HSBC HOLDINGS PLC
Form 6-K
March 12, 2013
Table of Contents

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Report of Foreign Private Issuer

Pursuant to Rule 13a - 16 or 15d - 16 of

the Securities Exchange Act of 1934

For the month of March 2013

Commission File Number: 001-14930

HSBC Holdings plc

42nd Floor, 8 Canada Square, London E14 5HQ, England

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F).

Form 20-F x Form 40-F ¨

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ¨

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ¨

(Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934).

Yes ¨ No x

(If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-).

Table of Contents

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

HSBC Holdings plc

By: /s/ Iain J Mackay
Name: Iain J Mackay
Title: Group Finance Director
Date: 12 March 2013

Table of Contents

Table of Contents

Purpose

This document comprises HSBC s Pillar 3 disclosures on capital and risk management at 31 December 2012. It has two principal purposes:

- to meet the regulatory disclosure requirements under the rules of the United Kingdom (UK) Financial Services Authority (FSA) set out in BIPRU, the Prudential Sourcebook for Banks, Building Societies and Investment Firms, Chapter 11; and

- to provide further information useful to readers of these disclosures on the capital and risk profile of the HSBC Group.

Additional relevant information may be found in the HSBC Holdings plc *Annual Report and Accounts 2012*.

Who we are

HSBC is one of the world s largest banking and financial services organisations, with around 6,600 offices in both established and faster-growing markets. We aim to be where the economic growth is, connecting customers to opportunities, enabling businesses to thrive and economies to prosper, and ultimately helping people to fulfil their hopes and realise their ambitions.

We serve around 58 million customers through our four global businesses: Retail Banking and Wealth Management (RBWM), Commercial Banking (CMB), Global Banking and Markets (GB&M) and Global Private Banking. Our network covers 81 countries and territories in six geographical regions: Europe, Hong Kong, Rest of Asia-Pacific, Middle East and North Africa (MENA), North America and Latin America. Our aim is to be acknowledged as the world s leading international bank.

Listed on the London, Hong Kong, New York, Paris and Bermuda stock exchanges, shares in HSBC Holdings plc are held by about 220,000 shareholders in 129 countries and territories.

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.

Cautionary statement regarding forward-looking statements

The *Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (Pillar 3 Disclosures 2012)* contain 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 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. HSBC makes no commitment to revise or update any forward-looking statements to reflect events or circumstances occurring or existing after the date of any forward-looking statements.

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.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012

Contents

Introduction

Key regulatory metrics 2
Regulatory framework for disclosures 4
Pillar 3 Disclosures 2012 4
Future developments 5
Comparison with the *Annual Report and Accounts 2012* 5

Capital and risk

Capital management 8
Regulatory capital 8
Calculation of capital requirements 10
Scope of Basel Pillar 1 approaches 12
Pillar 2 and ICAAP 14
Basel III and CRD IV 16
Risk management 19
Risk analytics and model governance 20

Credit risk

Overview and responsibilities 21
Credit risk management 21
Credit risk models governance 22
Application of the IRB approach 29
Model performance 39
Risk mitigation under IRB approaches 43
Application of the standardised approach 46
Counterparty credit risk 48
Securitisation 52

Market risk

Overview and objectives 58
Organisation and responsibilities 58
Measurement and monitoring 59
Managed risk positions 60

Operational risk

Overview and objectives 61
Organisation and responsibilities 62
Measurement and monitoring 62

Other risks

Pension risk 63
Non-trading book interest rate risk 63
Non-trading book exposures in equities 64

Remuneration

HSBC Group Remuneration Committee 66
HSBC reward strategy 66
Overview of remuneration 67
Group variable pay pool determination 67

Appendices

I	Simplified organisation chart for regulatory purposes	72
II	Risk management framework – risk types	73
III	Supplementary Basel III disclosures	76
IV	References to *Annual Report and Accounts 2012*	79
V	Glossary	80
VI	Contacts	88

Tables

1	Pillar 1 overview	2
2	Reconciliation of balance sheets - financial accounting to regulatory scope of consolidation	6
3	Composition of regulatory capital	9
4	RWAs - by risk type and geographical region	10
5	RWAs - by global business and geographical region	11
6	Credit risk and counterparty credit risk - by model approach and exposure class	13
7	Estimated impact of CRD IV (end point)	17
8	Estimated leverage ratio	19
9	Credit risk - summary	23
10	Credit risk exposure - by geographical region	24
11	Credit risk exposure - RWAs and RWA density by geographical region	25
12	Credit risk exposure - by industry sector	26
13	Credit risk exposure - by residual maturity	28
14	Wholesale IRB exposure - by obligor grade	32
15	Retail IRB exposures secured on real estate property	36
16	Retail IRB exposure - by internal PD grade	36
17	Retail IRB exposure - by geographical region	37
18	IRB models - estimated and actual values (wholesale)	40
19	IRB models - corporate PD models performance by CRR grade	40
20	IRB advanced models - estimated and actual values (retail)	41
21	IRB EL and impairment charges - by exposure class	42
22	IRB EL and impairment charges - by region	43
23	IRB exposure - credit risk mitigation	45
24	Standardised exposure - credit risk mitigation	47
25	Standardised exposure - by credit quality step	47
26	CCR exposure - credit derivative transactions	49
27	CCR - net derivative credit exposure	49
28	CCR - by exposure class, product and method	50
29	CCR - by exposure class, product and region	51
30	CCR - RWA by exposure class, product and region	51
31	CCR - RWA density by exposure class, product and region	52
32	Securitisation exposure - by approach	54
33	Securitisation - movement in the year	55
34	Securitisation - by trading and non-trading book	56
35	Securitisation - asset values and impairment charges	56
36	Securitisation - by risk weighting	57
37	Market risk	58
38	Operational risk	61
39	Non-trading book equity investments	64
40	Aggregate remuneration expenditure	64
41	Remuneration - fixed and variable amounts - Group	65
42	Remuneration - fixed and variable amounts - UK	65
43	Deferred remuneration	65
44	Sign-on and severance payments	66
45	Code staff remuneration by band	66
46	2012 Long-term scorecard and performance outcome	70
47	Composition of regulatory capital on a Basel III basis	76

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Introduction

Key regulatory metrics

Core tier 1 capital

US$138.8bn *up 13%*

2011: US$122.4bn
2010: US$116.1bn

Core tier 1 ratio

12.3%

2011: 10.1%
2010: 10.5%

Total RWAs

US$1,124bn *down 7%*

2011: US$1,210bn
2010: US$1,103bn

Tier 1 capital

US$151.0bn *up 8%*

2011: US$139.5bn
2010: US$133.2bn

Tier 1 ratio

13.4%

2011: 11.5%
2010: 12.1%

Credit risk EAD

US$2,171bn *down 1%*

2011: US$2,183bn
2010: US$1,999bn

Total regulatory capital

US$180.8bn *up 6%*

2011: US$170.3bn
2010: US$167.6bn

Total capital ratio

16.1%

2011: 14.1%
2010: 15.2%

Credit risk RWA density

41%

2011: 44%
2010: 45%

Estimated CRD IV CET1 capital

US$115.5bn

Estimated CRD IV CET1 ratio[1]

9.0%

Estimated CRD IV RWAs

US$1,289.2bn

Table 1: Pillar 1 overview

	RWAs			Capital required[2]		
	2012 US$bn	2011 US$bn		**2012 US$bn**	2011 US$bn	
Credit risk	**898.4**	958.2	*down 6%*	**71.9**	76.7	*down 6%*
Standardised approach	**374.5**	372.1		**30.0**	29.8	
IRB foundation approach	**10.3**	8.5		**0.8**	0.7	
IRB advanced approach	**513.6**	577.6		**41.1**	46.2	
Counterparty credit risk[3]	**48.3**	53.8	*down 10%*	**3.9**	4.3	*down 9%*
Standardised approach	**2.6**	3.2		**0.2**	0.3	
IRB approach	**45.7**	50.6		**3.7**	4.0	
Market risk	**54.9**	73.2	*down 25%*	**4.4**	5.9	*down 25%*
Operational risk	**122.3**	124.3	*down 2%*	**9.8**	9.9	*down 1%*
Total	**1,123.9**	1,209.5	*down 7%*	**90.0**	96.8	*down 7%*

Of which:				
Run-off portfolios	**145.7**	181.6	**11.7**	14.5
Legacy credit in GB&M	**38.6**	50.0	**3.1**	4.0
US CML and Other[4]	**107.1**	131.6	**8.6**	10.5
Card and Retail Services[5]	**6.9**	52.1	**0.6**	4.2

1 *The estimated CRD IV CETI ratio: this is the ratio estimated by applying our interpretation of the CRD IV draft July 2011 text post transition period (end point CRD IV) to our balance sheet position at 31 December 2012.*

2 *Capital required , here and in all tables where the term is used, represents the Pillar 1 capital charge calculated at 8% of RWAs.*

3 *For a breakdown of counterparty credit risk exposure and RWAs by internal model and mark-to-market methods, see table 28 on page 50.*

4 *Other includes treasury services related to the US Consumer and Mortgage Lending business and commercial operations in run-off.*

5 *Operational risk RWAs, under the standardised approach, are calculated using an average of the last three years revenues. For business disposals, the operational risk RWAs are not released immediately on disposal, but diminish over a period of time. The RWAs for the Card and Retail Services business at 31 December 2012 represent the remaining operational risk RWAs for the business.*

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

RWAs by risk type

RWAs by global business

RWAs by geographical region

Credit risk RWAs by Basel approach

Credit risk EAD by industry sector

EL and loan impairment charges (IRB only)

Verification

Whilst the *Pillar 3 Disclosures 2012* are not required to be externally audited, the document has been verified internally in accordance with the Group s policies on disclosure and its financial reporting and governance processes. Controls comparable to those for the *Annual Report and Accounts* have been applied to confirm compliance with FSA Handbook rules in BIPRU 11 and consistency with HSBC s governance, business model and other disclosures.

Frequency

We publish comprehensive Pillar 3 disclosures annually on the HSBC internet site www.hsbc.com, simultaneously with the release of our *Annual Report and Accounts*. Our interim reports and management statements include relevant summarised regulatory capital information complementing the financial and risk information presented there.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Regulatory framework for disclosures

The UK 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 local capital adequacy requirements. In most jurisdictions, non-banking financial subsidiaries are also subject to the supervision and capital requirements of local regulatory authorities.

We calculate capital at a Group level for current reporting purposes using the Basel II framework of the Basel Committee on Banking Supervision (Basel Committee), as implemented by the European Union (EU) in the Capital Requirements Directive, as amended, and subsequently by the FSA in its rulebooks for the UK banking industry. The regulators of Group banking entities outside the EU are at different stages of implementation of Basel II and local regulation may still be on a Basel I basis.

The Basel II framework has been updated by the Basel Committee in Basel III, due to take legal effect in the EU through a Directive and a Regulation which together (CRD IV) will supersede earlier Directives. Significant matters within the scope of CRD IV include the quality and quantity of regulatory capital, counterparty credit risk, liquidity and funding, capital buffers and leverage. The new requirements are to be phased in, with many areas subject to the development of technical standards by the European Banking Authority (EBA).

At the time of writing, these proposals have reached an advanced stage within the European legislative process but remain subject to agreement between the European Commission, Parliament and Council. Moreover, the effective date of their implementation is uncertain.

Our approach to managing Group capital has been to ensure that we exceed current regulatory requirements and are well placed to meet expected future requirements. Within the remit of Pillar 2, the FSA has now set the Group a target common equity tier 1 (CET1) ratio calculated on a Basel III end point basis, to be achieved by December 2013: the Capital Resources Floor (CRF). In effect, this accelerates our implementation date of Basel III. We currently manage our capital position to meet an internal target CET1 ratio in the range 9.5%-10.5% by 31 December 2013 and review this on an ongoing basis.

Pillar 3 Disclosures 2012

Basel II is structured around three pillars . The Pillar 1 minimum capital requirements and Pillar 2 supervisory review process are complemented by Pillar 3: market discipline. The aim of Pillar 3 is to produce disclosures which allow market participants to assess the scope of application by banks of the Basel framework and the rules in their jurisdiction, their capital condition, risk exposures and risk assessment processes, and hence their capital adequacy. Pillar 3 requires all material risks to be disclosed, enabling a comprehensive view of a bank s risk profile.

The *Pillar 3 Disclosures 2012* comprise all information required under Pillar 3 in the UK, both quantitative and qualitative, and are prepared at the HSBC Group consolidated level. Where disclosure has been withheld as proprietary or non-material, as the rules permit, we comment as appropriate. The FSA also allows certain Pillar 3 requirements to be satisfied by inclusion within the financial statements.

Where we adopt this approach, references are provided to the relevant pages of the Annual Report and Accounts 2012.

We continue to engage constructively in the work of the UK authorities and industry associations to improve the transparency and comparability of UK banks Pillar 3 disclosures. We also take due account of other regulatory assessments, such as reviews by the EBA of best practice in historical disclosures. Our 2012 disclosures furthermore reflect our implementation of the recommendations of the Enhanced Disclosure Task Force (EDTF).

An introduction to the EDTF and to HSBC s implementation of its recommendations are given on page 12 of the Annual Report and Accounts 2012.

Reflecting the way we now manage capital, we are making various disclosures at 2012 year-end of our estimated capital position on an end point CRD IV basis with regard to both the supply of, and the demand for, capital. These disclosures are clearly distinguished from those made under the regulatory rules currently in place.

We also make certain disclosures in line with FSA requirements for UK banks on the composition of capital and leverage in a Basel III/ CRD IV environment.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

The principal changes to our *Pillar 3 Disclosures 2012,* compared with the prior year, are:

new capital disclosures:

a comparison of the differing scope of our financial accounting and regulatory balance sheets;

a table setting out the pro forma estimated impact of end point Basel III/CRD IV rules on our core tier 1 ratio (CET1 under Basel III);

at FSA request, tables estimating on a pro forma basis the composition of first year transitional CRD IV capital and an end point leverage ratio;

more granular risk disclosures:

credit and counterparty credit risk weighted assets (RWAs) and RWA density, by exposure class and geography;

portfolio quality distribution by key Basel II risk metrics;

model backtesting data for significant exposure classes and portfolios;

additional supporting commentaries; and

greater clarity and focus:

enhancement of market risk and counterparty credit risk disclosures;

policy and reference detail in Appendices;

clearer delineation of our approaches to Pillar 1 and Pillar 2 capital requirements;

presentational improvements to assist the reader.

Future developments

One of the most significant future developments is the expected finalisation of the draft CRD IV rules. The timing of this, and the implementation dates, remain unclear at the time of publication.

Separately, the FSA will introduce new capital measures in 2013 for UK banks:

- Sovereign Loss Given Defaults (LGD s) are to be subject to a floor of 45%, effective in HSBC s case for reporting from 31 March 2013; we estimate the RWA impact at US$19.0bn.

- the FSA requires a move to the supervisory slotting approach for UK commercial income-producing real estate portfolios. For HSBC, this will roll out across the relevant business during 2013.

- a framework will be applied when assessing low-default wholesale portfolios, imposing LGD and exposure at default (EAD) floors based on the foundation approach in the case of portfolios with fewer than 20 events of default per country.

We continue to assess the potential impact of these measures.

A number of other major regulatory initiatives have material implications for banks future capital requirements. These include assessment against global systemically important bank (G-SIB) criteria and legislation on the structural reform of banks proposed by the UK Government following the report of the Independent Commission on Banking.

The Government also proposes to make the Financial Policy Committee (FPC) responsible for decisions on applying the countercyclical capital buffer, a Basel III global requirement, to certain UK firms, if it judges that systemic risks threaten UK financial stability, and to protect the banking sector from future potential losses.

The FPC would also gain powers over sectoral capital requirements (SCR), a more targeted tool directed at three broad sectors judged to pose cyclical and potentially systemic risks. These are: residential mortgages, commercial property and other financial institutions, as well as more granular sub-sectors of these if the need arose, whether in the banking or trading books, and irrespective of the domicile of the ultimate borrower.

