years \$million	Between two years and five years \$million	More than five years and undated \$million	Total \$million
<b>Assets</b>									
Cash and balances at central banks	44,309	264	–	–	–	–	–	9,961	54,534
Derivative financial instruments	6,820	7,376	8,403	4,514	3,612	9,085	13,453	8,539	61,802
Loans and advances to banks <sup>1</sup>	36,890	21,705	13,349	5,543	5,153	1,647	1,798	84	86,169
Loans and advances to customers <sup>1</sup>	73,036	29,469	23,541	10,772	11,677	22,549	48,297	76,674	296,015
Investment securities	11,496	13,948	12,567	7,252	11,241	21,052	30,844	15,877	124,277
Other assets	14,677	10,964	2,316	44	318	35	201	23,028	51,583
<b>Total assets</b>	<b>187,228</b>	<b>83,726</b>	<b>60,176</b>	<b>28,125</b>	<b>32,001</b>	<b>54,368</b>	<b>94,593</b>	<b>134,163</b>	<b>674,380</b>
<b>Liabilities</b>									
Deposits by banks <sup>1</sup>	36,084	4,873	1,489	394	276	173	521	716	44,526
Customer accounts <sup>1</sup>	279,638	48,630	26,473	12,864	10,793	2,574	6,310	3,689	390,971
Derivative financial instruments	6,922	7,306	9,405	4,195	3,418	8,480	12,802	8,708	61,236
Senior debt	478	291	3,485	430	19	7,020	10,121	3,335	25,179
Other debt securities in issue <sup>1</sup>	10,114	13,252	11,516	1,422	1,938	1,141	1,992	4,858	46,233
Other liabilities	12,759	8,665	3,260	962	432	544	1,117	11,258	38,997
Subordinated liabilities and other borrowed funds	–	–	–	–	–	6	4,785	15,606	20,397
<b>Total liabilities</b>	<b>345,995</b>	<b>83,017</b>	<b>55,628</b>	<b>20,267</b>	<b>16,876</b>	<b>19,938</b>	<b>37,648</b>	<b>48,170</b>	<b>627,539</b>
<b>Net liquidity gap</b>	<b>(158,767)</b>	<b>709</b>	<b>4,548</b>	<b>7,858</b>	<b>15,125</b>	<b>34,430</b>	<b>56,945</b>	<b>85,993</b>	<b>46,841</b>

<sup>1</sup> Amounts include financial instruments held at fair value through profit or loss (see note 15 on page 258)

	2012								Total \$million
	One month or less \$million	Between one month and three months \$million	Between three months and six months \$million	Between six months and nine months \$million	Between nine months and one year \$million	Between one year and two years \$million	Between two years and five years \$million	More than five years and undated \$million	
<b>Assets</b>									
Cash and balances at central banks	51,201	–	–	–	–	–	–	9,336	60,537
Derivative financial instruments	4,787	5,705	4,365	3,079	2,079	6,762	12,272	10,446	49,495
Loans and advances to banks <sup>1</sup>	30,392	16,313	6,275	3,514	9,127	1,635	1,125	190	68,571
Loans and advances to customers <sup>1</sup>	61,261	28,393	21,819	12,678	9,796	20,566	49,221	80,882	284,616
Investment securities <sup>1</sup>	8,205	16,578	13,609	7,520	12,912	15,695	31,575	14,455	120,549
Other assets	9,663	12,529	1,901	602	277	82	207	22,179	47,440
<b>Total assets</b>	<b>165,509</b>	<b>79,518</b>	<b>47,969</b>	<b>27,393</b>	<b>34,191</b>	<b>44,740</b>	<b>94,400</b>	<b>137,488</b>	<b>631,208</b>
<b>Liabilities</b>									
Deposits by banks <sup>1</sup>	32,869	2,541	1,023	114	157	159	438	94	37,395
Customer accounts <sup>1</sup>	264,949	49,271	29,693	10,605	12,674	6,045	4,828	7,052	385,117
Derivative financial instruments	4,887	5,190	4,685	3,355	2,110	6,149	11,418	9,398	47,192
Senior debt <sup>1</sup>	279	1,339	1,732	768	213	5,173	10,366	1,786	21,656
Other debt securities in issue <sup>1</sup>	7,961	15,862	4,889	2,278	2,723	1,693	1,454	2,724	39,584
Other liabilities	9,671	7,273	3,500	1,360	528	715	889	11,685	35,621
Subordinated liabilities and other borrowed funds	488	129	–	–	944	–	3,496	13,531	18,588
<b>Total liabilities</b>	<b>321,104</b>	<b>81,605</b>	<b>45,522</b>	<b>18,480</b>	<b>19,349</b>	<b>19,934</b>	<b>32,889</b>	<b>46,270</b>	<b>585,153</b>
<b>Net liquidity gap</b>	<b>(155,595)</b>	<b>(2,087)</b>	<b>2,447</b>	<b>8,913</b>	<b>14,842</b>	<b>24,806</b>	<b>61,511</b>	<b>91,218</b>	<b>46,055</b>

<sup>1</sup> Amounts include financial instruments held at fair value through profit or loss (see note 15 on page 258)

### Behavioural maturity of financial assets and liabilities

The cash flows presented on page 120 reflect the cash flows which will be contractually payable over the residual maturity of the instruments. However, contractual maturities do not necessarily reflect the timing of actual repayments or cash flow. In practice, certain asset and liability instruments behave differently from their contractual terms and, especially for

short-term customer accounts, extend to a longer period than their contractual maturity. Such behavioural adjustments are identified in each country through analysis of the historic behaviour of balances. The Group's expectation of when assets and liabilities are likely to become due is provided in the table below:

	2013								Total \$million
	One month or less \$million	Between one month and three months \$million	Between three months and six months \$million	Between six months and nine months \$million	Between nine months and one year \$million	Between one year and two years \$million	Between two years and five years \$million	More than five years and undated \$million	
<b>Assets</b>									
Loans and advances to banks <sup>1</sup>	36,990	21,856	13,342	5,532	5,072	1,554	1,665	158	86,169
Loans and advances to customers <sup>1</sup>	55,193	27,724	18,204	8,491	17,991	21,239	88,092	59,081	296,015
<b>Total loans and advances</b>	<b>92,183</b>	<b>49,580</b>	<b>31,546</b>	<b>14,023</b>	<b>23,063</b>	<b>22,793</b>	<b>89,757</b>	<b>59,239</b>	<b>382,184</b>
<b>Liabilities</b>									
Deposits by banks <sup>1</sup>	35,804	5,063	1,472	427	318	138	597	707	44,526
Customer accounts <sup>1</sup>	131,684	28,574	16,700	11,055	23,572	115,686	58,868	4,832	390,971
<b>Total deposits</b>	<b>167,488</b>	<b>33,637</b>	<b>18,172</b>	<b>11,482</b>	<b>23,890</b>	<b>115,824</b>	<b>59,465</b>	<b>5,539</b>	<b>435,497</b>
<b>Net gap</b>	<b>(75,305)</b>	<b>15,943</b>	<b>13,374</b>	<b>2,541</b>	<b>(827)</b>	<b>(93,031)</b>	<b>30,292</b>	<b>53,700</b>	<b>(53,313)</b>

