HSBC Holdings plc

Capital and Risk Management
Pillar 3 Disclosures as at 31 December 2010

HSBC

The world's local bank

Certain defined terms

Unless the context requires otherwise, ‘HSBC Holdings’ means HSBC Holdings plc and ‘HSBC’, the ‘Group’, ‘we’, ‘us’ and ‘our’ refers to HSBC Holdings together with its subsidiaries. Within this document the Hong Kong Special Administrative Region of the People’s Republic of China is referred to as ‘Hong Kong’. When used in the terms ‘shareholders’ equity’ and ‘total shareholders’ equity’, ‘shareholders’ means holders of HSBC Holdings ordinary shares and those preference shares classified as equity. The abbreviations ‘US$m’ and ‘US$bn’ represent millions and billions (thousands of millions) of US dollars, respectively.

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010

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Cautionary statement regarding forward-looking statements

The *Capital and Risk Management Pillar 3 Disclosures as at 31 December 2010 ('Pillar 3 Disclosures 2010')* contains certain forward-looking statements with respect to HSBC's financial condition, results of operations and business.

Statements that are not historical facts, including statements about HSBC's beliefs and expectations, are forward-looking statements. Words such as 'expects', 'anticipates', 'intends', 'plans', 'believes', 'seeks', 'estimates', 'potential' and 'reasonably possible', variations of these words and similar expressions are intended to identify forward-looking statements. These statements are based on current plans, estimates and projections, and therefore undue reliance should not be placed on them. Forward-looking statements speak only as of the date they are made, and it should not be assumed that they have been revised or updated in the light of new information or future events.

Written and/or oral forward-looking statements may also be made in the periodic reports to the US Securities and Exchange Commission, summary financial statements to shareholders, proxy statements, offering circulars and prospectuses, press releases and other written materials, and in oral statements made by HSBC's Directors, officers or employees to third parties, including financial analysts.

Forward-looking statements involve inherent risks and uncertainties. Readers are cautioned that a number of factors could cause actual results to differ, in some instances materially, from those anticipated or implied in any forward-looking statement. These factors include changes in general economic conditions in the markets in which we operate, changes in government policy and regulation and factors specific to HSBC. A more detailed cautionary statement is provided on page 379 of the *Annual Report and Accounts 2010*.

Introduction

Headquartered in London, HSBC is one of the world's largest banking and financial services organisations and one of the industry's most valuable brands. We provide a comprehensive range of financial services to around 95 million customers through two customer groups, Personal Financial Services (including consumer finance), and Commercial Banking, and two global businesses, Global Banking and Markets, and Global Private Banking.

Our international network covers 87 countries and territories in six geographical regions; Europe, Hong Kong, Rest of Asia-Pacific, the Middle East, North America and Latin America.

With listings on the London, Hong Kong, New York, Paris and Bermuda stock exchanges, shares in HSBC Holdings plc are held by over 221,000 shareholders in 127 countries and territories.

Details of the Group's principal activities and its strategic direction can be found on page 10 of the *Annual Report and Accounts 2010.*

Basel II

The United Kingdom ('UK') Financial Services Authority ('FSA') supervises HSBC on a consolidated basis, and therefore receives information on the capital adequacy of, and sets capital requirements for, the Group as a whole. Individual banking subsidiaries are directly regulated by their local banking supervisors, who set and monitor their capital adequacy requirements.

We calculate capital at a Group level using the Basel II framework of the Basel Committee on Banking Supervision ('Basel Committee'). However, local regulators are at different stages of implementation and local reporting may still be on a Basel I basis, notably in the United States ('US'). In most jurisdictions, non-banking financial subsidiaries are also subject to the supervision and capital requirements of local regulatory authorities.

Basel II is structured around three 'pillars': minimum capital requirements, supervisory review process and market discipline. The Capital Requirements Directive ('CRD') implemented Basel II in the European Union ('EU') and the FSA then gave effect to the CRD by including the requirements of the CRD in its own rulebooks.

Pillar 3 disclosures 2010

Pillar 3, market discipline, complements the minimum capital requirements and the supervisory review process. Its aim is to encourage market discipline by developing a set of disclosure requirements which allow market participants to assess certain specified information on the scope of application of Basel II, capital, particular risk exposures and risk assessment processes, and hence the capital adequacy of the institution. Disclosures consist of both quantitative and qualitative information and are provided at the consolidated level.

Banks are required to disclose all their material risks as part of the pillar 3 framework. All material and non-proprietary information required by pillar 3 is included in the *Pillar 3 Disclosures 2010*. The FSA permits certain Pillar 3 requirements to be satisfied by inclusion within the financial statements. Where this is the case, page references are provided to the relevant sections in the *Annual Report and Accounts 2010*.

Future developments

The regulation and supervision of financial institutions continues to undergo significant change in response to the global financial crisis. In December 2010, the Basel Committee issued final rules in two documents: *A global regulatory framework for more resilient banks and banking systems* and *International framework for liquidity risk measurement, standards and monitoring*, which together are commonly referred to as 'Basel III'. The new minimum capital requirements will be phased in from 1 January 2013, with full implementation required by 1 January 2019. The minimum common equity tier 1 requirement of 4.5% and additional capital conservation buffer requirement of 2.5% will be phased in sequentially from 1 January 2013, becoming fully effective on 1 January 2019. Any additional countercyclical capital buffer requirements will also be phased in, starting in 2016, in parallel with the capital conservation buffer to a maximum level of 2.5% effective on 1 January 2019, although individual jurisdictions may choose to implement larger countercyclical capital buffers. The leverage ratio will be subject to a supervisory

monitoring period, which commenced on 1 January 2011, and a parallel run period which will run from 1 January 2013 until 1 January 2017. Further calibration of the leverage ratio will be carried out in the first half of 2017, with a view to migrating to a Pillar 1 requirement from 1 January 2018. The Basel Committee has increased the capital requirements for the trading book and complex securitisation exposures, which are due to be implemented on 31 December 2011. They will continue to conduct the fundamental review of the trading book, which is targeted for completion by the end of 2011. In addition to the reforms discussed above, institutions designated as Global Systemically Important Financial Institutions ('G-SIFI's) may be subjected to additional requirements, which have yet to be proposed by regulators. The Basel Committee will provide the approach to defining G-SIFIs by the end of 2011. On 13 January 2011, the Basel Committee issued further minimum requirements to ensure that all classes of capital instruments fully absorb losses at the point of non-viability before taxpayers are exposed to loss. Instruments issued on or after 1 January 2013 may only be included in regulatory capital if the new requirements are met. The capital treatment of securities issued prior to this date will be phased out over a 10-year period commencing 1 January 2013.

Under the proposed liquidity framework, a liquidity coverage ratio and a net stable funding ratio have been developed. These measures will be phased in from 1 January 2015 and 1 January 2018 respectively, after a period of observation which commences on 1 January 2012.

Impact of Basel III

In order to provide some insight into the possible effects of the new Basel III rules on HSBC, we have estimated the pro forma common equity tier 1 ratio of the Group on the basis of our interpretation of those rules, as they would apply at 1 January 2019, but based on the position at 31 December 2010. We have estimated that the application of the full Basel III rules on a pro forma basis would result in a common equity tier 1 ratio which is lower than the Basel II core tier 1 ratio by some 250–300 basis points. However, as the new rules will be phased in between 1 January 2013 and 1 January 2019, their impact will be gradual over that period. This estimate does not, however, take account of any future retained earnings, nor any management actions to reduce RWAs. The Basel III changes relate to increased capital deductions, new regulatory adjustments and increases in RWAs. The majority of the increase in RWAs relates to Basel III changes which are scheduled to come into effect on 1 January 2013, in particular to changes to counterparty credit risk capital charges and amounts for securitisation positions that were previously deducted from capital that will now be risk-weighted instead. Other increases in RWAs will begin to be phased in from 1 January 2014, including the majority of the unconsolidated investments that were previously deducted from capital. The remainder of the RWA increase arises from increases in trading book capital requirements which take effect on 31 December 2011, primarily relating to changes in market risk.

The estimated impact of Basel III is subject to change as regulators develop their requirements around the practical application and interpretation of the new rules, in particular the counterparty credit risk capital charge. Further uncertainty remains regarding any capital requirements which may be imposed on the Group over the period to 1 January 2019 in respect of the countercyclical capital buffer and any additional regulatory requirements for G-SIFIs. Under the Basel III rules as they will apply from 1 January 2019, we believe that ultimately the level for the common equity tier 1 ratio of the Group may lie in the range 9.5% to 10.5%. This exceeds the minimum requirement for common equity tier 1 capital plus the capital conservation buffer. HSBC has a strong track record of capital generation and actively manages its RWAs. Before these new rules come into force, we will take appropriate management action over the implementation period to 1 January 2019 to reduce the quantum of increase in RWAs that would have occurred if the new rules had been in effect at 31 December 2010.

Table 1: Basel III phase-in arrangements

	2013 %	2014 %	2015 %	2016 %	2017 %	2018 %	2019 %
Minimum common equity capital ratio	3.5	4.0	4.5	4.5	4.5	4.5	4.5
Capital conservation buffer	–	–	–	0.625	1.25	1.875	2.5
Minimum common equity plus capital conservation buffer	3.5	4.0	4.5	5.125	5.75	6.375	7.0
Minimum tier 1 ratio	4.5	5.5	6.0	6.0	6.0	6.0	6.0
Minimum total capital plus conservation buffer	8.0	8.0	8.0	8.625	9.25	9.875	10.5

Frequency

In accordance with FSA requirements, we intend to publish comprehensive pillar 3 disclosures annually. Summarised information will be provided each quarter from March 2011.

Comparison with the *Annual Report and Accounts 2010*

The *Pillar 3 Disclosures 2010* have been prepared in accordance with regulatory capital adequacy concepts and rules, rather than in accordance with International Financial Reporting Standards ('IFRS's). Therefore, some information in the *Pillar 3 Disclosures 2010* is not directly comparable with the financial information in the *Annual Report and Accounts 2010*. This is most pronounced for the credit risk disclosures, where credit exposure is defined as the maximum loss the Group has estimated under specified Basel II parameters. This differs from similar information in the *Annual Report and Accounts 2010,* which is mainly reported as at the balance sheet date and, therefore, does not reflect the likelihood of future drawings of committed credit lines.

Verification

The *Pillar 3 Disclosures 2010* have been appropriately verified internally, but have not been audited by the Group's external auditor.

Significant subsidiaries

Links to the financial information of significant subsidiaries, including capital resources and requirements, are available on our investor relations website page www.hsbc.com/investor-relations/financial-results/hsbc-group-companies.

Consolidation basis

The basis of consolidation for financial accounting purposes is described on page 251 of the *Annual Report and Accounts 2010* and differs from that used for regulatory purposes. Investments in banking associates, which are equity accounted in the financial accounting consolidation, are proportionally consolidated for regulatory purposes. Subsidiaries and associates engaged in insurance and non-financial activities are excluded from the regulatory consolidation and are deducted from regulatory capital. The regulatory consolidation does not include Special Purpose Entities ('SPE's) where significant risk has been transferred to third parties. Exposures to these SPEs are risk-weighted as securitisation positions for regulatory purposes.

Scope of Basel II permissions

Credit risk capital requirements

Basel II applies three approaches of increasing sophistication to the calculation of Pillar 1 credit risk capital requirements. The most basic, the standardised approach, requires banks to use external credit ratings to determine the risk weightings applied to rated counterparties and group other counterparties into broad categories and apply standardised risk weightings to these categories. The next level, the internal ratings-based ('IRB') foundation approach, allows banks to calculate their credit risk capital requirements on the basis of their internal assessment of the probability that a counterparty will default ('PD'), but subjects their quantified estimates of exposure at default ('EAD') and loss given default ('LGD') to standard supervisory parameters. Finally, the IRB advanced approach allows banks to use their own internal assessment in both determining PD and quantifying EAD and LGD.

The capital resources requirement, which is intended to cover unexpected losses, is derived from a formula specified in the regulatory rules, which incorporates these factors and other variables such as maturity and correlation. Expected losses under the IRB approaches are calculated by multiplying PD by EAD and LGD. Expected losses are deducted from capital to the extent that they exceed accounting impairment allowances.

For consolidated group reporting, the FSA's rules permit the use of other regulators' standardised approaches where they are considered equivalent. The use of other regulators' IRB approaches is subject to the agreement of the FSA. For credit risk, we have adopted the IRB advanced approach for the majority of our business. A number of Group companies and portfolios are in transition to IRB advanced from standardised or IRB foundation approaches, pending definition of local regulations or model development and approval; others will remain on standardised under exemptions from IRB treatment.

Counterparty credit risk capital requirement

Counterparty credit risk in both the trading and non-trading books is the risk that the counterparty to a transaction may default before completing the satisfactory settlement of the transaction. Three approaches to calculating counterparty credit risk and determining exposure values are defined by Basel II: standardised, mark-to-market and internal model method ('IMM'). These exposure values are used to determine capital requirements under one of the credit risk approaches; standardised, IRB foundation and IRB advanced.

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

We use the mark-to-market and IMM approaches for counterparty credit risk. Our longer-term aim is to migrate more positions from the mark-to-market to the IMM approach.

Market risk capital requirement

Market risk is the risk that movements in market risk factors, including foreign exchange, commodity prices, interest rates, credit spread and equity prices will reduce our income or the value of our portfolios. The market risk capital requirement is measured, with FSA permission, using Value at Risk ('VAR') models or the standard rules prescribed by the FSA.

We use both VAR and standard rules approaches for market risk. Our aim is to migrate more positions from standard rules to VAR.

Operational risk capital requirement

Basel II includes capital requirements for operational risk, again utilising three levels of sophistication. The capital required under the basic indicator approach is a simple percentage of gross revenues, whereas under the standardised approach, it is one of three different percentages of gross revenues allocated to each of eight defined business lines. Both these approaches use an average of the last three financial years' revenues. Finally, the advanced measurement approach uses banks' own statistical analysis and modelling of operational risk data to determine capital requirements.

We have adopted the standardised approach in determining our operational risk capital requirement.

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

Capital

Table 2: Capital structure

	At 31 December 2010 US$bn	At 31 December 2009 US$bn
Composition of regulatory capital[1]		
Tier 1 capital		
Shareholders' equity	**142.7**	135.3
Shareholders' equity per balance sheet[2]	**147.7**	128.3
Preference share premium	**(1.4)**	(1.4)
Other equity instruments	**(5.9)**	(2.1)
Deconsolidation of special purpose entities[3]	**2.3**	10.5
Non-controlling interests	**3.9**	3.9
Non-controlling interests per balance sheet	**7.2**	7.4
Preference share non-controlling interests	**(2.4)**	(2.4)
Non-controlling interest transferred to tier 2 capital	**(0.5)**	(0.7)
Non-controlling interest in deconsolidated subsidiaries	**(0.4)**	(0.4)
Regulatory adjustments to the accounting basis	**1.8**	0.2
Unrealised losses on available-for-sale debt securities[4]	**3.8**	0.9
Own credit spread	**(0.9)**	(1.0)
Defined benefit pension fund adjustment[5]	**1.7**	2.5
Reserves arising from revaluation of property and unrealised gains on available-for-sale equities	**(3.1)**	(2.2)
Cash flow hedging reserve	**0.3**	–
Deductions	**(32.3)**	(33.1)
Goodwill capitalised and intangible assets	**(28.0)**	(28.6)
50% of securitisation positions	**(1.5)**	(1.6)
50% of tax credit adjustment for expected losses	**0.3**	0.5
50% of excess of expected losses over impairment allowances	**(3.1)**	(3.4)
Core tier 1 capital	**116.1**	106.3
Other tier 1 capital before deductions	**17.9**	15.8
Preference share premium	**1.4**	1.4
Preference share non-controlling interests	**2.4**	2.4
Hybrid capital securities	**14.1**	12.0
Deductions	**(0.8)**	0.1
Unconsolidated investments[6]	**(1.1)**	(0.4)
50% of tax credit adjustment for expected losses	**0.3**	0.5
Tier 1 capital	**133.2**	122.2
Tier 2 capital		
Total qualifying tier 2 capital before deductions	**52.7**	50.0
Reserves arising from revaluation of property and unrealised gains on available-for-sale equities	**3.1**	2.2
Collective impairment allowances[7]	**3.1**	4.1
Perpetual subordinated debt	**2.8**	3.0
Term subordinated debt	**43.4**	40.4
Non-controlling interest in tier 2 capital	**0.3**	0.3
Total deductions other than from tier 1 capital	**(18.3)**	(16.5)
Unconsolidated investments[6]	**(13.7)**	(11.5)
50% of securitisation positions	**(1.5)**	(1.6)
50% of excess of expected losses over impairment allowances	**(3.1)**	(3.4)
Total regulatory capital	**167.6**	155.7
Total tier 2 capital before deductions plus hybrid capital securities	**66.8**	62.0

	At 31 December 2010		At 31 December 2009	
	RWAs US$bn	**Capital required[8] US$bn**	RWAs US$bn	Capital required[8] US$bn
Credit risk	**890.6**	**71.3**	903.5	72.3
Counterparty credit risk	**50.2**	**4.0**	51.9	4.2
Market risk	**38.7**	**3.1**	51.9	4.1
Operational risk	**123.6**	**9.8**	125.9	10.1
Total	**1,103.1**	**88.2**	1,133.2	90.7

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

	2010 %	2009 %
Capital ratios		
Core tier 1 ratio	**10.5**	9.4
Tier 1 ratio	**12.1**	10.8
Total capital ratio	**15.2**	13.7

1 *The terms and conditions of capital securities issued by the Group are detailed in the Appendix on page 55.*
2 *Includes externally verified profits for the year to 31 December 2010.*
3 *Mainly comprises unrealised losses on available-for-sale ('AFS') debt securities within special purpose entities which are excluded from the regulatory consolidation.*
4 *Under FSA rules, unrealised gains/losses on debt securities net of tax must be excluded from capital resources.*
5 *Under FSA rules, the defined benefit liability may be substituted with the additional funding that will be paid into the relevant schemes over the following five year period.*
6 *Mainly comprise investments in insurance entities.*
7 *Under FSA rules, collective impairment allowances on loan portfolios on the standardised approach are included in tier 2 capital.*
8 *Calculated as 8% of RWAs.*

Table 3: Risk-weighted assets – analysis by geographical region

	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	Middle East US$bn	North America US$bn	Latin America US$bn	Total RWAs[1] US$bn
At 31 December 2010							
Credit risk	**217.3**	**86.3**	**190.9**	**45.7**	**274.5**	**75.9**	**890.6**
Counterparty credit risk	**22.7**	**3.3**	**4.1**	**1.6**	**16.3**	**2.2**	**50.2**
Market risk[1]	**22.4**	**2.0**	**3.5**	**0.3**	**11.3**	**2.8**	**38.7**
Operational risk	**39.2**	**15.3**	**19.0**	**6.5**	**28.6**	**15.0**	**123.6**
Total RWAs[1]	**301.6**	**106.9**	**217.5**	**54.1**	**330.7**	**95.9**	**1,103.1**
At 31 December 2009							
Credit risk	237.5	99.0	150.2	46.7	306.3	63.8	903.5
Counterparty credit risk	26.6	2.1	3.7	1.1	16.9	1.5	51.9
Market risk[1]	33.5	2.4	3.3	1.0	14.7	2.1	51.9
Operational risk	42.1	16.0	16.7	5.5	31.3	14.3	125.9
Total RWAs[1]	339.7	119.5	173.9	54.3	369.2	81.7	1,133.2

1 *RWAs are non-additive across geographical regions due to market risk diversification effects within the Group.*

Table 4: Risk-weighted assets – analysis by customer group and global business

	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	Middle East US$bn	North America US$bn	Latin America US$bn	Total RWAs[1] US$bn
At 31 December 2010							
Personal Financial Services	**50.9**	**18.2**	**15.6**	**7.6**	**220.6**	**30.3**	**343.2**
Commercial Banking	**79.9**	**39.8**	**35.2**	**24.8**	**44.9**	**34.9**	**259.5**
Global Banking and Markets[1]	**143.7**	**38.2**	**48.8**	**20.1**	**58.5**	**30.3**	**336.0**
Global Private Banking	**16.7**	**2.1**	**1.9**	**0.4**	**3.6**	**0.4**	**25.1**
Other	**10.4**	**8.6**	**116.0**	**1.2**	**3.1**	**–**	**139.3**
Total RWAs[1]	**301.6**	**106.9**	**217.5**	**54.1**	**330.7**	**95.9**	**1,103.1**

1 *RWAs are non-additive across geographical regions due to market risk diversification effects within the Group.*

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

Capital management and allocation

Our approach to capital management is driven by our strategic and organisational requirements, taking into account the regulatory, economic and commercial environment in which we operate.

It is our objective to maintain a strong capital base to support the development of our business and to meet regulatory capital requirements at all times. To achieve this, our policy is to hold capital in a range of different forms and from diverse sources, and all capital raising is agreed with major subsidiaries as part of their individual and the Group's overall capital management processes.

Our policy is underpinned by a capital management framework, which enables us to manage our capital in a consistent and aligned manner. The framework, which is approved by the Group Management Board ('GMB'), incorporates a number of different capital measures including market capitalisation, invested capital, economic capital and regulatory capital.

The responsibility for global capital allocation principles and decisions rests with GMB. Through our structured internal governance processes, we maintain discipline over our investment and capital allocation decisions and seek to ensure that returns on investment are adequate after taking account of capital costs. Our strategy is to allocate capital to businesses on the basis of their economic profit generation, regulatory and economic capital requirements and cost of capital.

Transferability of capital within the Group

HSBC Holdings is the primary provider of capital to its subsidiaries and these investments are substantially funded by its own capital issuance and profit retention. As part of its capital management process, HSBC Holdings seeks to maintain a prudent balance between the composition of its capital and that of its investment in subsidiaries. Each of the subsidiaries manage their own capital to support their planned business growth and meet their local regulatory requirements within the context of the approved annual Group capital plan. In accordance with our capital management framework, capital generated by subsidiaries in excess of planned requirements is returned to HSBC Holdings, normally by way of dividends. During 2010 and 2009, none of the Group's subsidiaries experienced significant restrictions on paying dividends or repaying loans and advances.

Internal assessment of capital adequacy

We assess the adequacy of our capital by considering the resources necessary to cover unexpected losses arising from discretionary risks, such as credit risk and market risk, or non-discretionary risks, such as operational risk and reputational risk. The framework, together with related policies define the Internal Capital Adequacy Assessment Process ('ICAAP') by which GMB examines our risk profile from both regulatory and economic capital viewpoints and ensures that our level of capital:

- remains sufficient to support our risk profile and outstanding commitments;
- exceeds our formal minimum regulatory capital requirements by an agreed margin;
- is capable of withstanding a severe economic downturn stress scenario; and
- remains consistent with our strategic and operational goals, and shareholder and rating agency expectations.

The regulatory and economic capital assessments rely upon the use of models that are integrated into our management of risk. Economic capital is the internally calculated capital requirement which we deem necessary to support the risks to which we are exposed, at a confidence level consistent with a target credit rating of AA. The minimum regulatory capital that we are required to hold is determined by the rules established by the FSA for the consolidated Group and by local regulators for individual Group companies. The economic capital assessment is the more risk-sensitive measure, as it covers a wider range of risks and takes account of the substantial diversification of risk accruing from our operations. Our economic capital models are calibrated to quantify the level of capital that is sufficient to absorb potential losses over a one-year time horizon to a 99.95% level of confidence for our banking activities and to a 99.5% level of confidence for our insurance activities and pension risks. Our approach to capital management is aligned to our corporate structure, business model and strategic direction. Our discipline around capital allocation is maintained within established processes and benchmarks, in particular the approved annual Group capital plan, further details of which can be found on page 177 of the *Annual Report and Accounts 2010*.

Economic capital is the metric by which risk is measured and linked to capital within our risk appetite framework. The framework, which

expresses the types and quantum of risks to which we wish to be exposed, is approved annually by the Board of Directors of HSBC Holdings ('the Board'), and its implementation is overseen by GMB. Further details on the risk appetite framework may be found on page 87 of the *Annual Report and Accounts 2010*.

Our risk management framework fosters the continuous monitoring of the risk environment and an integrated evaluation of risks and their interactions. Certain of these risks are assessed and managed via the capital planning process. Risks assessed via capital and those that are not are compared below:

Risks assessed via capital

Credit (including counterparty credit), market and operational risk

We assess economic capital requirements for these risk types by utilising the embedded operational infrastructure used for the pillar 1 capital calculation, together with an additional suite of models that take into account, in particular:

- the increased level of confidence required to meet our strategic goals (99.95%); and
- internal assessments of diversification of risks within our portfolios and, similarly, any concentrations of risk that arise.

Our economic capital assessment operates alongside our regulatory capital process and consistently demonstrates a substantially lower overall capital requirement for credit risk than the regulatory equivalent, reflecting the empirical evidence of the benefits of global diversification. However, we maintain a prudent stance on capital coverage, ensuring that any model risk is mitigated. Economic capital requirements are used to monitor our risks against our risk appetite.

Interest rate risk in the banking book

Interest rate risk in the banking book ('IRRBB') is defined as the exposure of our non-trading products to interest rates.