The aggregate impact of these potential buffer requirements cannot be precisely estimated at present, but further details of these topics can be found in the discussion of macro-prudential and regulatory risks on page 16 of this report, and under Capital Future Developments on page 291 of the *Annual Report and Accounts 2012.*

Comparison with the *Annual Report and Accounts 2012*

Basis of consolidation

The basis of consolidation for the purpose of financial accounting under International Financial Reporting Standards (IFRSs), described on page 384 of the *Annual Report and Accounts 2012,* differs from that used for regulatory purposes. Table 2 below provides a reconciliation of the financial accounting balance sheet to the regulatory balance sheet on an IFRSs basis.

It is the regulatory balance sheet, and not the financial accounting balance sheet, which forms the basis for the calculation of regulatory capital requirements. The alphabetic references in this table link to the corresponding references in table 3: Composition of Regulatory Capital on page 9, identifying those balances which form part of that calculation.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 2: Reconciliation of balance sheets financial accounting to regulatory scope of consolidation

		At 31 December 2012			
	Ref	Accounting balance sheet US$bn	Deconsolidation of insurance/ other entities US$bn	Consolidation of banking associates US$bn	Regulatory balance sheet US$bn
Assets					
Trading assets		**408.8**	**(0.1)**	**1.5**	**410.2**
Loans and advances to customers		**997.6**	**(11.9)**	**119.7**	**1,105.4**
of which: impairment allowances on IRB portfolios	*i*	**(10.3)**			**(10.3)**
impairment allowances on STD portfolios	*k*	**(5.9)**		**(2.7)**	**(8.6)**
Financial investments		**421.1**	**(50.3)**	**33.1**	**403.9**
Capital invested in insurance and other entities			**8.4**		**8.4**
Interests in associates and joint ventures		**17.8**		**(17.1)**	**0.7**
of which: positive goodwill on acquisition	*h*	**0.7**		**(0.6)**	**0.1**
Goodwill and intangible assets	*h*	**29.9**	**(5.0)**	**0.6**	**25.5**
Other assets		**817.3**	**(34.7)**	**82.5**	**865.1**
of which: goodwill and intangible assets of disposal groups held for sale	*h*	**0.1**	**(0.1)**		
retirement benefit assets	*g*	**2.8**			**2.8**
impairment allowances on asset held for sale		**(0.7)**			**(0.7)**
of which:					
IRB portfolios	*i*	**(0.7)**			**(0.7)**
STD portfolios	*k*				
Total assets		**2,692.5**	**(93.6)**	**220.3**	**2,819.2**
Liabilities					
Deposits by banks		**107.4**	**(0.2)**	**51.3**	**158.5**
Customer accounts		**1,340.0**	**(0.7)**	**158.6**	**1,497.9**
Trading liabilities		**304.6**	**(0.1)**	**0.1**	**304.6**
Financial liabilities designated at fair value		**87.7**	**(12.4)**		**75.3**
of which: term subordinated debt included in tier 2 capital	*m*	**16.9**			**16.9**
hybrid capital securities included in tier 1 capital	*j*	**4.7**			**4.7**
Debt securities in issue		**119.5**	**(11.4)**	**1.9**	**110.0**
Retirement benefit liabilities	*g*	**3.9**		**0.1**	**4.0**
Subordinated liabilities		**29.5**		**2.9**	**32.4**
of which: hybrid capital securities included in tier 1 capital	*j*	**2.8**			**2.8**
perpetual subordinated debt included in tier 2 capital	*l*	**2.8**			**2.8**
term subordinated debt included in tier 2 capital	*m*	**23.9**			**23.9**
Other liabilities		**516.8**	**(67.6)**	**5.4**	**454.6**
of which contingent liabilities and contractual commitments		**0.3**			**0.3**
of which:					

credit related provisions on IRB portfolios	*i*	**0.3**			**0.3**
credit related provisions on STD portfolios	*k*				
Total shareholders equity	*a*	**175.2**	**(0.6)**		**174.6**
of which: other equity instruments included in tier 1 capital	*c,j*	**5.9**			**5.9**
preference share premium included in tier 1 capital	*b*	**1.4**			**1.4**
Non-controlling interests	*d*	**7.9**	**(0.6)**		**7.3**
of which: non-cumulative preference shares issued by subsidiaries included in tier 1 capital	*e*	**2.4**			**2.4**
non controlling interests included in tier 2 capital, cumulative preferred stock	*f*	**0.3**			**0.3**
non-controlling interests attributable to holders of ordinary shares in subsidiaries included in tier 2 capital	*f,m*	**0.2**			**0.2**
Total liabilities and equity		**2,692.5**	**(93.6)**	**220.3**	**2,819.2**

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Structure of the regulatory group

HSBC s organisation is that of a financial holding company whose major subsidiaries are almost entirely wholly-owned banking entities. A simplified organisation chart showing the difference between the accounting and regulatory consolidation groups is included at Appendix I to this report.

Interests in associates are equity accounted in the financial accounting consolidation, whereas their exposures are proportionally consolidated for regulatory purposes. Subsidiaries and associates engaged in insurance and non-financial activities are excluded from the regulatory consolidation and deducted from regulatory capital. The regulatory consolidation does not include SPEs where significant risk has been transferred to third parties. Exposures to these SPEs are risk-weighted as securitisation positions for regulatory purposes.

The capital invested in our insurance business that is deducted from regulatory capital was US$10.1bn at 31 December 2012 of which US$8.4bn is shown as Capital invested in insurance and other entities in the column Deconsolidation of insurance/other entities in the table above. The remainder of the balance related to regulatory adjustments to the insurance capital. The principal insurance entities comprising this balance are shown below.

The deconsolidation of SPEs connected to securitisation activity and other entities mainly impacts the adjustments to Loans and advances to customers , financial investments and debt securities in issue . Further details about the use of SPEs in the Group s securitisation programme are shown on page 502 in the *Annual Report and Accounts 2012* and on page 52 of this report.

Principal insurance entities excluded from the regulatory consolidation

HSBC Life (UK) Ltd

HSBC Assurances Vie (France)

HSBC Insurance (Asia) Ltd

HSBC Life (International) Ltd

Hang Seng Insurance Company Ltd

HSBC Insurance (Singapore) Ltd

HSBC Life Insurance Company Ltd

HSBC Amanah Takaful (Malaysia) SB

HSBC Seguros (Brasil) S.A.

HSBC Vida e Previdência (Brasil) S.A.

HSBC Seguros de Retiro (Argentina) S.A.

HSBC Seguros de Vida (Argentina) S.A.

HSBC Seguros S.A. (Mexico)

HSBC Insurance Company of Delaware

Household Life Insurance Company of Delaware

Principal SPEs excluded from the regulatory consolidation

Regency Assets Ltd

Mazarin Funding Ltd

Barion Funding Ltd

Malachite Funding Ltd

Bryant Park Funding LLC

Turquoise Receivables Trustee Ltd

Performance Trust

HSBC Bank Mexico Mortgage Trust 1

The principal associates in the regulatory consolidation at 31 December 2012 are shown below, representing almost 100% of our associates total assets consolidated for regulatory purposes at that date.

Principal associates of HSBC consolidated for regulatory purposes

Bank of Communications Co., Limited

Industrial Bank Co., Limited[1]

The Saudi British Bank

Yantai Bank Co., Limited

Vietnam Technological and Commercial Joint Stock Bank

1 *On 7 January 2013, Industrial Bank Co. Ltd completed a private placement of additional share capital to a number of third parties, thereby diluting the Group s equity holding. As a result of this and other factors, the Group ceased to account for the investment as an associate from that date.*

Links to information on significant subsidiaries are available on our investor relations website page www.hsbc.com/investor-relations/financial-results.

Basis of measurement

The *Pillar 3 Disclosures 2012* have been prepared in accordance with regulatory capital adequacy concepts and rules, while the *Annual Report and Accounts 2012* is prepared in accordance with IFRSs. Therefore, some information in the *Pillar 3 Disclosures 2012* is not directly comparable with the financial information in the *Annual Report and Accounts 2012*. The most significant difference relates to loans and advances to customers and banks as follows:

Regulatory position

Credit exposures are defined as the amount at risk in the event of a default that is estimated by the Group under specified Basel II parameters which include, among others, the likelihood of future drawings of committed credit lines.

IFRSs position

Loans and advances to customers/banks measured under IFRSs in the *Annual Report and Accounts 2012* are reported at the balance sheet date and therefore do not reflect the likelihood of future drawings of committed credit lines.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Capital and Risk

Capital management

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. We aim to maintain a strong capital base to support the risks inherent in our business and invest in accordance with our six filters framework, exceeding both consolidated and local regulatory capital requirements at all times.

Our capital management process is set out in the annual Group capital plan, which is approved by the Board. HSBC Holdings is the primary provider of equity capital to its subsidiaries and also provides them with non-equity capital where necessary. These investments are substantially funded by HSBC Holdings own capital issuance and profit retention. As part of its capital management process, HSBC Holdings seeks to maintain a balance between the composition of its capital and its investment in subsidiaries.

Each subsidiary manages its own capital to support its planned business growth and meet its local regulatory requirements within the context of the Group capital plan. Capital generated by subsidiaries in excess of planned requirements is returned to HSBC Holdings, normally by way of dividends, in accordance with the Group s capital plan. During 2011 and 2012, none of the Group s subsidiaries experienced significant restrictions on paying dividends or repaying loans and advances.

At 31 December 2012, there were no known material impediments to the prompt payment of dividends by our subsidiaries or repayment of intra-group loans and advances when due. None of our subsidiaries which are not included in the regulatory consolidation has capital resources below their minimum regulatory requirement.

For further details of our approach to capital management, please see page 293 of the Annual Report and Accounts 2012.

Regulatory capital

For regulatory purposes, our capital base is divided into three main categories, namely core tier 1, tier 1 and tier 2, depending on the degree of permanency and loss absorbency exhibited:

Categories of capital:

core tier 1 capital comprises shareholders equity and related non-controlling interests. The book values of goodwill and intangible assets are deducted from core tier 1 capital, and other regulatory adjustments are made for items reflected in shareholders equity which are treated differently for the purposes of capital adequacy;

other tier 1 capital includes qualifying capital instruments such as non-cumulative perpetual preference shares and hybrid capital securities; and

tier 2 capital comprises 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 (AFS). Tier 2 capital also includes reserves arising from the revaluation of properties.

To ensure the overall quality of the capital base, the FSA s rules set restrictions on the amount of hybrid capital instruments that can be included in tier 1 capital relative to core tier 1 capital, and limit overall tier 2 capital to no more than tier 1 capital. We complied with the FSA s capital adequacy requirements throughout 2011 and 2012.

The eligibility requirements in the UK for non-equity instruments under Basel III rules remained unclear, so we did not issue any such capital securities during 2012.

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). The main features of capital securities issued by the Group, categorised by tier 1 and tier 2 capital, are set out on pages 480, 494 and 495 of the *Annual Report and Accounts 2012*. The values disclosed there are the IFRSs balance sheet carrying amounts, however, not the amounts that these instruments contribute to regulatory capital. For example, the IFRSs accounting and the regulatory treatments differ in their approaches to issuance costs or regulatory amortisation.

The composition of capital under the current regulatory requirement is provided in the table below. The alphabetic references link back to table 2: Reconciliation of balance sheets financial accounting to regulatory scope of consolidation , which shows where these items are presented in the respective balance sheets. Not all items are reconcilable, due to regulatory adjustments that are applied, for example to non-core capital instruments before they can be included in the Group s regulatory capital base.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 3: Composition of regulatory capital

		At 31 December	
	Ref[1]	**2012 US$bn**	2011 US$bn
Tier 1 capital			
Shareholders equity		**167.3**	154.1
Shareholders equity per balance sheet[2]	*a*	**175.2**	158.7
Preference share premium	*b*	**(1.4)**	(1.4)
Other equity instruments	*c*	**(5.9)**	(5.9)
Deconsolidation of special purpose entities[3]	*a*	**(0.6)**	2.7
Non-controlling interests		**4.4**	4.0
Non-controlling interests per balance sheet	*d*	**7.9**	7.4
Preference share non-controlling interests	*e*	**(2.4)**	(2.4)
Non-controlling interests transferred to tier 2 capital	*f*	**(0.5)**	(0.5)
Non-controlling interests in deconsolidated subsidiaries	*d*	**(0.6)**	(0.5)
Regulatory adjustments to the accounting basis		**(2.4)**	(4.4)
Unrealised losses on available-for-sale debt securities[4]		**1.2**	2.2
Own credit spread		**0.1**	(3.6)
Defined benefit pension fund adjustment[5]	*g*	**(0.4)**	(0.4)
Reserves arising from revaluation of property and unrealised gains on available-for-sale equities		**(3.3)**	(2.7)
Cash flow hedging reserve			0.1
Deductions		**(30.5)**	(31.3)
Goodwill and intangible assets	*h*	**(25.7)**	(27.5)
50% of securitisation positions		**(1.8)**	(1.2)
50% of tax credit adjustment for expected losses		**0.1**	0.2
50% of excess of expected losses over impairment allowances	*i*	**(3.1)**	(2.8)
Core tier 1 capital		**138.8**	122.4
Other tier 1 capital before deductions		**17.3**	17.9
Preference share premium	*b*	**1.4**	1.4
Preference share non-controlling interests	*e*	**2.4**	2.4
Hybrid capital securities	*j*	**13.5**	14.1
Deductions		**(5.1)**	(0.8)
Unconsolidated investments[6]		**(5.2)**	(1.0)
50% of tax credit adjustment for expected losses		**0.1**	0.2
Tier 1 capital		**151.0**	139.5
Tier 2 capital			
Total qualifying tier 2 capital before deductions		**48.2**	48.7
Reserves arising from revaluation of property and unrealised gains on available-for-sale equities		**3.3**	2.7
Collective impairment allowances	*k*	**2.7**	2.7
Perpetual subordinated debt	*l*	**2.8**	2.8
Term subordinated debt	*m*	**39.1**	40.2

Non-controlling interests in tier 2 capital	*f*	**0.3**	0.3
Total deductions other than from tier 1 capital		**(18.4)**	(17.9)
Unconsolidated investments[6]		**(13.5)**	(13.9)
50% of securitisation positions		**(1.8)**	(1.2)
50% of excess of expected losses over impairment allowances	*i*	**(3.1)**	(2.8)
Total regulatory capital		**180.8**	170.3

For footnotes, see page 10.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Regulatory impact of management actions

	Risk-weighted assets	Core tier 1 capital	Tier 1 capital	Total regulatory capital
Reported capital ratios before management actions		**12.3%**	**13.4%**	**16.1%**
Reported totals (US$bn)	**1,123.9**	**138.8**	**151.0**	**180.8**
Management actions completed in 2013 (US$bn)				
Dilution of our shareholding in Industrial Bank and the subsequent change in accounting treatment	**(38.0)**	**1.0**	**(0.4)**	**(1.8)**
Completion of the second tranche of the sale of Ping An		**0.5**	**4.7**	**8.0**
Estimated total after management actions completed in 2013 (US$bn)	**1,085.9**	**140.3**	**155.3**	**187.0**
Estimated capital ratios after management actions completed in 2013		**12.9%**	**14.3%**	**17.2%**

1 *The references (a) to (m) refer to those in the reconciliation of balance sheets in table 2 on page 6.*
2 *Includes externally verified profits for the year ended 31 December 2012.*
3 *Mainly comprises unrealised losses on AFS debt securities within SPEs 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, any defined benefit asset is derecognised, and a 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 and the AFS investment in Ping An. Due to the expiry of the relevant transitional provision, with effect from 1 January 2013, material insurance holding companies acquired prior to 20 July 2006 will be deducted 50% from tier 1 and 50% from total capital.*

Calculation of capital requirements

This and the following section describe our Pillar 1 capital requirements, with a high-level view of the related RWAs, the scope of the Group s Pillar 1 permissions and our application of the Pillar 2 framework.

Pillar 1 covers the minimum capital resources requirements for credit risk, market risk and operational risk. These requirements are expressed in terms of RWAs. Where they are not separately

shown, counterparty credit risk and securitisation requirements fall within credit risk.

Tables 4, 5 and 6 set out the distribution of our Pillar 1 RWAs by risk type, global business, geography and modelling approach.

Further details of the Group s risk profile arising from the business activities of our global businesses may be found on page 20 of the Annual Report and Accounts 2012.