<sup>1</sup> Amounts include financial instruments held at fair value through profit or loss (see note 15 on page 258)

## Risk review continued

	2012								Total \$million
	One month or less \$million	Between one month and three months \$million	Between three months and six months \$million	Between six months and nine months \$million	Between nine months and one year \$million	Between one year and two years \$million	Between two years and five years \$million	More than five years and undated \$million	
<b>Assets</b>									
Loans and advances to banks <sup>1</sup>	36,152	13,239	9,299	3,245	3,359	1,196	1,910	171	68,571
Loans and advances to customers <sup>1</sup>	56,217	25,101	21,296	16,201	12,409	2,093	86,169	65,130	284,616
Total loans and advances	92,369	38,340	30,595	19,446	15,768	3,289	88,079	65,301	353,187
<b>Liabilities</b>									
Deposits by banks <sup>1</sup>	32,543	2,722	1,139	125	187	304	303	72	37,395
Customer accounts <sup>1</sup>	123,574	37,998	26,839	11,732	26,521	106,071	43,885	8,497	385,117
Total deposits	156,117	40,720	27,978	11,857	26,708	106,375	44,188	8,569	422,512
Net gap	(63,748)	(2,380)	2,617	7,589	(10,940)	(103,086)	43,891	56,732	(69,325)

<sup>1</sup> Amounts include financial instruments held at fair value through profit or loss (see note 15 on page 258)

#### Financial liabilities (excluding derivative financial instruments) on an undiscounted basis

The following table analyses the contractual cash flows payable for the Group's financial liabilities by remaining contractual maturities on an undiscounted basis. The financial liability balances in the table below will not agree to the balances reported in the consolidated balance sheet as the table incorporates all contractual cash flows, on an undiscounted basis, relating to both principal and interest payments.

Within the 'More than five years and undated' maturity band are undated financial liabilities of \$3,124 million (2012: \$3,241 million), all of which relate to subordinated debt, on which interest payments are not included as this information would not be meaningful given the instruments are undated. Interest payments on these instruments are included within the relevant maturities up to five years.

	2013								Total \$million
	One month or less \$million	Between one month and three months \$million	Between three months and six months \$million	Between six months and nine months \$million	Between nine months and one year \$million	Between one year and two years \$million	Between two years and five years \$million	More than five years and undated \$million	
Deposits by banks	36,084	4,873	1,489	394	276	269	588	729	44,702
Customer accounts	279,638	48,630	26,473	12,864	10,793	2,820	6,972	4,359	392,549
Debt securities in issue	10,592	13,543	15,001	4,020	3,348	9,625	12,113	8,920	77,162
Subordinated liabilities and other borrowed funds	8	243	273	278	256	998	6,504	28,787	37,347
Other liabilities	12,759	8,665	3,260	962	432	544	1,117	11,258	38,997
Total liabilities	339,081	75,954	46,496	18,518	15,105	14,256	27,294	54,053	590,757

	2012								Total \$million
	One month or less \$million	Between one month and three months \$million	Between three months and six months \$million	Between six months and nine months \$million	Between nine months and one year \$million	Between one year and two years \$million	Between two years and five years \$million	More than five years and undated \$million	
Deposits by banks	32,869	2,585	1,062	148	187	237	442	94	37,624
Customer accounts	264,949	49,271	29,693	10,605	12,674	7,219	5,002	8,021	387,434
Debt securities in issue	8,334	17,201	6,836	3,046	3,460	8,718	13,308	4,658	65,561
Subordinated liabilities and other borrowed funds	488	224	228	83	944	273	4,958	26,253	33,451
Other liabilities	9,671	7,273	3,500	1,360	528	715	889	11,685	35,621
Total liabilities	316,311	76,554	41,319	15,242	17,793	17,162	24,599	50,711	559,691

### Derivatives financial instruments on an undiscounted basis

Derivative financial instruments include those net settled derivative contracts in a net liability position, together with the pay leg of gross settled contracts regardless of whether

the overall contract is in an asset of liability position. The receiving leg is not shown in this table and as a result the derivative amounts in this table are inflated by their exclusion. Derivative financial instruments make up 9 per cent of the Group balance sheet.

	2013								Total \$million
	One month or less \$million	Between one month and three months \$million	Between three months and six months \$million	Between six months and nine months \$million	Between nine months and one year \$million	Between one year and two years \$million	Between two years and five years \$million	More than five years and undated \$million	
Derivative financial instruments	204,012	174,783	149,101	98,972	88,696	110,913	142,221	82,249	1,050,947
	2012								Total \$million
	One month or less \$million	Between one month and three months \$million	Between three months and six months \$million	Between six months and nine months \$million	Between nine months and one year \$million	Between one year and two years \$million	Between two years and five years \$million	More than five years and undated \$million	
Derivative financial instruments	230,192	215,322	193,576	45,166	35,069	208,875	13,449	46,977	988,626

### Operational risk

Operational risk is the potential for loss arising from the failure of people, process or technology or the impact of external events. Operational risk exposures are managed through a consistent set of management processes that drive risk identification, assessment, control and monitoring. We seek to control operational risks to ensure that operational losses do not cause material damage to the Group's franchise.

Operational risks can arise from all business lines and from all activities carried out by the Group. We seek to systematically identify and manage operational risk by segmenting all the Group's activities into manageable units. Each of these has an owner who is responsible for identifying and managing all the

risks that arise from those activities as an integral part of their first line of defence responsibilities. Products and services offered to clients and customers in all our markets are also assessed and authorised in accordance with product governance procedures.