Non-trading portfolios include positions that primarily arise from the interest rate management of future yield on assets and their funding costs, as a result of interest rate changes. Analysis of this risk is complicated by having to make assumptions on embedded optionality within certain product areas such as the incidence of mortgage prepayments, and from behavioural assumptions regarding the economic duration of liabilities which are contractually repayable on demand such as current accounts. IRRBB economic capital is measured as the amount of capital necessary to cover an unexpected loss in the value of our non-trading products over one year to a 99.95% level of confidence.

Insurance risk

We operate a bancassurance model which provides insurance products for customers with whom we have a banking relationship. Many of these insurance products are manufactured by our subsidiaries but, where we consider it operationally more effective, third parties are engaged to manufacture insurance products for sale through our banking network. We work with a limited number of market-leading partners to provide such products. When manufacturing products ourselves, we underwrite the insurance risk and retain the risks and rewards associated with writing insurance contracts.

We continue to make progress towards the implementation of a risk-based capital methodology for our insurance businesses. While this is being implemented across HSBC, a Net Asset Value capital deduction methodology is being employed for Group economic capital assessment purposes.

Pension risk

We operate a number of pension plans throughout the world. Some of them are defined benefit plans, of which the largest is the HSBC Bank (UK) Pension Scheme. In order to fund the benefits associated with these plans, sponsoring group companies (and in some instances, employees) make regular contributions in accordance with advice from actuaries and in consultation with the scheme's trustees (where relevant). In situations where a funding deficit emerges, sponsoring Group companies agree to make additional contributions to the plans, to address the deficit over an appropriate repayment period. Further details of such payments can be found in Note 7 on page 274 of the *Annual Report and Accounts 2010*. The defined benefit plans invest these contributions in a range of investments designed to meet their long-term liabilities.

Pension risk arises from the potential for a deficit in a defined benefit plan to arise from a number of factors, including:

- investments delivering a return below that required to provide the projected plan benefits. This could arise, for example, when there is a fall in the market value of equities, or when increases in long-term interest rates cause a fall in the value of fixed income securities held;

- the prevailing economic environment leading to corporate failures, thus triggering write-downs in asset values (both equity and debt);
- a change in either interest rates or inflation which causes an increase in the value of the scheme liabilities; and
- scheme members living longer than expected (known as longevity risk).

Pension risk is assessed by way of an economic capital model that takes into account potential variations in these factors, using VAR methodology.

Residual risk

Residual risk is, primarily, the risk that mitigation techniques prove less effective than expected. This category also includes risks that arise from specific reputational or business events that give rise to exposures not deemed to be included in the major risk categories. We conduct economic capital assessments of such risks on a regular, forward-looking basis to ensure that their impact is adequately covered by our capital base.

Risks not explicitly assessed via capital

Liquidity risk

Liquidity and funding risk management is described in detail on page 140 of the *Annual Report and Accounts 2010*.

We use cash-flow stress testing as part of our control processes to assess liquidity risk. We do not manage liquidity through the explicit allocation of capital as, in common with standard industry practice, this is not considered to be an appropriate or adequate mechanism for managing these risks. However, we recognise that a strong capital base can help to mitigate liquidity risk both by providing a capital buffer to allow an entity to raise funds and deploy them in liquid positions, and by serving to reduce the credit risk taken by providers of funds to the Group.

Structural foreign exchange risk

Structural foreign exchange risks arise from our net investments in subsidiaries, branches and associates, the functional currencies of which are other than the US dollar. Unrealised gains or losses due to revaluations of structural foreign exchange exposures are reflected in reserves, whereas other unrealised gains or losses arising from revaluations of foreign exchange positions are reflected in the income statement.

Our structural foreign exchange exposures are managed with the primary objective of ensuring, where practical, that our consolidated capital ratios and the capital ratios of the individual banking subsidiaries are largely protected from the effect of changes in exchange rates. This is usually achieved by ensuring that, for each subsidiary bank, the ratio of structural exposures in a given currency to RWAs denominated in that currency is broadly equal to the capital ratio of the subsidiary in question. We evaluate residual structural foreign exchange exposures using a VAR model, but typically do not assign any economic capital for these since they are managed within appropriate economic capital buffers.

Details of our management of structural foreign exchange risk can be found on page 149 of the *Annual Report and Accounts 2010*.

Reputational risk

As a banking group, our good reputation depends upon the way in which we conduct our business, but it can also be affected by the way in which clients, to whom we provide financial services, conduct themselves.

Details of our management of reputational risk can be found on page 172 of the *Annual Report and Accounts 2010*.

Sustainability risk

Sustainability risks arise from the provision of financial services to companies or projects which run counter to the needs of sustainable development; in effect, this risk arises when the environmental and social effects outweigh economic benefits.

Details of our management of sustainability risk can be found on page 173 of the *Annual Report and Accounts 2010*.

Business risk

The FSA specifies that banks, as part of their internal assessment of capital adequacy process, should review their exposure to business risk.

Business risk is the potential negative impact on profits and capital from the Group not meeting our strategic objectives, as set out in the rolling operating plan, as a result of unforeseen changes in the business and regulatory environment, exposure to economic cycles and technological changes.

We manage and mitigate business risk through our business planning and stress testing processes, which ensure that our business model and planned

activities are appropriately resourced and capitalised consistent with the commercial, economic and risk environment in which the Group operates and that the potential vulnerability to our business plans are identified at an early stage so that mitigating actions can be taken proactively.

Risk management objectives and policies

Overview

All our activities – whether lending, payment transmission, trading business to support clients and markets, or maintenance of our infrastructure for delivering financial services – involve to varying degrees the measurement, evaluation, acceptance and management of risks.

The objective of risk management, shared across the organisation, is to support Group strategies to build sustainably profitable business in the best long-term interests of our shareholders and other stakeholders. Our approach is therefore to ensure that risk management is deeply and firmly embedded in how we run our business. This is achieved through:

- a historically strong risk culture, with personal accountability for decisions;
- a robust governance structure, with a clear, well understood framework of risk ownership, standards and policy;
- the alignment of risk and business objectives, and integration of risk appetite into business planning and capital management; and
- an independent, integrated and specialist global Risk function.

Our risk culture is a major strength of the Group, and fostering it is a key responsibility of senior executives assisted by the Risk function. All employees are held accountable for identifying, assessing and managing risks within the scope of their assigned responsibilities. A primary duty of the senior executive in each country in which we operate is to maintain an effective risk strategy to address all risks in the business they manage, and we have a system of personal, not collective, authorities for lending decisions. Personal accountability, reinforced by learning and development, helps sustain a disciplined and constructive culture of risk management and control throughout HSBC.

Our risk governance structure is set out in the Report of the Group Risk Committee ('GRC Report') on page 197 of the *Annual Report and Accounts 2010*. Strong risk management and internal control systems are evidenced in a well established, clear framework of risk ownership and documented standards, policy and procedure.

Risk management objectives are integrated into the balanced scorecards of the heads of regions, global businesses and key functions from the GMB down, and cascaded through the organisation. The objectives of the Risk function as such are also fully aligned in this process with strategic business objectives.

Our approach to risk appetite, explained in further detail in the GRC Report, reinforces the integration of risk considerations into key business goals and planning processes. Preserving our strong capital position remains a key priority for HSBC, and the level of integration of our risk and capital management helps to optimise our response to business demand for regulatory and economic capital (see also 'Capital management and allocation' above).

As risk is not static, our risk profile continually alters as a result of change in the scope and impact of a wide range of factors, from geopolitical to transactional. The risk environment requires continual monitoring and holistic assessment in order to understand and manage its complex interactions across the Group.

The global Risk function, headed by the Group Chief Risk Officer ('GCRO'), provides an expert, integrated and independent assessment of risks across the Group:

- supporting our regions and global businesses in the development and achievement of strategic objectives;
- partnering the business in risk appetite planning and operation;
- carrying out central approvals, controls, risk systems leadership and the analysis and reporting of management information;
- fostering development of the Risk function and the Group's risk culture; and
- addressing risk issues in dealings with external stakeholders including regulators and analysts.

In addition to 'business as usual' operations, the Risk function engages fully in business development activities such as new product approval and post-implementation review, and acquisition due diligence.

Diversification is an important aspect of our management of risk. Our geographical diversification supports our strategies of growth in

emerging markets and international connectivity, and the diversification of our risk portfolio across markets, customer groups and products ensures that we are not dependent on a few sources for revenue and growth, mitigating both business risks and capital usage. Diversification models are developed, together with the business, within Risk's quantitative analytics division.

The global Risk function has also led work on stress scenario development, testing and analysis, details of our approach to which are set out in the GRC Report and which is now integrated into our operations' planning and capital management. In addition to stress scenario analysis, the Risk function pro-actively identifies emerging risks of all kinds, for example in work on sustainability and climate change.

The external environment for a global financial institution such as HSBC is constantly changing. The main challenges and uncertainties faced by the Group are set out on page 88 of the *Annual Report and Accounts 2010*.

Scope and nature of risk measurement and reporting systems

The purpose of our risk measurement and reporting systems is to ensure that risks are comprehensively captured with all the attributes necessary to support well-founded decisions, that those attributes are accurately assessed and that information is delivered in a timely way to the right points in the organisation for those risks to be successfully managed and mitigated.

Risk measurement and reporting systems are also subject to a robust governance framework, to ensure that their design is fit for purpose and that they are functioning properly. Group risk IT systems development is a key responsibility of the GCRO, while the operation and development of risk rating and management systems and processes are ultimately subject to the oversight of the Board.

We invest significant resources in IT systems and processes in order to maintain and improve our risk management capabilities. Group policy promotes the deployment of preferred technology where practicable. Group standards govern the procurement and operation of systems used in our subsidiaries, processing risk information within business lines and risk functions. The measurement and monitoring of the major risks we encounter, including credit, market and operational risks, are increasingly delivered by central systems or, where this is not the case for sound business reasons, through structures and processes that support comprehensive oversight by senior management.

Risk measurement, monitoring and reporting structures deployed at Group Management Office ('GMO') level are replicated in global businesses and subsidiaries through a common operating model for integrated risk management and control. This model sets out the respective responsibilities of Group Risk, regional and country Risk functions in respect of such matters as risk governance and oversight, approval authorities and lending guidelines, global and local scorecards, management information and reporting, and relations with third parties including regulators, rating agencies and auditors.

Credit risk

Credit risk is the risk of financial loss if a customer or counterparty fails to meet a payment obligation under a contract. It arises principally from direct lending, trade finance and leasing business, but also from off-balance sheet products such as counterparty risk guarantees and credit derivatives, and from our holdings of debt securities. Of the risks in which we engage, credit risk generates the largest regulatory capital requirement. This includes a capital requirement for counterparty credit risk in the banking and trading books. Further details regarding our management of counterparty credit risk can be found on page 32.

Objectives

The objectives of credit risk management, underpinning sustainably profitable business, are principally:

- to maintain across HSBC a strong culture of responsible lending, and a robust risk policy and control framework;
- to both partner and challenge our businesses in defining and implementing risk appetite, continually re-evaluating under actual and stress scenario conditions; and
- to ensure independent, expert scrutiny and approval of credit risks, their costs and their mitigation.

Organisation and responsibilities

Group Risk supports the GCRO in overseeing credit risks at the highest level. For this, its major duties comprise: undertaking independent reviews of larger and higher-risk credit proposals, large exposure policy and reporting oversight of our wholesale and retail credit risk management disciplines, ownership

of our credit policy and credit systems programmes, and reporting on risk matters to senior executive management and to regulators. It works closely with other parts of the Risk function, for example: with Fraud/Security Risk on enhancement of protection against retail product fraud, with Market Risk on complex transactions, with Operational Risk on the internal control framework and with Risk Strategy on developing our economic capital model, risk appetite process and stress testing. The credit responsibilities of Group Risk are set out in detail on page 93 of the *Annual Report and Accounts 2010*.

Group-wide, the credit risk function comprises a network of credit risk management offices reporting within regional, integrated risk functions. They fulfil an essential role as independent risk control units distinct from business line management in providing an objective scrutiny of risk rating assessments, credit proposals for approval and other risk matters.

We operate through a hierarchy of personal credit limit approval authorities, not committee structures. Risk officers of individual operating companies, acting under authorities delegated by their boards and executive bodies within local and Group standards, are accountable for their recommendations and credit approval decisions. Each operating company is responsible for the quality and performance of its credit portfolios, and for monitoring and controlling all credit risks in those portfolios, to Group standards.

Above certain risk-based thresholds established in line with authorities delegated by the Board, GMO concurrence must be sought for locally-approved facilities before they are extended to the customer. Moreover, risk proposals in certain portfolios – sovereign obligors, banks, some non-bank financial institutions and intra-Group exposures – are approved centrally in GMO to facilitate efficient control and the reporting of regulatory large and cross-border exposures. Most approval authorities for these exposures are delegated by the local Chief Executive Officer to the GCRO, with only limited levels of authority being maintained locally.

Risk analytics

The Group Risk Analytics function is located within Group Risk as part of a wider analytics discipline supporting rating and scoring models, economic capital and stress testing. Group Risk Analytics formulates technical responses to industry developments and regulatory policy in the field of credit risk analytics. It develops HSBC's global credit risk models and guides and oversees local model development and use around the Group in progress toward our implementation targets for the IRB advanced approach.

The risk analytics models are governed by the Group Credit Risk Analytics Oversight Committee ('CRAOC') which meets monthly and reports to Risk Management Meeting ('RMM'). Group CRAOC is chaired by the GCRO, and its membership is drawn from Risk, global businesses and customer groups and major Group subsidiaries. Its primary responsibilities are to oversee the governance of our risk rating models for both wholesale and retail business, to manage the development of global models and to oversee the development of local models.

Parallel model governance and decision-making arrangements are in place in the Group's major subsidiaries.

Measurement and monitoring – credit risk rating systems

Our exposure to credit risk arises from a very wide range of customer and product types, and the risk rating systems in place to measure and monitor these risks are correspondingly diverse. Each major subsidiary typically has some exposures across this range, and requirements differ from place to place.

Credit risk exposures are generally measured and managed in portfolios of either customer types or product categories. Risk rating systems for the former are designed to assess the default risk of, and loss severity associated with distinct customers who are typically managed as individual relationships. These rating systems tend to have a higher subjective content. Risk ratings systems for the latter are generally more purely analytical, applying techniques such as behavioural analysis across product portfolios comprising large numbers of homogeneous transactions.

Whatever the nature of the exposure, a fundamental principle of our policy and approach is that analytical risk rating systems and scorecards are all valuable tools at the disposal of management, serving ultimately judgemental decisions for which individual approvers are accountable. In the case of automated decision-making processes, as used in retail credit origination where risk decisions may be taken 'at the point of sale' with no management intervention, that accountability rests with those responsible for the parameters built into those processes/systems and the controls surrounding their use. For customers, the credit process provides for at least an annual review of facility limits granted. Review may be more frequent, as required by

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

circumstances, such as the development of adverse risk factors, and any consequent amendments to risk ratings must be promptly implemented.

We constantly seek to improve the quality of our risk management. Thus, for central management and reporting purposes, Group information technology systems have been deployed to process credit risk data efficiently and consistently; a database has been constructed within GMO Finance and Risk covering substantially all our direct lending exposures and holding the output of risk rating systems Group-wide, to support regulatory reporting and to deliver comprehensive management information at an increasingly granular level.

Group standards govern the process through which risk rating systems are initially developed, judged fit for purpose, approved and implemented; the conditions under which analytical risk model outcomes can be overridden by decision-takers; and the process of model performance monitoring and reporting. The emphasis here is on an effective dialogue between business line and risk management, suitable independence of decision-takers, and a good understanding and robust challenge on the part of senior management.

Like other facets of risk management, analytical risk rating systems are not static and are subject to review and modification in the light of the changing environment, the greater availability and quality of data and any deficiencies identified through internal and external regulatory review. Structured processes and metrics are in place to capture relevant data and feed this into continuous model improvement.

The following pages set out credit risk exposure values, RWAs and regulatory capital requirements as at 31 December 2010 together with 31 December 2009 comparatives.

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Table 5: Credit risk – summary

	At 31 December 2010				At 31 December 2009			
	Exposure value US$bn	**Average exposure value US$bn**	**RWAs US$bn**	**Capital required[1] US$bn**	Exposure value US$bn	Average exposure value US$bn	RWAs US$bn	Capital required[1] US$bn
Total credit risk capital requirements								
Credit risk	**1,998.7**	**1,923.4**	**890.6**	**71.3**	1,887.2	1,846.7	903.5	72.3
Counterparty credit risk[2]	**127.8**	**138.0**	**50.2**	**4.0**	130.2	147.3	51.9	4.2
Total	**2,126.5**	**2,061.4**	**940.8**	**75.3**	2,017.4	1,994.0	955.4	76.5
Credit risk analysis by exposure class								
Exposures under the IRB advanced approach	**1,458.0**	**1,416.3**	**557.2**	**44.7**	1,405.0	1,215.8	598.1	47.9
Retail:								
– secured on real estate property	**291.7**	**280.6**	**154.2**	**12.4**	277.6	269.2	136.6	11.0
– qualifying revolving retail	**138.6**	**142.7**	**57.6**	**4.6**	148.8	147.2	77.4	6.2
– SMEs[3]	**13.2**	**12.7**	**7.4**	**0.6**	12.3	13.3	6.8	0.5
– other retail[4]	**69.0**	**68.5**	**27.9**	**2.2**	71.8	79.7	40.2	3.2
Total retail	**512.5**	**504.5**	**247.1**	**19.8**	510.5	509.4	261.0	20.9
Central governments and central banks	**291.5**	**265.7**	**31.8**	**2.5**	237.6	195.6	33.4	2.7
Institutions	**178.0**	**179.5**	**31.3**	**2.5**	180.3	187.2	40.0	3.2
Corporates	**413.7**	**397.7**	**228.3**	**18.4**	399.5	239.2	244.7	19.6
Securitisation positions[5]	**62.3**	**68.9**	**18.7**	**1.5**	77.1	84.4	19.0	1.5
Exposures under the IRB foundation approach	**7.8**	**7.6**	**4.1**	**0.3**	7.9	163.4	4.3	0.3
Corporates	**7.8**	**7.6**	**4.1**	**0.3**	7.9	163.4	4.3	0.3
Exposures under the standardised approach	**532.9**	**499.5**	**329.3**	**26.3**	474.3	467.5	301.1	24.1
Central governments and central banks	**82.4**	**76.3**	**0.9**	**0.1**	64.6	57.5	0.9	0.1
Institutions	**40.8**	**38.5**	**11.3**	**0.9**	41.8	48.3	9.9	0.8
Corporates	**210.3**	**192.2**	**197.5**	**15.9**	180.5	175.0	165.1	13.2
Retail	**54.9**	**52.3**	**41.7**	**3.3**	53.7	58.2	40.4	3.2
Secured on real estate property	**39.3**	**35.8**	**20.6**	**1.6**	32.3	27.9	17.1	1.4
Past due items	**4.0**	**4.4**	**5.6**	**0.4**	4.6	3.9	6.5	0.5
Regional governments or local authorities	**1.6**	**1.4**	**1.4**	**0.1**	1.3	0.9	1.2	0.1
Equity	**5.5**	**7.3**	**6.1**	**0.5**	8.8	8.1	15.3	1.2
Other items[6]	**94.1**	**91.3**	**44.2**	**3.5**	86.7	87.7	44.7	3.6
Total	**1,998.7**	**1,923.4**	**890.6**	**71.3**	1,887.2	1,846.7	903.5	72.3

1 *Calculated as 8% of RWAs.*
2 *For further details of counterparty credit risk, see page 32.*
3 *The FSA allows exposures to small and medium-sized enterprises ('SME's) to be treated under the Retail IRB approach, where the total amount owed to the Group by the counterparty is less than EUR 1m and the customer is not managed individually as a corporate counterparty.*
4 *Includes overdrafts and personal lending.*
5 *Excludes securitisation positions deducted from regulatory capital (that would otherwise be risk-weighted at 1,250%). Securitisation positions deducted from capital are shown in Table 2 and Table 27.*
6 *Primarily includes such items as fixed assets, prepayments, accruals and Hong Kong Government certificates of indebtedness. Also includes immaterial exposures to Regulatory high-risk categories, Short-term claims, Securitisation positions, Collective investment undertakings, Administrative bodies and non-commercial undertakings and Multilateral development banks under the standardised approach.*

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Exposure values are allocated to a region based on the country of incorporation of the HSBC subsidiary or associate where the exposure was originated.

Table 6: Credit risk exposure – analysis by geographical region

	Exposure value								
	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	Middle East US$bn	North America US$bn	Latin America US$bn	Total exposure US$bn	RWAs US$bn	Average RW %
At 31 December 2010									
IRB advanced approach	**516.6**	**309.6**	**191.1**	**22.4**	**377.8**	**40.5**	**1,458.0**	**557.2**	**38**
Central governments and central banks	**57.8**	**65.6**	**52.2**	**16.2**	**63.5**	**36.2**	**291.5**	**31.8**	**11**
Institutions	**44.7**	**75.1**	**30.1**	**6.1**	**17.7**	**4.3**	**178.0**	**31.3**	**18**
Corporates	**142.6**	**97.4**	**75.8**	**0.1**	**97.8**	**–**	**413.7**	**228.3**	**55**
Retail	**216.6**	**70.3**	**32.5**	**–**	**193.1**	**–**	**512.5**	**247.1**	**48**
Securitisation positions[1]	**54.9**	**1.2**	**0.5**	**–**	**5.7**	**–**	**62.3**	**18.7**	**30**
IRB foundation approach	**7.8**	**–**	**–**	**–**	**–**	**–**	**7.8**	**4.1**	**53**
Corporates	**7.8**	**–**	**–**	**–**	**–**	**–**	**7.8**	**4.1**	**53**
Standardised approach	**156.7**	**41.7**	**192.1**	**45.0**	**24.6**	**72.8**	**532.9**	**329.3**	**62**
Central governments and central banks	**47.7**	**1.0**	**31.2**	**2.1**	**–**	**0.4**	**82.4**	**0.9**	**1**
Institutions	**9.6**	**0.2**	**29.2**	**1.7**	**–**	**0.1**	**40.8**	**11.3**	**28**
Corporates	**48.6**	**3.3**	**91.2**	**30.3**	**2.2**	**34.7**	**210.3**	**197.5**	**94**
Retail	**6.8**	**4.1**	**14.0**	**4.4**	**3.3**	**22.3**	**54.9**	**41.7**	**76**
Secured on real estate property	**11.0**	**4.5**	**15.0**	**2.2**	**2.1**	**4.5**	**39.3**	**20.6**	**52**
Past due items	**0.9**	**–**	**0.2**	**1.3**	**0.1**	**1.5**	**4.0**	**5.6**	**140**
Regional governments or local authorities	**–**	**–**	**–**	**0.2**	**–**	**1.4**	**1.6**	**1.4**	**88**
Equity	**1.2**	**1.0**	**1.0**	**0.2**	**2.0**	**0.1**	**5.5**	**6.1**	**111**
Other items[2]	**30.9**	**27.6**	**10.3**	**2.6**	**14.9**	**7.8**	**94.1**	**44.2**	**47**
Total	**681.1**	**351.3**	**383.2**	**67.4**	**402.4**	**113.3**	**1,998.7**	**890.6**	**45**
At 31 December 2009									
IRB advanced approach	512.2	292.5	154.9	20.5	396.8	28.1	1,405.0	598.1	43
Central governments and central banks	25.5	80.5	42.1	13.7	53.4	22.4	237.6	33.4	14
Institutions	47.4	80.0	27.4	6.6	13.2	5.7	180.3	40.0	22
Corporates	157.3	73.2	62.5	0.2	106.3	–	399.5	244.7	61
Retail	216.3	57.3	22.6	–	214.3	–	510.5	261.0	51
Securitisation positions[1]	65.7	1.5	0.3	–	9.6	–	77.1	19.0	25
IRB foundation approach	7.9	–	–	–	–	–	7.9	4.3	54
Corporates	7.9	–	–	–	–	–	7.9	4.3	54
Standardised approach	154.9	40.9	146.3	48.5	25.8	57.9	474.3	301.1	63
Central governments and central banks	33.3	–	27.8	3.5	–	–	64.6	0.9	1
Institutions	17.3	–	20.6	3.6	0.2	0.1	41.8	9.9	24
Corporates	50.5	0.6	73.0	30.1	2.5	23.8	180.5	165.1	91
Retail	9.0	5.5	10.1	5.5	4.3	19.3	53.7	40.4	75
Secured on real estate property	10.5	3.1	10.3	2.2	1.9	4.3	32.3	17.1	53
Past due items	1.1	–	0.3	1.1	–	2.1	4.6	6.5	141
Regional governments or local authorities	–	–	–	0.2	–	1.1	1.3	1.2	92
Equity	3.3	1.3	0.9	–	3.2	0.1	8.8	15.3	174
Other items[2]	29.9	30.4	3.3	2.3	13.7	7.1	86.7	44.7	52
Total	675.0	333.4	301.2	69.0	422.6	86.0	1,887.2	903.5	48