Table 4: Risk-weighted assets by risk type and geographical region

	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	MENA US$bn	North America US$bn	Latin America US$bn	Total RWAs US$bn	Capital required US$bn
At 31 December 2012								
Credit risk	**222.9**	**82.9**	**260.0**	**54.1**	**204.2**	**74.3**	**898.4**	**71.9**
Counterparty credit risk	**22.5**	**5.3**	**5.9**	**1.0**	**11.3**	**2.3**	**48.3**	**3.9**
Market risk[1]	**35.0**	**8.3**	**10.2**	**1.2**	**13.8**	**4.4**	**54.9**	**4.4**
Operational risk	**34.3**	**15.4**	**26.1**	**5.9**	**23.7**	**16.9**	**122.3**	**9.8**
	314.7	**111.9**	**302.2**	**62.2**	**253.0**	**97.9**	**1,123.9**	**90.0**
At 31 December 2011								
Credit risk	233.9	80.9	241.5	50.3	273.5	78.1	958.2	76.7
Counterparty credit risk	25.2	3.7	5.1	1.1	14.6	4.1	53.8	4.3
Market risk[1]	43.8	6.6	10.6	1.0	21.2	4.2	73.2	5.9
Operational risk	37.3	14.5	22.1	6.5	28.0	15.9	124.3	9.9
	340.2	105.7	279.3	58.9	337.3	102.3	1,209.5	96.8

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

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 5: Risk-weighted assets by global business and geographical region

	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	MENA US$bn	North America US$bn	Latin America US$bn	Total RWAs US$bn	Capital required US$bn
At 31 December 2012								
Retail Banking and Wealth Management	**49.4**	**18.6**	**33.0**	**7.6**	**140.7**	**27.3**	**276.6**	**22.1**
Commercial Banking	**88.7**	**41.7**	**155.9**	**27.6**	**46.5**	**36.6**	**397.0**	**31.8**
Global Banking and Markets[1]	**158.5**	**42.5**	**102.3**	**24.8**	**59.2**	**33.8**	**403.1**	**32.3**
Global Private Banking	**13.3**	**2.2**	**1.3**	**0.4**	**4.3**	**0.2**	**21.7**	**1.8**
Other[2]	**4.8**	**6.9**	**9.7**	**1.8**	**2.3**		**25.5**	**2.0**
	314.7	**111.9**	**302.2**	**62.2**	**253.0**	**97.9**	**1,123.9**	**90.0**
At 31 December 2011								
Retail Banking and Wealth Management	49.9	17.3	32.5	8.1	214.7	28.7	351.2	28.1
Commercial Banking	88.3	38.8	147.6	26.2	43.5	38.5	382.9	30.6
Global Banking and Markets[1]	182.0	40.3	85.3	23.0	72.1	34.5	423.0	33.9
Global Private Banking	15.0	2.1	1.5	0.2	3.3	0.4	22.5	1.8
Other[2]	5.0	7.2	12.4	1.4	3.7	0.2	29.9	2.4
	340.2	105.7	279.3	58.9	337.3	102.3	1,209.5	96.8

1 *RWAs are non-additive across geographical regions due to market risk diversification effects within the Group.*
2 *Includes the results of certain property transactions, unallocated investment activities, centrally held investment companies, movements in fair value of own debt, central support costs with associated recoveries, HSBC s holding company and financing operations.*

RWA planning

Pre-tax return on RWAs is an operational metric by which the global businesses are managed on a day-to-day basis. The metric combines return on equity and regulatory capital efficiency objectives. Top-down RWA targets, approved annually by the Group Management Board (GMB), are established for our global businesses and regions in accordance with the Group s strategic direction and risk appetite. Targets are set early in the annual planning process and inform the plan.

Business performance against the targets is monitored through reporting to the HSBC Holdings Asset and Liability Committee. The management of capital deductions is also addressed in the RWA monitoring framework through notional charges for these items, enabling a more holistic approach to performance measurement. A range of analysis is employed in the RWA monitoring framework to identify the key drivers of movements in the position, such as book size and book quality. Particular attention is paid to identifying and segmenting items within the day-to-day control of the business and those items that are driven by changes in risk models or regulatory methodology.

Movements in RWAs in 2012

The following commentary accompanies tables 4 and 5 above. RWAs fell in 2012 by US$86bn to US$1,124bn due to a combination of management actions and business movements mainly impacting

credit risk and market risk. The US$60bn decrease in credit risk RWAs was primarily attributable to the sale of the US Card and Retail Services business in RBWM North America in April 2012, with an effect of US$39bn. The first tranche of the sale of the Group s stake in Ping An Insurance (Group) Company of China Limited (Ping An), and the subsequent accounting reclassification of the remaining holding from an associate to an available-for-sale (AFS) investment, resulted in a year-on-year reduction in credit risk RWAs of US$21bn, mainly in CMB, through relief from the requirement for proportional consolidation of associates.

We continued to manage the residual balances in the US Consumer Mortgage and Lending (CML) and Other portfolio, yielding a reduction in credit risk RWAs of US$25bn. This was partly driven by a refinement in risk metrics through recalibration with more recent data observations. Other drivers of reductions included improved credit quality and the progression of assets into default as a result of the challenging conditions in the US mortgage market. As assets approach and go into default, capital requirements are increasingly reflected in an expected loss (EL) deduction from capital, rather than a direct RWA impact. Further reductions were from a combination of run-off and write-offs.

The reductions achieved through management actions were partly offset by business movements. Our associates in mainland China (excluding Ping An) had an increase in credit risk RWAs of US$30bn,

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

primarily a result of loan growth in Bank of Communications and Industrial Bank, mainly in CMB and GB&M. Credit growth in Rest of Asia-Pacific and Hong Kong, with related RWA growth of US$9.3bn (excluding associates) and US$2.0bn respectively, was driven by higher levels of term lending and trade loans as well as off-balance sheet trade finance products.

In Europe, there was a US$11bn reduction in credit risk RWAs as a result of a number of drivers. In GB&M and CMB there was reduced lending to corporate customers in selected Eurozone countries, partially offset by increased lending and improved credit quality in the top CMB markets in Europe. Further drivers were rating agency actions on ABSs, where downgrades are reflected in reduced RWAs and increased capital deductions for securitisation positions: see Composition of regulatory capital on page 9). In addition, there was an update in the regulatory treatment of European Economic Area (EEA) central bank exposures to include them in the standardised approach. European retail RWAs reduced mainly as a result of reductions in regulatory exposures for credit card portfolios and an improvement in mortgage portfolio quality. In MENA and Latin America, the main credit risk RWA movements were from mergers and acquisitions, including in Oman and UAE, and disposals in Costa Rica, Honduras and El Salvador.

Counterparty credit risk (CCR) RWAs fell US$4.9bn mainly in GB&M during the year, primarily due to the increased application of

counterparty netting within the calculation and counterparty data refinement which allowed us to apply lower potential future exposure add-on factors. There were additional reductions in North America, due to a decrease in the GB&M legacy credit business and from maturing trades, and in Latin America due to reduced repo activity with central banks and lower exposure on derivative transactions.

Market Risk RWAs fell by US$18bn during the period, with the main driver being a reduction in risk levels of US$11bn, primarily as a result of decreasing internal Value at Risk (VAR) due to reductions in exposure and improved market conditions. The factors impacting the reductions in VAR also resulted in reductions in the levels of stressed VAR. The impact was partly offset by a US$4.0bn increase in the incremental risk charge (IRC) as a result of a recalibration of the sovereign correlation matrix. Further reductions of US$2.4bn were due to a lower VAR multiplier applied in France. Market risk RWA movements for portfolios out of scope of modelled approaches showed a reduction of US$8.0bn. This was mainly driven by management actions by GB&M to reduce legacy positions in North America.

Operational risk RWAs remained stable in 2012, being calculated on a three-year average of revenues.

Scope of Basel Pillar 1 approaches

The scope of permissible Basel approaches, and those that HSBC has adopted, are described below.

Risk category	Scope of permissible approaches	Approach adopted by HSBC
Credit risk	Basel II applies three approaches of increasing sophistication to the calculation of Pillar 1 credit risk capital requirements. The most basic level, the standardised approach, requires banks to use external credit ratings to determine the risk weightings applied to rated counterparties. Other counterparties are grouped into broad categories and standardised risk weightings are applied to these categories. The next level, the IRB foundation approach, allows banks to calculate their credit risk capital requirements on the basis of their internal assessment of a counterparty s probability of default (PD), but subjects their quantified estimates of EAD and LGD to standard supervisory parameters. Finally, the IRB	For consolidated Group reporting, we have adopted the IRB advanced approach for the majority of our business. Some portfolios remain on the standardised or foundation approaches under Basel II, pending the issuance of local regulations or model approval, or under exemptions from IRB treatment.

	advanced approach allows banks to use their own internal assessment in both determining PD and quantifying EAD and LGD.	Further information on our IRB roll-out plan may be found on page 29.
Counterparty credit risk	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).	We use the mark-to-market and IMM approaches for counterparty credit risk. Our aim is to increase the proportion of positions on IMM over time.
	These exposure values are used to determine capital requirements under one of the credit risk approaches; standardised, IRB foundation and IRB advanced.	

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Risk category	Scope of permissible approaches	Approach adopted by HSBC
Equity	Equity exposures can be assessed under standardised or IRB approaches.	Most equity exposures within the Group are treated under the standardised approach. Our IRB equity exposures are treated under the simple risk weight approach.
Securitisation	Basel II specifies two methods for calculating credit risk requirements for securitisation positions in the non-trading book: the standardised approach and the IRB approach, which incorporates the Ratings Based Approach (RBM), the Internal Assessment Approach (IAA) and the Supervisory Formula Method (SFM)	For the majority of the securitisation non-trading book positions we use the IRB approach, and within this principally the RBM, with lesser amounts on IAA and SFM. We also use the standardised approach for an immaterial amount of trading book positions.
Market risk	Market risk capital requirements can be determined under either the standard rules or the internal models approach. The latter involves the use of internal VAR models to measure market risks and determine the appropriate capital requirement. The IRC and comprehensive risk measure (CRM) also apply.	The market risk capital requirement is measured using internal market risk models, where approved by the FSA, or the FSA standard rules. Our internal market risk models comprise VAR, stressed VAR, IRC and, in respect of correlation trading, the CRM.
Operational risk	Basel II allows for firms to calculate their operational risk capital requirement under the basic indicator approach, the standardised approach or the advanced measurement approach.	We have adopted the standardised approach in determining our operational risk capital requirement. Our medium term aim is to seek FSA approval to adopt the advanced measurement approach.

Table 6: Credit risk and counterparty credit risk by model approach and exposure class

	Total	Standardised		Foundation		Advanced		Total	Capital
	EAD	EAD	RWAs	EAD	RWAs	EAD	RWAs	RWAs	required
	US$bn	US$bn	US$bn	US$bn	US$bn	US$bn	US$bn	US$bn	US$bn
At 31 December 2012									
Credit risk	**2,170.9**	**681.5**	**374.5**	**19.4**	**10.3**	**1,470.0**	**513.6**	**898.4**	**71.9**
Counterparty credit risk	**141.4**	**5.8**	**2.6**	**3.5**	**1.8**	**132.1**	**43.9**	**48.3**	**3.9**
	2,312.3	**687.3**	**377.1**	**22.9**	**12.1**	**1,602.1**	**557.5**	**946.7**	**75.8**
Central governments and central banks	**545.1**	**179.6**	**0.9**			**365.5**	**37.7**	**38.6**	**3.1**

Institutions	**258.0**	**58.0**	**19.4**			**200.0**	**43.1**	**62.5**	**5.0**
Corporates	**813.1**	**257.6**	**239.9**	**22.9**	**12.1**	**532.6**	**278.5**	**530.5**	**42.5**
Retail									
Secured on real estate property	**362.7**	**45.3**	**24.0**			**317.4**	**130.8**	**154.8**	**12.4**
Qualifying revolving credit	**64.0**					**64.0**	**16.2**	**16.2**	**1.3**
SMEs	**13.1**					**13.1**	**6.8**	**6.8**	**0.5**
Other retail	**113.0**	**52.9**	**40.1**			**60.1**	**17.2**	**57.3**	**4.6**
Equity	**3.1**	**2.8**	**2.8**			**0.3**	**0.9**	**3.7**	**0.3**
Securitisation positions	**49.1**					**49.1**	**26.3**	**26.3**	**2.1**
Other	**91.1**	**91.1**	**50.0**					**50.0**	**4.0**
	2,312.3	**687.3**	**377.1**	**22.9**	**12.1**	**1,602.1**	**557.5**	**946.7**	**75.8**
Market risk								**54.9**	**4.4**
Operational risk								**122.3**	**9.8**
								1,123.9	**90.0**

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

	Total	Standardised		Foundation		Advanced		Total	Capital
	EAD	EAD	RWAs	EAD	RWAs	EAD	RWAs	RWAs	required
	US$bn	US$bn	US$bn	US$bn	US$bn	US$bn	US$bn	US$bn	US$bn
At 31 December 2011									
Credit risk	2,183.1	591.2	372.1	16.5	8.5	1,575.4	577.6	958.2	76.7
Counterparty credit risk	145.8	6.3	3.2	4.3	2.0	135.2	48.6	53.8	4.3
	2,328.9	597.5	375.3	20.8	10.5	1,710.6	626.2	1,012.0	81.0
Central governments and central banks	529.5	107.0	1.3			422.5	42.0	43.3	3.5
Institutions	251.4	42.0	14.0			209.4	43.0	57.0	4.6
Corporates	775.6	253.9	237.1	20.8	10.5	500.9	272.3	519.9	41.6
Retail									
Secured on real estate property	347.1	47.1	25.6			300.0	153.6	179.2	14.3
Qualifying revolving credit	142.6					142.6	55.5	55.5	4.4
SMEs	13.0					13.0	7.0	7.0	0.6
Other retail	118.5	55.5	41.9			63.0	23.0	64.9	5.2
Equity	6.9	6.5	8.4			0.4	1.6	10.0	0.8
Securitisation positions	58.8					58.8	28.2	28.2	2.3
Other	85.5	85.5	47.0					47.0	3.8
	2,328.9	597.5	375.3	20.8	10.5	1,710.6	626.2	1,012.0	81.0
Market risk								73.2	5.9
Operational risk								124.3	9.9
								1209.5	96.8

1 *For further information on the approaches used, see page 29 for credit risk, page 48 for CCR, page 58 for market risk and page 61 for operational risk.*

Key points

The proportion of portfolios on the IRB approach has reduced from 74% at 31 December 2011 to 70% at 31 December 2012 on an exposure basis and from 63% to 60% on an RWA basis. This is driven by a combination of changes in regulatory approach, management actions, movement in legacy portfolios and business growth.

For the change in the proportion of IRB in terms of exposures, the key driver was the change in regulatory methodology for the exposures to central banks in EEA member states, which moved US$79.7bn from IRB to standardised approach, at low risk weightings.

Exposures secured on real estate property increased by US15.6bn, mainly due to high quality asset growth in the UK and Hong Kong mortgage portfolios, partially offset by the continued run-off of US mortgage portfolios.

The RWA impact of the run-off together with the North American model recalibration resulted in a reduction in RWAs in the Secured on real estate exposure class.

The decrease in the Qualifying revolving credit exposure of US$78.6bn was primarily attributable to the sale of the US Card and Retail Services business in North America in April 2012.

Standardised exposure to corporates increased by US$3.7bn, mainly driven by an increase in lending in our Chinese associates of US$20.4bn, which was partially offset by a reduction in exposure of US$16.6bn due to the first tranche of the sale of our investment in Ping An.

The increase in IRB advanced approach corporate exposures of US$31.7bn relates to high quality lending growth in North America, Hong Kong and Rest of Asia-Pacific. The less than proportionate increase in RWAs is a result of an increase in portfolio quality.

Pillar 2 and ICAAP

Pillar 2

The processes of internal capital adequacy assessment and supervisory review, known as Pillar 2, lead to final determination by the FSA of Individual Capital Guidance (ICG) and any Capital Planning Buffer (CPB) that may be required.

Within Pillar 2, Pillar 2A considers, in addition to the minimum capital requirements for Pillar 1 risks described above, any supplementary requirements for those risks and in addition any requirements for risk categories not captured by Pillar 1. Such categories include principally: pension risk, insurance risk, non-

trading book interest rate risk, structural foreign exchange risk, and concentration risks. Pillar 2A also estimates capital needed to compensate for any shortcomings in management, governance or controls, and to guard against unexpected losses while these deficiencies are addressed.