Although operational risk exposures can take many varied forms, we seek to manage them in accordance with standards that drive systematic risk identification, assessment, control and monitoring. These standards are challenged and reviewed regularly to ensure their ongoing effectiveness. To support the systematic identification of material operational risk exposures associated with a given process, we classify them into the following types:

Operational risk subtypes	
<b>Processing failure</b>	Potential for loss due to failure of an established process or to a process design weakness
<b>External rules and regulations</b>	Potential for actual or opportunity loss due to failure to comply with laws or regulations, or as a result of changes in laws or regulations or in their interpretation or application
<b>Liability</b>	Potential for loss or sanction due to a legal claim against any part of the Group or individuals within the Group
<b>Legal enforceability</b>	Potential for loss due to failure to protect legally the Group's interests or from difficulty in enforcing the Group's rights
<b>Damage to assets</b>	Potential for loss or damage to physical assets and other property from natural disaster and other events
<b>Safety and security</b>	Potential for loss or damage to health or safety of staff, customers or third parties arising from internal failures or the effects of external events
<b>Internal crime or dishonesty</b>	Potential for loss due to action by staff that is intended to defraud, misappropriate property or to circumvent the law or Company policy
<b>External crime</b>	Potential for loss due to criminal acts by external parties such as fraud, theft and other criminal activity including internet crime
<b>Model</b>	Potential for loss due to a significant discrepancy between the output of risk measurement models and actual experience

## Risk review continued

Identified operational risk exposures are rated 'Low', 'Medium', 'High' or 'Very High' in accordance with defined risk assessment criteria. Risks which are outside of set materiality thresholds receive a differential level of management attention and are reported to senior management and risk committees up to Board level. Significant external events or internal failures which have occurred are analysed to identify the root cause of any failure for remediation and future mitigation. Actual operational losses are systematically recorded.

In the second line of defence, Group Operational Risk is responsible for setting and maintaining the standards for operational risk management and control. In addition, specialist operational risk control owners have responsibility for the control of operational risk arising from the management of the following activities Group-wide: people, technology, vendor, property, security, accounting and financial control, tax, legal processes, corporate authorities and structure and regulatory compliance, as described further in the table below.

Operational risk control area	
<b>People management</b>	Recruiting, developing, compensating and managing employees
<b>Technology management</b>	Developing, maintaining and using information technology, and information security
<b>Vendor management</b>	Procurement, licensing, outsourcing and supplier management
<b>Property management</b>	Managing property assets, projects and facilities
<b>Security management</b>	Protecting the security of staff and customers
<b>Regulatory compliance</b>	Maintaining relationships with regulators, evidencing compliance with banking and securities regulations and managing regulatory change
<b>Legal processes</b>	Effective documentation of material transactions and other material contractual agreements, controlling the rights pertaining to material assets of the Group, and managing material claims and legal disputes
<b>Accounting and financial control</b>	Financial and management accounting, associated reporting and financial control
<b>Tax management</b>	Maintaining relationships with tax authorities and managing the Group's tax affairs to ensure compliance with our obligations
<b>Corporate authorities and structure</b>	Maintaining effective corporate legal entity structure and corporate decision-making authorities

Each risk control owner, supported by a specialist control function, is responsible for identifying risks that are material to the Group and for maintaining an effective control environment, across the whole organisation. This includes defining appropriate policies for approval by authorised risk committees that impose specific controls and constraints on the Group's activities.

The Group Operational Risk Committee, chaired by the GCRO, oversees the management of operational risks across the Group, supported by business, functional, and country-level committees. All operational risk committees operate on the basis of a defined structure of delegated authorities and terms of reference, derived from the GRC.

At the Group level, the Group Financial Crime Risk Committee provides direct oversight of operational risk relating to compliance with financial crime laws and regulations. The Committee takes its authority directly from the GRC, providing additional oversight of these risks. Close alignment is maintained with the Group Operational Risk Committee through overlap in membership and reporting.

## Reputational risk

Reputational risk is the potential for damage to the Group's franchise, resulting in loss of earnings or adverse impact on market capitalisation as a result of stakeholders taking a negative view of the Group or its actions.

Reputational risk could arise from the failure of the Group to effectively mitigate the risks in its businesses including one or more of country, credit, liquidity, market, regulatory, legal or other operational risk. Damage to the Group's reputation could cause existing clients to reduce or cease to do business with the Group and prospective clients to be reluctant to do business with the Group. All employees are responsible for day-to-day identification and management of reputational risk. These responsibilities form part of the Group Code of Conduct and are further embedded through values-based performance assessments.

Reputational risk may also arise from a failure to comply with environmental and social standards. Our primary environmental and social impacts arise through our relationship with our clients and customers and the financing decisions we take. We have published a series of Position Statements which we apply in the provision of financial services to clients who operate in sectors with specific risks, and for key issues. We have mechanisms in our origination and credit processes to identify and assess environmental and social risks, and dedicated Sustainable Finance teams who review proposed transactions with identified risks.

The GRC provides Group-wide oversight on reputational risk, sets policy and monitors material risks. The Group Head of Corporate Affairs is the overall risk control owner for reputational risk. The BVC and BRC provide additional oversight of reputational risk on behalf of the Board.

At the business level, Responsibility and Reputational Risk Committees have responsibility for managing reputational risk.

At country level, the Country Head of Corporate Affairs is the risk control owner of reputational risk. It is his or her responsibility to protect our reputation in that market with the support of the country management team. The Head of Corporate Affairs and Country Chief Executive Officer must actively:

- Promote awareness and application of our policies and procedures regarding reputational risk
- Encourage business and functions to take account of our reputation in all decision making, including dealings with customers and suppliers
- Implement effective in-country reporting systems to ensure they are aware of all potential issues in tandem with respective business committees
- Promote effective, proactive stakeholder management through ongoing engagement

## Pension risk

Pension risk is the potential for loss due to having to meet an actuarially assessed shortfall in the Group's pension schemes. The risk assessment is focused on our obligations towards our major pension schemes, ensuring that our funding obligation to these schemes is comfortably within our financial capacity. Pension risk is monitored quarterly.

The Group Pension Risk Committee is the body responsible for governance of pension risk and it receives its authority from GRC.

## Risk review continued

### Summary of differences between Pillar 3 disclosures and Risk review

The Group's Pillar 3 disclosures as at 31 December 2013 (more information can be found at [investors.sc.com/en/showresults.cfm](http://investors.sc.com/en/showresults.cfm)), provide details from a regulatory perspective on certain aspects of credit risk, market risk and operational risk. The quantitative disclosures in the Pillar 3 disclosures will not, however be directly comparable to those in the Risk review as they are largely based on internally modelled risk metrics such as probability of default (PD), loss given default (LGD) and

exposure at default (EAD) under Basel rules, whereas the quantitative disclosures in the Risk review are based on International Financial Reporting Standards (IFRS). EAD differs from the IFRS exposure primarily due to the inclusion of undrawn credit lines and off-balance sheet commitments. In addition, a number of the credit risk disclosures within the Pillar 3 disclosures are only provided for the internal ratings based portfolio, which represents 80 per cent of loans and advances to customers.