1 *Excludes Securitisation positions deducted from regulatory capital (that would otherwise be risk-weighted at 1,250%). Securitisation positions deducted from capital are shown in Table 2 and Table 27.*

2 *Primarily includes such items as fixed assets, prepayments, accruals and Hong Kong Government certificates of indebtedness. Also includes immaterial exposures to Regulatory high-risk categories, Short-term claims, Securitisation positions, Collective investment undertakings, Administrative bodies and non-commercial undertakings, and Multilateral development banks under the standardised approach.*

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Table 7: Risk weightings – analysis by geographical region

	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	Middle East US$bn	North America US$bn	Latin America US$bn	Total US$bn
At 31 December 2010							
IRB advanced approach							
Total exposure value	**516.6**	**309.6**	**191.1**	**22.4**	**377.8**	**40.5**	**1,458.0**
Total RWAs	**140.3**	**72.1**	**68.7**	**6.9**	**256.1**	**13.1**	**557.2**
Average RW (%)	**27**	**23**	**36**	**31**	**68**	**32**	**38**
IRB foundation approach							
Total exposure value	**7.8**	**–**	**–**	**–**	**–**	**–**	**7.8**
Total RWAs	**4.1**	**–**	**–**	**–**	**–**	**–**	**4.1**
Average RW (%)	**53**	**–**	**–**	**–**	**–**	**–**	**53**
Standardised approach							
Total exposure value	**156.7**	**41.7**	**192.1**	**45.0**	**24.6**	**72.8**	**532.9**
Total RWAs	**72.9**	**14.2**	**122.2**	**38.8**	**18.4**	**62.8**	**329.3**
Average RW (%)	**47**	**34**	**64**	**86**	**75**	**86**	**62**
Total credit risk							
Total exposure value	**681.1**	**351.3**	**383.2**	**67.4**	**402.4**	**113.3**	**1,998.7**
Total RWAs	**217.3**	**86.3**	**190.9**	**45.7**	**274.5**	**75.9**	**890.6**
Average RW (%)	**32**	**25**	**50**	**68**	**68**	**67**	**45**
At 31 December 2009							
IRB advanced approach							
Total exposure value	512.2	292.5	154.9	20.5	396.8	28.1	1,405.0
Total RWAs	152.3	79.9	58.9	7.4	285.3	14.3	598.1
Average RW (%)	30	27	38	36	72	51	43
IRB foundation approach							
Total exposure value	7.9	–	–	–	–	–	7.9
Total RWAs	4.3	–	–	–	–	–	4.3
Average RW (%)	54	–	–	–	–	–	54
Standardised approach							
Total exposure value	154.9	40.9	146.3	48.5	25.8	57.9	474.3
Total RWAs	80.9	19.1	91.3	39.3	21.0	49.5	301.1
Average RW (%)	52	47	62	81	81	85	63
Total credit risk							
Total exposure value	675.0	333.4	301.2	69.0	422.6	86.0	1,887.2
Total RWAs	237.5	99.0	150.2	46.7	306.3	63.8	903.5
Average RW (%)	35	30	50	68	72	74	48

Table 8: Credit risk exposure – analysis by counterparty sector

	Exposure value						
	Personal US$bn	Corporate and Commercial US$bn	Govern-ment US$bn	Financial[1] US$bn	Banks US$bn	Total exposure US$bn	RWAs US$bn
At 31 December 2010							
IRB advanced approach	**499.3**	**419.3**	**291.5**	**74.3**	**173.6**	**1,458.0**	**557.2**
Central governments and central banks	–	–	**291.5**	–	–	**291.5**	**31.8**
Institutions	–	–	–	**4.4**	**173.6**	**178.0**	**31.3**
Corporates	–	**406.1**	–	**7.6**	–	**413.7**	**228.3**
Retail	**499.3**	**13.2**	–	–	–	**512.5**	**247.1**
Securitisation positions[2]	–	–	–	**62.3**	–	**62.3**	**18.7**
IRB foundation approach	–	**6.9**	–	**0.9**	–	**7.8**	**4.1**
Corporates	–	**6.9**	–	**0.9**	–	**7.8**	**4.1**
Standardised approach	**85.7**	**221.6**	**84.0**	**4.9**	**42.6**	**438.8**	**285.1**
Central governments and central banks	–	–	**82.4**	–	–	**82.4**	**0.9**
Institutions	–	–	–	**0.1**	**40.7**	**40.8**	**11.3**
Corporates	**0.2**	**207.3**	–	**2.8**	–	**210.3**	**197.5**
Retail	**48.9**	**6.0**	–	–	–	**54.9**	**41.7**
Secured on real estate property	**34.2**	**5.1**	–	–	–	**39.3**	**20.6**
Past due items	**2.4**	**1.6**	–	–	–	**4.0**	**5.6**
Regional governments or local authorities	–	–	**1.6**	–	–	**1.6**	**1.4**
Equity	–	**1.6**	–	**2.0**	**1.9**	**5.5**	**6.1**
Total	**585.0**	**647.8**	**375.5**	**80.1**	**216.2**	**1,904.6**	**846.4**
Other items[3]						**94.1**	**44.2**
Total exposures						**1,998.7**	**890.6**
At 31 December 2009							
IRB advanced approach	498.2	401.7	237.6	90.1	177.4	1,405.0	598.1
Central governments and central banks	–	–	237.6	–	–	237.6	33.4
Institutions	–	–	–	2.9	177.4	180.3	40.0
Corporates	–	389.4	–	10.1	–	399.5	244.7
Retail	498.2	12.3	–	–	–	510.5	261.0
Securitisation positions[2]	–	–	–	77.1	–	77.1	19.0
IRB foundation approach	–	7.3	–	0.6	–	7.9	4.3
Corporates	–	7.3	–	0.6	–	7.9	4.3
Standardised approach	79.6	193.2	65.9	5.2	43.7	387.6	256.4
Central governments and central banks	–	–	64.6	–	–	64.6	0.9
Institutions	–	–	–	0.1	41.7	41.8	9.9
Corporates	–	178.7	–	1.8	–	180.5	165.1
Retail	49.0	4.7	–	–	–	53.7	40.4
Secured on real estate property	27.9	4.4	–	–	–	32.3	17.1
Past due items	2.7	1.9	–	–	–	4.6	6.5
Regional governments or local authorities	–	–	1.3	–	–	1.3	1.2
Equity	–	3.5	–	3.3	2.0	8.8	15.3
Total	577.8	602.2	303.5	95.9	221.1	1,800.5	858.8
Other items[3]						86.7	44.7
Total exposures						1,887.2	903.5

1 *Includes non-bank financial institutions and corporates.*

2 *Excludes Securitisation positions deducted from regulatory capital (that would otherwise be risk-weighted at 1,250%). Securitisation positions deducted from capital are shown in Table 2 and Table 27.*

3 *Primarily includes such items as fixed assets, prepayments, accruals and Hong Kong Government certificates of indebtedness for which a counterparty sector split is not appropriate. Also includes immaterial exposures to Regulatory high-risk categories, Short-term claims, Securitisation positions, Collective investment undertakings, Administrative bodies and non-commercial undertakings and Multilateral development banks under the standardised approach.*

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The following is an analysis of exposures by period outstanding from the reporting date to the maturity date. The full exposure value is allocated to a residual maturity band based on the contractual end date.

Table 9: Credit risk exposure – analysis by residual maturity

	Exposure value					
	Less than 1 year[1] US$bn	Between 1 and 5 years US$bn	More than 5 years US$bn	Undated US$bn	Total exposure US$bn	RWAs US$bn
At 31 December 2010						
IRB advanced approach	**667.0**	**407.5**	**380.8**	**2.7**	**1,458.0**	**557.2**
Central governments and central banks	**177.4**	**71.2**	**42.4**	**0.5**	**291.5**	**31.8**
Institutions	**128.9**	**44.3**	**3.6**	**1.2**	**178.0**	**31.3**
Corporates	**186.1**	**179.1**	**47.5**	**1.0**	**413.7**	**228.3**
Retail	**133.7**	**109.6**	**269.2**	**–**	**512.5**	**247.1**
Securitisation positions[2]	**40.9**	**3.3**	**18.1**	**–**	**62.3**	**18.7**
IRB foundation approach	**3.6**	**3.7**	**0.5**	**–**	**7.8**	**4.1**
Corporates	**3.6**	**3.7**	**0.5**	**–**	**7.8**	**4.1**
Standardised approach	**117.1**	**247.7**	**69.5**	**98.6**	**532.9**	**329.3**
Central governments and central banks	**14.1**	**51.0**	**17.3**	**–**	**82.4**	**0.9**
Institutions	**8.1**	**32.5**	**0.2**	**–**	**40.8**	**11.3**
Corporates	**63.0**	**130.2**	**15.2**	**1.9**	**210.3**	**197.5**
Retail	**23.6**	**26.3**	**5.0**	**–**	**54.9**	**41.7**
Secured on real estate property	**2.0**	**6.8**	**30.5**	**–**	**39.3**	**20.6**
Past due items	**3.0**	**0.6**	**0.4**	**–**	**4.0**	**5.6**
Regional governments or local authorities	**0.6**	**0.3**	**0.7**	**–**	**1.6**	**1.4**
Equity	**–**	**–**	**–**	**5.5**	**5.5**	**6.1**
Other items[3]	**2.7**	**–**	**0.2**	**91.2**	**94.1**	**44.2**
Total	**787.7**	**658.9**	**450.8**	**101.3**	**1,998.7**	**890.6**
At 31 December 2009						
IRB advanced approach	622.0	414.2	365.7	3.1	1,405.0	598.1
Central governments and central banks	154.4	61.8	21.2	0.2	237.6	33.4
Institutions	105.9	70.6	2.0	1.8	180.3	40.0
Corporates	167.7	168.4	62.3	1.1	399.5	244.7
Retail	140.4	110.9	259.2	–	510.5	261.0
Securitisation positions[2]	53.6	2.5	21.0	–	77.1	19.0
IRB foundation approach	4.2	3.1	0.6	–	7.9	4.3
Corporates	4.2	3.1	0.6	–	7.9	4.3
Standardised approach	116.8	213.8	49.1	94.6	474.3	301.1
Central governments and central banks	20.7	39.7	4.2	–	64.6	0.9
Institutions	16.9	24.9	–	–	41.8	9.9
Corporates	51.2	114.7	14.1	0.5	180.5	165.1
Retail	21.6	27.3	4.8	–	53.7	40.4
Secured on real estate property	1.7	5.8	24.8	–	32.3	17.1
Past due items	3.2	0.9	0.5	–	4.6	6.5
Regional governments or local authorities	0.5	0.2	0.6	–	1.3	1.2
Equity	–	–	–	8.8	8.8	15.3
Other items[3]	1.0	0.3	0.1	85.3	86.7	44.7
Total	743.0	631.1	415.4	97.7	1,887.2	903.5

1 *Revolving exposures such as overdrafts are considered to have a residual maturity of less than one year.*
2 *Excludes Securitisation positions deducted from regulatory capital (that would otherwise be risk-weighted at 1,250%). Securitisation positions deducted from capital are shown in Table 2 and Table 27.*
3 *Primarily includes such items as fixed assets, prepayments, accruals and Hong Kong Government certificates of indebtedness. Also includes immaterial exposures to Regulatory high-risk categories, Short-term claims, Securitisation positions, Collective investment undertakings, Administrative bodies and non-commercial undertakings and Multilateral development banks under the standardised approach.*

Application of the IRB approach for credit risk

This section sets out our overall risk rating systems, a description of the population of credit risk analytical models and our approaches to model governance and the use of IRB metrics.

Risk rating systems

Our Group-wide credit risk rating framework incorporates the PD of an obligor and loss severity expressed in terms of EAD and LGD. These measures are used to calculate regulatory expected loss ('EL') and capital requirements. They are also used in conjunction with other inputs to inform rating assessments for the purpose of credit approval and many other risk management decisions.

The narrative explanations that follow relate to the advanced IRB approaches; that is Advanced IRB for distinct customers and Retail IRB for the portfolio-managed retail business. At December 2010, portfolios in much of Europe, Hong Kong, Rest of Asia-Pacific and North America were on advanced IRB approaches. Others remain on the standardised or foundation approaches under Basel II, pending the definition of local regulations or model development and approval, or under exemptions from IRB treatment. Further details of our use of the standardised approach can be found on page 30.

Wholesale business

PD for wholesale customer segments (Central Governments and Central Banks (sovereigns), Institutions, Corporates) and for certain individually assessed personal customers is estimated using a Customer Risk Rating ('CRR') scale of 23 grades (2009: 22 grades), of which 21 (2009: 20) are non-default grades representing varying degrees of strength of financial condition and two are default grades. A score generated by a model for the individual obligor type is mapped to the corresponding CRR. The process through which this or a judgementally amended CRR is then recommended to, and reviewed by, a credit approver takes into account all information relevant to the risk rating determination, including external ratings and market data where available. The finally approved CRR is mapped to a PD value range of which the 'mid-point' is used in the regulatory capital calculation.

EAD and LGD estimation for the wholesale business is subject to a Group framework of basic principles which permits flexibility in the definition of parameters by our operating entities to suit conditions in their own jurisdictions. Group Risk provides co-ordination, benchmarks and the sharing and promotion of best practice. EAD is estimated to a 12-month horizon and broadly represents the current exposure plus an estimate for future increases in exposure, taking into account such factors as available but undrawn facilities and the crystallisation of contingent exposures, post-default. LGD focuses on the facility and collateral structure, involving such factors as facility priority/seniority, the type and value of collateral, type of client and regional variances in experience, and is expressed as a percentage of EAD.

Retail business

The wide range of application and behavioural models used in the management of retail portfolios has been supplemented with models used to derive the measures of PD, EAD and LGD required for Basel II. For management information and reporting purposes, retail portfolios are segmented according to local, analytically-derived EL bands, which map to ten composite EL grades, facilitating comparability across the Group's retail customer segments, business lines and product types.

Global and local models

Global PD models have been developed for asset classes or clearly identifiable sub-classes where the customer relationship is managed on a global basis: sovereigns, banks, certain non-bank financial institutions and the largest corporate clients, typically operating internationally. Such global management facilitates consistent implementation by Group Risk and our operating subsidiaries worldwide of standards, policies, systems, approval procedures and other controls, reporting, pricing, performance guidelines and comparative analysis. All global models require FSA approval for IRB accreditation and fall directly under the remit of the Group CRAOC.

Local PD models are developed where the risk profile of obligors is specific to a country, sector or other non-global factor. This applies to large corporate clients having distinct characteristics in a particular geography, middle market corporates, corporate and retail small and medium-sized enterprises ('SME's) and all other retail segments. There are several hundred such models in use or under development within HSBC.

Our approach to EAD and LGD, the framework which is described under 'Risk rating systems' above, similarly encompasses both global and local models. The former include EAD and LGD models for each of sovereigns and banks, as exposures to

these two customer types are managed centrally by Group Risk. All local EAD and LGD models fall within the scope and principles of the Group EAD and LGD framework, subject to dispensation from Group Risk.

Model governance

Model governance is under the general oversight of Group CRAOC, whose responsibilities are set out in 'Risk Analytics' on page 14. Group CRAOC has regional and entity-level counterparts with comparable terms of reference, because the development, validation and monitoring of local models to meet local requirements and using local data are the responsibility of regional and/or local entities under the governance of their own management, subject to overall Group policy and oversight. Such models are typically approved by national or regional regulators and need to be passed to Group CRAOC only if they apply to exposures exceeding a prescribed monetary threshold or are otherwise deemed material.

Group Risk utilises Group standards for the development, validation, independent review, approval, implementation and performance monitoring of credit risk rating models, and oversight over respective local standards for local models. All models must be reviewed at least annually, or more frequently as the need arises. The threshold for referral of material local models to Group CRAOC and RMM is a portfolio coverage of US$20bn or more by risk-weighted assets. Group CRAOC may additionally deem a model material, due to the higher-risk nature of the customer sector in question.

Compliance with Group standards is subject to examination both by risk oversight and review from within the Risk function itself, and by internal audit. While the standards set out minimum general requirements, Group Risk has discretion to approve dispensations, and fosters best practice between offices.

Use of internal estimates

Internal risk parameters derived from applying the IRB approach are not only employed in the calculation of RWAs for the purpose of determining regulatory capital requirements, but also in many other contexts within risk management and business processes and include:

- **credit approval**: IRB models, scorecards and other methodologies are valuable tools deployed in the assessment of customer and portfolio risk in lending decisions;
- **risk appetite**: IRB measures are an important element of risk appetite definition at customer, sector and portfolio levels, and in the implementation of the Group risk appetite framework, for instance in subsidiaries' operating plans;
- **portfolio management**: regular reports to the Board, RMM and Group Audit Committee contain analyses of risk exposures, e.g. by customer segment and quality grade, employing IRB metrics;
- **pricing**: customer relationship managers apply an IRB Risk-Adjusted Return on Capital ('RAROC') methodology in RWA and profitability calculators; and
- **economic capital**: IRB measures provide customer risk components for the economic capital model that has been implemented across HSBC to improve the consistent analysis of economic returns, help determine which customers, business units and products add greatest value, and drive higher returns through effective economic capital allocation.

The following tables provide an analysis of the IRB risk measures used to calculate RWAs under the IRB approach and set out the distribution of IRB exposures by credit quality.

Table 10: IRB advanced exposure – analysis of risk components

	Exposure value US$bn	Exposure weighted average PD %	Exposure weighted average LGD %	Exposure weighted average risk weight %	Undrawn commit-ments US$bn	RWAs US$bn
At 31 December 2010						
Central governments and central banks	**291.5**	**0.11**	**20.9**	**11**	**3.9**	**31.8**
Institutions	**178.0**	**0.36**	**29.5**	**18**	**10.9**	**31.3**
Corporates[1]	**409.4**	**2.82**	**38.4**	**55**	**227.3**	**226.0**

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	Exposure value US$bn	Exposure weighted average PD %	Exposure weighted average LGD %	Exposure weighted average risk weight %	Undrawn commit-ments US$bn	RWAs US$bn
At 31 December 2009						
Central governments and central banks	237.6	0.16	19.9	14	4.7	33.4
Institutions	180.3	0.49	32.5	22	9.0	40.0
Corporates[1]	395.3	3.32	38.9	61	203.0	242.2

1 *Excludes Specialised Lending exposures subject to the supervisory slotting approach.*

Table 11: IRB advanced exposure – analysis by obligor grade[1]

	At 31 December 2010				
	Exposure value US$bn	**Exposure weighted average PD %**	**Exposure weighted average LGD %**	**Exposure weighted average risk weight %**	**RWAs US$bn**
Central governments and central banks					
Minimal default risk	**210.9**	**0.01**	**13.8**	**3**	**5.8**
Low default risk	**62.2**	**0.08**	**37.6**	**17**	**10.6**
Satisfactory default risk	**9.3**	**0.42**	**44.7**	**59**	**5.5**
Fair default risk	**7.0**	**1.24**	**44.7**	**91**	**6.4**
Moderate default risk	**1.3**	**2.88**	**47.8**	**131**	**1.7**
Significant default risk	**0.6**	**5.75**	**44.7**	**150**	**0.9**
High default risk	**0.2**	**9.52**	**87.4**	**350**	**0.7**
Special management	**–**	**19.00**	**88.0**	**456**	**0.2**
	291.5	**0.11**	**20.9**	**11**	**31.8**
Institutions					
Minimal default risk	**44.6**	**0.03**	**26.8**	**6**	**2.7**
Low default risk	**104.8**	**0.10**	**29.1**	**13**	**13.8**
Satisfactory default risk	**20.3**	**0.31**	**31.3**	**30**	**6.1**
Fair default risk	**5.5**	**1.29**	**41.9**	**82**	**4.5**
Moderate default risk	**1.3**	**2.82**	**44.6**	**115**	**1.5**
Significant default risk	**0.7**	**6.20**	**44.3**	**143**	**1.0**
High default risk	**0.6**	**12.27**	**60.8**	**267**	**1.6**
Special management	**–**	**18.17**	**30.2**	**170**	**–**
Default	**0.2**	**100.00**	**62.7**	**50**	**0.1**
	178.0	**0.36**	**29.5**	**18**	**31.3**
Corporates[2]					
Minimal default risk	**34.5**	**0.04**	**39.7**	**13**	**4.4**
Low default risk	**94.0**	**0.10**	**40.2**	**23**	**21.4**
Satisfactory default risk	**137.8**	**0.39**	**39.0**	**49**	**67.2**
Fair default risk	**76.4**	**1.28**	**36.5**	**78**	**59.5**
Moderate default risk	**39.6**	**2.98**	**35.3**	**99**	**39.3**
Significant default risk	**9.1**	**6.57**	**35.4**	**129**	**11.7**
High default risk	**8.0**	**10.58**	**36.8**	**171**	**13.7**
Special management	**3.8**	**32.05**	**35.9**	**184**	**7.0**
Default[3]	**6.2**	**100.00**	**44.9**	**29**	**1.8**
	409.4	**2.82**	**38.4**	**55**	**226.0**

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	At 31 December 2009				
	Exposure value US$bn	Exposure weighted average PD %	Exposure weighted average LGD %	Exposure weighted average risk weight %	RWAs US$bn
Central governments and central banks					
Minimal default risk	164.8	0.02	13.2	3	5.1
Low default risk	46.1	0.07	31.4	18	8.2
Satisfactory default risk	14.6	0.24	36.9	40	5.9
Fair default risk	5.3	1.03	45.4	83	4.4
Moderate default risk	5.8	2.18	44.1	122	7.1
Significant default risk	0.7	6.42	45.1	186	1.3
High default risk	0.3	9.69	85.7	400	1.2
Special management	–	22.85	79.5	419	0.2
	237.6	0.16	19.9	14	33.4
Institutions					
Minimal default risk	38.2	0.03	27.1	6	2.3
Low default risk	89.2	0.09	32.2	13	12.0
Satisfactory default risk	40.6	0.27	34.3	31	12.5
Fair default risk	7.9	0.99	42.5	76	6.0
Moderate default risk	1.6	2.93	49.9	131	2.1
Significant default risk	0.8	6.11	52.8	163	1.3
High default risk	1.5	12.22	59.7	220	3.3
Special management	0.2	20.60	47.3	250	0.5
Default	0.3	100.00	50.2	–	–
	180.3	0.49	32.5	22	40.0
Corporates[2]					
Minimal default risk	32.3	0.03	40.3	15	4.7
Low default risk	74.8	0.10	40.6	25	18.4
Satisfactory default risk	124.5	0.40	38.0	48	60.1
Fair default risk	92.3	1.26	38.8	79	73.1
Moderate default risk	38.7	3.00	37.0	107	41.6
Significant default risk	12.0	6.41	35.3	133	15.9
High default risk	8.7	10.89	39.7	190	16.5
Special management	5.2	32.00	38.7	190	9.9
Default[3]	6.8	100.00	51.2	29	2.0
	395.3	3.32	38.9	61	242.2

1 *See glossary for definition of obligor grade.*
2 *Excludes Specialised Lending exposures subject to the supervisory slotting approach.*
3 *There is a requirement to hold additional capital for unexpected losses on defaulted exposures where LGD exceeds best estimate of EL. As a result, in some cases, RWAs arise for exposures in default.*

Table 12: IRB foundation exposure[1]

	Exposure value US$bn	Exposure weighted average risk weight %	RWAs US$bn
Corporates[2]			
At 31 December 2010	**7.8**	**53**	**4.1**
At 31 December 2009	7.9	54	4.3

1 *Exposures have not been disclosed by obligor grade as the amounts are not significant at Group level.*
2 *Excludes Specialised Lending exposures subject to the supervisory slotting approach.*

The EL bandings for the retail business summarise a more granular EL scale for these customer segments which combine obligor and facility/product risk factors in a composite measure of PD and LGD. The definitions of PD and LGD for retail portfolios are both subject to degrees of national regulators' discretion and the international variability of the measures preclude their direct use as global comparators. The composite EL measure enables the diverse risk profiles of retail portfolios across the Group to be assessed on a more comparable scale than through the direct utilisation of PD and LGD measures. The Middle East and Latin America are not included in this table as retail exposures in these regions are calculated under the standardised approach.