Pillar 2B considers the capital buffer a firm would require in order to remain above its ICG in adverse circumstances that may be largely outside the firm s normal and direct control, for example during a period of severe but plausible downturn stress, when asset values and the firm s capital surplus may become strained. This is quantified via any CPB requirement the FSA may consider necessary. The

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

assessment of this is informed by stress tests and a rounded judgement of a firm s business model, also taking into account a firm s options and capacity to protect its capital position under stress, for instance through internal capital generation.

Complementing the above, in 2012 the FSA first advised the Group of a minimum level of capitalisation in the form of a CRF, expressed as a CET1 capital requirement calculated as a capital ratio on a Basel III end point basis, to be achieved by December 2013.

Internal capital adequacy assessment

Through the Internal Capital Adequacy Assessment Process (ICAAP), GMB examines the Group s risk profile from both regulatory and economic capital viewpoints, aiming to ensure that capital resources:

- remain sufficient to support our risk profile and outstanding commitments;
- exceed the formal regulatory minimum CRF target and CPB requirements by an agreed margin;
- allow the bank to remain adequately capitalised in the event of a severe economic downturn stress scenario; and
- remain consistent with our strategic and operational goals and our shareholder and investor expectations.

The minimum regulatory capital that we are required to hold is determined by the rules and guidance established by the FSA for the consolidated Group and by local regulators for individual Group companies. These capital requirements are a primary influence shaping the business planning process, in which top-down RWA targets are established for our global businesses and cascaded to lower levels in accordance with the Group s strategic direction and risk appetite.

Economic capital is the internally calculated capital requirement which we deem necessary to support the risks to which we are exposed. The economic capital assessment is a more risk-sensitive measure than the regulatory minimum, as it covers a wider range of risks and takes account of the substantial diversification of risk accruing from our operations. Both the regulatory and the economic capital assessments rely upon the use of models that are integrated into our management of risk. 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.

Preserving our strong capital position remains a priority, and the level of integration of our risk and capital management helps to optimise our response to business demand for regulatory and economic capital. Risks that are explicitly assessed through economic capital, and those that are not, are compared in Appendix II.

Top and emerging risks

A list of our top and emerging risks is regularly evaluated to assess the impact of these risks on our core capital position. This evaluation extends to a number of risks not technically within the scope of the list, but which are identified as presenting risks to capital due to their potential to impact the Group s risk-weighted asset and/or capital supply position. The downside or upside scenarios are assessed against the Group s capital

management objectives and mitigating actions assigned to senior management as necessary.

Stress testing

Stress testing and scenario analysis are central to the monitoring of top and emerging risks, helping us to understand the sensitivities of the core assumptions in our capital plans to the adverse effect of extreme but plausible events. Stress testing allows us to formulate our response and mitigate risk in advance of conditions exhibiting the stresses identified in the scenarios.

Actual market stresses which occurred throughout the financial system in recent years have been used to inform our capital planning process and enhance the stress scenarios we employ. In addition to our internal stress tests, others are undertaken at the request of regulators using their prescribed assumptions, and by the regulators themselves. We take into account the results of all such stress testing when assessing our internal and regulatory capital requirements.

The Stress Testing and Economic Capital Committee, which reports to the Risk Management Meeting (RMM) exercises governance, oversight and approval authority over ICAAP and economic capital models.

Further details of the Group s stress testing activities, areas of special interest and top and emerging risks are given on pages 127, 128 and 130 of the Annual Report and Accounts 2012, *respectively*.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Basel III and CRD IV

In July 2011, the European Commission published proposals for a new Regulation and Directive, known collectively as CRD IV, to give effect to the Basel III framework in the EU. The majority of the Basel III proposals are in the Regulation, removing national discretion. However, capital buffers such as those for countercyclical purposes and capital conservation are in the Directive and so subject to transposition into national law by member states.

During 2012, the EBA issued a number of consultations on the draft regulatory technical standards which will form part of the Regulation. Further consultative documents are expected during 2013 and beyond, and we will continue to assess the effect on HSBC. The CRD IV legislation is in draft and remains subject to agreement by the European Parliament, Council and Commission; the timing of implementation remains uncertain.

Impact of Basel III and CRD IV on the capital position

The CRD IV rule changes introduce a revised definition of regulatory capital focused on CET1 as the predominant form of going concern capital, to be held by banks in greater amounts. This higher tier of capital is subject to increased capital deductions and new regulatory adjustments. The new rules also introduce increased RWA requirements, mainly for counterparty credit risk.

The Basel III rules and the current draft CRD IV set out a minimum CET1 requirement of 4.5%, and an additional CET1 capital conservation buffer requirement of 2.5%, to become fully effective from 1 January 2019. The G-SIB buffer set alongside the Basel III framework is expected to require that we hold an additional 2.5% CET1 by the same date. This was the level of G-SIB charge determined in the most recent interim assessment of HSBC, in November 2012, with the first definitive assessment to be made in 2014.

Therefore, the total CET1 requirements that we estimated we would need to meet by January 2019 translated into an estimated baseline minimum CET1 ratio of 9.5%. More recently, however, the FSA s

advice to us of a CRF effectively accelerates our compliance with Basel III.

The draft CRD IV also provides for a counter-cyclical capital buffer to be phased in, and proposes national regulator discretion to require a higher countercyclical buffer and/or to accelerate the timing of its introduction.

In January 2013, the interim FPC outlined draft powers on the use of such macro-prudential tools. First, a counter-cyclical capital buffer, in order to protect the banking sector from future potential losses if the FPC judged that a threat to financial stability had arisen in the UK. Second, supplementary to the above, capital buffers for specific customer sectors or more granular segments of those sectors.

The effect of such macro-prudential requirements cannot be precisely estimated at present, given the draft status of the rules and the fact that such buffers are likely to vary depending on the macro-prudential environment, but they could potentially give rise to significant further CET1 requirements by 1 January 2019.

Following the FSA s setting of a CRF, and in order to manage our transition to Basel III under CRD IV, we show in the table below the possible effects of these rules on our capital position. We have estimated our pro-forma CET1 ratio by applying our interpretation of the CRD IV draft July 2011 text post the transition period (end point CRD IV) to our balance sheet position at 31 December 2012.

In managing our capital position to meet our internal CET1 target, we consider management actions resulting from our six filters strategy that we either have already taken, or would take if the CRD IV rules were to be finalised in their July 2011 form. These are reflected in the table under management actions . Other management actions could also be taken, dependent upon the finalised rules and timing of their

implementation but, as such, have not been included.

The application of the CRD IV rules on this basis would translate into an estimated CET1 ratio of 9.0% before management actions and 10.3% after such actions.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 7: Estimated impact of CRD IV end point rules applied to the 31 December 2012 position

	At 31 December 2012	
	RWAs	Capital
	US$bn	US$bn
Reported core tier 1 capital under the current regime		**138.8**
Regulatory adjustments applied to core tier 1 in respect of amounts subject to CRD IV treatment		
Investments in own shares through the holding of composite products of which HSBC is a component (exchange traded funds, derivatives, and index stock)		**(1.3)**
Surplus non-controlling interest disallowed in CET1		**(2.3)**
Removal of filters under current regime		
Unrealised gains/(losses) on available-for-sale debt securities		**(1.2)**
Unrealised gains on available-for-sale equities		**2.1**
Reserves arising from revaluation of property		**1.2**
Defined benefit pension fund liabilities		**(1.6)**
Excess of expected losses over impairment allowances deducted 100% from CET1		**(3.1)**
Removal of 50% of tax credit adjustment for expected losses		**(0.1)**
Securitisation positions risk-weighted under CRD IV		**1.8**
Deferred tax liabilities on intangibles		**0.3**
Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)		**(0.5)**
Additional valuation adjustment (referred to as PVA)		**(1.7)**
Debit valuation adjustment		**(0.4)**
Individually immaterial holdings in CET 1 capital of banks, financial institutions and insurance in aggregate above 10% of HSBC CET1		**(6.0)**
Deductions under threshold approach		
Amount exceeding the 10% threshold:		
Significant investments in CET1 capital of banks, financial institutions and insurance		**(6.7)**
Amount in aggregate exceeding the 15% threshold:		
Significant investments in CET1 capital of banks, financial institutions and insurance		**(2.3)**
Deferred tax assets		**(1.5)**
Estimated CET1 capital under CRD IV		**115.5**
Reported total RWAs	**1,123.9**	
Changes to capital requirements introduced by CRD IV		
Credit valuation adjustment	**60.4**	
Counterparty credit risk (other than credit valuation adjustment)	**25.7**	
Amounts in aggregate below 15% threshold and therefore subject to 250% risk weight	**43.3**	
Securitisation positions and free deliveries risk-weighted under CRD IV	**44.5**	
Investments in commercial entities now risk-weighted	**0.4**	
Deferred tax assets moved to threshold deduction under CRD IV	**(9.0)**	
Estimated total RWAs under CRD IV	**1,289.2**	
Estimated CET1 ratio		**9.0%**
Estimated regulatory impact of management actions		
Management actions completed in 2013:		
Dilution of our shareholding in Industrial Bank and the subsequent change in accounting treatment	**(38.8)**	**(2.2)**
Completion of the second tranche of the sale of Ping An	**3.5**	**9.4**
Estimated total after management actions completed in 2013	**1,253.9**	**122.7**

Estimated CET1 ratio after management actions completed in 2013		**9.8%**
Planned short-term management actions if rules are finalised in their current form:		
Mitigation of immaterial holdings[1]	**2.6**	**7.0**
Estimated total after planned management actions	**1,256.5**	**129.7**
Estimated CET1 ratio after planned management actions		**10.3%**

1 *This management action potentially arises only under rules on a CRD IV basis and has therefore not been included in Table 3, which is drawn up on the basis of the current rules.*

The table above presents a reconciliation of our reported core tier 1 capital and RWAs position at 31 December 2012 to the pro-forma estimated CET1 capital and estimated RWAs based on our

interpretation of the July 2011 draft CRD IV regulation, supplemented by guidance provided by the FSA and our expectation of how these draft rules will be updated following EU negotiation. A detailed

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

basis of preparation can be found in the *Annual Report and Accounts 2012* in the Appendix to Capital on page 298. CRD IV is not yet in law and its provisions are subject to ongoing negotiation and amendment; the finalised rules could result in a materially different impact on CET1 and RWAs.

The largest impact on our CET1 capital is the deduction of unconsolidated significant investments in banks, financial institutions and insurance entities of US$9.0bn (shown as US$6.7bn and US$2.3bn in table 7 above). This results from a re-allocation of current deductions to the CET1 tier of capital and from new rules for calculating the amounts to be deducted.

In addition to the above, the regulatory treatment applied to immaterial unconsolidated investments in banks, financial institutions and insurance entities, whereby a maturity restriction does not recognise the netting of long and short positions when the short position has a residual maturity of less than one year, even though these positions are hedged from a market risk perspective, results in an estimated deduction of US$6.0bn. The effect on capital is exacerbated by the impact on the threshold for other deductions.

If the rules were to be finalised in their current form, the holdings of such positions would generate a disproportionate capital cost and potentially the relevant business could be curtailed, closed or our hedging adjusted to negate the impact.

Capital management initiatives and management actions adopted by the Group in accordance with our six filters strategic framework have already contributed to mitigating the impact of the future rules. In 2012, this included the continuing run-off of capital-intensive portfolios including the US CML and the GB&M legacy credit portfolios, and the sale of the Card and Retail Services business. Furthermore, post year-end we sold our remaining investment in Ping An and reduced our percentage holding in Industrial Bank following a private placement by the company.

Whilst the effect of the future CRD IV rules is shown above on an end point basis, the rules allow for a transition period of six years to phase in the new deductions and regulatory adjustments. On a CRD IV first year transitional basis, if applied to our year end 2012 position, our CET1 ratio would be 11.5% before management actions.

As our CRF is calculated on a Basel III basis, we currently manage our capital position to meet an internal target CET1 ratio on a Basel III end point basis of 9.5% to 10.5% at year end 2013. We aim to

manage our capital position to ensure that it exceeds current regulatory requirements and that we are well placed to meet expected future requirements, reviewing our capital target ratios on an ongoing basis and reflecting any changes in the regulatory environment as they develop.

Supplementary Basel III disclosures

In the autumn of 2012, the FSA wrote to large firms setting out the disclosures at 2012 year-end which they required, using prescribed bases of preparation, on the estimated composition of regulatory capital and a leverage ratio under Basel III/CRD IV rules.

Composition of capital

A table of the estimated composition of regulatory capital under CRD IV rules on a first year transitional basis and the basis of preparation for this, including qualifications to be noted when assessing it, are set out in Appendix III.

Leverage ratio

The leverage ratio was introduced into the Basel III framework as a non risk-based backstop limit, to supplement risk-based capital requirements. It aims to constrain the build-up of excess leverage in the banking sector, introducing additional safeguards against model risk and

measurement errors. The ratio is a volume-based measure calculated as Basel III tier 1 capital divided by total on- and off-balance sheet exposures.

Basel III provided for a transitional period for the introduction of this ratio, comprising a supervisory monitoring period to start in 2011 and a parallel run period from January 2013 to January 2017. During the parallel run, a minimum ratio of 3% would apply, with further calibration to be carried out in the first half of 2017 with a view to migrating to a Pillar 1 requirement from 1 January 2018. It was foreseen that the ratio should be publicly disclosed with effect from January 2015. This timeline has been adopted in the draft CRD IV legislation.

Monitoring of leverage has been part of HSBC s regulatory reporting to the FSA since December 2010, but in the absence of final European rules and legislation the 3% ratio is not currently a requirement and the CRD IV timing of disclosure remains uncertain. However, accelerating the EU regulatory timeline, the FSA has required major UK banks to disclose an estimated leverage ratio at 2012 year-end, using a hybrid of Basel III and CRD IV rules as detailed in the Leverage ratio basis of preparation in Appendix III. Our estimated Basel III/CRD IV end point leverage ratio on that basis was as follows:

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 8: Estimated leverage ratio

	At 31 Dec 2012 US$bn
Tier 1 capital under CRD IV (end point)	**115.8**
Exposures after regulatory adjustments	**2,760.1**
Estimated leverage ratio (end point)	**4.2%**

The above excludes those tier 1 capital instruments which will be ineligible for inclusion in regulatory capital after the Basel III transitional period has fully elapsed. If we were to calculate by adding back those instruments, the effect would be to increase estimated end point tier 1 capital by US$17.3bn and the leverage ratio by some 60 basis points at 31 December 2012.

Risk management

Overview

All our activities involve to varying degrees the measurement, evaluation, acceptance and management of risks. 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. Our risk management framework is designed for the continuous monitoring of the risk environment and an integrated evaluation of risks and their interactions.

The objective of risk management, shared across the organisation, is to support Group strategies to build sustainable, profitable businesses in the long-term interests of our shareholders and other stakeholders. We aim to ensure that risk management is embedded in how we run our business.

Risk management is embedded through:

- a historically strong risk culture, with personal accountability for decisions;
- a formal governance structure, with a clear, well understood framework of risk ownership, standards and policy;
- the alignment of risk and business objectives, with integration of risk appetite into business planning and capital management; and

an independent and expert global risk function (Global Risk).

Risk culture

HSBC has long recognised the importance of a strong risk culture, the fostering of which is a key responsibility of senior executives. Our global standards set the tone from the top, and are central to our approach to balancing risk and reward. All employees are accountable for identifying, assessing and managing risks within the scope of their assigned responsibilities. We have a system

of personal, not collective, authorities for lending decisions. Personal accountability, reinforced by our HSBC Values, helps sustain a disciplined and constructive culture of risk management and control throughout HSBC. This is reinforced by our approach to remuneration, which is discussed further on page 64 of this report.

Risk governance and risk appetite

Our risk governance structure and approach to risk appetite are set out in the report of the Group Risk Committee (GRC) on page 323 and 325 of the *Annual Report and Accounts 2012*. This structure was augmented by the establishment on 18 January 2013 of the Financial System Vulnerabilities Committee, details of which are set out on page 328 of the *Annual Report and Accounts 2012.*

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

Risk appetite is a key component of our management of risk. Our approach is designed to reinforce the integration of risk considerations into key business goals and planning processes. The risk appetite statement, which is approved annually by the Board under advice from the GRC, and whose implementation is overseen by the GMB, describes the quantum and types of risks that we are prepared to take in executing our strategy.