Topic	Annual Report and Accounts	Pillar 3 Report
<b>Basis of requirements</b>	<ul style="list-style-type: none"> <li>The Group's Annual Report is prepared in accordance with the requirements of IFRS, the UK Companies Act 2006, and the UK, Hong Kong and India Listing rules</li> </ul>	<ul style="list-style-type: none"> <li>The Group's Pillar 3 disclosures provide details on risk from a regulatory perspective to fulfil Basel II rule requirements which have been implemented in the UK through the Prudential Regulation Authority (PRA) General Prudential Sourcebook (GENPRU) and its Prudential Sourcebook for Banks, Building Societies and Investment Firms (BIPRU)</li> </ul>
<b>Basis of preparation</b>	<ul style="list-style-type: none"> <li>The quantitative credit risk disclosures in the Risk review are based on IFRS</li> <li>Loans and advances are analysed between Consumer Banking (CB) (split by product), Wholesale Banking (WB) (split by standard industry classification codes)</li> <li>Market risk disclosures are presented using VaR methodology for the trading and non-trading books</li> </ul>	<ul style="list-style-type: none"> <li>Provides details from a regulatory perspective on certain aspects of Credit risk, Market risk and Operational risk. For Credit risk this is largely based on internally modelled risk metrics such as probability of default, loss given default (LGD) and exposure at default (EAD) under Basel rules</li> <li>Loans and advances are analysed between those that are internal ratings basis (IRB) and standardised, split by standard BIPRU categories</li> <li>Market risk and Operational risk disclosure are based on the capital required</li> </ul>
<b>Coverage</b>	<ul style="list-style-type: none"> <li>All external assets which have an exposure to credit risk</li> <li>Market risk exposure in the trading and non-trading books</li> <li>Liquidity risk analysis of contractual maturities, liquid assets and encumbered assets</li> </ul>	<ul style="list-style-type: none"> <li>A number of the Credit risk disclosures within the Pillar 3 disclosures are only provided for the IRB portfolio, which represents 80 per cent of loans and advances to customers and derivatives. The remainder of the portfolio is on the standardised rules as prescribed in the BIPRU handbook</li> </ul>

## Summary of cross-references between the Pillar 3 disclosure and the Risk review

Topic	Annual Report and Accounts	Pillar 3 Report
<b>Credit rating and measurement</b>	<ul style="list-style-type: none"> <li>Overview of credit risk management, credit grading and the use of IRB models is on page 72</li> <li>Maximum exposure to credit risk set out on page 75</li> <li>Internal credit grading analysis provided by business for loans neither past due nor impaired is on page 72</li> <li>External credit grading analysis for unimpaired Treasury bills and debt securities is set out on page 72</li> </ul>	<ul style="list-style-type: none"> <li>Details of IRB and standardised approach to credit risks is set out on page 19</li> <li>A more detailed explanation of IRB models is set out on pages 20 and 21</li> <li>For the IRB portfolio, pages 41 to 43 provide an indicative mapping of the Group's credit grades in relation to Standard &amp; Poor's credit ratings</li> <li>Minimum regulatory capital requirements for credit risk are set out on page 23</li> <li>Credit grade analysis provided for the IRB portfolio only. EAD within the IRB portfolio after credit risk mitigation (CRM), undrawn commitments, exposure weighted average LGD and weighted average risk weight by internal credit grade on page 34 to 40</li> </ul>
<b>Credit risk mitigation</b>	<ul style="list-style-type: none"> <li>CRM approach is on page 73</li> <li>Overview of fair value of collateral held and other credit risk mitigants for the loan portfolio, with further details on CB collateral on page 92 and WB collateral on page 101</li> <li>Quantitative overview of other risk mitigants including: <ul style="list-style-type: none"> <li>Securitisations include disclosures of both retail transferred and synthetic securitisation</li> <li>Master netting, CSAs and cash collateral for derivatives</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Provides details on CRM from a regulatory perspective by providing EAD after CRM by IRB exposure class. Explanation is given on what constitutes eligible collateral including explanations of funded and unfunded protection. The main type of collateral for the Group's standardised portfolio is also disclosed. See pages 31 and 32</li> <li>Extensive disclosures and carrying securitisation including notional amounts, details of securitisation programmes where the Group is an originator, the accounting and governance of securitisation activities and retained exposures and carrying value risk weight bands and by geography. See pages 47 to 53</li> <li>EAD for items subject to counterparty credit (CCR) risk pre- and post-credit mitigation is disclosed. The products that are covered under CCR include repo style transactions and derivative transactions. Please refer to pages 45 and 46</li> </ul>
<b>Loan portfolio</b>	<ul style="list-style-type: none"> <li>Group overview of the loan portfolio provided by business by geography is on page 78. A more detailed analysis by CB product is set out on page 89 and by WB counterparty (based on standard industry classifications) on page 96</li> <li>Maturity analysis is provided on pages 78, 90 and 97</li> </ul>	<ul style="list-style-type: none"> <li>EAD by geography, split between IRB and Standardised portfolios (page 26) and by industry types (as specified by BIPRU) on page 27</li> <li>Maturity of EAD, split by IRB and standardised on page 29</li> </ul>
<b>Problem credit management and provisioning</b>	<ul style="list-style-type: none"> <li>Provisioning approach is set out on page 85 and definition of non-performing loans on page 84</li> <li>Disclosures of non-performing loans, neither past due nor impaired, past due and impaired loans, individual impairment charge and portfolio impairment charge by geography, product and industry</li> </ul>	<ul style="list-style-type: none"> <li>Disclosures around the expected loss model used for regulatory purposes and a tabular disclosure showing the regulatory expected loss against the net individual impairment charge. Please see page 33</li> </ul>
<b>Market risk</b>	<ul style="list-style-type: none"> <li>Details of the VaR methodology, and VaR (trading and non-trading) is disclosed by risk type on pages 111 to 113</li> <li>Details on Group Treasury's market risk including a table showing a parallel shift in the yield curves is on page 114</li> </ul>	<ul style="list-style-type: none"> <li>Provides details of the internal model approvals like the Capital Adequacy 2 (CAD 2) that the PRA has granted the Group including the extension of the CAD 2 scope to include coal market risk</li> <li>Market risk capital requirements for the trading books are disclosed by risk type on page 56</li> </ul>

## Capital

Maintaining a strong capital position to support our clients and business strategy, and to meet our regulatory requirements

### Proactively managing the capital base to ensure strong foundations

#### Our highlights and achievements in 2013

- Well capitalised, with a focus on Core Tier 1 and Total Capital, to support our business strategy
- Our capital position, allied with strong liquidity and a conservative, diversified balance sheet, continues to allow us to support our clients and customers
- Proactively managing our financial framework to best position the Group to meet, and stay ahead of, evolving regulatory capital requirements

#### The Group's Pillar 3 Disclosures for 31 December 2013 provide further detail on regulatory capital, the Group's capital structure and the impact of Basel III which can be found at [investors.sc.com/en/showresults.cfm](http://investors.sc.com/en/showresults.cfm)

The following sections on Capital form part of the audited financial statements: from the start of 'Capital management' on this page to the end of 'Current compliance with Capital Adequacy Regulations' on page 129, and from the 'Capital base' table on page 131 until the 'Movement in capital' table on page 132.

### Capital management

Our approach to capital management is to maintain a strong capital base to support the development of our business, to meet regulatory capital requirements at all times and to maintain strong credit ratings.