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

Table 13: Retail IRB exposure – analysis by geographical region

	Exposure value				
	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	North America US$bn	Total exposure US$bn
At 31 December 2010					
Secured on real estate property					
Expected loss band					
– less than 1%	**116.3**	**40.4**	**29.1**	**51.3**	**237.1**
– greater than or equal to 1% and less than 5%	**2.0**	**0.3**	**0.6**	**21.5**	**24.4**
– greater than or equal to 5% and less than 10%	**0.5**	**–**	**–**	**8.2**	**8.7**
– greater than or equal to 10% and less than 20%	**0.2**	**–**	**–**	**5.7**	**5.9**
– greater than or equal to 20% and less than 40%	**0.1**	**–**	**–**	**4.8**	**4.9**
– greater than or equal to 40% and exposures in default	**1.1**	**0.1**	**0.3**	**9.2**	**10.7**
	120.2	**40.8**	**30.0**	**100.7**	**291.7**
Qualifying revolving retail exposures					
Expected loss band					
– less than 1%	**33.3**	**15.4**	**–**	**47.2**	**95.9**
– greater than or equal to 1% and less than 5%	**6.8**	**3.2**	**–**	**16.4**	**26.4**
– greater than or equal to 5% and less than 10%	**1.4**	**0.6**	**–**	**6.6**	**8.6**
– greater than or equal to 10% and less than 20%	**0.6**	**0.2**	**–**	**2.9**	**3.7**
– greater than or equal to 20% and less than 40%	**0.2**	**0.1**	**–**	**0.9**	**1.2**
– greater than or equal to 40% and exposures in default	**0.8**	**–**	**–**	**2.0**	**2.8**
	43.1	**19.5**	**–**	**76.0**	**138.6**
SMEs[1]					
Expected loss band					
– less than 1%	**4.1**	**0.6**	**–**	**0.7**	**5.4**
– greater than or equal to 1% and less than 5%	**5.6**	**–**	**–**	**0.2**	**5.8**
– greater than or equal to 5% and less than 10%	**0.5**	**–**	**–**	**–**	**0.5**
– greater than or equal to 10% and less than 20%	**0.4**	**–**	**–**	**–**	**0.4**
– greater than or equal to 20% and less than 40%	**0.1**	**–**	**–**	**–**	**0.1**
– greater than or equal to 40% and exposures in default	**1.0**	**–**	**–**	**–**	**1.0**
	11.7	**0.6**	**–**	**0.9**	**13.2**
Other retail[2]					
Expected loss band					
– less than 1%	**34.2**	**8.9**	**2.5**	**5.9**	**51.5**
– greater than or equal to 1% and less than 5%	**4.7**	**0.3**	**–**	**4.7**	**9.7**
– greater than or equal to 5% and less than 10%	**1.1**	**0.1**	**–**	**1.7**	**2.9**
– greater than or equal to 10% and less than 20%	**0.4**	**–**	**–**	**1.4**	**1.8**
– greater than or equal to 20% and less than 40%	**0.2**	**–**	**–**	**0.7**	**0.9**
– greater than or equal to 40% and exposures in default	**1.0**	**0.1**	**–**	**1.1**	**2.2**
	41.6	**9.4**	**2.5**	**15.5**	**69.0**
Total retail					
Expected loss band					
– less than 1%	**187.9**	**65.3**	**31.6**	**105.1**	**389.9**
– greater than or equal to 1% and less than 5%	**19.1**	**3.8**	**0.6**	**42.8**	**66.3**
– greater than or equal to 5% and less than 10%	**3.5**	**0.7**	**–**	**16.5**	**20.7**
– greater than or equal to 10% and less than 20%	**1.6**	**0.2**	**–**	**10.0**	**11.8**
– greater than or equal to 20% and less than 40%	**0.6**	**0.1**	**–**	**6.4**	**7.1**
– greater than or equal to 40% and exposures in default	**3.9**	**0.2**	**0.3**	**12.3**	**16.7**
	216.6	**70.3**	**32.5**	**193.1**	**512.5**

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

	Exposure value				
	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	North America US$bn	Total exposure US$bn
At 31 December 2009					
Secured on real estate property					
Expected loss band					
– less than 1%	110.9	34.1	19.3	63.2	227.5
– greater than or equal to 1% and less than 5%	2.6	0.3	0.6	14.4	17.9
– greater than or equal to 5% and less than 10%	0.5	–	–	9.9	10.4
– greater than or equal to 10% and less than 20%	0.2	–	–	5.7	5.9
– greater than or equal to 20% and less than 40%	0.1	–	–	3.1	3.2
– greater than or equal to 40% and exposures in default	1.2	0.1	0.3	11.1	12.7
	115.5	34.5	20.2	107.4	277.6
Qualifying revolving retail exposures					
Expected loss band					
– less than 1%	35.8	11.9	–	46.6	94.3
– greater than or equal to 1% and less than 5%	7.7	2.6	–	21.1	31.4
– greater than or equal to 5% and less than 10%	1.6	0.5	–	8.9	11.0
– greater than or equal to 10% and less than 20%	0.7	0.2	–	4.8	5.7
– greater than or equal to 20% and less than 40%	0.2	0.1	–	1.5	1.8
– greater than or equal to 40% and exposures in default	0.9	–	–	3.7	4.6
	46.9	15.3	–	86.6	148.8
SMEs[1]					
Expected loss band					
– less than 1%	4.1	0.1	–	0.8	5.0
– greater than or equal to 1% and less than 5%	5.3	–	–	0.2	5.5
– greater than or equal to 5% and less than 10%	0.4	–	–	–	0.4
– greater than or equal to 10% and less than 20%	0.3	–	–	–	0.3
– greater than or equal to 20% and less than 40%	0.1	–	–	–	0.1
– greater than or equal to 40% and exposures in default	1.0	–	–	–	1.0
	11.2	0.1	–	1.0	12.3
Other retail[2]					
Expected loss band					
– less than 1%	33.2	6.1	2.3	4.3	45.9
– greater than or equal to 1% and less than 5%	6.0	0.9	0.1	6.0	13.0
– greater than or equal to 5% and less than 10%	1.3	0.2	–	2.8	4.3
– greater than or equal to 10% and less than 20%	0.6	0.1	–	2.8	3.5
– greater than or equal to 20% and less than 40%	0.2	–	–	1.3	1.5
– greater than or equal to 40% and exposures in default	1.4	0.1	–	2.1	3.6
	42.7	7.4	2.4	19.3	71.8
Total retail					
Expected loss band					
– less than 1%	184.0	52.2	21.6	114.9	372.7
– greater than or equal to 1% and less than 5%	21.6	3.8	0.7	41.7	67.8
– greater than or equal to 5% and less than 10%	3.8	0.7	–	21.6	26.1
– greater than or equal to 10% and less than 20%	1.8	0.3	–	13.3	15.4
– greater than or equal to 20% and less than 40%	0.6	0.1	–	5.9	6.6
– greater than or equal to 40% and exposures in default	4.5	0.2	0.3	16.9	21.9
	216.3	57.3	22.6	214.3	510.5

1 *The FSA allows exposures to SMEs to be treated under the Retail IRB approach, where the total amount owed to the Group by the counterparty is less than EUR 1m and the customer is not managed as individually as a corporate counterparty.*
2 *Includes overdrafts and personal lending.*

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Risk mitigation

Our approach, when granting credit facilities, is to do so on the basis of capacity to repay, rather than to place primary reliance on credit risk mitigation. Depending on a customer's standing and the type of product, facilities may be provided unsecured. Mitigation of credit risk is nevertheless a key aspect of effective risk management and, in a diversified financial services organisation such as HSBC, takes many forms. There is no material concentration of credit risk mitigation held.

Our general policy is to promote the use of credit risk mitigation, justified by commercial prudence and good practice as well as capital efficiency. Specific, detailed policies cover the acceptability, structuring and terms of various types of business with regard to the availability of credit risk mitigation, for example in the form of collateral security, and these policies, together with the determination of suitable valuation parameters, are subject to regular review to ensure that they are supported by empirical evidence and continue to fulfil their intended purpose.

The most common method of mitigating credit risk is to take collateral. In our residential and commercial real estate businesses, a mortgage over the property is usually taken to help secure claims. Physical collateral is also typically taken in vehicle financing in some jurisdictions, and in various forms of specialised lending and leasing transactions where physical assets form the principal source of facility repayment. In the commercial and industrial sectors, charges are created over business assets such as premises, stock and debtors. Loans to private banking clients may be made against the pledge of eligible marketable securities or cash (known as Lombard lending) or real estate. Facilities to SMEs are commonly granted against guarantees given by their owners and/or directors. Guarantees from third parties can arise where the Group extends facilities without the benefit of any alternative form of security, e.g. where it issues a bid or performance bond in favour of a non-customer at the request of another bank.

In the institutional sector, trading facilities are supported by charges over financial instruments such as cash, debt securities and equities. Financial collateral in the form of marketable securities is used in much of the Group's over-the-counter ('OTC') derivatives activities and in its securities financing business (securities lending and borrowing or repos and reverse repos). Netting is extensively used and is a prominent feature of market standard documentation.

Our Global Banking and Markets business utilises credit risk mitigation to actively manage the credit risk of its portfolios, with the goal of reducing concentrations in individual names, sectors or portfolios. The techniques in use include credit default swaps ('CDS's), structured credit notes and securitisation structures. Buying credit protection creates credit exposure against the protection provider, which is monitored as part of the overall credit exposure against the relevant name (see also 'Collateral arrangements' on page 33).

Settlement risk arises in any situation where a payment in cash, securities or equities is made in the expectation of a corresponding receipt of cash, securities or equities. Daily settlement limits are established to cover the aggregate of our transactions with a counterparty on any single day. Settlement risk on many transactions, particularly those involving securities and equities, is substantially mitigated by settling through assured payment systems or on a delivery-versus-payment basis.

Policies and procedures govern the protection of our position from the outset of a customer relationship, for instance in requiring standard terms and conditions or specifically agreed documentation permitting the offset of credit balances against debt obligations and through controls over the integrity, current valuation and, if necessary, realisation of collateral security.

The valuation of credit risk mitigants seeks to monitor and ensure that they will continue to provide the secure repayment source anticipated at the time they were taken. Where collateral is subject to high volatility, valuation is frequent; where stable, less so. Trading businesses typically carry out daily valuations. In the residential mortgage business, on the other hand, Group policy prescribes valuation at intervals of up to three years, or more frequently as the need may arise, at the discretion of the business line, by a variety of methods ranging from the use of market indices to individual professional inspection.

In terms of their application within an IRB approach (for the standardised approach, see page 30), risk mitigants are considered in two broad categories: first, those which reduce the intrinsic probability of default of an obligor and therefore operate as adjustments to PD estimation; secondly, those which affect the estimated recoverability of obligations and require adjustment of LGD or, in certain circumstances, EAD. The first include, typically, full parental guarantees; the second, collateral security of various kinds such as cash or mortgages over residential property.

The adjustment of PD estimation is also subject to supplementary methodologies in respect of a 'sovereign ceiling' constraining the risk ratings assigned to obligors in countries of higher risk, and of partial parental support.

EAD and LGD values, in the case of individually assessed exposures, are determined by reference to regionally approved internal risk parameters based on the nature of the exposure. For retail portfolios, credit mitigation data is incorporated into the internal risk parameters for risk exposures and feeds into the calculation of the EL band value summarising both customer delinquency and product or facility risk. Credit and risk mitigation data form the inputs submitted to a centralised database by all Group offices, upon which a risk engine then performs calculations applying the relevant Basel II rules and approach.

The table below details the effective value of credit risk mitigation. Under the IRB advanced approach, financial collateral is taken into account in the LGD. Under the IRB foundation approach, for the calculation of financial collateral, an adjustment (or 'haircut') is applied to the collateral to take account of price volatility. This adjusted collateral value is then subtracted from the exposure value to create an 'adjusted exposure value'. The exposure value covered by collateral is the difference between original exposure value and adjusted exposure value. An adjustment is then applied to LGD to reflect the credit risk mitigation. Similarly, for physical collateral, the LGD of an exposure will be adjusted depending on certain factors, including the value and type of the asset taken as collateral. For unfunded protection, which includes credit derivatives and guarantees, a 'substitution method' is applied. The exposure value covered by collateral is substituted by a similar exposure to the protection provider. Under the IRB foundation approach, the PD of the obligor is substituted by the PD of the protection provider. Under the IRB advanced approach the recognition is more complicated and may involve a PD or LGD adjustment or both.

Table 14: IRB exposure – credit risk mitigation analysis

	At 31 December 2010			At 31 December 2009		
	Exposure value covered by eligible financial and other collateral US$bn	**Exposure value covered by credit derivatives or guarantees US$bn**	**Exposure value US$bn**	Exposure value covered by eligible financial and other collateral US$bn	Exposure value covered by credit derivatives or guarantees US$bn	Exposure value US$bn
Exposures under the IRB advanced approach[1]						
Central governments and central banks	**n/a**	**0.3**	**291.5**	n/a	–	237.6
Institutions	**n/a**	**18.4**	**178.0**	n/a	25.1	180.3
Corporates	**n/a**	**48.8**	**413.7**	n/a	43.3	399.5
Retail	**n/a**	**23.9**	**512.5**	n/a	23.7	510.5
Exposures under the IRB foundation approach						
Corporates	**0.3**	**0.1**	**7.8**	0.4	0.2	7.9

1 *Under the IRB advanced approach eligible financial collateral is reflected in the Group's LGD model. As such, separate disclosure of exposures covered by eligible financial collateral is not applicable.*

Loss experience and model validation

We analyse credit loss experience in order to assess the performance of our risk measurement and control processes, and to inform corrective measures. This analysis includes validation of the outputs of predictive risk analytical models, compared with other reported measures of risk and losses.

The disclosures below set out:

- commentary on the relationship between regulatory EL and impairment allowances recognised in our financial statements;
- EL and impairment charges by exposure class (within Retail IRB, also by sub-class) and by region; and model performance: projected and actual IRB metrics for major global models in our portfolio.

EL and impairment allowances

EL is calculated on IRB portfolios other than Securitisations, and FSA rules require that, to the extent that EL exceeds individual and collective impairment allowances, it is to be deducted from capital. When comparing EL with accounting impairment allowances on the related assets, differences need to be taken into account between

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

the definition of EL under Basel II principles and impairment allowances within financial statements prepared under IFRSs. For example:

- EL is generally based on through-the-cycle PD estimates over a one-year future horizon, determined via statistical analysis of historical default experience, while impairment allowances in the financial statements means losses that have incurred at the reporting date. Further detail of policy on the impairment of loans and advances is provided on page 255 of the *Annual Report and Accounts 2010*;
- EL is based on downturn estimates of LGD while impairment allowances are based on loss experience at the balance sheet date; and
- EL is based on exposure values that incorporate expected future drawings of committed credit lines, while impairment allowances are, generally, based on on-balance sheet assets.

These and other technical differences influence the way in which the impact of business and economic drivers is expressed in the accounting and regulatory measures. The following tables set out EL and actual loss experience for IRB credit risk exposures.

Table 15: IRB credit risk expected loss and impairment charges – analysis by exposure class

	Expected loss[1] as at 1 January 2010 US$bn	**Impairment charge for 2010 US$bn**	Expected loss[1] as at 1 January 2009 US$bn	Impairment charge for 2009 US$bn
IRB exposure classes				
Central governments and central banks	**0.2**	**–**	0.1	–
Institutions	**0.4**	**–**	0.3	0.1
Corporates	**5.9**	**1.4**	3.4	3.7
Retail	**19.8**	**9.3**	20.9	16.0
– secured on real estate property	**8.5**	**4.5**	7.7	5.8
– qualifying revolving retail	**6.7**	**2.8**	6.6	5.8
– other retail	**3.9**	**2.0**	6.0	4.4
– SMEs	**0.7**	**–**	0.6	–
Total	**26.3**	**10.7**	24.7	19.8

1 *EL is not calculated for Securitisation positions so this IRB exposure class is not included in the analysis above.*

Table 16: IRB credit risk expected loss and impairment charges – analysis by geographical region

	Expected loss[1] as at 1 January 2010 US$bn	**Impairment charge for 2010 US$bn**	Expected loss[1] as at 1 January 2009 US$bn	Impairment charge for 2009 US$bn
Europe	**6.7**	**2.3**	4.8	3.9
Hong Kong	**0.9**	**0.1**	0.8	0.4
Rest of Asia-Pacific	**0.9**	**0.1**	0.4	0.2
Middle East	**0.1**	**–**	0.1	0.1
North America	**17.6**	**8.2**	18.6	15.2
Latin America	**0.1**	**–**	–	–
Total	**26.3**	**10.7**	24.7	19.8

1 *EL is not calculated for Securitisation positions so this IRB exposure class is not included in the analysis above.*

Impairment charges reflect loss events which arose during the financial year and changes in estimates of losses arising on events which occurred prior to the current year. The majority of EL at 1 January 2010 and the impairment charge through the year ended 31 December 2010 relate to our Retail exposures in North America. The drivers of the impairment allowances and charges for 2010 in North America, including delinquency experience and loss severities, are discussed on pages 127 of the *Annual Report and Accounts 2010*. The levels of delinquency, charge-off and loan loss allowances are reducing across North America as we continue to write down or write-off an increasing number of loans upon either modification or foreclosure. Despite these reductions, EL remains elevated as the impact of the deterioration in the US economy and housing market over recent years is progressively captured within the various Basel II model parameters.

Full details of the Group's impaired loans and advances, past due but not impaired assets and impairment allowances and charges are set out on page 116 of the *Annual Report and Accounts 2010*. These figures are prepared on an accounting consolidation basis but are not significantly different from those calculated on a regulatory consolidation basis. Our approach for determining impairment allowances are explained on page 94 of the *Annual Report and Accounts 2010*.

Model performance

The large number of models utilised within the Group result in data at individual model level being in most cases immaterial in the context of the whole Group. Disclosure of such data could place proprietary information at risk, whilst aggregation of it would greatly reduce its usefulness.

We have therefore chosen to disclose model performance data only for the major global models in use at the present time.

The table below shows projected and actual values for key Basel II metrics in respect of the models for Central governments and central banks, Institutions and Global large corporates models. The projections represent opening values at 1 January 2010, and actuals represent the defaults and losses experienced during the year as a percentage of total facility limits.

Table 17: IRB advanced models – projected and actual values

	2010				
	PD		LGD		EAD[1]
	Projected %	Actual %	Projected %	Actual %	Actual %
Central governments and central banks model	**0.11**	**–**	**17.2**	**–**	**–**
Institutions model	**0.36**	**–**	**28.8**	**–**	**–**
Global large corporates model[2]	**0.75**	**0.09**	**32.6**	**11.7**	**65.0**

	2009				
	PD		LGD		EAD[1]
	Projected %	Actual %	Projected %	Actual %	Actual %
Central governments and central banks model	0.20	–	20.3	–	–
Institutions model	0.47	0.05	29.6	8.7	73.0
Global large corporates model[2]	0.46	0.06	33.8	44.1	100.0

1 *EAD of defaulted counterparties as a percentage of their total facility limits. Projected EAD figures for defaulted borrowers are not disclosed, this population having been undefined at the start of the period.*
2 *The Global Large Corporates model covers the segment of the largest, and generally lower-risk, corporates whose annual turnover exceeds US$700m. The PD analysis includes all IRB advanced or foundation exposures. The LGD and EAD analyses include IRB advanced exposures only because, under the IRB foundation approach, regulatory LGD parameters are applied. Actual LGD percentage for the Global Large Corporates model reflects additional conservatism applied to estimates of recoveries over time from specific defaults within the large corporate portfolio.*

Application of the standardised approach for credit risk

The standardised approach is applied where exposures do not qualify for use of an IRB approach and/or where an exemption from IRB has been granted. The standardised approach requires banks to use risk assessments prepared by External Credit Assessment Institutions ('ECAI's) or Export Credit Agencies to determine the risk weightings applied to rated counterparties.

ECAI risk assessments are used within the Group as part of the determination of risk weightings for the following classes of exposure:

- Central governments and central banks;
- Institutions;
- Corporates;
- Securitisation positions;
- Short-term claims on institutions and corporates;
- Regional governments and local authorities; and
- Multilateral development banks.

We have nominated three FSA-recognised ECAIs for this purpose – Moody's Investors Service ('Moodys'), Standard & Poor's Ratings Group ('S&P') and Fitch Group ('Fitch'). We have not nominated any Export Credit Agencies.

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

Data files of external ratings from the nominated ECAIs are matched with customer records in our centralised credit database.

When calculating the risk-weighted value of an exposure using ECAI risk assessments, risk systems identify the customer in question and look up the available ratings in the central database according to the FSA's rating selection rules. The systems then apply the FSA's prescribed credit quality step mapping to derive from the rating the relevant risk weight.

All other exposure classes are assigned risk weightings as prescribed in the FSA's rulebook.

Under guidance provided by the FSA, exposures guaranteed by central governments of EEA States may be risk-weighted at 0% under the Standardised approach, provided exposures to these EEA central governments would attract a 0% risk weight under the Standardised approach.

Banking associates' exposures are calculated under the standardised approach and, at 31 December 2010, represented approximately 13% of total Group RWAs.

The table below sets out the distribution of standardised exposures across credit quality steps. The analysis of credit quality step allocations for Regional governments or local authorities, Short-term claims, Securitisation positions, Collective investment undertakings and Multilateral development banks is excluded as their total exposures are less than 1% of the total standardised approach exposures.

Table 18: Standardised approach exposure – analysis by credit quality step

	At 31 December 2010		At 31 December 2009	
	Exposure value US$bn	**RWAs US$bn**	Exposure value US$bn	RWAs US$bn
Central governments and central banks				
Credit quality step 1	**51.6**		33.2	
Credit quality step 2	**29.6**		30.6	
Credit quality step unrated	**1.2**		0.8	
	82.4	**0.9**	64.6	0.9
Institutions				
Credit quality step 1	**11.1**		16.0	
Credit quality step 2	**0.9**		–	
Credit quality step 3	**–**		0.7	
Credit quality step 5	**–**		0.1	
Credit quality step unrated	**28.8**		25.0	
	40.8	**11.3**	41.8	9.9
Corporates				
Credit quality step 1	**4.8**		6.5	
Credit quality step 2	**4.2**		6.8	
Credit quality step 3	**28.7**		27.2	
Credit quality step 4	**6.8**		5.1	
Credit quality step 5	**1.7**		1.6	
Credit quality step 6	**0.6**		0.5	
Credit quality step unrated	**163.5**		132.8	
	210.3	**197.5**	180.5	165.1

Risk mitigation

For exposures subject to the standardised approach – covered by an eligible guarantee, non-financial collateral, or credit derivatives – the exposure is divided into covered and uncovered portions. The covered portion, determined after applying an appropriate 'haircut' for currency and maturity mismatch (and for omission of restructuring clauses for credit derivatives, where appropriate) to the amount of protection provided, attracts the risk weight of the protection provider, while the uncovered portion attracts the risk weight of the obligor. For exposures fully or partially covered by eligible financial collateral, the value of the exposure is adjusted under the Financial Collateral

Comprehensive Method using supervisory volatility adjustments, including those arising from currency mismatch, which are determined by the specific type of collateral (and, in the case of eligible debt securities, their credit quality) and its liquidation period. The adjusted exposure value is subject to the risk weight of the obligor.

The table below sets out the effective value of credit risk mitigation for exposures under the standardised approach, expressed as the exposure value covered by the credit risk mitigant.

Table 19: Standardised approach exposure – credit risk mitigation analysis

	At 31 December 2010			At 31 December 2009		
	Exposure value covered by eligible financial and other collateral US$bn	**Exposure value covered by credit derivatives or guarantees US$bn**	**Exposure value US$bn**	Exposure value covered by eligible financial and other collateral US$bn	Exposure value covered by credit derivatives or guarantees US$bn	Exposure value US$bn
Exposures under the standardised approach						
Central governments and central banks	**–**	**0.2**	**82.4**	–	0.8	64.6
Institutions	**–**	**6.8**	**40.8**	–	14.9	41.8
Corporates	**7.5**	**3.4**	**210.3**	6.8	1.4	180.5
Retail	**1.0**	**0.4**	**54.9**	0.8	0.2	53.7
Secured on real estate property	**–**	**0.4**	**39.3**	–	–	32.3
Past due items	**0.1**	**–**	**4.0**	0.1	–	4.6
Other items[1]	**0.6**	**0.1**	**94.1**	0.2	0.2	86.7

1 *Primarily includes such items as fixed assets, prepayments, accruals and Hong Kong Government certificates of indebtedness. Also includes immaterial exposures to Regulatory high-risk categories, Short-term claims, Securitisation positions, Collective investment undertakings, Administrative bodies and non-commercial undertakings, and Multilateral development banks under the standardised approach.*

Counterparty credit risk

Counterparty credit risk arises for OTC derivatives and securities financing transactions. It is calculated in both the trading and non-trading book, and is the risk that a counterparty to a transaction may default before completing the satisfactory settlement of the transaction. An economic loss occurs if the transaction or portfolio of transactions with the counterparty has a positive economic value at the time of default.

As discussed on page 5, there are three approaches under Basel II to calculating exposure values for counterparty credit risk: the standardised, the mark-to-market and the IMM. Exposure values calculated under these methods are used to determine RWAs using one of the credit risk approaches. Across the Group, we use both the mark-to-market method and the IMM for counterparty credit risk. Under the IMM, the EAD is calculated by multiplying the effective expected positive exposure with a multiplier called 'alpha'. Alpha accounts for several portfolio features that increase the expected loss in the event of default above that indicated by effective expected positive exposure: co-variance of exposures, correlation between exposures and default, concentration risk and model risk. It also accounts for the level of volatility/correlation that might coincide with a downturn. The default alpha value of 1.4 is used. Limits for counterparty credit risk exposures are assigned within the overall credit process for distinct customer limit approval. The measure used for counterparty credit risk management – both limits and utilisations – is the 95th percentile of potential future exposure.

The models and methodologies used in the calculation of counterparty risk are approved by the Counterparty Risk Methodology Committee, a sub-committee of CRAOC. In line with the IMM governance standards, models are subject to independent review when they are first developed and ongoing, an annual review.