Diversification is an important aspect of our management of risk. Geographical diversification of our lending portfolio across the regions, together with our broad range of global businesses and products, supports our strategies for growth in faster-growing markets and those with international connectivity. It also ensures that we are not overly dependent upon particular countries or markets to generate income and growth. Diversification models are developed, in conjunction with the business, within Global Risk s quantitative analytics discipline.

An established framework of risk ownership and documented standards, policy and procedures, supports effective risk management and internal control systems.

Further details on the risk appetite framework may be found on page 325 of the Annual Report and Accounts 2012.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Global Risk

Headed by the Group Chief Risk Officer (GCRO), Global Risk is mandated to provide an expert, integrated and independent assessment of risks Group-wide.

Global Risk:

- supports our regions and global businesses in the development and achievement of strategic objectives;
- partners the business in risk appetite planning and operation;
- carries out central approvals, controls, risk systems leadership and the analysis and reporting of management information;
- fosters development of Global Risk, a conservative but constructive Group risk culture;
- addresses risk issues in dealings with external stakeholders including regulators and analysts; and
- in addition to business as usual operations, engages with business development activities such as new product approval and post-implementation review, and acquisition due diligence.

Risk measurement and reporting systems

The purpose of our risk measurement and reporting systems is to ensure that, as far as possible, 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 for those risks to be successfully managed and mitigated.

Risk measurement and reporting systems are also subject to a governance framework designed, to ensure that their build and implementation are fit for purpose and that they are functioning properly. Risk information technology (IT) systems development is a key responsibility of the risk function globally, while the development and operation 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 to process risk information within business lines and risk functions.

Risk measurement, monitoring and reporting structures deployed at Group Head Office level are replicated in global businesses and major operating

subsidiaries through a common operating model for integrated risk management and control. This model sets out the respective responsibilities of Head Office, regional and country level risk functions in respect of such matters as risk governance and oversight, compliance risks, approval authorities and lending guidelines, global and local scorecards, management information and reporting, and relations with third parties including regulators, rating agencies and auditors.

Risk analytics and model governance

Global Risk manages a number of analytics disciplines supporting rating and scoring models for different risk types and business segments, economic capital and stress testing. It formulates technical responses to industry developments and regulatory policy in the field of risk analytics, develops HSBC s global risk models, and oversees local model development and use around the Group in progress toward our implementation targets for the IRB advanced approach.

Model governance is under the general oversight of Group Model Oversight Committee (Group MOC). Group MOC is supported by specific global functional MOCs for Wholesale Credit and Market Risk (WCMR) and RBWM, and has regional and entity-level counterparts with comparable terms of reference. This replaces the previous Group Credit Risk Analytics Oversight Committee structure. The Group MOC meets bi-monthly and reports to Risk Management Meeting (RMM). It is chaired by the risk function, and its membership is drawn from Risk, Finance and global businesses.

Its primary responsibilities are to bring a strategic approach to model-related issues across the Group and to oversee the governance of our risk rating models, their consistency and approval, and the Basel framework. Through its oversight of the functional WCMR and RBWM MOCs, it identifies emerging risks for all aspects of the risk rating system, ensuring that model risk is managed within our Risk Appetite Statement, and formally advises RMM on any material model-related issues.

The development and use of data and models to meet local requirements are the responsibility of regional and/or local entities under the governance of their own management, subject to overall Group policy and oversight.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Credit risk

Overview and responsibilities

Credit risk represents our largest regulatory capital requirement.

The principal objectives of our credit risk management function are:

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

The credit risk functions within WCMR and RBWM are the constituent parts of Global Risk that support the GCRO in overseeing credit risks at the highest level. For this, their major duties comprise: undertaking independent reviews of large and high-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, portfolio management oversight and reporting on risk matters to senior executive management and to regulators.

These credit risk functions work closely with other parts of Global Risk, for example: with Security and Fraud Risk on enhancement of protection against retail product fraud, 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 Global Risk are described on page 252 of the Annual Report and Accounts 2012.

Group-wide, the credit risk functions comprise 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 in accordance with Group standards.

Above certain risk-based thresholds established in line with authorities delegated by the Board, Head Office concurrence must be provided 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 Global Risk to facilitate efficient control and the reporting of regulatory large and cross-border exposures.

Credit risk management

Our exposure to credit risk arises from a 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 may differ according to jurisdictions in which it operates.

Credit risk exposures are generally measured and managed in portfolios of either customer types or product categories. Risk rating systems are designed to assess the default propensity of, and loss severity associated with, distinct customers who are typically managed as individual relationships or, in the case of retail business, exposures on a product portfolio basis.

Risk rating systems for retail exposures are generally quantitative in nature, applying techniques such as behavioural analysis across product portfolios comprising large numbers of homogeneous transactions. Rating systems for individually managed relationships typically use customer financial statements and market data analysis, but also qualitative elements and a final subjective overlay to better reflect any idiosyncratic elements of the customer s risk profile, see Application of the IRB Approach on page 29.

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, informing judgemental decisions for which individual approvers are ultimately 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 governance and controls surrounding their use.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

The credit process provides for at least an annual review of facility limits granted. Review may be more frequent, as required by circumstances, such as the emergence 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. For central management and reporting purposes, Group IT systems are deployed to process credit risk data efficiently and consistently. A central database is used, which covers substantially all our direct lending exposures and holds the output of risk rating systems Group-wide. This continues to be enhanced in order to deliver, at an increasingly granular level, comprehensive management information in support of business strategy, as well as solutions to evolving regulatory reporting requirements, such as the European common reporting requirements.

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 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. See also the comments on Model performance on page 39.

Credit risk models governance

All new or materially changed IRB models require FSA approval, as set out in more detail on page 29 below. Throughout HSBC, such models fall directly under the remit of the global functional MOCs.

The global functional MOCs are responsible for defining the thresholds above which models require their approval, supporting both internal governance

and the FSA approval process, for example if they cover exposures generating credit risk capital requirements exceeding a prescribed threshold or are otherwise deemed material on grounds of risk, portfolio size, or business type.

WCMR MOC requires all credit risk models for which it is responsible to be submitted to it for approval, while RBWM MOC applies different thresholds depending on model type.

The RBWM MOC model materiality thresholds are:

- IRB models exceeding, or estimated to exceed, US$2bn in RWAs;

application models with annual proposed value of new business sourced through the model exceeding US$2bn for secured lending and US$0.5bn for unsecured lending;

behavioural models with managed total exposure exceeding US$2bn for secured lending and US$1bn for unsecured lending; and

provisioning models with impairment change impact exceeding US$0.1bn. All models which require Global Functional MOC approval must first go through the local governance processes.

Global Risk utilises HSBC standards for the development, validation, independent review, approval, implementation and performance monitoring of credit risk rating models, and oversight of respective local standards for local models. All models must be reviewed at least annually, or more frequently as the need arises.

Compliance with HSBC 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, Global Risk has discretion to approve dispensations exceptionally, and fosters best practice between offices.

The following pages set out credit risk exposure values, RWAs and regulatory capital requirements calculated at 8% of RWAs. Table 10 presents exposure values analysed across geographical regions. Exposure values are allocated to a region based on the country of incorporation of the HSBC subsidiary or associate where the exposure was originated. In table 12, allocation to industry sectors is based on the sectoral classification of the lender, rather than any guarantor, if applicable. Table 13 shows 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 of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Key points

In general, standardised RWA densities show a greater consistency across regions and exposure classes than advanced IRB, as the advanced IRB approach reflects the relative risks of the different portfolios to a greater extent.

RWA densities for retail lending secured on real estate property are higher in North America due to challenging conditions in the US mortgage market and extended foreclosure timelines.

RWA densities are lower in the home markets because of the resilience of the residential property sector in those markets which warrants the application of lower LGDs to our exposures.

Central government RWA densities are higher in MENA reflecting the recent political upheaval and in Latin America due to economic uncertainty in the region.

The RWA density for the US cards business sold in the year was higher than our other credit card portfolios, and so the sale contributed towards the overall reduction.

The residual maturity profile of the book lengthened slightly during the year mainly due to the increased mortgage lending, which tends to have a longer term than other exposures, in Europe and Hong Kong and other Asia-Pacific sites.

Table 9: Credit risk summary

	At 31 December 2012				At 31 December 2011			
	Exposure value US$bn	**Average exposure value US$bn**	**RWAs US$bn**	**Capital required US$bn**	Exposure value US$bn	Average exposure value US$bn	RWAs US$bn	Capital required US$bn
Credit risk analysis by exposure class								
IRB advanced approach	**1,470.0**	**1,551.2**	**513.6**	**41.1**	1,575.4	1,532.9	577.6	46.2
Retail:								
secured on real estate property	**317.4**	**310.7**	**130.8**	**10.5**	300.0	298.5	153.6	12.3
qualifying revolving retail	**64.0**	**95.6**	**16.2**	**1.3**	142.6	143.9	55.5	4.4

SMEs[1]	**13.1**	**13.1**	**6.8**	**0.5**	13.0	13.4	7.0	0.6
other retail	**60.1**	**60.3**	**17.2**	**1.4**	63.0	67.0	23.0	1.8
Total retail	**454.6**	**479.7**	**171.0**	**13.7**	518.6	522.8	239.1	19.1
Central governments and central banks	**355.8**	**407.4**	**36.8**	**2.9**	408.0	343.8	40.3	3.2
Institutions	**131.1**	**141.5**	**27.0**	**2.2**	145.4	169.1	27.7	2.2
Corporates	**479.1**	**465.0**	**251.6**	**20.1**	444.2	435.0	240.7	19.3
Equity	**0.3**	**0.4**	**0.9**	**0.1**	0.4	0.2	1.6	0.1
Securitisation positions[2]	**49.1**	**57.2**	**26.3**	**2.1**	58.8	62.0	28.2	2.3
IRB foundation approach	**19.4**	**17.7**	**10.3**	**0.8**	16.5	11.4	8.5	0.7
Corporates	**19.4**	**17.7**	**10.3**	**0.8**	16.5	11.4	8.5	0.7
Standardised approach	**681.5**	**630.2**	**374.5**	**30.0**	591.2	563.0	372.1	29.8
Central governments and central banks	**177.4**	**117.1**	**0.9**	**0.1**	104.6	91.9	1.3	0.1
Institutions	**57.5**	**56.4**	**19.4**	**1.6**	41.9	42.5	14.0	1.1
Corporates	**254.5**	**259.9**	**237.3**	**19.0**	250.1	230.9	233.9	18.7
Retail	**52.9**	**53.9**	**40.1**	**3.2**	55.5	55.8	41.9	3.4
Secured on real estate property	**45.3**	**47.4**	**24.0**	**1.9**	47.1	42.4	25.6	2.0
Past due items	**4.4**	**4.3**	**6.0**	**0.5**	4.0	4.0	5.3	0.4
Regional governments or local authorities	**1.2**	**1.2**	**1.0**	**0.1**	1.0	1.5	0.8	0.1
Equity	**2.8**	**5.7**	**2.8**	**0.2**	6.5	6.4	8.4	0.7
Other items[3]	**85.5**	**84.3**	**43.0**	**3.4**	80.5	87.6	40.9	3.3
	2,170.9	**2,199.1**	**898.4**	**71.9**	2,183.1	2,107.3	958.2	76.7

1 *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.*

2 *Excludes trading book securitisation positions and positions deducted from regulatory capital (that would be risk-weighted at 1,250%).*

3 *Primarily includes such items as fixed assets, prepayments, accruals and Hong Kong Government certificates of indebtedness.*

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 10: Credit risk exposure by geographical region

	Exposure value								
	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	MENA US$bn	North America US$bn	Latin America US$bn	Total US$bn	RWAs US$bn	RWA density %
At 31 December 2012									
IRB advanced approach	**495.0**	**323.6**	**263.5**	**26.1**	**331.4**	**30.4**	**1,470.0**	**513.6**	**35**
Retail:									
secured on real estate property	**148.6**	**50.6**	**35.2**		**83.0**		**317.4**	**130.8**	**41**
qualifying revolving retail	**34.4**	**23.6**			**6.0**		**64.0**	**16.2**	**25**
SMEs	**11.6**	**0.8**			**0.7**		**13.1**	**6.8**	**52**
other retail	**39.0**	**11.1**	**2.9**		**7.1**		**60.1**	**17.2**	**29**
Total retail:	**233.6**	**86.1**	**38.1**		**96.8**		**454.6**	**171.0**	**38**
Central governments and central banks	**44.5**	**89.6**	**75.5**	**19.6**	**100.6**	**26.0**	**355.8**	**36.8**	**10**
Institutions	**25.9**	**37.3**	**38.5**	**6.4**	**18.6**	**4.4**	**131.1**	**27.0**	**21**
Corporates	**146.4**	**110.1**	**111.1**	**0.1**	**111.4**		**479.1**	**251.6**	**53**
Equity	**0.3**						**0.3**	**0.9**	**370**
Securitisation positions[2]	**44.3**	**0.5**	**0.3**		**4.0**		**49.1**	**26.3**	**54**
IRB foundation approach	**13.4**			**6.0**			**19.4**	**10.3**	**53**
Corporates	**13.4**			**6.0**			**19.4**	**10.3**	**53**
Standardised approach	**223.8**	**42.7**	**274.0**	**49.1**	**19.4**	**72.5**	**681.5**	**374.5**	**55**
Central governments and central banks	**130.1**	**0.4**	**44.0**	**2.7**	**0.1**	**0.1**	**177.4**	**0.9**	**1**
Institutions	**3.0**	**0.1**	**52.0**	**2.4**			**57.5**	**19.4**	**34**
Corporates	**50.3**	**3.6**	**127.3**	**32.7**	**2.5**	**38.1**	**254.5**	**237.3**	**93**
Retail	**7.6**	**1.9**	**16.5**	**5.2**	**2.8**	**18.9**	**52.9**	**40.1**	**76**
Secured on real estate property	**9.8**	**2.4**	**22.5**	**2.8**	**2.2**	**5.6**	**45.3**	**24.0**	**53**
Past due items	**0.6**	**0.1**	**0.2**	**1.2**	**0.4**	**1.9**	**4.4**	**6.0**	**136**
Regional governments or local authorities				**0.1**		**1.1**	**1.2**	**1.0**	**86**
Equity	**0.4**	**0.9**	**0.1**		**1.4**		**2.8**	**2.8**	**100**
Other items[3]	**22.0**	**33.3**	**11.4**	**2.0**	**10.0**	**6.8**	**85.5**	**43.0**	**50**
	732.2	**366.3**	**537.5**	**81.2**	**350.8**	**102.9**	**2,170.9**	**898.4**	**41**
At 31 December 2011									
IRB advanced approach	557.8	300.2	240.9	25.3	413.3	37.9	1,575.4	577.6	37
Central governments and central banks	109.5	71.5	75.4	18.4	98.5	34.7	408.0	40.3	10
Institutions	32.8	48.3	35.2	6.7	19.2	3.2	145.4	27.7	19
Corporates	145.9	101.7	94.8	0.2	101.6		444.2	240.7	54
Retail	214.8	77.8	35.1		190.9		518.6	239.1	46
Equity	0.4						0.4	1.6	370
Securitisation positions[2]	54.4	0.9	0.4		3.1		58.8	28.2	48

IRB foundation approach	12.7			3.8			16.5	8.5	52
Corporates	12.7			3.8			16.5	8.5	52
Standardised approach	150.8	42.9	255.6	43.4	21.9	76.6	591.2	372.1	63
Central governments and central banks	54.1	0.7	47.5	1.9		0.4	104.6	1.3	1
Institutions	4.0	0.4	35.9	1.6			41.9	14.0	33
Corporates	53.8	2.4	121.6	30.3	2.5	39.5	250.1	233.9	94
Retail	6.0	2.4	17.4	4.2	3.4	22.1	55.5	41.9	75
Secured on real estate property	10.4	2.8	23.2	2.4	2.7	5.6	47.1	25.6	54
Past due items	0.7		0.3	1.2	0.1	1.7	4.0	5.3	133
Regional governments or local authorities				0.2		0.8	1.0	0.8	80
Equity	3.2	0.9	0.6	0.1	1.6	0.1	6.5	8.4	129
Other items[3]	18.6	33.3	9.1	1.5	11.6	6.4	80.5	40.9	51
	721.3	343.1	496.5	72.5	435.2	114.5	2,183.1	958.2	44