Strategic, business and capital plans are drawn up annually covering a five-year horizon and are approved by the Board. The capital plan ensures that adequate levels of capital and an optimum mix of the different components of capital are maintained to support our strategy. Group Treasury is responsible for the ongoing assessment of the demand for capital and the updating of the Group's capital plan. The capital plan takes the following into account:

- Current regulatory capital requirements and our assessment of future standards
- Demand for capital due to business growth forecasts, loan impairment outlook and market shocks or stresses
- Forecast demand for capital to support credit ratings
- Available supply of capital and capital raising options

The Group formulates a capital plan with the help of internal models and other quantitative techniques. The Group uses a capital model to assess the capital demand for material risks, and supports this with our internal capital adequacy assessment. Other internal models help to estimate potential future losses arising from credit, market and other risks, and, using regulatory formulae, the amount of capital required to support them. In addition, the models enable the Group to gain an enhanced understanding of its risk profile, for example, by identifying potential concentrations and assessing the impact of portfolio management actions. Stress testing and scenario analysis are an integral part of capital planning, and are used to ensure that the Group's internal capital adequacy assessment considers the impact of extreme but plausible scenarios on its risk profile and capital position. They provide an insight into the potential impact of significant adverse events and how these could be mitigated through appropriate management actions. The capital modelling process is a key part of our management discipline.

A strong governance and process framework is embedded in our capital planning and assessment methodology. The key capital management committees are the Group Asset and Liability Committee (GALCO) and the Capital Management Committee (CMC). The members of the GALCO include all the Group Executive Directors, the Group Chief Risk Officer and senior attendees from Group Treasury, Finance, Risk and the business. The GALCO regularly reviews the capital plan and approves capital management policies and guidelines. The CMC oversees the tactical management of the Group's capital position and provides a bridge to GALCO's strategic management of the Group's capital position. The GALCO delegates certain authorities to CMC in relation to capital management.

The Group's capital position, including its relationship to the Group's Risk Appetite Statement, is regularly considered by the Board Risk Committee (BRC).

 Further details of the BRC's activities in relation to capital are available in the Corporate governance section on pages 163 to 165.

At a country level, capital is monitored by the Country Asset and Liability Committee (ALCO). Appropriate policies are in place governing the transfer of capital within the Group.

### Current compliance with Capital Adequacy Regulations

In light of the uncertain economic environment and continuing uncertainty as to the end state for banks' regulatory capital structures, the Group continues to believe it is appropriate to remain both strongly capitalised and well above regulatory requirements.

On 1 April 2013, the UK FSA ceased to exist and from that date, Standard Chartered Bank was authorised by the Prudential Regulation Authority (PRA) and regulated by the Financial Conduct Authority (FCA) and the PRA.

The capital that we are required to hold by the PRA is determined by our balance sheet, off-balance sheet, counterparty and other risk exposures.

Further detail on counterparty and risk exposures is included in the Risk review on pages 62 to 127.

Capital in branches and subsidiaries is maintained on the basis of host regulators' requirements and the Group's assessment of capital requirements under normal and stress conditions. Suitable processes and controls are in place to monitor and manage capital adequacy and ensure compliance with local regulatory ratios in all our legal entities. These processes are designed to ensure that we have sufficient capital available to meet local regulatory capital requirements at all times.

The table on page 131 summarises the consolidated capital position of the Group.

### Basel II

The Group complies with the Basel II framework, which has been implemented in the UK through the PRA's General Prudential Sourcebook and its Prudential Sourcebook for Banks, Building Societies and Investment Firms. Since 1 January 2008, we have been using the advanced Internal Ratings Based (IRB) approach for the calculation of credit risk capital requirements with the approval of our relevant regulators. This approach builds on our risk management practices and is the result of a significant investment in data warehousing and risk models. We use value at risk (VaR) models for the calculation of market risk capital requirements for part of our trading book exposures where permission to use such models has been granted by our relevant regulators. Where our market risk exposures are not approved for inclusion in VaR models, the capital requirements are determined using standard rules provided by the relevant regulator.

We apply the Standardised Approach for determining the capital requirements for operational risk.

The Group uses IRB models to calculate certain regulatory capital requirements. The Group's models are subject to initial approval, and ongoing supervision by its regulators. The Group believes that the overall performance of its models has been, and continues to be, very conservative. Recently, the PRA has revised its philosophy and approach towards the use and calibration of IRB models. Consequently, the Group is currently in discussions with the PRA regarding changes to some of its IRB models. While the outcome of these discussions and the timetable for implementing any such changes is not fully finalised, the Group currently expects the PRA to require changes in 2014. These include changes to the calculation of Exposure At Default (EAD) and the introduction of Loss Given Default (LGD) floors based on the Foundation Approach for certain exposures where the country-specific default experience is not deemed sufficient for modelling purposes, resulting in an increase in the risk-weighted requirements calculated by such models. The Group expects these PRA requirements will, in part, be offset by model efficiencies, regulatory approvals of new IRB models and other mitigating management actions. The Group's Pillar 3 Disclosures illustrate both the conservative nature of the Group's models and their robust performance over recent years. The Group currently estimates that the net impact of such model changes in 2014 will be a reduction in the Group's Common Equity Tier 1 (CET1) ratio on a pro forma basis of between 30 and 50 bps.

### CRD IV

The Financial Policy Committee (FPC) announced in March 2013 that the PRA should take action to ensure that the level of CET1 capital held by UK banks was above 7 per cent following any required adjustments to reflect a "proper valuation of their assets", "a realistic assessment of future conduct costs" and "a prudent calculation of risk weights." The PRA published the results of this exercise on 20 June 2013, confirming that the Group exceeded the 7 per cent CET1 target set by the FPC for the purposes of the exercise and, therefore, did not have a capital shortfall and had no action to take on its capital position.

The final text of the Capital Requirements Regulation (CRR) and the Capital Requirements Directive (CRD) which together comprise CRD IV were published in the EU Official Journal on 27 June 2013. In Policy Statement PS7/13, the PRA finalised its approach to implementation of the CRD IV rules in December 2013 to come into effect on 1 January 2014. The PRA's approach accelerates a number of aspects of CRD IV where there is national discretion to do so, particularly in relation to the definition of CET1.

## Capital continued

Notwithstanding the development of the CRD IV rules during 2013, the final CRD IV outcome remains uncertain. A number of areas of CRD IV are subject to further consultation or await promulgation of the relevant European Banking Authority (EBA) technical standards and UK implementing rules. Further, the CRD leaves considerable scope for national discretion to be applied.