Credit risk adjustment

We adopt a credit risk adjustment (also frequently known as a 'credit valuation adjustment') against OTC derivative transactions to reflect, within fair value, the possibility that the counterparty may default, and we may not receive the full market value of the transactions. We calculate a separate credit risk adjustment for each HSBC legal entity, and within each entity for each counterparty to which the entity has exposure. The adjustment aims to calculate the potential loss arising from the portfolio of derivative transactions against each third party, based upon a modelled expected positive exposure profile, including allowance for credit risk

mitigants such as netting agreements and Credit Support Annexes ('CSA's).

Further details of our credit risk adjustment methodology are provided on page 51 of this document.

Collateral arrangements

We revalue all traded transactions and associated collateral positions on a daily basis. An independent Collateral Management function manages the collateral process, which includes pledging and receiving collateral, and investigating disputes and non-receipts.

Eligible collateral types are controlled under a policy which ensures the collateral agreed to be taken exhibits characteristics such as price transparency, price stability, liquidity, enforceability, independence, reusability and eligibility for regulatory purposes. A valuation 'haircut' policy reflects the fact that collateral may fall in value between the date the collateral was called and the date of liquidation or enforcement. At least 95% of collateral held as credit risk mitigation under CSAs is either cash or government securities.

Credit ratings downgrade

It has increasingly become the practice for market participants to employ credit ratings downgrade language clauses in industry standard master agreements such as the ISDA Master Agreement as a form of risk control. These clauses are designed to trigger a series of events which may include the termination of transactions by the non-affected party, or assignment by the affected party, if its credit rating falls below a specified level.

We control the inclusion of credit ratings downgrade language in industry standard master agreements by requiring each Group office to obtain the endorsement of a senior member of the Treasury function and the relevant local Credit authority prior to obtaining approval from Group Risk.

Our position with regard to credit ratings downgrade language is monitored through two reports, as below, and maintains liquidity to cover the contingent risk as required by the regulator:

- a report is produced which identifies the trigger ratings and individual details for documentation where credit ratings downgrade language exists within an ISDA Master Agreement; and
- a further report is produced which identifies the additional collateral requirements where credit ratings downgrade language affects the threshold levels within a collateral agreement.

At 31 December 2010, the additional collateral required to be posted for a one notch downgrade was US$0.9bn (2009: US$1.0bn) and for a two notch downgrade was US$1.2bn (2009: US$1.3bn).

Wrong-way risk

Wrong-way risk is an aggravated form of concentration risk and arises when there is a strong correlation between the counterparty's probability of default and the mark-to-market value of the underlying transaction. Wrong-way risk can be seen in the following examples:

- where the counterparty is resident and/or incorporated in an emerging market and seeks to sell a non-domestic currency in exchange for its home currency;
- where the trade involves the purchase of an equity put option from a counterparty whose shares are the subject of the option;
- the purchase of credit protection from a counterparty who is closely associated with the reference entity of the credit default swap or total return swap; and
- the purchase of credit protection on an asset type which is highly concentrated in the exposure of the counterparty selling the credit protection.

We use a range of procedures to control and monitor wrong-way risk, including requiring entities to obtain prior approval before undertaking wrong-way risk transactions outside pre-agreed guidelines. The regional Credit Risk Management functions undertake control and the monitoring process. A regular meeting of the local Risk Management Committee ('RMC') comprising senior management from Global Markets, Credit, Market Risk Management and Finance is responsible for reviewing and actively managing wrong-way risk, including allocating capital. A global report is now produced and submitted to Global Banking & Markets RMC and to the RMM.

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

Table 20: Counterparty credit risk – net derivative credit exposure[1]

	At 31 December	
	2010 US$bn	2009 US$bn
Counterparty credit risk[2]		
Gross positive fair value of contracts	**260.7**	250.9
Less: netting benefits	**(178.3)**	(168.5)
Netted current credit exposure	**82.4**	82.4
Less: collateral held	**(19.2)**	(21.1)
Net derivative credit exposure	**63.2**	61.3

1 *This table provides a further breakdown of totals reported in the* Annual Report and Accounts 2010 *on an accounting consolidation basis. The same figures are not significantly different when consolidated on a regulatory basis.*
2 *Excludes add-on for potential future credit exposures.*

Table 21: Counterparty credit risk exposure – analysis by exposure class

	IMM		Mark-to-market method[1]		Total counterparty credit risk	
	Exposure value US$bn	**RWAs US$bn**	**Exposure value US$bn**	**RWAs US$bn**	**Exposure value US$bn**	**RWAs US$bn**
At 31 December 2010						
IRB advanced approach	**14.6**	**7.7**	**105.2**	**38.9**	**119.8**	**46.6**
Central governments and central banks	**2.8**	**0.4**	**4.4**	**1.1**	**7.2**	**1.5**
Institutions	**2.5**	**1.8**	**62.1**	**14.2**	**64.6**	**16.0**
Corporates	**9.3**	**5.5**	**38.7**	**23.6**	**48.0**	**29.1**
IRB foundation approach	**–**	**–**	**3.8**	**1.6**	**3.8**	**1.6**
Corporates	**–**	**–**	**3.8**	**1.6**	**3.8**	**1.6**
Standardised approach	**–**	**–**	**4.2**	**2.0**	**4.2**	**2.0**
Central governments and central banks	**–**	**–**	**1.9**	**–**	**1.9**	**–**
Institutions	**–**	**–**	**0.2**	**–**	**0.2**	**–**
Corporates	**–**	**–**	**2.1**	**2.0**	**2.1**	**2.0**
Total	**14.6**	**7.7**	**113.2**	**42.5**	**127.8**	**50.2**
At 31 December 2009						
IRB advanced approach	20.2	8.1	101.7	39.1	121.9	47.2
Central governments and central banks	3.2	0.2	4.8	0.5	8.0	0.7
Institutions	7.6	2.2	57.8	13.7	65.4	15.9
Corporates	9.4	5.7	39.1	24.9	48.5	30.6
IRB foundation approach	–	–	4.3	2.4	4.3	2.4
Corporates	–	–	4.3	2.4	4.3	2.4
Standardised approach	–	–	4.0	2.3	4.0	2.3
Institutions	–	–	1.7	0.8	1.7	0.8
Corporates	–	–	1.5	1.4	1.5	1.4
Retail	–	–	0.5	–	0.5	–
Short-term claims	–	–	0.1	0.1	0.1	0.1
Multilateral development banks	–	–	0.1	–	0.1	–
Administrative bodies and non-commercial undertakings	–	–	0.1	–	0.1	–
Total	20.2	8.1	110.0	43.8	130.2	51.9

1 *Includes add-on for potential future exposure.*

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

Table 22: Counterparty credit risk exposure – analysis by product

	IMM		Mark-to-market method[1]		Total counterparty credit risk	
	Exposure value US$bn	RWAs US$bn	Exposure value US$bn	RWAs US$bn	Exposure value US$bn	RWAs US$bn
At 31 December 2010						
OTC derivatives[1]	**14.6**	**7.7**	**96.2**	**38.4**	**110.8**	**46.1**
Securities financing transactions	**–**	**–**	**16.2**	**3.6**	**16.2**	**3.6**
Other[2]	**–**	**–**	**0.8**	**0.5**	**0.8**	**0.5**
Total	**14.6**	**7.7**	**113.2**	**42.5**	**127.8**	**50.2**
At 31 December 2009						
OTC derivatives[1]	20.2	8.1	94.3	40.9	114.5	49.0
Securities financing transactions	–	–	14.7	2.6	14.7	2.6
Other[2]	–	–	1.0	0.3	1.0	0.3
Total	20.2	8.1	110.0	43.8	130.2	51.9

1 *OTC derivatives under the mark-to-market method include add-on for potential future credit exposures.*
2 *Includes free deliveries not deducted from regulatory capital.*

Table 23: Credit derivative transactions[1]

	At 31 December 2010		At 31 December 2009	
	Protection bought US$bn	Protection sold US$bn	Protection bought US$bn	Protection sold US$bn
Credit derivative products used for own credit portfolio				
Credit default swaps	**1.6**	**–**	6.9	0.1
Total notional value	**1.6**	**–**	6.9	0.1
Credit derivative products used for intermediation				
Credit default swaps	**511.3**	**513.2**	590.3	601.2
Total return swaps	**15.2**	**20.8**	15.6	19.6
Credit spread options	**0.6**	**–**	0.3	0.2
Other	**1.5**	**1.0**	1.6	1.3
Total notional value	**528.6**	**535.0**	607.8	622.3

1 *This table provides a further breakdown of totals reported in the* Annual Report and Accounts 2010 *on an accounting consolidation basis. The same figures are not significantly different when consolidated on a regulatory basis.*

Securitisation

Group securitisation strategy

HSBC acts as originator, sponsor, liquidity provider and derivative counterparty to its own originated and sponsored securitisations, as well as those of third party securitisations. Our strategy is to use securitisations to meet our needs for aggregate funding, to the extent that market, regulatory treatments and other conditions are suitable, and for customer facilitation. We have senior exposures to the securities investment conduits ('SIC's), Mazarin Funding Limited, Barion Funding Limited, Malachite Funding Limited and Solitaire Funding Limited, which are not considered core businesses, and resulting exposures are being repaid as the securities held by the SICs amortise.

Group securitisation roles

Our roles in the securitisation process are as follows:

- **Originator**: where we originate the assets being securitised, either directly or indirectly;
- **Sponsor**: where we establish and manage a securitisation programme that purchases exposures from third parties; and
- **Investor**: where we invest in a securitisation transaction directly or provide derivatives or liquidity facilities to a securitisation.

HSBC as originator

We use SPEs to securitise customer loans and advances that we have originated, in order to diversify our sources of funding for asset origination and for capital efficiency purposes. In such cases, we transfer the loans and advances to the SPEs for cash,

and the SPEs issue debt securities to investors to fund the cash purchases. This activity is conducted in a number of regions and across a number of asset classes. We also act as a derivative counterparty. Credit enhancements to the underlying assets may be used to obtain investment grade ratings on the senior debt issued by the SPEs. The majority of these securitisations are consolidated for accounting purposes. We have also established multi-seller conduit securitisation programmes for the purpose of providing access to flexible market-based sources of finance for our clients to finance discrete pools of third-party originated trade and vehicle finance loan receivables.

In addition, we use SPEs to mitigate the capital absorbed by some of our customer loans and advances we have originated. Credit derivatives are used to transfer the credit risk associated with such customer loans and advances to an SPE, using securitisations commonly known as synthetic securitisations by which the SPE writes credit default swap protection to HSBC. These SPEs are consolidated for accounting purposes when we are exposed to the majority of risks and rewards of ownership.

HSBC as sponsor

We are sponsor to a number of types of securitisation entity, including:

- three active multi-seller conduit vehicles which were established to provide finance to clients – Regency Assets Limited in Europe, Bryant Park Funding LLC in the US and Performance Trust in Canada – to which we provide senior liquidity facilities and programme-wide credit enhancement; and
- four SICs set up to take advantage of spread differentials between the long-term underlying assets and shorter term funding costs. Solitaire Funding Limited and Mazarin Funding Limited are asset-backed commercial paper conduits to which we provide transaction-specific liquidity facilities; Barion Funding Limited and Malachite Funding Limited are vehicles to which we provide senior term funding. We also provide a first loss letter of credit to Solitaire Funding Limited.

Full details of these entities can be found on page 362 of the *Annual Report and Accounts 2010*.

HSBC as investor

We have exposure to third party securitisations across a wide range of sectors in the form of investments, liquidity facilities and as a derivative counterparty.

Valuation of securitisation positions

The performance of a securitisation position is primarily driven by the performance of the assets underlying that securitisation position. We use a combination of market standard systems and third party data providers to monitor the performance data for securitisation exposures.

The valuation process of our investments in securitisation exposures primarily focuses on quotations from third parties, observed trade levels and calibrated valuations from market standard models. This process did not change in 2010. Further details can be found on page 308 of the *Annual Report and Accounts 2010*.

Group securitisation activities in 2010

Our securitisation activities in 2010 mainly consisted of transactions entered into with customers, as both sponsor and investor, in the normal course of business. The other securitisation activity conducted in the period was the continued repurchase of a proportion of outstandings in Metrix Funding Limited and Metrix Securities plc which are vehicles representing pools of securitised loans.

There has been a continued migration to lower securitisation ratings during 2010. This is a result of the performance of the underlying assets being outside the expectations established at inception of the original securitisations, and changes to the ratings methodology of the principal credit rating agencies which occurred in 2009. During 2010, we carried out a number of re-securitisations so that the ratings inputs into the regulatory capital calculation are a more granular reflection of the underlying risk profile. As a result, the regulatory capital required to be held in respect of these assets is more closely aligned to the underlying risk profile of the assets.

During 2010, there were realised losses of US$0.2bn (2009: nil) on securitisation asset disposals.

When securitising a revolving pool of exposures, the originator transfers a pool of exposures to an SPE. The SPE then issues notes to external investors backed by a portion of this pool. The originator's interest is the proportion of the pool which is not in use as collateral backing for notes issued to investors. At 31 December 2010, there were no securitisation exposures based on a revolving pool of exposures (2009: originator's interest US$3.4bn and investor's interest US$0.3bn).

Turquoise Card Backed Securities plc series 2007-1 was fully paid off during the year.

Securitisation accounting treatment

For accounting purposes, we consolidate SPEs when the substance of the relationship indicates that we control them. In assessing control, all relevant factors are considered, including qualitative and quantitative aspects. Full details of these assessments can be found on page 361 of the *Annual Report and Accounts 2010*.

We reassess the required consolidation whenever there is a change in the substance of the relationship between HSBC and an SPE, for example, when the nature of our involvement or the governing rules, contractual arrangements or capital structure of the SPE change.

The transfer of assets to an SPE may give rise to the full or partial derecognition of the financial assets concerned. Only in the event that derecognition is achieved are sales and any resultant gains on sales recognised in the financial statements. In a traditional securitisation, assets are sold to an SPE and no gain or loss on sale is recognised at inception.

Full derecognition occurs when we transfer our contractual right to receive cash flows from the financial assets, or retain the right but assume an obligation to pass on the cash flows from the assets, and transfer substantially all the risks and rewards of ownership. The risks include credit, interest rate, currency, prepayment and other price risks.

Partial derecognition occurs when we sell or otherwise transfer financial assets in such a way that some but not substantially all of the risks and rewards of ownership are transferred but control is retained. These financial assets are recognised on the balance sheet to the extent of our continuing involvement.

Loans, credit cards, debt securities and trade receivables that have been securitised under arrangements by which we retain a continuing involvement in such transferred assets do not generally qualify for derecognition. Continuing involvement may entail retaining the rights to future cash flows arising from the assets after investors have received their contractual terms (for example, interest rate strips); providing subordinated interest; liquidity support; continuing to service the underlying asset; or entering into derivative transactions with the securitisation vehicles. As such, we continue to be exposed to risks associated with these transactions.

Where assets have been derecognised in whole or in part, the rights and obligations that we retain from our continuing involvement in securitisations are initially recorded as an allocation of the fair value of the financial asset between the part that is derecognised and the part that continues to be recognised on the date of transfer.

Securitisation regulatory treatment

For regulatory purposes, SPEs are not consolidated where significant risk has been transferred to third parties. Exposure to these SPEs are risk weighted as securitisation positions for regulatory purposes, including any derivatives or liquidity facilities. Of the US$6.2bn (2009: US$11.4bn) of unrealised losses on available-for-sale ('AFS') debt securities disclosed in the *Annual Report and Accounts 2010*, US$2.3bn (2009: US$10.5bn) relates to assets within SPEs that are not consolidated for regulatory purposes. The remaining US$3.8bn (2009: US$0.9bn) is subject to the FSA's prudential filter that removes unrealised gains and losses on AFS debt securities from capital and also adjusts the exposure value of the positions by the same amount before the relevant risk weighting is applied. The movement of US$3.5bn in the year resulted from the regulatory consolidation of Solitaire Funding Limited.

Calculation of risk-weighted assets for securitisation exposures

Basel II specifies two methods for calculating credit risk requirements for securitisation positions in the non-trading book, being the standardised and IRB approaches. Both approaches rely on the mapping of rating agency credit ratings to risk weights, which range between 7% and 1,250%. Positions that would be weighted at 1,250% are deducted from capital. We have nominated three FSA-recognised ECAIs for this purpose – Moodys, S&P and Fitch.

Within the IRB approach, we use the Ratings Based Method ('RBM'), the Internal Assessment Approach ('IAA') and the Supervisory Formula Method ('SFM').

We use the IRB approach for the majority of our non-trading book securitisation positions, while those in the trading book are treated like other market risk positions.

Securitisation exposures analysed below are on a regulatory consolidated basis and include those deducted from capital, rather than risk weighted. Movement in the year represents any purchase or sale of securitisation assets, the repayment of capital on amortising or maturing securitisation assets, the inclusion of trading book assets when their credit

ratings fall below investment grade and the revaluation of these assets. Movements in the year also reflect the re-assessment of assets no longer treated under the securitisation framework. When assets within re-securitisations are re-securitised to achieve a more granular rating, there is no change in the exposure value, and so no movement in the year is reported.

Table 24: Securitisation exposures – movement in the year

	Total at 1 January	Movement in year			Total at 31 December
2010		As originator	As sponsor	As investor	
	US$bn	**US$bn**	**US$bn**	**US$bn**	**US$bn**
Aggregate amount of securitisation exposures (retained or purchased)					
Residential mortgages	**5.4**	**–**	**–**	**(1.0)**	**4.4**
Commercial mortgages	**4.0**	**(0.1)**	**0.1**	**(0.3)**	**3.7**
Credit cards	**–**	**–**	**–**	**0.1**	**0.1**
Leasing	**0.1**	**–**	**–**	**(0.1)**	**–**
Loans to corporates or SMEs	**0.3**	**–**	**–**	**(0.2)**	**0.1**
Consumer loans	**1.0**	**–**	**–**	**(0.2)**	**0.8**
Trade receivables	**14.8**	**–**	**(2.6)**	**0.6**	**12.8**
Re-securitisations[1]	**54.8**	**–**	**(8.1)**	**(3.3)**	**43.4**
Total	**80.4**	**(0.1)**	**(10.6)**	**(4.4)**	**65.3**
2009					
Aggregate amount of securitisation exposures (retained or purchased)					
Residential mortgages	5.7	–	–	(0.3)	5.4
Commercial mortgages	3.0	–	0.1	0.9	4.0
Credit cards	0.1	–	–	(0.1)	–
Leasing	0.7	–	(0.5)	(0.1)	0.1
Loans to corporates or SMEs	8.9	(1.8)	(0.4)	(6.4)	0.3
Consumer loans	1.4	–	(0.5)	0.1	1.0
Trade receivables	17.3	–	(2.5)	–	14.8
Re-securitisations[1]	54.3	–	(4.9)	5.4	54.8
Total	91.4	(1.8)	(8.7)	(0.5)	80.4

1 *Re-securitisations principally include exposures to Solitaire Funding Limited, Mazarin Funding Limited, Barion Funding Limited and Malachite Funding Limited.*

Table 25: Securitisation exposures – analysis by method

	At 31 December 2010			At 31 December 2009		
	Standard-ised	**IRB**	**Total**	Standard-ised	IRB	Total
	US$bn	**US$bn**	**US$bn**	US$bn	US$bn	US$bn
As originator[1]	**–**	**–**	**–**	–	0.1	0.1
Commercial mortgages	**–**	**–**	**–**	–	0.1	0.1
As sponsor	**–**	**48.0**	**48.0**	–	58.6	58.6
Commercial mortgages	**–**	**0.4**	**0.4**	–	0.3	0.3
Trade receivables[2]	**–**	**11.8**	**11.8**	–	14.8	14.8
Re-securitisations	**–**	**35.4**	**35.4**	–	43.5	43.5
Other assets[3]	**–**	**0.4**	**0.4**	–	–	–
As investor	**0.1**	**17.2**	**17.3**	0.2	21.5	21.7
Residential mortgages	**–**	**4.4**	**4.4**	–	5.4	5.4
Commercial mortgages	**–**	**3.3**	**3.3**	–	3.6	3.6
Credit cards	**–**	**0.1**	**0.1**	–	–	–
Leasing	**–**	**–**	**–**	–	0.1	0.1
Loans to corporates or SMEs	**–**	**0.1**	**0.1**	0.1	0.2	0.3
Consumer loans	**–**	**0.8**	**0.8**	–	1.0	1.0
Trade receivables	**–**	**0.6**	**0.6**	–	–	–
Re-securitisations	**0.1**	**7.9**	**8.0**	0.1	11.2	11.3
Total	**0.1**	**65.2**	**65.3**	0.2	80.2	80.4

1 *For securitisations in which HSBC acts as both originator and sponsor, the exposure is disclosed under originator only.*
2 *Trade receivables 'As sponsor' includes exposures of US$11.8bn (2009: US$8.1bn) which are treated under IAA.*
3 *Other assets 'As sponsor' includes exposures to corporate bonds and Asset-backed securities ('ABS's) of US$0.4bn (2009: nil) which are treated under SFM.*

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

Table 26: Securitisation exposures – asset values and impairment charges

	At 31 December 2010			At 31 December 2009		
	Underlying assets[1,2]		Securitisation exposures impairment charge	Underlying assets[1,2]		Securitisation exposures impairment charge
	Total US$bn	Impaired and past due US$bn	US$bn	Total US$bn	Impaired and past due US$bn	US$bn
As originator	**1.7**	**–**	**–**	2.6	–	–
Residential mortgages	**0.8**	**–**	**–**	0.9	–	–
Commercial mortgages	**0.9**	**–**	**–**	1.3	–	–
Credit cards	**–**	**–**	**–**	0.4	–	–
As sponsor	**46.7**	**6.8**	**2.4**	51.1	3.2	1.0
Commercial mortgages	**2.1**	**–**	**–**	1.8	–	–
Trade receivables	**9.2**	**–**	**–**	10.9	–	–
Re-securitisations[2]	**35.4**	**6.8**	**2.4**	38.4	3.2	1.0
As investor[3]			**0.4**			0.5
Residential mortgages			**0.3**			0.1
Re-securitisations			**0.1**			0.4
Total			**2.8**			1.5

1 *Securitisation exposures may exceed the underlying asset values when HSBC provides liquidity facilities while also acting as derivative counterparty and a note holder in the SPE.*
2 *For re-securitisations where HSBC has derived regulatory capital based on the underlying pool of assets, the asset value used for the regulatory capital calculation is used in the disclosure of total underlying assets. For other re-securitisations the carrying value of the assets per the* Annual Report and Accounts 2010 *is disclosed.*
3 *For securitisations where HSBC acts as investor, information on third party underlying assets is not available.*

Table 27: Securitisation exposures – analysis by risk weighting

	Exposure value			Exposure value		
	Movement in the year 2010 US$bn	Total at 31 December 2010 US$bn	Capital required 2010 US$bn	Movement in the year 2009 US$bn	Total at 31 December 2009 US$bn	Capital required 2009 US$bn
Long-term category – risk weights						
– less than or equal to 10%	**(10.1)**	**40.8**	**0.3**	(16.4)	50.9	0.3
– greater than 10% and less than or equal to 20%	**(6.9)**	**12.5**	**0.2**	6.1	19.4	0.2
– greater than 20% and less than or equal to 50%	**1.8**	**3.4**	**0.1**	(1.0)	1.6	0.1
– greater than 50% and less than or equal to 100%	**0.7**	**3.4**	**0.2**	2.0	2.7	0.2
– greater than 100% and less than or equal to 650%	**(0.1)**	**2.2**	**0.7**	1.4	2.3	0.7
Deductions from regulatory capital	**(0.2)**	**3.0**	**3.0**	1.6	3.2	3.2
Total	**(14.8)**	**65.3**	**4.5**	(6.3)	80.1	4.7
Short-term category – risk weights						
– less than or equal to 10%	**(0.3)**	**–**	**–**	(4.7)	0.3	–
Total	**(0.3)**	**–**	**–**	(4.7)	0.3	–

Market risk

Market risk is the risk that movements in market risk factors, including foreign exchange rates, commodity prices, interest rates, credit spreads and equity prices, will reduce our income or the value of our portfolios.

We separate exposures to market risk into trading and non-trading portfolios. Trading portfolios include positions arising from market-making, position-taking and others designated as marked-to-market. Non-trading portfolios include positions that arise from the interest rate management of our retail and commercial banking assets and liabilities, financial investments designated as available for sale and held to maturity.

Where appropriate, we apply similar risk management policies and measurement techniques to both trading and non-trading portfolios. The application of these to the trading portfolios is described in the section below.

Further information on Market Risk can be found on page 145 of the *Annual Report and Accounts 2010.*

Objectives

The objective of our market risk management is to manage and control market risk exposures in order to optimise return on risk while maintaining a market profile consistent with our status as one of the world's largest banking and financial services organisations.

Organisation and responsibilities

The management of market risk is principally undertaken in Global Banking and Markets using risk limits approved by the GMB. Limits are set for portfolios, products and risk types, with market liquidity being a primary factor in determining the level of limits set.

Group Risk develops the Group's market risk management policies and measurement techniques. Each major operating entity has an independent market risk management and control function which is responsible for measuring market risk exposures in accordance with the policies defined by Group Risk, and monitoring and reporting these exposures against the prescribed limits on a daily basis.