For footnotes, see page 23.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 11: Credit risk exposure RWAs and RWA density by geographical region

	At 31 December 2012						
	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	MENA US$bn	North America US$bn	Latin America US$bn	Total US$bn
RWAs							
IRB advanced approach	**143.6**	**70.2**	**92.1**	**9.4**	**187.1**	**11.2**	**513.6**
Retail:							
secured on real estate property	**11.1**	**3.8**	**3.8**		**112.1**		**130.8**
qualifying revolving retail	**8.5**	**5.7**			**2.0**		**16.2**
SMEs	**6.4**				**0.4**		**6.8**
other retail	**8.5**	**1.2**	**0.1**		**7.4**		**17.2**
Total retail	**34.5**	**10.7**	**3.9**		**121.9**		**171.0**
Central governments and central banks	**3.6**	**1.8**	**11.3**	**7.7**	**3.3**	**9.1**	**36.8**
Institutions	**7.6**	**5.9**	**7.1**	**1.7**	**2.6**	**2.1**	**27.0**
Corporates	**71.8**	**51.7**	**69.7**		**58.4**		**251.6**
Equity	**0.9**						**0.9**
Securitisation positions[2]	**25.2**	**0.1**	**0.1**		**0.9**		**26.3**
IRB foundation approach	**7.1**			**3.2**			**10.3**
Corporates	**7.1**			**3.2**			**10.3**
Standardised approach	**72.2**	**12.7**	**167.9**	**41.5**	**17.1**	**63.1**	**374.5**
Central governments and central banks			**0.7**		**0.1**	**0.1**	**0.9**
Institutions	**0.2**	**0.1**	**18.1**	**1.0**			**19.4**
Corporates	**45.9**	**3.2**	**116.4**	**32.1**	**2.2**	**37.5**	**237.3**
Retail	**5.9**	**1.4**	**12.4**	**3.9**	**2.3**	**14.2**	**40.1**
Secured on real estate property	**5.4**	**1.3**	**11.0**	**1.6**	**1.4**	**3.3**	**24.0**
Past due items	**0.7**	**0.1**	**0.3**	**1.6**	**0.6**	**2.7**	**6.0**
Regional governments or local authorities				**0.1**		**0.9**	**1.0**
Equity	**0.4**	**0.9**	**0.1**		**1.4**		**2.8**
Other items[3]	**13.7**	**5.7**	**8.9**	**1.2**	**9.1**	**4.4**	**43.0**
	222.9	**82.9**	**260.0**	**54.1**	**204.2**	**74.3**	**898.4**
	%	**%**	**%**	**%**	**%**	**%**	**%**
RWA density							
IRB advanced approach	**29**	**22**	**35**	**36**	**56**	**37**	**35**
Retail:							
secured on real estate property	**7**	**7**	**11**		**135**		**41**
qualifying revolving retail	**25**	**24**			**33**		**25**
SMEs	**55**				**58**		**52**
other retail	**22**	**12**	**2**		**103**		**29**

Total retail	**15**	**13**	**10**		**126**		**38**
Central governments and central banks	**8**	**2**	**15**	**39**	**3**	**35**	**10**
Institutions	**29**	**16**	**18**	**28**	**14**	**47**	**21**
Corporates	**49**	**47**	**63**		**52**		**53**
Equity	**370**						**370**
Securitisation positions[2]	**57**	**11**	**48**		**22**		**54**
IRB foundation approach	**53**			**53**			**53**
Corporates	**53**			**53**			**53**
Standardised approach	**32**	**30**	**61**	**84**	**88**	**87**	**55**
Central governments and central banks			**2**		**100**	**100**	**1**
Institutions	**5**	**65**	**35**	**44**			**34**
Corporates	**91**	**90**	**91**	**98**	**88**	**98**	**93**
Retail	**77**	**75**	**75**	**75**	**83**	**75**	**76**
Secured on real estate property	**55**	**54**	**49**	**57**	**62**	**59**	**53**
Past due items	**126**	**132**	**135**	**130**	**129**	**144**	**136**
Regional governments or local authorities				**100**		**84**	**86**
Equity	**100**	**100**	**100**		**100**		**100**
Other items[3]	**62**	**17**	**78**	**62**	**91**	**63**	**50**
Total	**30**	**23**	**48**	**67**	**58**	**72**	**41**

For footnotes, see page 23.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 12: Credit risk exposure by industry sector

	Exposure value								
	Personal US$bn	Manu-facturing US$bn	Inter-national trade and services US$bn	Property and other business activities US$bn	Government and public admin-istration US$bn	Other commercial US$bn	Financial US$bn	Non-customer assets US$bn	Total US$bn
At 31 December 2012									
IRB advanced approach	**443.6**	**115.0**	**103.6**	**126.9**	**98.5**	**70.0**	**512.4**		**1,470.0**
Retail:									
secured on real estate property	**317.4**								**317.4**
qualifying revolving retail	**64.0**								**64.0**
SMEs		**0.8**	**2.4**	**6.8**	**0.7**	**1.6**	**0.8**		**13.1**
other retail	**60.1**								**60.1**
Total retail	**441.5**	**0.8**	**2.4**	**6.8**	**0.7**	**1.6**	**0.8**		**454.6**
Central governments and central banks					**77.3**	**0.2**	**278.3**		**355.8**
Institutions		**0.1**			**1.0**		**130.0**		**131.1**
Corporates	**2.1**	**114.1**	**101.2**	**120.1**	**19.5**	**68.2**	**53.9**		**479.1**
Equity							**0.3**		**0.3**
Securitisation positions[2]							**49.1**		**49.1**
IRB foundation approach		**6.4**	**4.2**	**1.9**	**0.6**	**3.4**	**2.9**		**19.4**
Corporates		**6.4**	**4.2**	**1.9**	**0.6**	**3.4**	**2.9**		**19.4**
Standardised approach	**90.3**	**60.3**	**56.3**	**58.9**	**75.5**	**51.3**	**208.0**	**80.9**	**681.5**
Central governments and central banks					**46.6**		**130.8**		**177.4**
Institutions							**57.5**		**57.5**
Corporates	**2.8**	**59.0**	**53.2**	**52.0**	**24.7**	**48.5**	**14.3**		**254.5**
Retail	**45.6**	**1.1**	**2.5**	**1.4**	**1.2**	**0.8**	**0.3**		**52.9**
Secured on real estate property	**39.1**			**4.8**		**1.3**	**0.1**		**45.3**
Past due items	**2.8**	**0.2**	**0.5**	**0.3**	**0.1**	**0.4**	**0.1**		**4.4**
Regional governments or local authorities					**1.0**		**0.2**		**1.2**
Equity				**0.2**		**0.2**	**2.4**		**2.8**
Other items[3]			**0.1**	**0.2**	**1.9**	**0.1**	**2.3**	**80.9**	**85.5**
	533.9	**181.7**	**164.1**	**187.7**	**174.6**	**124.7**	**723.3**	**80.9**	**2,170.9**

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

	Exposure value								
	Personal US$bn	Manu-facturing US$bn	Inter-national trade and services US$bn	Property and other business activities US$bn	Government and public admin-istration US$bn	Other commercial US$bn	Financial US$bn	Non-customer assets US$bn	Total US$bn
At 31 December 2011									
IRB advanced approach	507.5	109.1	97.0	121.8	121.1	60.5	558.4		1,575.4
Central governments and central banks					102.3	0.2	305.5		408.0
Institutions					0.7		144.7		145.4
Corporates	1.9	108.1	94.4	115.1	17.4	58.7	48.6		444.2
Retail	505.6	1.0	2.6	6.7	0.7	1.6	0.4		518.6
Equity							0.4		0.4
Securitisation positions[2]							58.8		58.8
IRB foundation approach		5.9	3.6	1.7	0.6	2.9	1.8		16.5
Corporates		5.9	3.6	1.7	0.6	2.9	1.8		16.5
Standardised approach	88.9	62.8	58.2	52.5	82.1	51.9	119.4	75.4	591.2
Central governments and central banks					52.6		52.0		104.6
Institutions							41.9		41.9
Corporates	2.6	60.7	54.1	42.1	25.5	49.3	15.8		250.1
Retail	45.4	1.6	3.6	1.7	1.3	1.2	0.7		55.5
Secured on real estate property	38.8			7.3		0.9	0.1		47.1
Past due items	2.1	0.3	0.4	0.6	0.1	0.3	0.2		4.0
Regional governments or local authorities					0.8		0.2		1.0
Equity		0.1	0.1	0.8		0.2	5.3		6.5
Other items[3]		0.1			1.8		3.2	75.4	80.5
	596.4	177.8	158.8	176.0	203.8	115.3	679.6	75.4	2,183.1

For footnotes see page 23.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 13: Credit risk exposure by residual maturity

	Exposure value					
	Less than 1 year US$bn	Between 1 and 5 years US$bn	More than 5 years US$bn	Undated US$bn	Total US$bn	RWAs US$bn
At 31 December 2012						
IRB advanced approach	**647.2**	**385.3**	**437.1**	**0.4**	**1,470.0**	**513.6**
Retail:						
secured on real estate property	**3.1**	**6.1**	**308.2**		**317.4**	**130.8**
qualifying revolving retail	**64.0**				**64.0**	**16.2**
SMEs	**1.4**	**7.3**	**4.4**		**13.1**	**6.8**
other retail	**8.5**	**39.2**	**12.4**		**60.1**	**17.2**
Total retail	**77.0**	**52.6**	**325.0**		**454.6**	**171.0**
Central governments and central banks	**213.5**	**100.4**	**41.9**		**355.8**	**36.8**
Institutions	**103.6**	**26.5**	**0.9**	**0.1**	**131.1**	**27.0**
Corporates	**218.9**	**203.2**	**57.0**		**479.1**	**251.6**
Equity				**0.3**	**0.3**	**0.9**
Securitisation positions[2]	**34.2**	**2.6**	**12.3**		**49.1**	**26.3**
IRB foundation approach	**10.2**	**7.8**	**1.4**		**19.4**	**10.3**
Corporates	**10.2**	**7.8**	**1.4**		**19.4**	**10.3**
Standardised approach	**180.4**	**352.1**	**62.7**	**86.3**	**681.5**	**374.5**
Central governments and central banks	**88.5**	**83.5**	**5.4**		**177.4**	**0.9**
Institutions	**0.7**	**56.3**	**0.5**		**57.5**	**19.4**
Corporates	**64.7**	**175.2**	**14.5**	**0.1**	**254.5**	**237.3**
Retail	**19.8**	**28.7**	**4.4**		**52.9**	**40.1**
Secured on real estate property	**3.0**	**6.6**	**35.7**		**45.3**	**24.0**
Past due items	**3.0**	**0.8**	**0.6**		**4.4**	**6.0**
Regional governments or local authorities	**0.7**	**0.1**	**0.4**		**1.2**	**1.0**
Equity				**2.8**	**2.8**	**2.8**
Other items[3]		**0.9**	**1.2**	**83.4**	**85.5**	**43.0**
	837.8	**745.2**	**501.2**	**86.7**	**2,170.9**	**898.4**
At 31 December 2011						
IRB advanced approach	765.1	399.8	410.0	0.5	1,575.4	577.6
Central governments and central banks	273.3	93.5	41.2		408.0	40.3
Institutions	111.6	32.2	1.5	0.1	145.4	27.7
Corporates	186.9	207.0	50.3		444.2	240.7
Retail	153.5	64.0	301.1		518.6	239.1
Equity				0.4	0.4	1.6
Securitisation positions[2]	39.8	3.1	15.9		58.8	28.2
IRB foundation approach	10.5	5.3	0.7		16.5	8.5

Corporates	10.5	5.3	0.7		16.5	8.5
Standardised approach	105.9	327.4	72.8	85.1	591.2	372.1
Central governments and central banks	8.9	81.6	14.1		104.6	1.3
Institutions	3.7	38.1	0.1		41.9	14.0
Corporates	65.0	166.9	18.0	0.2	250.1	233.9
Retail	22.3	28.4	4.8		55.5	41.9
Secured on real estate property	2.6	10.5	34.0		47.1	25.6
Past due items	2.8	0.9	0.3		4.0	5.3
Regional governments or local authorities	0.4	0.2	0.4		1.0	0.8
Equity				6.5	6.5	8.4
Other items[3]	0.2	0.8	1.1	78.4	80.5	40.9
	881.5	732.5	483.5	85.6	2,183.1	958.2

For footnotes see page 23.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Application of the IRB approach

The narrative explanations that follow relate to the IRB approaches: advanced and foundation IRB for distinct customers and advanced IRB for the portfolio-managed retail business. Details of our use of the standardised approach can be found on page 46.

Our Group IRB credit risk rating framework incorporates obligor propensity to default expressed in PD, and loss severity in the event of default expressed in EAD and LGD. These measures are used to calculate regulatory EL and capital requirements. They are also used with other inputs to inform rating assessments for the purpose of credit approval and many other management decisions.

Use of internal estimates

PDs, LGD, and EADs developed internally for regulatory capital are also used for other purposes. For example:

credit approval and monitoring: IRB models are used in the assessment of customer and portfolio risk in lending decisions;

risk appetite: IRB measures are an important element in identifying risk exposure at customer, sector, and portfolio level;

pricing: IRB parameters are used in wholesale pricing tools for new transactions and reviews; and

economic capital and portfolio management: IRB parameters are used in the economic capital model that has been implemented across HSBC.

Roll-out of the IRB approach

We have adopted the Basel II advanced approach for the majority of our business. At the end of 2012, 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 pending the definition of local regulations or model approval, or under exemptions or exclusion from IRB treatment. Under our Basel II IRB roll-out plans, a number of our Group companies and portfolios are in transition to advanced IRB approaches.

Under the advanced IRB approach, banks are allowed to develop their own empirical models to quantify required capital for credit risk. All such models developed by us, and any material changes to those models, must be approved by the FSA, subject to de minimis exceptions. Material changes are those that individually have a high impact, or where a number of small changes in aggregate have a high impact. The FSA approves quantitative and qualitative materiality thresholds for these model changes, and requires us to obtain prior approval before implementation.

In October 2012, to increase the effectiveness of this process, the FSA introduced an annual review of IRB usage, focusing on the proportion of total credit risk assets for which IRB approaches are used.

Banks have experienced difficulties in adopting advanced IRB in some cases, for example in portfolios which have very low levels of default, such that the PD, LGD and EAD cannot be assessed to a sufficiently high degree of confidence due to a lack of default or loss data. Difficulties may also arise in the case of portfolios in countries where the manner of the local regulator s implementation of Basel II makes it difficult to demonstrate the regulatory use test while using models that satisfy the FSA s criteria. While recognising the complexity of adopting IRB in some situations, we are committed to working constructively with our regulators to achieve acceptable roll-out plans.

The wholesale risk rating system

This section sets out a description of how we build and operate our credit risk analytical models, and use IRB metrics, in wholesale customer business.

PDs for wholesale customer segments, that is central governments and central banks, financial institutions and corporate customers, and for certain individually assessed personal customers, are estimated using a Customer Risk Rating (CRR) master scale of 23 grades. Of these, 21 are non-default grades representing varying degrees of strength of financial condition, and two are default grades.

The score generated by a credit risk rating model for the obligor is mapped to a corresponding PD and master-scale CRR. The CRR is then reviewed by a credit approver who, taking into account all relevant information, such as most recent events and market data, where available, makes the final decision on the rating. The rating assigned therefore reflects the approver s overall view of the obligor s credit standing and propensity to default.

The finally assigned CRR determines the applicable master-scale PD range from which the reference PD, generally the arithmetical mid-point, is used in the regulatory capital calculation.

Reviewing the initial model score, relationship managers may propose a different CRR from that indicated, where they believe this more appropriate. Such amendments may only be made through an override process and must be approved by the Credit function. Overrides for each model are recorded, and override levels are reviewed, as part of the model management process.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

The CRR is assigned at borrower level, which means that separate exposures to the same obligor are generally subject to a single, consistent obligor rating. The impact of unfunded risk mitigants is considered for IRB approaches on page 43 and for the standardised approach on page 46.