### G-SIB

On 11 November 2013, the FSB published an updated list of global systemically important banks (G-SIBs), using December 2012 data and an updated assessment methodology published by the BCBS in July 2013. The Group retained its classification as a G-SIB with a 1 per cent additional CET1 requirement. We understand that the PRA has applied a 'supervisory judgment' overlay resulting in the Group's classification as a G-SIB. G-SIBs will be required to hold an additional CET1 buffer. If the Group remains a G-SIB in November 2014, its related CET1 requirement will be phased in from 1 January 2016 to 1 January 2019. The EBA is currently consulting on technical standards relating to the identification of, and disclosure requirements for, G-SIBs.

### Capital buffers

CRD IV contains provisions for a number of additional capital buffers, and the following comments are based on the Group's current understanding of the rules.

A capital conservation buffer (CCB) of 2.5 per cent CET1 will be phased in from 1 January 2016 to 1 January 2019. The CCB is intended to provide an additional level of capital available to absorb unexpected losses during a period of stress.

A potential countercyclical buffer (CCyB) requirement of up to 2.5 per cent will be phased in from 1 January 2016 to 1 January 2019. The CCyB is intended to be used by authorities to restrain the pace of credit growth and leverage by increasing the levels of CET1 a bank is required to hold during periods of strong economic activity.

A systemic risk buffer (SRB) may be imposed by national authorities to mitigate perceived systemic risk posed by one or more financial institutions in the relevant jurisdictions. If required, the SRB will be set in CET1 at a minimum level of 1 per cent of the exposures giving rise to the SRB. The rules relating to the SRB and its calibration are not yet finalised.

Final capital requirements will not be uniform across the sector. Each institution is expected to have a specific minimum requirement based on its particular business and risk profile as implemented through a variety of tools including: Pillar 2A requirements, PRA buffers, buffers for global or domestic systemically important banks, countercyclical buffers, systemic risk buffers and, potentially, other macro prudential tools. Consequently, it is not possible to determine precisely what the Group's final capital requirements may be or the ultimate impact of the various regulatory initiatives on the Group's capital position.

### Pillar 2

In December 2013, the PRA published amendments to the current Pillar 2 regime. In addition to Pillar 1 capital requirements, the Group, like other UK banks, currently holds capital in respect of its Pillar 2 risks. Pillar 2 comprises:

- Individual Capital Guidance (ICG or Pillar 2A buffer) for risks not covered or adequately addressed by Pillar 1 capital requirements (including for example: pension risk, interest rate risk, concentration risk and operational risk)
- A Capital Planning Buffer (CPB or Pillar 2B buffer) to ensure the Group remains well capitalised in a stressed environment

Going forward the Group will expect to hold capital under Pillar 2 in addition to Pillar 1 requirements as follows:

- From 1 January 2015 the Group must hold at least 56 per cent of its Pillar 2A buffer in CET1
- From 1 January 2016, the PRA Buffer Assessment will take into account the CCB, and any G-SIB and SRB. A further CET1 component could be added to the extent that the PRA does not consider that these buffers are sufficient to cover the Group's risks. The PRA has announced that it intends to consult in 2014 on the transition to the new regime

Based on the Group's 2013 ICG and its current understanding of the rules, the Group's total Pillar 2A guidance on a pro forma basis is 0.7 per cent of required total capital. Assuming that the Group meets its Pillar 2A guidance to the extent possible with Tier 1 and Tier 2 capital, the Group's Pillar 2A CET1 requirement is approximately 40bps. The Group's Pillar 2A guidance is usually considered with the PRA annually and so would be expected to vary over time.

### Primary loss absorbing capacity (PLAC)

Based on its current understanding of the draft rules, the Group estimates that as at 31 December 2013 its PLAC level is around 23 per cent of risk-weighted assets (RWA). This figure includes senior liabilities with at least one year to maturity and that part of subordinated debt that is amortised for regulatory capital purposes over the last five years of the relevant instrument's duration (with at least one year remaining to maturity) and therefore outside the scope of regulatory capital recognition.

## Capital base

	2013 \$million	2012 \$million
<b>Shareholders' equity</b>		
Parent company shareholders' equity per balance sheet	46,246	45,362
Preference shares classified as equity included in Tier 1 capital	(1,494)	(1,495)
	<b>44,752</b>	<b>43,867</b>
<b>Non-controlling interests</b>		
Non-controlling interests per balance sheet	595	693
Non-controlling Tier 1 capital included in other Tier 1 capital	(320)	(320)
	<b>275</b>	<b>373</b>
<b>Regulatory adjustments</b>		
Unrealised losses/(gains) on available-for-sale debt securities	75	(97)
Unrealised gains on available-for-sale equity shares included in Tier 2	(744)	(490)
Cash flow hedge reserve	(15)	(81)
Other adjustments <sup>1</sup>	351	(35)
	<b>(333)</b>	<b>(703)</b>
<b>Deductions</b>		
Goodwill and other intangible assets	(6,070)	(7,312)
50 per cent of excess of expected losses <sup>2</sup>	(869)	(966)
50 per cent of tax on excess of expected losses <sup>2</sup>	259	240
50 per cent of securitisation positions	(92)	(118)
Other regulatory adjustments	1	(42)
	<b>(6,771)</b>	<b>(8,198)</b>
<b>Core Tier 1 capital</b>	<b>37,923</b>	<b>35,339</b>
<b>Other Tier 1 capital</b>		
Preference shares included within shareholders' equity	1,494	1,495
Preference shares included within 'Subordinated debt and other borrowings'	299	1,205
Innovative Tier 1 securities (excluding non-controlling Tier 1 capital)	2,577	2,553
Non-controlling Tier 1 capital	320	320
	<b>4,690</b>	<b>5,573</b>
<b>Deductions</b>		
50 per cent of tax on excess of expected losses <sup>2</sup>	259	240
50 per cent of material holdings	(537)	(552)
	<b>(278)</b>	<b>(312)</b>
<b>Total Tier 1 capital</b>	<b>42,335</b>	<b>40,600</b>
<b>Tier 2 capital</b>		
Qualifying subordinated liabilities <sup>3</sup>		
Subordinated liabilities and other borrowed funds as per balance sheet <sup>4</sup>	20,397	18,799
Preference shares eligible for Tier 1 capital	(299)	(1,205)
Innovative Tier 1 securities eligible for Tier 1 capital	(2,577)	(2,553)
Adjustments relating to fair value hedging and non-eligible securities	(1,314)	(2,052)
	<b>16,207</b>	<b>12,989</b>
<b>Regulatory adjustments</b>		
Reserves arising on revaluation of available-for-sale equity shares	744	490
Portfolio impairment provision	237	248
	<b>981</b>	<b>738</b>
<b>Deductions</b>		
50 per cent of excess of expected losses <sup>2</sup>	(869)	(966)
50 per cent of material holdings	(537)	(552)
50 per cent of securitisation positions	(92)	(118)
	<b>(1,498)</b>	<b>(1,636)</b>
<b>Total Tier 2 capital</b>	<b>15,690</b>	<b>12,091</b>
Deductions from Tier 1 and Tier 2 capital	(6)	(3)
<b>Total capital base</b>	<b>58,019</b>	<b>52,688</b>