Each operating entity is required to assess the market risks arising on each product in its business. It is the responsibility of each operating unit to ensure that market risk exposures remain within the limits specified for that entity. The nature of the hedging and risk mitigation strategies performed across the Group corresponds to the market instruments available within each operating jurisdiction. These strategies range from the use of traditional market instruments, such as interest rate swaps, to more sophisticated hedging strategies to address a combination of risk factors arising at portfolio level.

Measurement and monitoring

We employ a range of tools to monitor and limit market risk exposures. These include sensitivity analysis, VAR and stress testing.

Table 28: Market risk

	At 31 December 2010		At 31 December 2009	
	Capital required[1] US$bn	**RWAs US$bn**	Capital required[1] US$bn	RWAs US$bn
Market risk				
Interest rate position risk[2]	**0.3**	**3.2**	1.1	14.0
Foreign exchange position risk[2]	**0.1**	**1.0**	0.1	0.8
VAR	**1.0**	**13.3**	1.0	13.0
Calculated under local regulatory rules[3]	**1.7**	**21.1**	1.9	23.9
Equity position risk[2]	**–**	**–**	–	0.1
Commodity position risk[2]	**–**	**0.1**	–	0.1
Total market risk	**3.1**	**38.7**	4.1	51.9

1 *Calculated as 8% of RWAs.*
2 *FSA Standard rules.*
3 *Includes requirements calculated under local VAR models and other calculation rules.*

Sensitivity analysis

Sensitivity measures are used to monitor the market risk positions within each risk type, for example, the present value of a basis point movement in interest rates, for interest rate risk. Sensitivity limits are set for portfolios, products and risk types, with the depth of the market being one of the principal factors in determining the level of limits set.

VAR

VAR is a technique that estimates the potential losses on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence.

The VAR models we use are based predominantly on historical simulation. These models derive plausible future scenarios from past series of recorded market rates and prices, taking into account inter-relationships between different markets and rates such as interest rates and foreign exchange rates. The models also incorporate the effect of option features on the underlying exposures.

The historical simulation models used incorporate the following features:

- potential market movements are calculated with reference to data from the past two years;
- historical market rates and prices are calculated with reference to foreign exchange rates and commodity prices, interest rates, equity prices and the associated volatilities; and
- VAR is calculated to a 99% confidence level and for a one-day holding period.

The nature of the VAR models means that an increase in observed market volatility will lead to an increase in VAR without any changes in the underlying positions.

We routinely validate the accuracy of our VAR models by back-testing the actual daily profit and loss results, adjusted to remove non-modelled items such as fees and commissions, against the corresponding VAR numbers. Statistically, we would expect to see losses in excess of VAR only 1% of the time over a one-year period. The actual number of excesses over this period can therefore be used to gauge how well the models are performing.

Although a valuable guide to risk, VAR should always be viewed in the context of its limitations. For example:

- the use of historical data as a proxy for estimating future events may not encompass all potential events, particularly those which are extreme in nature;
- the use of a one-day holding period assumes that all positions can be liquidated or the risks offset in one day. This may not fully reflect the market risk arising at times of severe illiquidity, when a one-day holding period may be insufficient to liquidate or hedge all positions fully;
- the use of a 99% confidence level, by definition, does not take into account losses that might occur beyond this level of confidence;
- VAR is calculated on the basis of exposures outstanding at the close of business and therefore does not necessarily reflect intra-day exposures; and
- VAR is unlikely to reflect loss potential on exposures that only arise under significant market moves.

We have not disclosed the scope of our VAR permissions as this is commercially sensitive proprietary information.

Stress testing

In recognition of VAR's limitations, we augment it with stress testing to evaluate the potential impact on portfolio values of more extreme, although plausible, events or movements in a set of financial variables.

The process is governed by the Stress Testing Review Group forum which, in conjunction with regional risk managers, determines the scenarios to be applied at portfolio and consolidated levels, as follows:

- sensitivity scenarios consider the impact of any single risk factor or set of factors that are unlikely to be captured within the VAR models, such as the break of a currency peg;
- technical scenarios consider the largest move in each risk factor, without consideration of any underlying market correlation;
- hypothetical scenarios consider potential macro-economic events, for example, a global flu pandemic; and
- historical scenarios incorporate historical observations of market movements during previous periods of stress which would not be captured within VAR.

Stress testing results provide senior management with an assessment of the financial impact such events would have on our profit. The daily losses

experienced during 2010 were within the stress loss scenarios reported to senior management.

Interest rate position risk

Interest rate position risk arises within the trading portfolios, principally from mismatches between the future yield on assets and their funding cost, as a result of interest rate changes. Analysis of this risk is complicated by having to make assumptions on embedded optionality within certain product areas such as the incidence of prepayments.

We aim, through our management of interest rate risk, to mitigate the effect of prospective interest rate movements which could reduce its net income, balanced against the cost of associated hedging activities.

Interest rate position risk arising within the trading portfolios is measured, where practical, on a daily basis. We use a range of tools to monitor and limit interest rate risk exposures. These include the present value of a basis point movement in interest rates, VAR, stress testing and sensitivity analysis.

Foreign exchange position risk

Foreign exchange position risk arises as a result of movements in the relative value of currencies. In addition to VAR and stress testing, we control the foreign exchange risk within the trading portfolio by limiting the open exposure to individual currencies, and on an aggregate basis.

Specific issuer risk

Specific issuer (credit spread) risk arises from a change in the value of debt instruments due to a perceived change in the credit quality of the issuer or underlying assets. As well as VAR and stress testing, we manage the exposure to credit spread movements within the trading portfolios through the use of limits referenced to the sensitivity of the present value of a basis point movement in credit spreads.

Equity position risk

Equity position risk arises from the holding of open positions, either long or short, in equities or equity based instruments, which create exposure to a change in the market price of the equities or underlying equity instruments. As well as VAR and stress testing, we control the equity risk within our trading portfolios by limiting the size of the net open equity exposure.

Interest rate and equity risk in the non-trading book

Non-trading book exposures in equities

At 31 December 2010, on a regulatory consolidation basis, we had equity investments in the non-trading book of US$8.5bn (2009: US$9.1bn). These consist of investments held for the following purposes:

Table 29: Non-trading book equity investments

	At 31 December 2010			At 31 December 2009		
	Available for sale US$bn	**Designated at fair value US$bn**	**Total US$bn**	Available for sale US$bn	Designated at fair value US$bn	Total US$bn
Strategic investments	**4.0**	**0.2**	**4.2**	3.2	0.4	3.6
Private equity investments	**2.8**	**0.1**	**2.9**	3.7	0.1	3.8
Business facilitation[1]	**1.0**	**–**	**1.0**	1.1	–	1.1
Short-term cash management	**0.4**	**–**	**0.4**	0.6	–	0.6
Total	**8.2**	**0.3**	**8.5**	8.6	0.5	9.1

1 *Includes holdings in government-sponsored enterprises and local stock exchanges.*

Investments in private equity are primarily made through managed funds that are subject to limits on the amount of investment. Potential new commitments are subject to risk appraisal to ensure that industry and geographical concentrations remain within acceptable levels for the portfolio as a whole. Regular reviews are performed to substantiate the valuation of the investments within the portfolio. A detailed description of the valuation techniques applied to private equity can be found on page 313 of the *Annual Report and Accounts 2010*.

Exchange traded investments amounted to US$0.8bn (2009: US$0.9bn), with the remainder being unlisted. These investments are held at fair value in line with market prices.

On a regulatory consolidation basis, the net gain from disposal of equity securities amounted to US$0.5bn (2009: US$0.4bn), while impairment of AFS equity securities amounted to US$0.1bn (2009: US$0.2bn).

Unrealised gains on AFS equity included in tier 2 capital equated to US$2.1bn (2009: US$1.4bn).

Details of our accounting policy for AFS equity investments and the valuation of financial instruments are detailed on pages 259 and 34, respectively, of the *Annual Report and Accounts 2010*.

Non-trading book interest rate risk

Interest rate risk in non-trading portfolios is known as IRRBB, as defined on page 10. This risk arises principally from mismatches between the future yield on assets and their funding cost, as a result of interest rate changes. The prospective change in future net interest income from non-trading portfolios will be reflected in the current realisable value of positions, should they be sold or closed prior to maturity.

A principal element of our management of market risk in non-trading portfolios is monitoring the sensitivity of projected net interest income under varying interest rate scenarios (simulation modelling). We aim to mitigate the effect of prospective interest rate movements which could reduce future net interest income, while balancing the cost of such hedging activities on the current net revenue stream.

For simulation modelling, our businesses use a combination of scenarios relevant to them and their local markets and standard scenarios which are required throughout HSBC. The standard scenarios are consolidated to illustrate the combined pro forma effect on our consolidated portfolio valuations and net interest income.

Our control of market risk in the non-trading portfolios is based on transferring the risks to the books managed by Global Markets or the local Asset and Liability Management Committee ('ALCO'). The net exposure is typically managed through the use of interest rate swaps within agreed limits. The VAR for these portfolios is included within the Group trading and non-trading VAR.

For more details of the Group's monitoring of the sensitivity of projected net interest income under varying interest rate scenarios please see page 149 of the *Annual Report and Accounts 2010*.

Operational risk

Operational risk is defined as 'the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including legal risk'.

Operational risk is relevant to every aspect of our business and covers a wide spectrum of issues. Losses arising through fraud, unauthorised activities, errors, omission, inefficiency, systems failure or from external events all fall within the definition of operational risk.

In the past, we have historically experienced operational risk losses in the following major categories:

- fraudulent and other external criminal activities;
- breakdowns in processes/procedures due to human error, misjudgement or malice;
- terrorist attacks;
- system failure or non-availability; and
- in certain parts of the world, vulnerability to natural disasters.

We recognise that operational risk losses can be incurred for a wide variety of reasons, including rare but extreme events.

Objectives

The objective of our operational risk management is to manage and control operational risk in a cost-effective manner within targeted levels of operational risk consistent with our risk appetite, as defined by GMB.

Organisation and responsibilities

Operational risk management is primarily the responsibility of all employees and business management.

Each Regional, Global Business, Country or Business Unit Head has responsibility for maintaining oversight over operational risk and internal control, covering all businesses and operations for which they are responsible.

The Group Operational Risk function and the Operational Risk Management Framework ('ORMF') assist business management with discharging this responsibility.

The ORMF defines minimum standards and processes, and the governance structure for operational risk and internal control across our geographical regions and global businesses.

The Global Operational Risk and Control Committee, which reports to RMM, meets at least quarterly to discuss key risk issues and review the effective implementation of the ORMF.

Operational risk is organised as a specific risk discipline within Group Risk. The Group

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

Operational Risk function reports to the GCRO and supports the Global Operational Risk and Control Committee. It is responsible for establishing and maintaining the ORMF, monitoring the level of operational losses and the effectiveness of the control environment. It is also responsible for operational risk reporting at Group level, including preparation of reports for consideration by RMM and Group Risk Committee ('GRC').

Measurement and monitoring

We have codified our ORMF in a high level standard, supplemented by detailed policies. The detailed policies explain our approach to identifying, assessing, monitoring and controlling operational risk and give guidance on mitigating action to be taken when weaknesses are identified.

In each of our subsidiaries, business managers are responsible for maintaining an acceptable level of internal control, commensurate with the scale and nature of operations. They are responsible for identifying and assessing risks, designing controls and monitoring the effectiveness of these controls. The ORMF helps managers to fulfil these responsibilities by defining a standard risk assessment methodology and providing a tool for the systematic reporting of operational loss data.

Operational risk capital requirements are calculated under the standardised approach, as a percentage of the average of the last three financial years' gross revenues. The table below sets out a geographical analysis of our operational risk capital requirement as at 31 December 2010 along with 31 December 2009 comparatives.

Table 30: Operational risk

	At 31 December 2010		At 31 December 2009	
	Capital required[1] US$bn	**RWAs US$bn**	Capital required[1] US$bn	RWAs US$bn
Operational risk				
Europe	**3.1**	**39.2**	3.5	42.1
Hong Kong	**1.2**	**15.3**	1.3	16.0
Rest of Asia-Pacific	**1.5**	**19.0**	1.3	16.7
Middle East	**0.5**	**6.5**	0.4	5.5
North America	**2.3**	**28.6**	2.5	31.3
Latin America	**1.2**	**15.0**	1.1	14.3
Total	**9.8**	**123.6**	10.1	125.9

1 *Calculated as 8% of RWAs.*

Operational risk and control assessment approach

Operational risk and control assessments are performed by individual business units and functions. The risk and control assessment process is designed to provide business areas and functions with a forward looking view of operational risks and an assessment of the effectiveness of controls, and a tracking mechanism for action plans so that they can proactively manage operational risks within acceptable levels. Risk and control assessments will be reviewed and updated at least annually.

All appropriate means of mitigation and controls are considered. These include:

- making specific changes to strengthen the internal control environment;
- investigating whether cost-effective insurance cover is available to mitigate the risk; and
- other means of protecting us from loss.

Recording

We have constructed a centralised database (the 'Group Operational Risk Database') to record the results of our operational risk management process. Operational risk and control assessments, as described above, are input and maintained by business units. Business management and Operational Risk Business Co-ordinators monitor and follow up the progress of documented action plans.

Operational risk loss reporting

To ensure that operational risk losses are consistently reported and monitored at Group level, all Group companies are required to report individual losses when the net loss is expected to exceed US$10,000 and to aggregate all other operational risk losses under US$10,000. Losses are entered into the Group Operational Risk Database and are reported to the Group Operational Risk function on a quarterly basis.

Remuneration

The following tables show the remuneration awards made by HSBC in respect of 2010 and subsequent paragraphs provide information on decision-making policies for remuneration and links between pay and performance. These disclosures reflect the requirements of the FSA's Policy Statement PS10/21 'Implementing CRD3 requirements on the disclosure of remuneration' issued in December 2010. Comparative data have not been provided as this is the first year of disclosure.

Table 31: Aggregate remuneration expenditure

	2010					
	Personal Financial Services US$m	Commercial Banking US$m	Global Banking and Markets US$m	Global Private Banking US$m	Other US$m	Total US$m
Aggregate remuneration expenditure (Code Staff)[1,2]	12.5	4.2	284.0	31.9	138.9	471.5

1 *Code Staff is defined in the Glossary.*
2 *Includes salary and bonus awarded in respect of performance year 2010 (including deferred component) and any pension or benefits outside of policy.*

Table 32: Analysis of remuneration between fixed and variable amounts

	2010		
	Senior management	Code Staff (non-senior management)	Total
Number of Code Staff	58	222	280
Of which, number of UK Code Staff	28	158	186
	US$m	US$m	US$m
Fixed			
Cash based	38.2	59.3	97.5
Total Fixed	38.2	59.3	97.5
Total Fixed (UK Code Staff only)	18.8	36.5	55.3
Variable[1]			
Cash	22.1	56.0	78.1
Non-Deferred shares[2]	22.1	53.2	75.3
Deferred cash	32.3	73.6	105.9
Deferred shares	40.2	74.5	114.7
Total Variable Pay	116.7	257.3	374.0
Total Variable Pay (UK Code Staff only)	60.7	111.7	172.4

1 *Variable pay in respect of performance year 2010.*
2 *Vested shares, subject to a 6-month retention period.*

Table 33: Analysis of deferred remuneration

	2010		
	Senior management US$m	Code Staff (non-senior management) US$m	Total US$m
Deferred remuneration at 31 December			
Outstanding, vested	–	–	–
Outstanding, unvested[1]	266.3	374.0	640.3
Awarded during financial year[2]	97.0	158.5	255.5
Paid out[3]	37.7	68.9	106.6
Reduced through performance adjustments	–	–	–

1 *Value of cash and shares unvested at 31 December 2010.*
2 *Value of deferred cash and shares awarded during 2010. Share price taken at 31 December 2010.*
3 *Value of vested shares during 2010. Share price taken at day of vesting.*

Capital and Risk Management Pillar 3 Disclosures at 31 December 2010 (continued)

Table 34: Analysis of sign-on and severance payments

	2010		
	Senior management	Code Staff (non-senior management)	Total
Sign-on payments			
Made during year (US$m)	–	7.1	7.1
Number of beneficiaries	–	3	3
Severance payments			
Made during year (US$m)	–	0.5	0.5
Number of beneficiaries	–	1	1
Highest such award to single person (US$m)	–	0.5	0.5

Decision-making process for remuneration policy

HSBC has an established Remuneration Committee (the 'Committee') which meets regularly to consider human resource issues relating to terms and conditions of employment, remuneration and retirement benefits. Within the authority delegated by the Board, the Committee is responsible for approving remuneration policy and in doing so takes into account the pay and conditions across our Group. This includes the terms of bonus plans, share plans, other long-term incentive plans and the individual remuneration packages of executive Directors and other senior Group employees, including all in positions of significant influence and those having an impact on our risk profile (Code Staff), regardless of geographical location.

A global reward strategy for the Group was approved by the Committee in 2007. This strategy provides a framework for the Committee in carrying out its responsibilities and includes the following key elements:

- an assessment of reward with reference to clear and relevant objectives set within a balanced scorecard framework;
- a focus on total compensation (salary, bonus and the value of long-term incentives) with variable pay (namely bonus and the value of long-term incentives) differentiated by performance;
- the use of considered discretion to assess the extent to which performance has been achieved rather than applying a formulaic approach which, by its nature, may encourage inappropriate risk taking and cannot cover all scenarios;
- a significant proportion of variable pay to be deferred into HSBC Holdings Restricted Shares to tie recipients to the future performance of the Group and aid retention; and
- a total remuneration package (salary, bonus, long-term incentive awards and other benefits) which is competitive in relation to comparable organisations in each of the markets in which we operate.

There were nine meetings of the Committee during 2010. Following each meeting, the Committee reports to the Board on its activities. The terms of reference of the Committee are available at www.hsbc.com/boardcommittees.

No Directors are involved in deciding their own remuneration.

a) Composition of the Remuneration Committee

The members of the Committee during 2010 were J D Coombe, W S H Laidlaw, G Morgan, J L Thornton and Sir Mark Moody-Stuart, who retired as a Director of HSBC Holdings and ceased to be a member and chairman of the Committee on 28 May 2010. J L Thornton was appointed as chairman of the Committee on 28 May 2010.

b) Role of the relevant stakeholders

The Committee received independent advice on executive remuneration issues from Deloitte LLP and remuneration data from Towers Watson during 2010. As global concerns, each of these firms also provided other consulting services to various parts of HSBC. Other consultants are used from time to time to advise on specific issues. Going forward, the Committee has agreed to only use advisers as and when required, and that these would be separate from the Company's advisers.

During the year, the Group Chief Executive provided regular briefings to the Committee and the Committee received advice from the Group Managing Director, Human Resources, A Almeida, the Head of Group Performance and Reward, T Roberts and B Robertson, then the GCRO, who provided advice to the Committee on the

implications of the remuneration policy on risk and risk management.

c) Code Staff criteria

The following groups of staff have been identified as meeting the FSA's criteria for Code Staff:

- Senior Management whose roles are judged as falling within the FSA Code Staff definition (including executive board Directors, Group Managing Directors and Group General Managers);
- Staff performing a Significant Influence Function within HSBC Bank plc;
- Global Banking & Markets Operating Committee members (excluding specific roles that do not have a significant risk impact e.g. business support roles);
- Global Private Banking Executive Committee members (excluding specific roles that do not have a significant risk impact e.g. business support roles);
- Global Banking Management Committee members (excluding specific roles that do not have a significant risk impact e.g. business support roles); and
- Global Markets Management Committee members (excluding specific roles that do not have a significant risk impact e.g. business support roles).

The categories above cover all senior level management across the Group as well as those responsible for the management of the Global Banking and Markets businesses and Global Private Banking. All heads of major Global Banking & Markets businesses are included as well as the heads of all significant Global Markets products.

Link between pay and performance

Remuneration at HSBC comprises fixed pay (salary and fees) and variable pay (annual bonus and long-term incentives) designed to reward performance.

In determining the payout under any component of variable pay, we have adopted, as policy, the use of discretion to assess the extent to which performance has been achieved rather than applying a formulaic approach which, by its nature, may encourage inappropriate risk taking and cannot cover all scenarios.

The annual bonus earned by an individual is dependent on the achievement of objectives (built into a balanced scorecard) which derive from those determined at the Group level. These are then cascaded throughout the Group, thereby driving an aligned set of objectives. The balanced scorecard includes both financial and non-financial metrics, and actual payout levels depend on the performance of the Group, of constituent businesses and of the individual.

The purpose of the bonus is to reflect the extent to which the Group's annual objectives have been met under the balanced scorecard approach, risk appetite framework, our absolute and relative performance to our peers and competitive market practice.

The purpose of the existing Long Term Incentive Plan has been to reflect our relative and absolute performance over the long-term, taking into account an external measure of value creation, a measure of the extent to which the return on capital invested in HSBC is in excess of a benchmark return and a direct measure of the profits generated for shareholders. Its purpose has also been to reward the creation of sustained growth in shareholder value and to encourage alignment with shareholders.

At the date of this report, the Committee is in the process of consulting with major shareholders on the subject of improving further the alignment between shareholders and senior management with regard to incentivising long-term sustainable performance. Any material changes to our approach which result following this consultation will be explained to shareholders in the Chairman's letter accompanying the Notice of the Company's 2011 Annual General Meeting. No awards have been made under the existing plan since 2008.

Design and structure of remuneration

Reward is delivered via a combination of fixed and variable pay (salary, bonus, other long-term incentives). The variable pay element is differentiated by performance. Taking into account the expected value of awards, the performance-related elements of pay make up a considerable proportion of the total remuneration package for Code Staff, whilst maintaining an appropriate balance between fixed and variable elements. Remuneration is structured to provide an opportunity for top quartile total compensation for higher levels of performance.

Salary and fees

All Code Staff receive either a salary (executives) or fees (non-executives) to reflect their market value, responsibility and contribution to the Group. We pay

market competitive salaries with variable pay awards based on performance. Our remuneration approach allows us not to pay a bonus when appropriate. For employees globally (including Code Staff), individuals with poor performance ratings will receive little or no bonus.

Annual bonus

a) Rationale and eligibility criteria

All executive Code Staff are eligible to receive an annual bonus to reflect the extent to which the Group's annual objectives have been met under the balanced scorecard approach, risk appetite framework, our absolute and relative performance to our peers and competitive market practice.

Non-executive Code Staff are not eligible to receive an annual bonus.

b) Performance measurement/assessment

The annual bonus is designed to reward performance and is dependent on the achievement of objectives (built into a balanced scorecard) which derive from those determined at the corporate Group level. Since 2008, these objectives typically cover four categories: Financial, Customer, Process (including risk mitigation) and People. This framework facilitates a rounded approach to objective setting. Individual performance is also reviewed against other risks specifically chosen such as credit, market, operational and information and security risks.

The determination of bonus pools is a fully discretionary process informed by various performance metrics (including performance in the context of the risk appetite framework), affordability (including cost and quantity of capital and liquidity considerations) and the commercial requirement to remain competitive in the market.

The risk appetite framework shapes our integrated approach to business, risk and capital management and supports us in achieving our return on equity objectives. The risk appetite framework is agreed by the HSBC Holdings Board and cascaded across businesses and geographies. It provides an important input into the Committee's deliberations with regard to remuneration. In addition, individual performance is also reviewed against key risk appetite targets for credit, market, operational and information and security risks to ensure that proposed individual remuneration is appropriate against these aspects.

Discretion is applied at all stages including the determination of accruals and finalisation of pools, and is applied by Group senior management and the Committee.

Our discretionary approach allows full flexibility in aligning bonus pools to business performance.

The key financial performance metric at Group level is profit before tax. However, senior management consider in tandem a range of other financial metrics and use them as important benchmarks to inform in the determination of the level of variable remuneration.

Whilst the achievement of financial objectives is very important, other objectives relating to efficiency and risk mitigation, customer development and the productivity of our human capital are also key to financial performance and sustainability of the Group. Within the balanced scorecard, key risk metrics, both financial and non-financial, such as managing to risk-weighted asset targets, impairment and operational risk loss levels, and embedding governance of the HSBC risk appetite framework are explicitly included to ensure that the bonus pool is shaped by risk considerations. Performance is also assessed by reference to Economic Profit, which uses Economic Capital as the basis for the calculation. In addition, individual performance is also reviewed against key risk appetite targets for credit, market, operational and information and security risks to ensure that proposed individual remuneration is appropriate against these aspects.

Actual levels of pay will depend on the performance of the Group, of constituent businesses and of the individual, taking into account competitive market practice.

The GMB balanced scorecard is cascaded down to regions' and business' scorecards in an aligned manner, thereby ensuring that return, risk and efficient capital usage shape reward considerations. This framework impacts on the level of individual remuneration received as achievement of such objectives is an important determinant of the level of variable compensation awarded. The GCRO and the Risk function provide input into the balanced scorecard, ensuring that key risk measures are included.