If an obligor is in default on any material credit obligation to the Group, all of the obligor s facilities from the Group are considered to be in default.

Under the IRB approach, obligors are grouped into grades that have similar PD or anticipated default frequency. The anticipated default frequency may be estimated using all relevant information at the relevant date (Point-in-time or PIT rating system), or be free of the effects of the credit cycle (Through-the-cycle or TTC rating system).

We generally utilise a hybrid approach of PIT and TTC. That is, while models are calibrated to long-run default rates, obligor ratings are reviewed annually, or more frequently if necessary to reflect change in their circumstances and/or their economic operating environment.

Thus, over the economic cycle, a cycle will also appear in CRR migration. The influence of longer-term economic cycle factors implied by the model s calibration, combined with the effect of ongoing credit review, will result in long-term PDs generally above the actual default frequency during benign economic periods, but not changing so fast in a downturn. In practice, under a hybrid approach, ratings tend to be more volatile than would be the case in a pure TTC system, but less volatile than in a pure PIT one.

Moreover, our policy requires approvers to downgrade ratings on expectations, but to upgrade them only on performance. Therefore, ratings will typically migrate during a downturn in response to higher perceived risks, but be upgraded more slowly in an upswing. This leads to expected defaults overall typically exceeding actual defaults.

For EAD and LGD estimation, operating entities are permitted, subject to overview by Group Risk, to use their own modelling approaches for those parameters to suit conditions in their jurisdictions. Group Risk provides co-ordination, benchmarks, and the sharing and promotion of best practice on EAD and LGD estimation.

EAD is estimated to a 12-month forward time horizon and represents the current exposure plus an estimate for future increases in exposure taking into account such factors as available but undrawn facilities, and the realisation of contingent exposures post-default.

LGD is based on the effects of facility and collateral structure on outcomes post-default. This includes such factors as the type of client, the facility seniority, the type and value of collateral, past recovery experience and priority under law. It is expressed as a percentage of EAD.

Wholesale models

To determine credit ratings for the different types of wholesale obligor, many different models and scorecards are used for PD, LGD, and EAD; there are over one hundred wholesale IRB models in use or under development within HSBC. These models may be differentiated by region, customer segment and/or customer size. For example, PD models are differentiated for all of our key customer segments, including sovereigns, financial institutions, large, medium and small sized corporates.

Global PD models have been developed for asset classes or clearly identifiable segments of asset classes where the customer relationship is managed globally, for example sovereign financial institutions and the largest corporate clients, typically those which operate internationally.

Local PD models, specific to a particular country, region, or sector, are developed for other obligors. This includes corporate clients when they show distinct characteristics in common in a particular geography.

The two major drivers of model methodology are the nature of the portfolio and the availability of internal or external data on historical defaults and risk factors. For some historically low-default portfolios, a model will rely more heavily on external data and/ the input of an expert panel. By contrast, where sufficient data is available, models are built on a statistical basis, although the input of expert judgement may still form an important part of the overall model development methodology.

The sovereigns portfolio is low default, and the global PD model in use is a constrained expert judgement model, which uses a combination of expert judgement and quantitative analysis. The model inputs include macro-economic and political factors. The output is a hybrid PD.

The banks portfolio has characteristics similar to the sovereign portfolio. The global PD model for banks uses the similar combination of expert judgement and statistical analysis. The model inputs include balance sheet information, country risk factors and qualitative data. The output is a hybrid PD.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

The Global Large Corporate Scorecard is a global PD model used to rate large corporates (often multinational companies) with a minimum annual turnover of US$0.7bn. Even though the portfolio is low-default, the model is statistically based and calibrated on 15 years of data. The inputs include balance sheet information, market data, macroeconomic indicators and qualitative factors. The output is a hybrid PD.

Corporates that fall below the large corporate threshold are rated through local mid-market PD models, which reflect regional circumstances. The most material Corporate PD models are the UK mid-market PD model, and the Hong Kong and Rest of Asia-Pacific mid-market models. These models use balance sheet data, behavioural data and qualitative information to derive a hybrid PD.

Most LGD and EAD models are developed according to local circumstances taking into account legal and procedural differences in the recovery and workout processes. However, our approach to EAD and LGD also encompasses global models for central governments and central banks, and for institutions, as exposures to these customer types are managed centrally by Global Risk.

Local models for the corporate exposure class are developed using various data inputs, including collateral information and geography (for LGD) and product type (for EAD). The most material corporate models are the UK, Hong Kong and Rest of Asia-Pacific models, which are both developed using more than 10 years worth of data. The LGD models are calibrated to a period of credit stress or downturn

in economic conditions. The global LGD models for sovereigns and for banks reflect the expected increase in observed losses during an economic downturn period.

None of the EAD models are calibrated for a downturn, as analysis shows that utilisation decreases during a downturn because credit stress is accompanied by more intensive limit monitoring and facility reduction.

The graph and table 14 below set out IRB exposures by obligor grade for central governments and central banks, institutions and corporates, all of which are assessed using our 23-grade CRR master scale. We benchmark the master scale against the ratings of external rating agencies. Each CRR band is associated with an external rating grade by reference to long-run default rates for that grade, represented by the average of issuer-weighted historical default rates.

The correspondence between the agency long-run default rates and the PD ranges of our master scale is obtained by matching a smoothed curve based on those default rates with our master scale reference PDs. This association between internal and external ratings is indicative and may vary over time. In these tables, the ratings of Standard and Poor s (S&P) are cited for illustration purposes, though we also benchmark against other agencies ratings in an equivalent manner.

For further details of the Group s approach to credit quality classification, please see the definition of obligor grade in the glossary, and also page 253 of the Annual Report and Accounts 2012.

Exposure by CRR band

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 14: Wholesale IRB exposure by obligor grade[1]

		Central governments and central banks						
	CRR	PD range %	Exposure value[2] US$bn	Average PD[3] %	Average LGD[3] %	RWA density[3] %	RWAs US$bn	Mapped external rating
At 31 December 2012								
Default risk								
Minimal	0.1	**0.000 to 0.010**	**110.7**	**0.01**	**11.0**	**1**	**1.2**	**AAA to AA+**
	1.1	**0.011 to 0.028**	**116.6**	**0.02**	**13.2**	**3**	**3.6**	**AA to AA**
	1.2	**0.029 to 0.053**	**34.5**	**0.04**	**22.6**	**7**	**2.3**	**A+**
Low	2.1	**0.054 to 0.095**	**60.6**	**0.07**	**33.4**	**15**	**9.0**	**A**
	2.2	**0.096 to 0.169**	**9.0**	**0.13**	**37.5**	**28**	**2.5**	**A**
Satisfactory	3.1	**0.170 to 0.285**	**6.9**	**0.22**	**44.3**	**38**	**2.6**	**BBB+**
	3.2	**0.286 to 0.483**	**3.3**	**0.37**	**41.8**	**56**	**1.9**	**BBB to BBB**
	3.3	**0.484 to 0.740**	**4.9**	**0.63**	**45.0**	**64**	**3.1**	**BBB**
Fair	4.1	**0.741 to 1.022**	**0.8**	**0.87**	**35.0**	**66**	**0.5**	**BB+**
	4.2	**1.023 to 1.407**	**0.3**	**1.20**	**37.8**	**98**	**0.3**	**BB**
	4.3	**1.408 to 1.927**	**0.7**	**1.65**	**45.0**	**62**	**0.4**	**BB**
Moderate	5.1	**1.928 to 2.620**	**1.5**	**2.25**	**45.0**	**110**	**1.6**	**BB**
	5.2	**2.621 to 3.579**	**3.9**	**3.05**	**45.0**	**124**	**4.9**	**B+**
	5.3	**3.580 to 4.914**	**1.6**	**4.20**	**45.1**	**134**	**2.2**	**B+**
Significant	6.1	**4.915 to 6.718**	**0.4**	**5.75**	**35.2**	**118**	**0.5**	**B**
	6.2	**6.719 to 8.860**	**0.1**	**7.85**	**45.0**	**168**	**0.2**	**B**
High	7.1	**8.861 to 11.402**						**B**
	7.2	**11.403 to 15.000**						**CCC+**
Special management	8.1	**15.001 to 22.000**						**CCC**
	8.2	**22.001 to 50.000**						**CCC**
	8.3	**50.001 to 99.999**						**CC to C**
Default[4]	9/10	**100.000**						**Default**
			355.8	**0.13**	**19.6**	**10**	**36.8**	
At 31 December 2011								
Default risk								
Minimal		0.000 to 0.053	302.1	0.02	13.5	3	7.8	
Low		0.054 to 0.169	82.8	0.07	38.0	17	13.9	
Satisfactory		0.170 to 0.740	13.6	0.39	43.7	52	7.1	
Fair		0.741 to 1.927	4.1	1.27	43.6	95	3.9	
Moderate		1.928 to 4.914	4.8	3.20	45.0	125	6.0	
Significant		4.915 to 8.860	0.2	7.46	45.0	150	0.3	
High		8.861 to 15.000	0.3	9.74	88.0	367	1.1	
Special management		15.001 to 99.999	0.1	53.88	61.2	200	0.2	
			408.0	0.11	20.3	10	40.3	

For footnotes, see page 34.

Key points

The reclassification of exposures to central banks in EEA member states to the standardised approach had an adverse impact on the risk grade profile of the portfolio which was offset by improvements in portfolios outside the EEA.

We continue to concentrate our exposures on minimal and low risk categories, which account for 93% of total exposures (2011: 94%).

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 14: Wholesale IRB exposure by obligor grade[1] (continued)

		Institutions						
		PD range	Exposure value[2]	Average PD[3]	Average LGD[3]	RWA density[3]	RWAs	Mapped external rating
	CRR	%	US$bn	%	%	%	US$bn	
At 31 December 2012								
Default risk								
Minimal	0.1	**0.000 to 0.010**	**5.5**	**0.03**	**17.3**	**5**	**0.3**	**AAA to AA+**
	1.1	**0.011 to 0.028**	**12.2**	**0.03**	**27.0**	**6**	**0.7**	**AA to AA**
	1.2	**0.029 to 0.053**	**17.0**	**0.04**	**25.7**	**8**	**1.3**	**A+**
Low	2.1	**0.054 to 0.095**	**45.0**	**0.07**	**34.2**	**12**	**5.4**	**A**
	2.2	**0.096 to 0.169**	**26.3**	**0.13**	**33.1**	**19**	**5.1**	**A**
Satisfactory	3.1	**0.170 to 0.285**	**8.3**	**0.22**	**35.0**	**28**	**2.3**	**BBB+**
	3.2	**0.286 to 0.483**	**6.6**	**0.37**	**35.2**	**37**	**2.4**	**BBB to BBB**
	3.3	**0.484 to 0.740**	**2.2**	**0.63**	**34.5**	**53**	**1.2**	**BBB**
Fair	4.1	**0.741 to 1.022**	**2.5**	**0.87**	**36.3**	**62**	**1.6**	**BB+**
	4.2	**1.023 to 1.407**	**2.0**	**1.20**	**37.5**	**72**	**1.4**	**BB**
	4.3	**1.408 to 1.927**	**0.5**	**1.65**	**43.0**	**93**	**0.5**	**BB**
Moderate	5.1	**1.928 to 2.620**	**0.2**	**2.25**	**45.0**	**105**	**0.2**	**BB**
	5.2	**2.621 to 3.579**	**0.7**	**3.05**	**49.8**	**131**	**0.9**	**B+**
	5.3	**3.580 to 4.914**	**0.4**	**4.20**	**55.2**	**156**	**0.6**	**B+**
Significant	6.1	**4.915 to 6.718**	**0.5**	**5.75**	**67.8**	**221**	**1.1**	**B**
	6.2	**6.719 to 8.860**	**0.2**	**7.85**	**56.7**	**216**	**0.5**	**B**
High	7.1	**8.861 to 11.402**	**0.5**	**10.00**	**38.2**	**156**	**0.8**	**B**
	7.2	**11.403 to 15.000**	**0.3**	**13.00**	**48.8**	**211**	**0.6**	**CCC+**
Special management	8.1	**15.001 to 22.000**						**CCC**
	8.2	**22.001 to 50.000**						**CCC**
	8.3	**50.001 to 99.999**	**0.1**	**75.00**	**50.7**	**134**	**0.1**	**CC to C**
Default[4]	9/10	**100.000**	**0.1**	**100.00**	**60.8**			**Default**
			131.1	**0.39**	**32.1**	**21**	**27.0**	
At 31 December 2011								
Default risk								
Minimal		0.000 to 0.053	37.1	0.03	28.6	7	2.5	
Low		0.054 to 0.169	82.9	0.09	32.8	14	11.6	
Satisfactory		0.170 to 0.740	18.1	0.29	34.5	33	5.9	
Fair		0.741 to 1.927	4.8	1.10	39.5	73	3.5	
Moderate		1.928 to 4.914	0.9	3.18	45.6	122	1.1	
Significant		4.915 to 8.860	0.6	5.95	50.1	183	1.1	
High		8.861 to 15.000	0.6	11.50	62.0	283	1.7	
Special management		15.001 to 99.999	0.2	74.69	45.6	150	0.3	
Default[4]		100.00	0.2	100.00	70.0			
			145.4	0.46	32.5	19	27.7	

For footnotes, see page 34.

Key points

The overall reduction in exposures is mainly in Europe and Hong Kong and results from a general decrease in the volume of placements with institutions.

This reduction is primarily in minimal and low risk categories, which have decreased from 83% of the total to 81%. As a consequence, RWA density has increased from 19% to 21%.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 14: Wholesale IRB exposure by obligor grade[1] (continued)

		Corporates[5]					
		PD range	Exposure value[2]	Average PD[3]	Average LGD[3]	RWA density[3]	RWAs	Mapped external rating
	CRR	%	US$bn	%	%	%	US$bn	
At 31 December 2012								
Default risk								
Minimal	0.1[6]	**0.000 to 0.010**						
	1.1	**0.011 to 0.028**	**11.9**	**0.03**	**38.3**	**14**	**1.6**	**AAA to AA**
	1.2	**0.029 to 0.053**	**30.9**	**0.04**	**40.7**	**14**	**4.5**	**A+**
Low	2.1	**0.054 to 0.095**	**55.2**	**0.07**	**40.6**	**20**	**11.1**	**A**
	2.2	**0.096 to 0.169**	**65.5**	**0.13**	**41.7**	**31**	**20.2**	**A**
Satisfactory	3.1	**0.170 to 0.285**	**62.9**	**0.22**	**37.5**	**39**	**24.5**	**BBB+**
	3.2	**0.286 to 0.483**	**55.4**	**0.37**	**37.8**	**49**	**27.2**	**BBB to BBB**
	3.3	**0.484 to 0.740**	**47.1**	**0.63**	**35.2**	**61**	**28.5**	**BBB**
Fair	4.1	**0.741 to 1.022**	**36.5**	**0.87**	**36.9**	**71**	**25.9**	**BB+**
	4.2	**1.023 to 1.407**	**27.7**	**1.20**	**35.7**	**78**	**21.5**	**BB**
	4.3	**1.408 to 1.927**	**26.3**	**1.65**	**36.0**	**85**	**22.4**	**BB**
Moderate	5.1	**1.928 to 2.620**	**23.3**	**2.25**	**32.6**	**89**	**20.8**	**BB**
	5.2	**2.621 to 3.579**	**13.1**	**3.05**	**36.7**	**107**	**14.1**	**B+**
	5.3	**3.580 to 4.914**	**8.1**	**4.20**	**34.0**	**112**	**9.1**	**B+**
Significant	6.1	**4.915 to 6.718**	**4.2**	**5.75**	**30.9**	**113**	**4.8**	**B**
	6.2	**6.719 to 8.860**	**2.5**	**7.85**	**36.7**	**151**	**3.8**	**B**
High	7.1	**8.861 to 11.402**	**3.3**	**10.00**	**32.9**	**150**	**5.0**	**B**
	7.2	**11.403 to 15.000**	**0.8**	**13.00**	**32.4**	**161**	**1.3**	**CCC+**
Special management	8.1	**15.001 to 22.000**	**1.0**	**19.00**	**36.6**	**196**	**1.9**	**CCC**
	8.2	**22.001 to 50.000**	**0.4**	**36.00**	**33.1**	**187**	**0.8**	**CCC**
	8.3	**50.001 to 99.999**	**0.3**	**75.00**	**32.2**	**102**	**0.4**	**CC toC**
Default[4]	9/10	**100.000**	**6.0**	**100.00**	**38.2**	**35**	**2.0**	**Default**
			482.4	**2.19**	**37.8**	**52**	**251.4**	
At 31 December 2011								
Default risk								
Minimal		0.000 to 0.053	42.9	0.04	40.5	14	6.0	
Low		0.054 to 0.169	99.4	0.10	41.6	26	25.8	
Satisfactory		0.170 to 0.740	151.5	0.39	39.4	49	74.5	
Fair		0.741 to 1.927	73.9	1.20	37.4	79	58.1	
Moderate		1.928 to 4.914	42.9	2.93	35.6	101	43.3	
Significant		4.915 to 8.860	8.8	6.57	33.9	122	10.7	
High		8.861 to 15.000	4.5	10.70	36.6	171	7.7	
Special management		15.001 to 99.999	2.7	32.41	36.3	181	4.9	
Default[4]		100.00	6.3	100.00	40.7	33	2.1	
			432.9	2.57	39.2	54	233.1	

1 *See glossary for definition of obligor grade.*
2 *Central governments and central banks exposure value includes US$1.5bn (2011: US$2.4bn) in undrawn commitments, institutions exposure value includes US$14.3bn (2011: US$ 14.9bn) and corporates exposure value includes US$277.6bn (2011: US$260.2bn).*
3 *Average PD, average LGD and RWA density percentages represent an exposure weighted average.*
4 *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.*
5 *Excludes specialised lending exposures subject to the supervisory slotting approach.*
6 *The top band of the wholesale CRR master scale is not available to entities in the corporates exposure class, but restricted to the strongest central governments, central banks and institutions.*

Key points

The increase in exposures relates primarily to organic growth in North America, Hong Kong and Rest of Asia-Pacific in the higher quality categories (low, satisfactory and fair).