1 Other adjustments include the effect of regulatory consolidation and own credit adjustment

2 Excess of expected losses in respect of advanced IRB portfolios is shown gross of tax benefits

3 Consists of perpetual subordinated debt \$1,336 million (2012: \$1,314 million) and other eligible subordinated debt \$14,871 million (2012: \$11,675 million). Lower Tier 2 instruments that will mature within five years include amortisation

4 The amount for 2012 does not agree with note 33 as the prior period was re-stated due to the use of equity accounting for associates and joint ventures

## Capital continued

### Movement in total capital

	2013 \$million	2012 \$million
<b>Opening Core Tier 1 capital</b>	<b>35,339</b>	31,833
Ordinary shares issued in the year and share premium	22	59
Profit attributable to parent company shareholders for the year	4,090	4,887
Dividends, net of scrip	(2,068)	(1,407)
Decrease/(increase) in goodwill and other intangible assets	1,242	(251)
Foreign currency translation differences	(1,223)	513
Increase in unrealised gains on available-for-sale assets	(82)	(379)
Net effect of regulatory consolidation and change in non-controlling interests	322	–
Movement in eligible other comprehensive income	224	306
Decrease/(increase) in excess of expected loss, net of tax	116	(210)
Decrease/(increase) in securitisation positions	26	(12)
Own credit adjustment, net of tax	(85)	–
<b>Closing Core Tier 1 capital</b>	<b>37,923</b>	35,339
<b>Opening Other Tier 1 capital</b>	<b>5,261</b>	5,179
Increase in tax benefit of excess of expected losses	19	54
Decrease/(increase) in material holdings deducted from capital	15	(31)
Redeemed capital	(925)	–
Other	42	59
<b>Closing Other Tier 1 capital</b>	<b>4,412</b>	5,261
<b>Opening Tier 2 capital</b>	<b>12,091</b>	10,499
Issuance of subordinated loan capital, net of redemptions and foreign currency translation differences	3,218	1,641
Increase in revaluation reserve	254	249
(Increase)/decrease in portfolio impairment provision	(11)	9
Decrease/(increase) in excess of expected losses	97	(264)
Increase/(decrease) in material holdings deducted from capital	15	(31)
Decrease/(increase) in securitisation positions	26	(12)
<b>Closing Tier 2 capital</b>	<b>15,690</b>	12,091
<b>Deductions from total capital</b>	<b>(6)</b>	(3)
<b>Closing total capital</b>	<b>58,019</b>	52,688

### Risk-weighted assets and capital ratios

	2013 \$million	2012 \$million
Credit risk	265,834	246,650
Operational risk	33,289	30,761
Market risk	23,128	24,450
Total risk-weighted assets	322,251	301,861
<b>Capital ratios</b>		
Core Tier 1 capital	11.8%	11.7%
Tier 1 capital	13.1%	13.4%
Total capital	18.0%	17.4%

**Risk-weighted assets by business and geography**

	2013 \$million	2012 \$million
Consumer Banking	<b>81,148</b>	80,889
Credit risk	<b>70,736</b>	71,481
Operational risk	<b>10,412</b>	9,408
Wholesale Banking	<b>241,103</b>	220,972
Credit risk	<b>195,098</b>	175,169
Operational risk	<b>22,877</b>	21,353
Market risk	<b>23,128</b>	24,450
<b>Total risk-weighted assets</b>	<b>322,251</b>	301,861
Hong Kong	<b>39,610</b>	36,534
Singapore	<b>44,120</b>	45,064
Korea	<b>24,883</b>	26,667
Other Asia Pacific	<b>59,898</b>	52,313
India	<b>22,556</b>	23,145
Middle East and other South Asia	<b>32,815</b>	33,119
Africa	<b>19,357</b>	19,856
Americas, UK & Europe	<b>89,818</b>	73,527
	<b>333,057</b>	310,225
Less : Netting balances <sup>1</sup>	<b>(10,806)</b>	(8,364)
<b>Total risk-weighted assets</b>	<b>322,251</b>	301,861

<sup>1</sup> Risk-weighted assets by geography are reported gross of any netting benefits

**Risk-weighted contingent liabilities and commitments<sup>1</sup>**

	2013 \$million	2012 \$million
Contingent liabilities	<b>15,519</b>	14,725
Commitments	<b>11,814</b>	12,640

<sup>1</sup> These amounts are included in total risk-weighted assets

## Capital continued

## Movement in risk-weighted assets

	Wholesale Banking credit risk \$million	Consumer Banking credit risk \$million	Total credit risk \$million	Market risk \$million
<b>Opening risk-weighted assets as at 1 January 2013</b>	<b>175,169</b>	<b>71,481</b>	<b>246,650</b>	<b>24,450</b>
Asset growth	15,950	1,738	17,688	(1,322)
Credit migration	9,214	(260)	8,954	–
Risk-weighted asset efficiencies	(2,084)	(1,832)	(3,916)	–
Model, methodology and policy changes	1,012	1,183	2,195	–
Acquisitions and disposals	–	301	301	–
Foreign currency translation differences	(4,163)	(1,875)	(6,038)	–
<b>Closing risk-weighted assets as at 31 December 2013</b>	<b>195,098</b>	<b>70,736</b>	<b>265,834</b>	<b>23,128</b>

	Wholesale Banking credit risk \$million	Consumer Banking credit risk \$million	Total credit risk \$million	Market risk \$million
<b>Opening risk-weighted assets as at 1 January 2012</b>	157,538	62,856	220,394	21,354
Asset growth	10,236	3,763	13,999	2,000
Credit migration	4,940	1,164	6,104	–
Risk-weighted asset efficiencies	(2,800)	(1,000)	(3,800)	–
Model, methodology and policy changes	5,324	2,713	8,037	(700)
Foreign currency translation differences	(69)	1,985	1,916	–
Stressed VaR	–	–	–	1,796
<b>Closing risk-weighted assets as at 31 December 2012</b>	<b>175,169</b>	<b>71,481</b>	<b>246,650</b>	<b>24,450</b>

RWA grew by \$20.4 billion, or 7 per cent, compared to 31 December 2012, with an increase in Wholesale Banking (WB) of \$20.1 billion and \$0.3 billion in Consumer Banking (CB). WB RWA growth was mainly in the Americas, UK & Europe, Singapore and Other Asia Pacific region. CB growth in Hong Kong, Africa, and Middle East and Other South Asia was partly offset by an RWA decline in Singapore. Growth in the Other Asia Pacific region was due to the Group now fully consolidating its Permata joint venture for regulatory purposes and this change in methodology increased RWA by \$6.9 billion, of which \$4.6 billion was in WB (credit risk \$4.4 billion, operational risk \$0.2 billion) and \$2.3 billion in CB (credit risk \$2 billion, operational risk \$0.3 billion).