The performance and hence remuneration of control function staff is assessed according to a balanced scorecard of objectives specific to the functional role they undertake. Remuneration is carefully benchmarked with the market and internally to ensure that it is set at an appropriate level.

c) Deferral and vesting

To ensure that the interests of HSBC and its employees are aligned with those of our shareholders, and that our approach to risk management supports the interests of all stakeholders, a proportion of variable pay awards above certain thresholds is required to be deferred into HSBC Holdings Restricted Shares. Vesting of these shares is subject to continued employment (which may be terminated by HSBC in the event of material misconduct) and the delivered value will vary in accordance with the share price and dividend. Awards made from 2010 are prior to vesting, subject to amendment, reduction or cancellation at the full discretion of the Committee.

For Code Staff, 40% to 60% of variable remuneration is deferred over a period of 3 years, in line with the FSA requirements. 50% of both the deferred and non-deferred components will be in the form of restricted shares with the remaining 50% as cash. Vesting of deferred awards, both cash and shares, will be annually over a three-year period with 33% vesting on the first anniversary of grant, 33% on the second anniversary and 34% on the third anniversary. Deferred and non-deferred share awards will be subject to a six-month retention period following vesting. Any Code Staff employee with total remuneration of no more than £500,000 (or local currency equivalent) and variable remuneration which is no more than 33% of total remuneration will not be subject to the Code Staff deferral policy.

Long-term incentives

a) Rationale and eligibility criteria

As already described, the existing long-term plan is currently under review, with no awards having been made since 2008.

Participation in the plan is generally limited to Executive Directors and Group Managing Directors.

b) Performance measurement/assessment

Vesting for the existing long-term incentive awards is based on three independent performance measures and an overriding 'sustained improvement' judgement by the Committee. The three Group measures are relative Total Shareholder Return ('TSR') (40% of the award); economic profit (40%); and growth in Earnings Per Share (20%). These measures provide a basis on which to measure our relative and absolute performance over the long-term taking into account an external measure of value creation, a measure of the extent to which the return on capital invested in HSBC is in excess of a benchmark return and a direct measure of the profits generated for shareholders. Awards will not vest unless the Committee is satisfied that HSBC Holdings' financial performance has shown a sustained improvement in the period since the award date.

c) Deferral and vesting

In determining whether HSBC Holdings has achieved sufficiently sustained improvement for the outstanding awards to vest, the Committee will take account of all relevant factors, in particular, comparisons against the TSR comparator group in areas such as revenue growth and mix, cost efficiency, credit performance, cash return on cash invested, dividends and TSR.

The performance conditions are measured over a three-year performance period and awards forfeited to the extent that they have not been met.

Risk adjustment

As well as assessing performance against a balanced scorecard of objectives and using a discretionary approach to reward, as already described, the implications of remuneration decisions for risk management are taken into account as follows:

- a proportion of variable pay awards above certain thresholds is required to be deferred into HSBC Holdings Restricted Shares. Vesting of these shares is subject to continued employment (which may be terminated by HSBC in the event of material misconduct) and the delivered value will vary in accordance with the share price and dividend. Awards made from 2010 are prior to vesting, subject to amendment, reduction or cancellation at the full discretion of the Committee;
- to ensure further alignment with the long-term performance of the Group, Executive Directors and Group Managing Directors are also subject to formal shareholding guidelines;
- the GCRO attends Committee meetings to ensure that any implications they should take into account in terms of risk are considered prior to review and approval of the remuneration policy and any other matters where risk parameters should be considered;
- the GCRO provides written confirmation to the Committee that a review of behaviours of Code Staff has been undertaken and that the Risk and Compliance functions have actively engaged with business management to discuss matters relevant to individual remuneration awards;

- decisions regarding bonus pool funding are taken after careful review, by the Committee, of the risk appetite framework;
- the Risk function has input into the risk related objectives set as part of the balanced scorecard framework;
- the GRC, all members of which are non-executive Directors, was established in 2010. It advises the Board on risk appetite and also on aligning reward structures with risk appetite. The GRC receives information on risk related aspects of reward structures to be proposed by the Committee. The GCRO regularly reports to, and attends meetings of, the GRC. The GRC and Committee have cross-membership; and
- all variable pay and incentive schemes are required to adhere to a set of policy principles and approval standards as defined in the Group Standards Manual. Under the terms of the Group Standards Manual, all plans require the approval of the Finance, Risk, Legal, Compliance and HR functions. The Finance function validates the achievement of relevant financial metrics (e.g. the definition of profitability from which bonus funding is derived).

We are conscious of the fact that remuneration is only one part of a proper approach to risk and decision making. Our strong and long-established culture plays the central role in creating the right environment in which decisions about risk and other issues are taken. Much effort is put into ensuring that the culture is reinforced and that, to the extent possible, this is emphasised through the setting of balanced objectives, their assessment, and validating key cultural themes through comprehensive global staff surveys.

The philosophy of managing risk and reward has been in place for a number of years, but the integration of risk management with reward formally commenced in 2008, when the Risk function became involved in the approval of relevant incentive plans. In addition, the concept of imputing the cost of capital in the determination of bonus funding has been expanded progressively across HSBC, starting with our Global Banking and Markets business, and now applies across the Group.

Other disclosures

Fair value adjustments

The following section provides further information on fair value adjustments. These disclosures were previously reported on page 168 of the *Annual Report and Accounts 2009.*

The determination of fair value of assets and liabilities is described on page 254 of the *Annual Report and Accounts 2010.*

Consolidation basis

The information and data provided in this document is prepared on a regulatory consolidation basis, as described on page 5. However, the information contained within this section on fair value adjustments is prepared in respect of assets and liabilities held on an accounting consolidation basis which is described on page 250 of the *Annual Report and Accounts 2010*.

Fair value adjustments methodology

Fair value adjustments are adopted when we consider that there are additional factors that would be considered by a market participant that are not incorporated within the valuation model. The magnitude of fair value adjustments depends upon many entity-specific factors, and therefore fair value adjustments may not be comparable across the banking industry.

We classify fair value adjustments as either ‘risk-related’ or ‘model-related’. The majority of these adjustments relate to Global Banking and Markets.

Table 35: Global Banking and Markets fair value adjustments

	At 31 December	
	2010	2009
	US$bn	US$bn
Type of adjustment		
Risk-related	**2.2**	2.9
Bid-offer	**0.6**	0.5
Uncertainty	**0.1**	0.2
Credit risk adjustment	**1.4**	2.2
Other	**0.1**	–
Model-related	**0.4**	0.5
Model limitation	**0.4**	0.4
Other	**–**	0.1
Inception profit (Day 1 P&L reserves)	**0.2**	0.3
	2.8	3.7

Movements in the level of fair value adjustments do not necessarily result in the recognition of profits or losses within the income statement. For example, as models are enhanced, fair value adjustments may no longer be required. Similarly, fair value adjustments will decrease when the related positions are unwound, but this may not result in profit or loss.

The most significant fair value adjustment movement related to the release of US$0.5bn of credit risk adjustments held for monoline insurers of which US$0.3bn resulted from commutations. The commutations did not result in a material gain or loss. The remainder of the decrease in the credit risk adjustment derived primarily from commutations or restructures with non-monoline counterparties, and internal credit rating upgrades of certain counterparties.

Risk-related adjustments

Bid-Offer

IAS 39 requires that portfolios are marked at bid or offer, as appropriate. Valuation models will typically generate mid market values. The bid-offer adjustment reflects the cost that would be incurred if substantially all residual net portfolio market risks were closed using available hedging instruments or by disposing of or unwinding the actual position.

Uncertainty

Certain model inputs may be less readily determinable from market data, and/or the choice of model itself may be more subjective. In these circumstances, there exists a range of possible values that the financial instrument or market parameter may assume and an adjustment may be necessary to reflect the likelihood that in estimating the fair value of the financial instrument, market participants would adopt rather more conservative values for uncertain parameters and/or model assumptions than those used in the valuation model.

Credit risk adjustment

The credit risk adjustment is an adjustment to the valuation of OTC derivative contracts to reflect within fair value the possibility that the counterparty may default, and we may not receive the full market value of the transactions.

Model-related adjustments

Model limitation

Models used for portfolio valuation purposes may be based upon a simplifying set of assumptions that do not capture all material market characteristics. Additionally, markets evolve, and models that were adequate in the past may require development to capture all material market characteristics in current market conditions. In these circumstances, model limitation adjustments are adopted. As model development progresses, model limitations are addressed within the valuation models and a model limitation adjustment is no longer needed.

Inception profit (Day 1 P&L reserves)

Inception profit adjustments are adopted where the fair value estimated by a valuation model is based on one or more significant unobservable inputs. The accounting for inception profit adjustments is discussed on page 254 of the *Annual Report and Accounts 2010*. An analysis of the movement in the deferred Day 1 P&L reserve is provided on page 324 of the *Annual Report and Accounts 2010*.

Credit risk adjustment methodology

We calculate a separate credit risk adjustment for each HSBC legal entity, and within each entity for

each counterparty to which the entity has exposure. The calculation of the monoline credit risk adjustment and sensitivity to different assumptions is described below. The description below relates to the credit risk adjustment taken against counterparties other than monolines, which totalled US$0.8bn at 31 December 2010 (2009: US$1.2bn).

We calculate the credit risk adjustment by applying the probability of default of the counterparty to the expected positive exposure to the counterparty, and multiplying the result by the loss expected in the event of default. The calculation is performed over the life of the potential exposure.

The probability of default is based on our internal credit rating for the counterparty, taking into account how credit ratings may deteriorate over the duration of the exposure through the use of historic rating transition matrices. For most products, to calculate the expected positive exposure to a counterparty, we use a simulation methodology to incorporate the range of potential exposures across the portfolio of transactions with the counterparty over the life of an instrument. The simulation methodology includes credit mitigants such as counterparty netting agreements and collateral agreements with the counterparty. A standard loss given default assumption of 60% is generally adopted. We do not adjust derivative liabilities for our own credit risk, such an adjustment is often referred to as a 'debit valuation adjustment'.

For certain types of exotic derivatives where the products are not currently supported by the simulation, or for derivative exposures in smaller trading locations where the simulation tool is not yet available, we adopt alternative methodologies. These may involve mapping to the results for similar products from the simulation tool or where such a mapping approach is not appropriate, a simplified methodology is used, generally following the same principles as the simulation methodology. The calculation is applied at a trade level, with more limited recognition of credit mitigants such as netting or collateral agreements than used in the simulation methodology described previously.

The methodologies do not, in general, account for 'wrong-way risk'. Wrong-way risk arises where the underlying value of the derivative prior to any credit risk adjustment is positively correlated to the probability of default of the counterparty. Where there is significant wrong-way risk, a trade specific approach is applied to reflect the wrong-way risk within the valuation.

We include all third party counterparties in the credit risk adjustment calculation and do not net credit risk adjustments across HSBC Group entities.

During 2010, we made no material changes to the methodologies used to calculate the credit risk adjustment.

Consideration of other methodologies for calculation of credit risk adjustments

Our credit risk adjustment methodology, in the opinion of management, appropriately quantifies our exposure to counterparty risk on our OTC derivative portfolio and appropriately reflects the risk management strategy of the business.

We recognise that a variety of credit risk adjustment methodologies are adopted within the banking industry.

Some of the key attributes that may differ between these methodologies are:

- the PD may be calculated from historical market data, or implied from current market levels for certain transaction types such as CDSs, either with or without an adjusting factor;
- some entities derive their own PD from a non-zero spread, which has the effect of reducing the overall adjustment;
- differing loss assumptions in setting the level of LGD, which may utilise levels set by regulators for capital calculation purposes; and
- counterparty exclusions, whereby certain counterparty types (for example collateralised counterparties) are excluded from the calculation.

We have estimated the impact of adopting two alternative methodologies on the level of our credit risk adjustment (excluding the monoline credit risk adjustment), as follows:

- adapting our existing methodology to utilise probabilities of default implied from CDSs with no adjustment factor applied and also implying our own credit PD from CDSs, results in an additional adjustment of US$0.3bn (2009: US$0.2bn); and
- adapting our existing methodology to exclude collateralised counterparties, include our own PD based on historical data, and apply LGD assumptions consistent with those used in regulatory capital calculations, results in a reduction of the credit risk adjustment of US$0.3bn (2009: US$0.3bn).

Our monoline credit risk adjustment calculation utilises a range of approaches dependent upon the credit quality of the monoline. The net impact of utilising the methodology adopted for 'highly-rated' monolines across all monolines would be a reduction in credit risk adjustment of US$0.1bn (2009: US$0.3bn). The net impact of utilising a methodology based on credit default swap spreads would be a negligible increase in credit risk adjustment (2009: negligible).

Transactions with monoline insurers

Our exposure to derivative transactions entered into directly with monoline insurers

Our principal exposure to monolines is through a number of OTC derivative transactions, mainly CDSs. We entered into these CDSs primarily to purchase credit protection against securities held at the time within the trading portfolio.

During 2010, the notional value of derivative contracts with monolines and our overall credit exposure to monolines decreased as a number of transactions were commuted, others matured, and credit spreads narrowed. The table below sets out the fair value, essentially the replacement cost, of the remaining derivative transactions at 31 December 2010, and hence the amount at risk if the CDS protection purchased were to be wholly ineffective because, for example, the monoline insurer was unable to meet its obligations. In order to further analyse that risk, the value of protection purchased is shown subdivided between those monolines that were rated by S&P at 'BBB– or above' at 31 December 2010, and those that were 'below BBB–' ('BBB–' is the S&P cut-off for an investment grade classification). The 'Credit risk adjustment' column indicates the valuation adjustment taken against the net exposures, and reflects our best estimate of the likely loss of value on purchased protection arising from the deterioration in creditworthiness of the monolines. These valuation adjustments, which reflect a measure of the irrecoverability of the protection purchased, have been charged to the income statement. During 2010, the credit risk adjustment on derivative contracts with monolines decreased as a number of transactions commuted and others matured.

Table 36: Exposure to derivative transactions entered into directly with monoline insurers

	Notional amount US$bn	Net exposure before credit risk adjustment[1] US$bn	Credit risk adjustment[2] US$bn	Net exposure after credit risk adjustment US$bn
At 31 December 2010				
Derivative transactions with monoline counterparties				
Monoline – investment grade (BBB– or above)	**5.2**	**0.9**	**(0.1)**	**0.8**
Monoline – sub-investment grade (below BBB–)	**2.3**	**0.6**	**(0.4)**	**0.2**
	7.5	**1.5**	**(0.5)**	**1.0**
At 31 December 2009				
Derivative transactions with monoline counterparties				
Monoline – investment grade (BBB– or above)	5.6	1.0	(0.1)	0.9
Monoline – sub-investment grade (below BBB–)	4.4	1.3	(0.9)	0.4
	10.0	2.3	(1.0)	1.3

1 *Net exposure after legal netting and any other relevant credit mitigation prior to deduction of the credit risk adjustment.*
2 *Cumulative fair value adjustment recorded against exposures to OTC derivative counterparties to reflect their creditworthiness.*

For the CDSs, market prices are generally not readily available. Therefore the CDSs are valued on the basis of market prices of the referenced securities.

The credit risk adjustment against monolines is determined by one of a number of methodologies, dependent upon the internal credit rating of the monoline. Our assignment of internal credit ratings is based upon detailed credit analysis, and may differ from external ratings.

Credit risk adjustments for monolines

For highly-rated monolines, the standard credit risk adjustment methodology (as described on page 312 of the *Annual Report and Accounts 2010*) applies, with the exception that the future exposure profile is deemed to be constant (equal to the current market value) over the weighted average life of the referenced security, and the credit risk adjustment cannot fall below 10% of the mark-to-market exposure.

In respect of monolines, where default has either occurred or there is a strong possibility of default in the near term, the adjustment is determined based on the estimated probabilities of various potential scenarios, and the estimated recovery in each case.

For other monoline exposures, the credit risk adjustment follows the methodology for highly-rated monolines, adjusted to include the probability of a claim arising in respect of the referenced security, and applies implied probabilities of default where the likelihood of a claim is believed to be high.

HSBC's exposure to direct lending and irrevocable commitments to lend to monoline insurers

We had no liquidity facilities to monolines at 31 December 2010 (2009: minimal).

HSBC's exposure to debt securities which benefit from guarantees provided by monoline insurers

Within both the trading and AFS portfolios, we hold bonds that are 'wrapped' with a credit enhancement from a monoline. As the bonds are traded explicitly with the benefit of this enhancement, any deterioration in the credit profile of the monoline is reflected in market prices and, therefore, in the carrying amount of these securities at 31 December 2010. For wrapped bonds held in our trading portfolio, the mark-to-market movement has been reflected through the income statement. For wrapped bonds held in the AFS portfolio, the mark-to-market movement is reflected in equity unless there is objective evidence of impairment, in which case the impairment loss is reflected in the income statement. No wrapped bonds were included in the reclassification of financial assets described in Note 18 on page 320 of the *Annual Report and Accounts 2010*.

HSBC's exposure to credit derivative product companies

Credit derivative product companies ('CDPC's) are independent companies that specialise in selling credit default protection on corporate exposures. At 31 December 2010, we had purchased from CDPCs credit protection with a notional value of US$4.9bn (2009: US$5.0bn) which had a fair value of US$0.2bn (2009: US$0.3bn), against which a credit risk adjustment (a provision) of US$0.1bn was held (2009: US$0.1bn). At 31 December 2010, none of our exposure was to CDPCs with investment grade ratings (2009: 83%). The deterioration reflects ratings downgrades and withdrawals during 2010.

Appendix – Terms and Conditions of Capital Securities

Capital securities issued by the Group

All capital securities included in the capital base of HSBC have been issued in accordance with the rules and guidance in the FSA's General Prudential Sourcebook ('GENPRU'). For regulatory purposes, HSBC's capital base is divided into two categories, or tiers, depending on the degree of permanency and loss absorbency exhibited. These are tier 1 and tier 2.

The main features of capital securities issued by the Group are described below. The balances disclosed in the tables below are the balance sheet carrying amounts under IFRSs from the *Annual Report and Accounts 2010* and are not the amounts that the instruments contribute to regulatory capital. The regulatory treatment of these instruments and the accounting treatment under IFRSs differ, for example, in the treatment of issuance costs or regulatory amortisation. Therefore, the balances disclosed will not reconcile to other amounts disclosed in this document.

Tier 1 capital

Tier 1 capital is comprised of shareholders' equity and related non-controlling interests and qualifying capital instruments such as preference shares and hybrid capital securities, after the deduction of certain regulatory adjustments.

	At 31 December	
	2010	2009
	US$m	US$m
Called up share capital		
HSBC Holdings ordinary shares (of nominal value US$0.50 each)[1]	**8,843**	8,705

1 *All ordinary shares in issue confer identical rights in respect of capital, dividends, voting and otherwise.*

Preference shares

Preference shares are issues of securities for which there is no obligation to pay a dividend and if not paid, the dividend is not cumulative. Such shares do not generally carry voting rights and rank higher than ordinary shares for dividend payments and in the event of a winding-up. The instruments have no stated maturity date but may be called and redeemed by the issuer, subject to prior notification to the FSA, and, where relevant, the consent of the local banking regulator. Dividends on the floating rate preference shares are generally related to interbank offer rates. The following table lists the qualifying preference shares in issue as at 31 December 2010 together with 31 December 2009 comparatives:

		At 31 December	
		2010	2009
		US$m	US$m
Preference shares			
US$1,450m	6.20% dollar preference shares, Series A, callable from December 2010[1]	**1,450**	1,450
US$575m	6.36 % preferred stock, Series B, callable from June 2010	**559**	559
US$518m	Floating rate preferred stock, Series F, callable from April 2010	**518**	518
US$374m	Floating rate preferred stock, Series G, callable from January 2011	**374**	374
US$374m	6.50% preferred stock, Series H, callable from July 2011	**374**	374
CAD250m	5 year rate reset class 1 preferred shares, Series E, callable from June 2014	**251**	238
Other preference shares each less than US$200m		**350**	334

1 *These preference shares have a nominal value of US$0.01 each. The amount disclosed denotes the aggregate redemption price. For detailed description of these preference shares, refer to page 353 of the* Annual Report and Accounts 2010.

Appendix – Terms and Conditions of Capital Securities (continued)

Hybrid capital

Hybrid capital securities are deeply subordinated securities, with some equity features that can be included as tier 1 capital. Hybrid capital securities are issues of securities for which there is no obligation to pay a coupon and if not paid, the coupon is not cumulative. Such securities do not generally carry voting rights and rank higher than ordinary shares for coupon payments and in the event of a winding-up. Coupons on the floating rate hybrid capital securities are generally related to interbank offer rates. The securities may be called and redeemed by the issuer, subject to prior notification to the FSA, and, where relevant, the consent of the local banking regulator. If not redeemed, coupons payable may step-up and become floating rate or, fixed rate for a further five years based on the relevant reference security plus a margin. The following table lists the qualifying hybrid capital securities in issue as at 31 December 2010 together with 31 December 2009 comparatives:

		At 31 December	
		2010	2009
		US$m	US$m
Hybrid capital securities			
US$3,800m	8.00% capital securities, Series 2, callable December 2015[1]	**3,718**	–
US$2,200m	8.125% capital securities, callable April 2013[1]	**2,133**	2,133
US$1,350m	9.547% preferred securities, Series 1, callable June 2010, steps to 3 month LIBOR plus 4.06%[2]	**–**	1,349
US$1,250m	4.61% preferred securities, callable June 2013, steps to 3 month LIBOR plus 1.995%[3]	**1,185**	1,077
US$900m	10.176% preferred securities, Series 2, callable June 2030, steps to 3 month LIBOR plus 4.98%[3]	**891**	890
€1,400m	5.3687% preferred securities, callable March 2014, steps to 3 month EURIBOR plus 2%[3]	**1,843**	1,804
€750m	5.13% preferred securities, callable March 2016, steps to 3 month EURIBOR plus 1.9%[3]	**958**	960
€600m	8.03% preferred securities, callable June 2012, steps to 3 month EURIBOR plus 3.65%[3]	**801**	862
£700m	5.844% preferred securities, callable November 2031, steps to 6 month LIBOR plus 1.76%[3]	**1,087**	1,136
£500m	8.208% preferred securities, callable June 2015, steps to 5 year UK Gilts yield plus 4.65%[3]	**772**	806
£300m	5.862% preferred securities, callable April 2020, steps to 6 month LIBOR plus 1.85%[3]	**434**	412

1 *For detailed description of these capital securities, refer to page 354 of the* Annual Report and Accounts 2010.
2 *In June 2010, HSBC redeemed its 9.547% preferred securities, Series 1, at par.*
3 *For detailed description of these preferred securities, refer to page 348 of the* Annual Report and Accounts 2010.

Appendix – Terms and Conditions of Capital Securities (continued)

Tier 2 capital

Tier 2 capital comprises qualifying subordinated loan capital, related non-controlling interests, allowable collective impairment allowances, unrealised gains arising on the fair valuation of equity instruments held as available-for-sale and reserves arising from the revaluation of properties. Tier 2 capital is divided into two tiers: upper and lower tier 2.