WB credit risk RWA increased by \$19.9 billion. Excluding the impact of fully consolidating Permata as highlighted above, the increase was \$15.5 billion. This was driven by asset growth of \$16 billion across Transaction Banking, Financial Markets and Corporate Finance. Additionally, due to downgrades especially in the Americas, UK & Europe region, the impact of negative credit migration was \$9.2 billion. These increases were partially offset by RWA efficiencies (\$2.1 billion), methodology changes (\$3.4 billion) and the foreign currency translation impact (\$4.2 billion) due to the appreciation of the US dollar relative to local currencies in some of our footprint markets.

CB credit risk RWA fell by \$0.7 billion. Excluding the impact of fully consolidating Permata, the underlying drop in RWA was \$2.7 billion. Asset growth across SME, Wealth Management, Credit Cards and Personal Loans of \$1.7 billion was more than offset through RWA efficiencies, in particular through better collateral management. The drop was, therefore, primarily driven by the foreign currency translation impact due to the

appreciation of the US dollar relative to local currencies in some of our footprint markets.

As at 31 December 2013 market risk RWA was \$23.1 billion compared to \$24.5 billion at 31 December 2012. The decrease in market risk RWA is primarily due to a reduction in CAD2 internal model positions, covering foreign exchange and structured products. Positions outside the CAD2 permission continue to be assessed according to standard PRA rules. Of the total market risk RWA, 29 per cent is subject to CAD2 internal models and 71 per cent is under standard rules.

Operational risk RWA increased by \$2.5 billion, or 8 per cent. This is primarily determined by the change in income over a rolling three-year time horizon. The growth reflects the strong performance of the Group over that period and the change in consolidation approach for the Group's Permata joint venture in the Other Asia Pacific region.

#### CRD IV estimate

The CRD IV position presented here, derived in accordance with the Group's current understanding of the final CRD IV rules, does not constitute either a capital or RWA forecast and may be subject to change.

The Group's current view of its CRD IV CET1 ratio on a pro forma transitional basis (as at 1 January 2014) is 10.9 per cent. The CRD IV impact is due to both increased regulatory deductions from CET1 capital (particularly the full deduction for excess expected losses relative to provisions and the deduction of certain deferred tax assets) and additional RWA (particularly in relation to credit valuation adjustments (CVA) and asset value correlation (AVC)).

The Group's current view of its CRD IV CET1 ratio on a pro forma end point basis is 11.2 per cent which reflects (a) the impact of estimated mitigation of the CVA RWA increase through use of internal models (subject to regulatory approval) and increased central clearing of certain derivatives, and (b) the inclusion of unrealised gains on available-for-sale equity securities in the end point calculation which are expected to be recognised from 2015 onwards.

The CRR and the proposed EBA technical standards on own funds refer to the deduction of foreseeable dividends when calculating CET1 in certain circumstances. The impact of the deduction of the final proposed dividend for 2013 of \$1,385 million from the Group's CET1 calculation would be around 40bps which reduces to around 30bps assuming a 25 per cent scrip dividend.

In November 2013, the PRA set out its target for large UK institutions of 7 per cent CET1 and a 3 per cent leverage ratio from 1 January 2014, the latter excluding non CRR compliant hybrid capital and both measures taking into account adjustments to RWA and capital deemed necessary by the PRA (in line with those communicated by the PRA as part of the 20 June 2013 capital exercise). The Group exceeds both of these requirements.

#### Reconciliation of Core Tier 1 and Common Equity Tier 1

	2013 \$million
Core Tier 1 capital	<b>37,923</b>
Full deduction of excess of expected losses	<b>(1,128)</b>
Recognition of AFS gains and losses	<b>669</b>
Deduction of deferred tax assets	<b>(273)</b>
Prudent Valuation Adjustment (PVA)	<b>(180)</b>
Embedded goodwill net of tax	<b>(102)</b>
Ineligible non-controlling interests	<b>(299)</b>
Securitisation positions, free deliveries and other	<b>(102)</b>
<b>Common Equity Tier 1 capital (end point)</b>	<b>36,508</b>

#### Reconciliation of Basel II risk-weighted assets to CRD IV

	2013 \$million
Basel II risk-weighted assets	<b>322,251</b>
Credit Valuation Adjustment	<b>7,900</b>
Asset Value Correlation	<b>5,200</b>
Introduction of threshold deduction approach	<b>2,482</b>
Application of CRR standardised rules	<b>(6,377)</b>
Estimated mitigation	<b>(6,100)</b>
Other	<b>(160)</b>
<b>CRD IV risk-weighted assets (end point)</b>	<b>325,196</b>

#### Future capital requirements

As the relevant legislation and rules are not yet fully implemented it is not possible to predict the Group's final capital requirements. The actual outcome also depends in part on the future shape of the Group, future management actions and the future view taken by its regulators of the Group's business and risk profile. Based on the Group's current understanding of the rules, a minimum CET1 capital requirement can be identified as follows:

- A minimum CET1 requirement of 4.5 per cent by 1 January 2015
- A CCB of 2.5 per cent by 1 January 2019
- A G-SIB buffer of 1 per cent by 1 January 2019

Following PS 7/13, the PRA requires at least 56 per cent of the Group's Pillar 2A guidance to be held in CET1. Based on its current ICG, the Group currently estimates a Pillar 2A CET1 addition of around 0.4 per cent which is subject to annual review by the PRA. This results in a minimum CET1 requirement of around 8.4 per cent. The Group's current CET1 position significantly and materially exceeds this requirement. The Group would also expect to continue to operate at all times with a prudent management buffer above the minimum capital requirements. The UK authorities have yet to finalise the rules relating to, and calibration of, the CCyB, SRB, PRA Buffer and additional sectoral capital requirements.

The Group starts in a notably strong position: diverse, well capitalised, highly liquid and with a conservative approach to balance sheet management. The Group currently operates at capital levels materially above the current minimum requirements and, additionally, has a number of levers at its disposal to manage future regulatory requirements (e.g. IRB model adjustments, CRD IV buffers, Pillar 2 guidance, PRA buffers or sectoral capital requirements) as they finalise or emerge over the next few years. In this context, the Group introduced at its Investor Day in November 2013 a new financial metric of managing RWA growth to a level below that of earnings growth, which provides additional conservatism. This is intended to ensure that the Group achieves, and maintains, an accretive capital trajectory over the medium term, which places it strongly to meet both future growth and potentially higher, if they emerge, regulatory capital requirements.



The Group's Pillar 3 Disclosures 2013 provide further information on the CRD IV capital position and leverage ratio and can be found at [investors.sc.com/en/showresults.cfm](http://investors.sc.com/en/showresults.cfm)