Upper tier 2 capital

Upper tier 2 securities are subordinated loan capital that do not have a stated maturity date but may be called and redeemed by the issuer, subject to prior notification to the FSA, and, where relevant, the consent of the local banking regulator. Interest coupons on the floating rate upper tier 2 securities are generally related to interbank offer or mid rates and in some cases may be subject to a minimum rate payable. Upper tier 2 capital may also include, for regulatory purposes, some preference share securities not meeting the full GENPRU requirements for inclusion in the tier 1 capital base. The following table lists the qualifying upper tier 2 securities in issue as at 31 December 2010 together with 31 December 2009 comparatives:

		At 31 December	
		2010	2009
		US$m	US$m
Perpetual subordinated loan capital and other Upper Tier 2 instruments			
US$750m	Undated floating rate primary capital notes, callable since June 1990	**750**	750
US$500m	Undated floating rate primary capital notes, callable since September 1990	**500**	500
US$400m	Primary capital undated floating rate notes, callable since August 1990	**407**	407
US$400m	Primary capital undated floating rate notes (second series), callable since December 1990	**403**	404
US$400m	Primary capital undated floating rate notes (third series), callable since August 1991	**400**	400
US$300m	Undated floating rate primary capital notes, series 3, callable since June 1992	**300**	300
Other perpetual subordinated loan capital each less than US$200m		**322**	512

Lower tier 2 capital

Lower tier 2 capital comprises dated subordinated loan capital repayable at par on maturity (in certain cases at a premium over par) and which have an original maturity of at least five years. Some subordinated loan capital may be called and redeemed by the issuer, subject to prior notification to the FSA, and, where relevant, the consent of the local banking regulator. If not redeemed, interest coupons payable may step-up or become floating rate related to interbank offer rates and in some cases may be subject to a floor. Lower tier 2 capital may also include, for regulatory purposes, some preference share or undated capital securities not meeting the full GENPRU requirements for inclusion in the capital base as either tier 1 or upper tier 2 capital. For regulatory purposes, it is a requirement that lower tier 2 securities be amortised on a straight-line basis in their final five years of maturity thus reducing the amount of capital that is recognised for regulatory purposes. The following table lists the qualifying lower tier 2 securities in issue as at 31 December 2010 together with 31 December 2009 comparatives:

		At 31 December	
		2010	2009
		US$m	US$m
Subordinated loan capital and other Tier 2 instruments			
US$2,938m	6.676% senior subordinated notes due January 2021[1]	**2,174**	–
US$2,500m	6.5% subordinated notes due September 2037	**2,695**	2,659
US$2,000m	6.5% subordinated notes due May 2036	**2,050**	2,052
US$1,500m	6.8% subordinated notes due June 2038	**1,485**	1,484
US$1,400m	5.25% subordinated notes due December 2012	**1,492**	1,488
US$1,250m	4.875% subordinated notes due August 2020	**1,252**	–
US$1,000m	4.625% subordinated notes due April 2014	**1,009**	1,002
US$1,000m	5.911% trust preferred securities due November 2035, callable November 2015, steps to 3 month LIBOR plus 1.926%	**994**	993
US$1,000m	5.875% subordinated notes due November 2034	**971**	950
US$750m	Subordinated floating rate notes due March 2015, callable March 2010, 0.5% interest margin step[2]	**–**	750
US$750m	Subordinated floating rate notes due October 2016, callable October 2011, 0.5% interest margin step	**750**	750
US$750m	5.625% subordinated notes due August 2035	**728**	712
US$750m	5.00% subordinated notes due September 2020	**747**	–
US$700m	7.00% subordinated notes due January 2039	**694**	688
US$500m	6.00% subordinated notes due August 2017	**526**	521

Appendix – Terms and Conditions of Capital Securities (continued)

		At 31 December 2010 US$m	2009 US$m
Subordinated loan capital and other Tier 2 instruments (continued)			
US$488m	7.625% subordinated notes due May 2032	**582**	587
US$450m	Subordinated floating rate notes due July 2016, callable July 2011, 0.5% interest margin step	**450**	449
US$300m	6.95% subordinated notes due March 2011	**310**	321
US$300m	7.65% subordinated notes due May 2025	**342**	312
US$300m	Subordinated floating rate notes due July 2017, callable July 2012, 0.5% interest margin step	**300**	299
US$250m	7.20% subordinated notes due July 2097	**213**	213
US$222m	7.35% subordinated notes due November 2032	**258**	260
US$200m	7.808% capital securities due December 2026, callable since December 2006	**200**	200
US$200m	8.38% capital securities due May 2027, callable since May 2007	**200**	200
€1,750m	6.0% subordinated notes due June 2019	**2,578**	2,835
€1,600m	6.25% subordinated notes due March 2018	**2,142**	2,306
€1,000m	5.375% subordinated notes due December 2012	**1,405**	1,549
€800m	Subordinated floating rate notes due March 2016, callable March 2011, 0.5% interest margin step[3]	**1,070**	1,152
€700m	3.625% subordinated notes due June 2020, callable June 2015, steps to 3 months EURIBOR plus 0.93%	**928**	1,005
€600m	4.25% subordinated notes due March 2016, callable March 2011, steps to 3 month EURIBOR plus 1.05%[3]	**823**	904
€500m	Subordinated floating rate notes due September 2020, callable September 2015, 0.5% interest margin step	**592**	639
£900m	6.375% subordinated notes due October 2022, callable October 2017, steps to 3 month LIBOR plus 1.3%	**1,493**	1,517
£900m	6.0% subordinated notes due March 2040	**1,372**	–
£750m	7.0% subordinated notes due April 2038	**1,210**	1,267
£650m	6.75% subordinated notes due September 2028	**1,000**	1,043
£650m	5.75% subordinated notes due December 2027	**971**	1,000
£600m	4.75% subordinated notes due March 2046	**919**	961
£500m	4.75% subordinated notes due September 2020, callable September 2015, steps to 3 month LIBOR plus 0.82%	**774**	785
£500m	5.375% subordinated notes due August 2033	**729**	776
£350m	Subordinated variable coupon notes due June 2017, callable June 2012, steps to sum of gross redemption yield on the then prevailing 5 year UK gilt plus 1.7%	**562**	608
£350m	5% subordinated notes due March 2023, callable March 2018, steps to sum of gross redemption yield on the then prevailing 5 year UK gilt plus 1.8%	**547**	550
£350m	5.375% subordinated step-up notes due November 2030, callable November 2025, steps to 3 month LIBOR plus 1.5%	**510**	531
£300m	6.5% subordinated notes due July 2023	**462**	483
£250m	9.875% subordinated bonds due April 2018, callable April 2013, steps to higher of (i) 9.875% or (ii) sum of the yield on the relevant benchmark treasury stock plus 2.5%	**467**	496
£225m	6.25% subordinated notes due January 2041	**347**	363
CAD400m	4.80% subordinated notes due April 2022, callable April 2017, steps to 90-day Bankers' Acceptance Rate plus 1%	**417**	382
CAD200m	4.94% subordinated debentures due March 2021	**200**	190
AUD200m	Subordinated floating rate notes due May 2016, callable May 2011, 0.5% interest margin step	**204**	180
AUD200m	Subordinated floating rate notes due November 2020, callable November 2015	**204**	–
BRL500m	Subordinated floating rate certificates of deposit due December 2016	**301**	287
BRL383m	Subordinated certificates of deposit due February 2015	**231**	220
Other term subordinated loan capital each less than US$200m		**2,383**	2,785

1 *Approximately 25% of the 6.676% Senior Subordinated Notes due January 2021 is held by HSBC Holdings.*
2 *In March 2010, HSBC Holdings redeemed its US$750m callable subordinated floating rate notes due 2015.*
3 *On 15 February 2011, HSBC gave notice to holders of its €800m callable subordinated floating rate notes due March 2016 and its €600m 4.25% callable subordinated notes due March 2016 that it will call and redeem the notes at par on 29 March 2011 and 18 March 2011, respectively .*

Glossary

Abbreviation	Brief description
A	
ABS[1]	Asset-backed security
AFS[1]	Available for sale
ALCO	Asset and Liability Management Committee
B	
Basel Committee	Basel Committee on Banking Supervision
C	
CDPC[1]	Credit Derivative Product Company
CDS[1]	Credit Default Swap
CRAOC	Credit Risk Analytics Oversight Committee
CRD	Capital Requirements Directive
CRR[1]	Customer Risk Rating
CSA[1]	Credit Support Annex
E	
EAD[1]	Exposure at Default
ECAI	External Credit Assessment Institution, such as Moody's Investors Service, Standard & Poor's Ratings Group or Fitch Group
EL[1]	Expected Loss
EURIBOR	Euro Interbank Offered Rate
F	
Fitch	Fitch Group
FSA	Financial Services Authority (UK)
G	
GCRO	Group Chief Risk Officer
GENPRU	The FSA's rules, as set out in the General Prudential Sourcebook
GMB	Group Management Board
GMO	Group Management Office
GRC	Group Risk Committee
G-SIFI	Global Systemically Important Financial Institution
H	
Hong Kong	The Hong Kong Special Administrative Region of the People's Republic of China
HSBC	HSBC Holdings together with its subsidiary undertakings
HSBC Bank	HSBC Bank plc, formerly Midland Bank plc
HSBC Holdings	HSBC Holdings plc, the parent company of HSBC
I	
IAA[1]	Internal Assessment Approach
ICAAP[1]	Internal Capital Adequacy Assessment Process
IFRSs	International Financial Reporting Standards
IMM[1]	Internal Model Method
IRB[1]	Internal Ratings-Based
ISDA	International Swaps and Derivatives Association
L	
LGD[1]	Loss Given Default
LIBOR	London Interbank Offer Rate
M	
Moodys	Moody's Investors Service
O	
ORMF	Operational Risk Management Framework
OTC[1]	Over-the-Counter
P	
PD[1]	Probability of Default

Glossary

Abbreviation	Brief description
R	
RAROC	Risk-Adjusted Return on Capital
RBM[1]	Ratings Based Method
Repo	Sale and repurchase transaction
Reverse repo	Security purchased under commitments to sell
RMC	Risk Management Committee
RMM	Risk Management Meeting of the Group Management Board
RWA[1]	Risk-Weighted Asset
S	
S&P	Standard and Poor's Ratings Group
SFM[1]	Supervisory Formula Method
SIC	Securities Investment Conduit
SME	Small and Medium-sized Enterprise
SPE[1]	Special Purpose Entity
T	
TSR	Total Shareholder Return
U	
UK	United Kingdom
US	United States
V	
VAR[1]	Value at Risk

1 *Full definition included in Glossary of Terms on page 61.*

Glossary

Term	Definition
A	
Arrears	Customers are said to be in arrears (or in a state of delinquency) when they are behind in fulfilling their obligations, with the result that an outstanding loan is unpaid or overdue. When a customer is in arrears, the total outstanding loans on which payments are overdue are described as delinquent.
Asset-backed securities ('ABS's)	Securities that represent an interest in an underlying pool of referenced assets. The referenced pool can comprise any assets which attract a set of associated cash flows but are commonly pools of residential or commercial mortgages.
Available-for-sale ('AFS') financial assets	Those non-derivative financial assets that are designated as available for sale or are not classified as a) loans and receivables b) held-to-maturity investments or c) financial assets at fair value through profit or loss.
B	
Back-testing	A statistical technique used to monitor and assess the accuracy of a model, and how that model would have performed had it been applied in the past.
Basel II	The capital adequacy framework issued by the Basel Committee on Banking Supervision in June 2006 in the form of the 'International Convergence of Capital Measurement and Capital Standards'.
Basel III	In December 2010, the Basel Committee issued final rules 'Basel III: A global regulatory framework for more resilient banks and banking systems' and 'Basel III: International framework for liquidity risk measurement, standards and monitoring'. Together these documents present the Basel Committee's reforms to strengthen global capital and liquidity rules with the goal of promoting a more resilient banking sector. The new requirements will be phased in starting 1 January 2013 with full implementation by 1 January 2019.
C	
Capital conservation buffer	A capital buffer, prescribed by regulators under Basel III, and designed to ensure banks build up capital buffers outside periods of stress which can be drawn down as losses are incurred. Should a bank's capital levels fall within the capital conservation buffer range, capital distributions will be constrained by the regulators.
Code Staff	Senior management, risk takers, staff engaged in control functions, and any employee whose total remuneration takes them into the same remuneration bracket as senior management and risk takers and whose professional activities have a material impact on the firm's risk profile.
Commercial paper	An unsecured, short-term debt instrument issued by a corporation, typically for the financing of accounts receivable, inventories and meeting short-term liabilities. The debt is usually issued at a discount, reflecting prevailing market interest rates.
Commercial real estate	Any real estate investment, comprising buildings or land, intended to generate a profit, either from capital gain or rental income.
Common equity tier 1 capital	The highest quality form of regulatory capital under Basel III that comprises common shares issued and related share premium, retained earnings and other reserves excluding the cash flow hedging reserve, less specified regulatory adjustments.
Conduits	HSBC sponsors and manages multi-seller conduits and securities investment conduits ('SIC's). The multi-seller conduits hold interests in diversified pools of third-party assets such as vehicle loans, trade receivables and credit card receivables funded through the issuance of short-dated commercial paper and supported by a liquidity facility. The SICs hold predominantly asset-backed securities referencing such items as commercial and residential mortgages, vehicle loans and credit card receivables funded through the issuance of both long-term and short-term debt.
Core tier 1 capital	The highest quality form of regulatory capital that comprises total shareholders' equity and related non-controlling interests, less goodwill and intangible assets and certain other regulatory adjustments.
Countercyclical capital buffer	A capital buffer, prescribed by regulators under Basel III, which aims to ensure the banking sector capital requirements take account of the macro-financial environment in which banks operate. This will provide the banking sector with additional capital to protect it against potential future losses, when excess credit growth in the financial system as a whole is associated with an increase in system-wide risk.
Credit default swap ('CDS')	A derivative contract whereby a buyer pays a fee to a seller in return for receiving a payment in the event of a defined credit event (e.g. bankruptcy, payment default on a reference asset or assets, or downgrades by a rating agency) on an underlying obligation (which may or may not be held by the buyer).
Credit derivative product companies ('CDPC's)	Independent companies that specialise in selling credit default protection on corporate exposures in the form of credit derivatives.
Credit enhancements	Facilities used to enhance the creditworthiness of financial obligations and cover losses due to asset default.
Credit quality step	A step in the FSA credit quality assessment scale which is based on the credit ratings of ECAIs. It is used to assign risk weights under the standardised approach.

Glossary (continued)

Term	Definition
Credit risk	Risk of financial loss if a customer or counterparty fails to meet an obligation under a contract. It arises mainly from direct lending, trade finance and leasing business, but also from products such as guarantees, derivatives and debt securities.
Credit risk adjustment	An adjustment to the valuation of OTC derivative contracts to reflect the creditworthiness of OTC derivative counterparties.
Credit risk mitigation	A technique to reduce the credit risk associated with an exposure by application of credit risk mitigants such as collateral, guarantees and credit protection.
Customer risk rating ('CRR')	A scale of 23 grades (2009: 22 grades) measuring obligor probability of default.
Credit spread option	A derivative that transfers risk from one party to another. The buyer pays an initial premium in exchange for potential cash flows if the credit spread changes from its current level.
Credit Support Annex ('CSA')	A legal document that regulates credit support (collateral) for OTC derivative transactions between two parties.
D	
Delinquency	See 'Arrears'.
E	
Economic capital	The internally calculated capital requirement which is deemed necessary by HSBC to support the risks to which it is exposed at a confidence level consistent with a target credit rating of AA.
Economic profit	The difference between the return on financial capital invested by shareholders ('return on invested capital') and the cost of that capital. Economic profit may be expressed as a whole number or as a percentage.
Equity risk	The risk arising from positions, either long or short, in equities or equity-based instruments, which create exposure to a change in the market price of the equities or equity instruments.
Expected loss ('EL')	A regulatory calculation of the amount expected to be lost on an exposure using a 12-month time horizon and downturn loss estimates. EL is calculated by multiplying the Probability of Default (a percentage) by the Exposure at Default (an amount) and Loss Given Default (a percentage).
Exposure	A claim, contingent claim or position which carries a risk of financial loss.
Exposure at default ('EAD')	The amount expected to be outstanding after any credit risk mitigation, if and when the counterparty defaults. EAD reflects drawn balances as well as allowance for undrawn amounts of commitments and contingent exposures.
Exposure value	Exposure at default ('EAD').
F	
Fair value	Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.
Fair value adjustments	An adjustment to the fair value of a financial instrument which is determined using a valuation technique (level 2 and level 3) to include additional factors that would be considered by a market participant that are not incorporated within the valuation model.
Funding risk	A form of liquidity risk arising when the liquidity needed to fund illiquid asset positions cannot be obtained at the expected terms and when required.
G	
Global Markets	HSBC's treasury and capital markets services in Global Banking and Markets.
Group	HSBC Holdings together with its subsidiary undertakings.
H	
Haircut	With respect to credit risk mitigation, an adjustment to collateral value to reflect any currency or maturity mismatches between the credit risk mitigant and the underlying exposure to which it is being applied. Also a valuation adjustment to reflect any fall in value between the date the collateral was called and the date of liquidation or enforcement.
Held-to-maturity	An accounting classification for investments acquired with the intention and ability of being held until they mature.
High risk (regulatory)	Standardised approach exposures that have been defined by the FSA as 'high risk exposures'. These include exposures arising out of venture capital business (whether or not the firm itself carries on the venture capital business) and any high risk positions in Collective Investment Undertakings that are illiquid and held with a view to long-term sale or realisation.
I	
Impaired loans	Loans where the Group does not expect to collect all the contractual cash flows or expects to collect them later than they are contractually due.

Glossary (continued)

Term	Definition
Impairment allowances	Management's best estimate of losses incurred in the loan portfolios at the balance sheet date.
Institutions	Under the standardised approach, Institutions are classified as credit institutions or investment firms. Under the IRB approach, Institutions also include regional governments and local authorities, public sector entities and multilateral development banks.
Insurance risk	A risk, other than financial risk, transferred from the holder of a contract to the insurance provider. The principal insurance risk is that, over time, the combined cost of claims, administration and acquisition of the contract may exceed the aggregate amount of premiums received and investment income.
Internal Assessment Approach ('IAA')	One of three calculation methods defined under the IRB approach to securitisations. The IAA is limited to exposures arising from asset-backed commercial paper programmes, mainly related to liquidity facilities and credit enhancement. The approach consists of mapping an internal rating methodology for credit exposures to those of an ECAI. Those ratings are used to determine the appropriate risk weights to determine the notional amount of the exposures.
Internal Capital Adequacy Assessment Process ('ICAAP')	The Group's own assessment of the levels of capital that it needs to hold through an examination of its risk profile from regulatory and economic capital viewpoints.
Internal Model Method ('IMM')	One of three approaches defined by Basel II to determine exposure values for counterparty credit risk.
Internal ratings-based approach ('IRB')	A method of calculating credit risk capital requirements using internal, rather than supervisory, estimates of risk parameters.
Invested capital	Equity capital invested in HSBC by its shareholders.
IRB advanced approach	A method of calculating credit risk capital requirements using internal PD, LGD and EAD models.
IRB foundation approach	A method of calculating credit risk capital requirements using internal PD models but with supervisory estimates of LGD and conversion factors for the calculation of EAD.
ISDA master agreement	Standardised contract developed by ISDA used as an umbrella under which bilateral derivatives contracts are entered into.
L	
Leverage ratio	A measure, prescribed by regulators under Basel III, which is the ratio of tier 1 capital to total exposures. Total exposures include on-balance sheet items, off-balance sheet items and derivatives, and should generally follow the accounting measure of exposure. This supplementary measure to the risk-based capital requirements is intended to constrain the build-up of excess leverage in the banking sector.
Liquidity coverage ratio	A measure aimed at ensuring banks have an adequate level of liquid assets to meet their liquidity needs for a 30 calendar day horizon under a significantly severe liquidity stress. The ratio is the stock of high quality liquid assets over net cash outflows over the next 30 days.
Liquidity risk	The risk that HSBC does not have sufficient financial resources to meet its obligations as they fall due, or will have to do so at an excessive cost. This risk arises from mismatches in the timing of cash flows.
Loss given default ('LGD')	The estimated ratio (percentage) of the loss on an exposure to the amount outstanding at default (EAD) upon default of a counterparty.
M	
Market risk	The risk that movements in market risk factors, including foreign exchange rates and commodity prices, interest rates, credit spreads and equity prices will reduce income or portfolio values.
Mark-to-market approach	One of three approaches defined by Basel II to determine exposure values for counterparty credit risk.
Monoline insurers ('monolines')	Entities which specialise in providing credit protection to the holders of debt instruments in the event of default by the debt security counterparty. This protection is typically held in the form of derivatives such as CDSs referencing the underlying exposures held.
N	
Net interest income	The amount of interest received or receivable on assets net of interest paid or payable on liabilities.
Net Stable Funding ratio	A measure aimed at ensuring long-term assets are funded with at least a minimum amount of stable liabilities in relation to their liquidity risk profiles. The ratio is the available amount of stable funding over required amount of stable funding.
O	
Obligor grade	Obligor grades, summarising a more granular underlying counterparty risk rating scale for estimates of probability of default, are defined as follows: • *'Minimal Default Risk':* The strongest credit risk, with a negligible probability of default. • *'Low Default Risk':* A strong credit risk, with a low probability of default. • *'Satisfactory Default Risk':* A good credit risk, with a satisfactory probability of default.

Glossary

Term	Definition
	• *'Fair Default Risk'*: The risk of default remains fair, but identified weaknesses may warrant more regular monitoring. • *'Moderate Default Risk':* The overall position will not be causing any immediate concern, but more regular monitoring will be necessary as a result of sensitivities to external events that give rise to the possibility of risk of default increasing. • *'Significant Default Risk':* Performance may be limited by one or more troublesome aspect, known deterioration, or the prospect of worsening financial status. More regular monitoring required. • *'High Default Risk':* Continued deterioration in financial status, that requires frequent monitoring and ongoing assessment. The probability of default is of concern but the borrower currently has the capacity to meet its financial commitments. • *'Special Management':* The probability of default is of increasing concern and the borrower's capacity to fully meet its financial commitments is becoming increasingly less likely. • *'Default':* A default is considered to have occurred with regard to a particular obligor when either or both of the following events has taken place: the Group considers that the obligor is unlikely to pay its credit obligations in full, without recourse by the Group to actions such as realising security, or the obligor is past due more than 90 days on any material credit obligation to the Group.
Operational risk	The risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events, including legal risk.
Over-the-counter ('OTC')	A bilateral transaction (e.g. derivatives) that is not exchange traded and that is valued using valuation models.
P	
Private equity investments	Equity securities in operating companies not quoted on a public exchange, often involving the investment of capital in private companies or the acquisition of a public company that results in the delisting of public equity.
Probability of default ('PD')	The probability that an obligor will default within a one-year time horizon.
Q	
Qualifying revolving retail exposures	Retail IRB exposures that are revolving, unsecured, and, to the extent they are not drawn, immediately and unconditionally cancellable, such as credit cards.
R	
Ratings Based Method ('RBM')	One of three calculation methods defined under the IRB approach to securitisations. The approach uses risk weightings based on ECAI ratings, the granularity of the underlying pool and the seniority of the position.
Regulatory capital	The capital which HSBC holds, determined in accordance with rules established by the FSA for the consolidated Group and by local regulators for individual Group companies.
Re-securitisation	A securitisation of a securitisation exposure, where the risk associated with an underlying pool of exposures is tranched and at least one of the underlying exposures is a securitisation exposure.
Residual maturity	The period outstanding from the reporting date to the maturity or end date of an exposure.
Restricted Shares	Awards of Restricted Shares define the number of HSBC Holdings ordinary shares to which the employee will become entitled, generally between one and three years from the date of the award, and normally subject to the individual remaining in employment.
Retail IRB	Retail exposures that are treated under the IRB approach.
Return on equity	Profit attributable to ordinary shareholders divided by average invested capital.
Risk appetite	An assessment of the types and quantum of risks to which HSBC wishes to be exposed.
Risk-weighted assets ('RWA's)	Calculated by assigning a degree of risk expressed as a percentage (risk weight) to an exposure in accordance with the applicable Standardised or IRB approach rules.
S	
Securitisation	A transaction or scheme whereby the credit risk associated with an exposure, or pool of exposures, is tranched and where payments to investors in the transaction or scheme are dependent upon the performance of the exposure or pool of exposures. A traditional securitisation involves the transfer of the exposures being securitised to an SPE which issues securities. In a synthetic securitisation, the tranching is achieved by the use of credit derivatives and the exposures are not removed from the balance sheet of the originator.
Securitised revolving exposure	The securitisation of revolving exposures. Revolving exposures are those where the balance fluctuates depending on customers' decisions to borrow or repay, such as credit cards.
Significant Influence Function	FSA registered role, recognised as being a control function role.

Glossary (continued)

Term	Definition
Specialised lending exposure	Specialised lending exposures are defined by the FSA as exposures to an entity which was created specifically to finance and/or operate physical assets, where the contractual arrangements give the lender a substantial degree of control over the assets and the income that they generate and the primary source of repayment of the obligation is the income generated by the assets being financed, rather than the independent capacity of a broader commercial enterprise.
Special Purpose Entity ('SPE')	A corporation, trust or other non-bank entity, established for a narrowly defined purpose, including for carrying on securitisation activities. The structure of the entity and activities are intended to isolate the obligations of the SPE from those of the originator and the holders of the beneficial interests in the securitisation.
Specific issuer risk	Specific issuer (credit spread) risk arises from a change in the value of debt instruments due to a perceived change in the credit quality of the issuer or underlying assets.
Standardised approach	In relation to credit risk, a method for calculating credit risk capital requirements using ECAI ratings and supervisory risk weights. In relation to operational risk, a method of calculating the operational capital requirement by the application of a supervisory defined percentage charge to the gross income of eight specified business lines.
Supervisory Formula Method ('SFM')	An alternative Ratings Based Method to be used primarily for own originated or sponsored securitisations. It is used to calculate the capital requirements of exposures to a securitisation as a function of the characteristics of the collateral pool and contractual properties of the tranche or tranches retained.
Supervisory slotting approach	A method for calculating capital requirements for Specialised Lending exposures where the internal rating of the obligor is mapped to one of five supervisory categories, each associated with a specific supervisory risk weight.
T	
Tier 1 capital	A component of regulatory capital, comprising core tier 1 capital and other tier 1 capital. Other tier 1 capital includes qualifying capital instruments such as non-cumulative perpetual preference shares and hybrid capital securities.
Tier 2 capital	A component of regulatory capital, comprising qualifying subordinated loan capital, related non-controlling interests, allowable collective impairment allowances and unrealised gains arising on the fair valuation of equity instruments held as available-for-sale. Tier 2 capital also includes reserves arising from the revaluation of properties.
Total return swap	A credit derivative transaction that swaps the total return on a financial instrument (cash flows and capital gains and losses), for a guaranteed interest rate, such as an inter-bank rate, plus a margin.
V	
Value at risk ('VAR')	A technique that measures the loss that could occur on risk positions as a result of adverse movements in market risk factors (e.g. rates, prices, volatilities) over a specified time horizon and to a given level of confidence.
W	
Write-down	Reduction in the carrying value of an asset due to impairment or fair value movements.
Wrong-way risk	An adverse correlation between the counterparty's probability of default and the mark-to-market value of the underlying transaction.

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