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Retail risk rating systems

Owing to the different country-level portfolio performance characteristics and loss history, there are no global models for our retail portfolios. Our retail models are developed at a local level, based on portfolio behaviour and observed defaults. In the Group overall, we maintain over 800 retail behavioural or risk predictive scorecards and models. Of these, just under 300 are used with our regulator s approval under our IRB permission, the remainder being application or behavioural scorecards.

We classify approximately 20% by number of the retail IRB model population as constituting individually material models. Within this group, the six individual PD models for which we disclose performance data in table 20 below represented approximately 57% of total retail IRB RWAs of US$171bn at year-end 2012. The majority of this was attributable to the four residential mortgage models included in table 15 below, representing our most material retail asset class.

All newly adopted IRB models for retail portfolios, irrespective of size, require FSA approval. For changes to existing IRB models, an FSA approval process applies to all but a list of *de minimis* exemptions representing an immaterial percentage of total Group credit risk RWAs. This approval process sets various quantitative and qualitative thresholds to ensure that all significant model changes go forward for approval.

When developing retail models, segmentation based on risk characteristics is often adopted to enhance the models discrimination and accuracy. The majority of our retail models are designed for a particular product or group of products in a specific country. We have developed and issued global internal model governance, development, validation and monitoring standards to ensure that locally developed models adhere, as far as possible, to consistent global standards. These permit specific variances in model approach, depending on local regulatory, legal or data requirements, which are used to determine and predict the risks in these portfolios.

Our models incorporate conservatism where required under regulatory rules. Additional levels of conservatism, varying from region to region, may arise from a methodological choice of ours or from a specific regulatory intervention, depending on the local assessment of the risk factors by us and the regulatory authorities. Regulators may additionally impose floor values for various metrics, to achieve the objective that, in practice, modelled outputs and capital requirements calculated from them remain conservative even in benign economic conditions.

Our PD models are developed using statistical estimation based on a minimum of five years of historical data. The modelling approach is typically inherently TTC or, where a PIT approach is predominantly used, as in the UK, this becomes effectively TTC through the application of a regulatory uplift or buffer.

Our retail EAD models are also developed using at least five years of historical observations and typically adopt one of two approaches:

- for closed-end products without the facility for additional drawdowns, EAD is estimated as the outstanding balance of accounts at the time of observation; or
- EAD for products with the facility for additional drawdowns is estimated as the outstanding balance of accounts at the time of observation plus a Credit Conversion Factor (CCF) applied to the undrawn portion of the facility.

Our approach to LGD estimates has more variation, particularly in respect of the downturn period calculation that they generally include. UK mortgage models use a regulatory-defined downturn based on a minimum 40% decline in house prices from peak to trough. In Hong Kong, the downturn LGD for the mortgage model is defined to be the period in 2003-4 when Hong Kong experienced the Severe Acute Respiratory

Syndrome and historical default rates and property price declines were at their most severe.

The most material US mortgage models derive LGD based on defaults that occurred in the period 2003-2008, which includes the relatively benign years prior to 2007. To reflect more recent data, during 2012 we completed a recalibration based on defaults that occurred in 2005-2009, given that two years loss experience post default is used to determine LGD. We then applied an uplift to the modelled parameters for risk management and reporting purposes, as explained in more detail under Model performance on page 39.

Table 15 below sets out exposures, RWA, RWA density and Basel metrics for our most material mortgage models in three major markets. Tables 16 and 17 show IRB exposures by exposure sub-class and portfolio quality bands: first at Group level by internal PD band, then by geographic region using a composite EL measure. In table 16, band seven has lower RWAs because, as assets approach and go into default, our capital requirements are increasingly reflected in an EL deduction from capital, rather than a direct RWA impact.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 15: Retail IRB exposures secured on real estate property

	At 31 December 2012				
	Exposure value US$bn	PD %	LGD %	RWA density %	RWAs US$bn
Total retail IRB: secured on real estate property	317.4	4.75[1]	23.5[1]	41[1]	130.8
Of which:					
US residential mortgages[2]	35.1	26.99	64.7	215	75.4
UK residential mortgages[3]	101.1	1.69	12.7	8	7.7
Hong Kong residential mortgages[3]	50.6	0.77	10.1	8	3.8

1 *The PD, LGD and RWA density percentages for Total retail IRB represent an exposure weighted average.*
2 *Comprises the US Consumer Lending and Mortgage Services Real Estate First Lien portfolios. The PD and LGD are presented without the quantitative adjustment described on page 41.*
3 *UK excludes the First Direct division of HSBC Bank plc. Hong Kong includes the Hong Kong Area Management Office and Hang Seng Bank.*

Table 16: Retail IRB exposure by internal PD grade

		At 31 December 2012				
	PD range	Exposure value	Average PD[1]	Average LGD[1]	RWA density[1]	RWAs
	%	US$bn	%	%	%	US$bn
Secured on real estate property						
Band 1	0.000 to 0.483	211.1	0.12	15.0	5	10.3
Band 2	0.484 to 1.022	41.7	0.66	23.5	26	10.9
Band 3	1.023 to 4.914	34.6	2.32	43.4	112	38.7
Band 4	4.915 to 8.860	6.5	5.88	64.7	297	19.3
Band 5	8.861 to 15.000	5.1	12.30	54.0	314	16.0
Band 6	15.001 to 50.000	7.1	26.07	62.8	441	31.2
Band 7	50.001 to 100.000	11.3	96.07	58.5	39	4.4
		317.4	4.75	23.5	41	130.8
Qualifying revolving retail exposures						
Band 1	0.000 to 0.483	44.3	0.12	92.0	6	2.8
Band 2	0.484 to 1.022	6.3	0.70	91.7	28	1.8
Band 3	1.023 to 4.914	10.0	2.19	89.4	63	6.3
Band 4	4.915 to 8.860	1.9	6.69	87.5	135	2.5
Band 5	8.861 to 15.000	0.5	11.10	85.7	178	1.0
Band 6	15.001 to 50.000	0.5	26.81	87.6	257	1.3
Band 7	50.001 to 100.000	0.5	87.67	79.8	108	0.5
		64.0	1.62	91.2	25	16.2
SMEs						

Band 1	**0.000 to 0.483**	**1.6**	**0.20**	**45.1**	**22**	**0.3**
Band 2	**0.484 to 1.022**	**1.6**	**0.82**	**37.4**	**36**	**0.6**
Band 3	**1.023 to 4.914**	**6.2**	**2.62**	**41.0**	**58**	**3.5**
Band 4	**4.915 to 8.860**	**1.7**	**6.81**	**37.4**	**62**	**1.1**
Band 5	**8.861 to 15.000**	**0.5**	**11.15**	**49.0**	**93**	**0.5**
Band 6	**15.001 to 50.000**	**0.5**	**25.39**	**48.1**	**124**	**0.7**
Band 7	**50.001 to 100.000**	**1.0**	**99.42**	**33.9**	**8**	**0.1**
		13.1	**11.53**	**40.7**	**52**	**6.8**
Other retail						
Band 1	**0.000 to 0.483**	**30.6**	**0.17**	**14.6**	**7**	**2.1**
Band 2	**0.484 to 1.022**	**8.7**	**0.70**	**28.6**	**25**	**2.2**
Band 3	**1.023 to 4.914**	**16.2**	**2.00**	**32.8**	**45**	**7.2**
Band 4	**4.915 to 8.860**	**1.5**	**6.95**	**58.8**	**97**	**1.4**
Band 5	**8.861 to 15.000**	**1.1**	**11.71**	**69.9**	**134**	**1.5**
Band 6	**15.001 to 50.000**	**1.0**	**27.70**	**64.7**	**168**	**1.7**
Band 7	**50.001 to 100.000**	**1.0**	**91.02**	**61.8**	**103**	**1.1**
		60.1	**3.12**	**25.3**	**29**	**17.2**
Total retail						
Band 1	**0.000 to 0.483**	**287.6**	**0.13**	**27.0**	**5**	**15.5**
Band 2	**0.484 to 1.022**	**58.3**	**0.67**	**32.0**	**27**	**15.5**
Band 3	**1.023 to 4.914**	**67.0**	**2.25**	**47.5**	**83**	**55.7**
Band 4	**4.915 to 8.860**	**11.6**	**6.29**	**63.6**	**211**	**24.3**
Band 5	**8.861 to 15.000**	**7.2**	**12.03**	**58.4**	**260**	**19.0**
Band 6	**15.001 to 50.000**	**9.1**	**26.25**	**63.5**	**382**	**34.9**
Band 7	**50.001 to 100.000**	**13.8**	**95.67**	**57.6**	**44**	**6.1**
		454.6	**4.29**	**33.8**	**38**	**171.0**

1 *Average PD, average LGD and RWA density percentages represent an exposure weighted average.*

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

The possible variation between jurisdictions definitions underlying retail PD and LGD diminishes the usefulness of these measures as comparators for the purposes of global retail portfolio management. To address this, we also maintain an EL scale for retail business, combining obligor and facility/

product risk factors in a composite measure of PD and LGD. This scale, summarised in the table below, enables the diverse risk profiles of retail portfolios across the Group to be assessed using a common denominator instead of their disparate PD and LGD measures.

Table 17: Retail IRB exposure 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 2012					
Secured on real estate property					
Expected loss band					
less than 1%	**145.0**	**50.6**	**34.6**	**42.6**	**272.8**
greater than or equal to 1% and less than 5%	**1.8**		**0.3**	**19.5**	**21.6**
greater than or equal to 5% and less than 10%	**0.4**			**3.9**	**4.3**
greater than or equal to 10% and less than 20%	**0.5**			**4.4**	**4.9**
greater than or equal to 20% and less than 40%	**0.6**			**2.7**	**3.3**
greater than or equal to 40% or exposures in default	**0.3**		**0.3**	**9.9**	**10.5**
	148.6	**50.6**	**35.2**	**83.0**	**317.4**
Qualifying revolving retail exposures					
Expected loss band					
less than 1%	**27.2**	**19.5**		**4.3**	**51.0**
greater than or equal to 1% and less than 5%	**5.5**	**3.3**		**1.3**	**10.1**
greater than or equal to 5% and less than 10%	**1.1**	**0.5**		**0.2**	**1.8**
greater than or equal to 10% and less than 20%	**0.2**	**0.2**			**0.4**
greater than or equal to 20% and less than 40%	**0.1**	**0.1**		**0.1**	**0.3**
greater than or equal to 40% or exposures in default	**0.3**			**0.1**	**0.4**
	34.4	**23.6**		**6.0**	**64.0**
SMEs[2]					
Expected loss band					
less than 1%	**5.2**	**0.8**		**0.5**	**6.5**
greater than or equal to 1% and less than 5%	**4.5**			**0.2**	**4.7**
greater than or equal to 5% and less than 10%	**0.6**				**0.6**
greater than or equal to 10% and less than 20%	**0.2**				**0.2**
greater than or equal to 20% and less than 40%	**0.1**				**0.1**
greater than or equal to 40% or exposures in default	**1.0**				**1.0**

	11.6	**0.8**		**0.7**	**13.1**
Other retail					
Expected loss band					
less than 1%	**34.5**	**10.5**	**2.9**	**3.1**	**51.0**
greater than or equal to 1% and less than 5%	**3.3**	**0.5**		**2.2**	**6.0**
greater than or equal to 5% and less than 10%	**0.4**	**0.1**		**0.5**	**1.0**
greater than or equal to 10% and less than 20%	**0.1**			**0.6**	**0.7**
greater than or equal to 20% and less than 40%	**0.1**			**0.4**	**0.5**
greater than or equal to 40% or exposures in default	**0.6**			**0.3**	**0.9**
	39.0	**11.1**	**2.9**	**7.1**	**60.1**
Total retail					
Expected loss band					
less than 1%	**211.9**	**81.4**	**37.5**	**50.5**	**381.3**
greater than or equal to 1% and less than 5%	**15.1**	**3.8**	**0.3**	**23.2**	**42.4**
greater than or equal to 5% and less than 10%	**2.5**	**0.6**		**4.6**	**7.7**
greater than or equal to 10% and less than 20%	**1.0**	**0.2**		**5.0**	**6.2**
greater than or equal to 20% and less than 40%	**0.9**	**0.1**		**3.2**	**4.2**
greater than or equal to 40% or exposures in default	**2.2**		**0.3**	**10.3**	**12.8**
	233.6	**86.1**	**38.1**	**96.8**	**454.6**

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

	Exposure value Rest of				
	Europe US$bn	Hong Kong US$bn	Asia Pacific US$bn	North America US$bn	Total exposure US$bn
At 31 December 2011					
Secured on real estate property					
Expected loss band					
less than 1%	126.7	44.8	31.4	44.4	247.3
greater than or equal to 1% and less than 5%	2.0	0.5	0.6	22.1	25.2
greater than or equal to 5% and less than 10%	0.4			5.7	6.1
greater than or equal to 10% and less than 20%	0.5			5.8	6.3
greater than or equal to 20% and less than 40%	0.7			3.5	4.2
greater than or equal to 40% or exposures in default	0.3	0.1	0.3	10.2	10.9
	130.6	45.4	32.3	91.7	300.0
Qualifying revolving retail exposures					
Expected loss band					
less than 1%	28.0	17.8		57.4	103.2
greater than or equal to 1% and less than 5%	6.4	3.1		15.7	25.2
greater than or equal to 5% and less than 10%	1.0	0.5		6.3	7.8
greater than or equal to 10% and less than 20%	0.3	0.1		2.1	2.5
greater than or equal to 20% and less than 40%	0.2	0.1		1.6	1.9
greater than or equal to 40% or exposures in default	0.4			1.6	2.0
	36.3	21.6		84.7	142.6
SMEs[2]					
Expected loss band					
less than 1%	4.8	0.8		0.6	6.2
greater than or equal to 1% and less than 5%	4.5			0.2	4.7
greater than or equal to 5% and less than 10%	0.6				0.6
greater than or equal to 10% and less than 20%	0.2				0.2
greater than or equal to 20% and less than 40%	0.2				0.2
greater than or equal to 40% or exposures in default	1.1				1.1
	11.4	0.8		0.8	13.0
Other retail					
Expected loss band					
less than 1%	31.7	9.4	2.8	6.7	50.6
greater than or equal to 1% and less than 5%	3.3	0.4		3.8	7.5
greater than or equal to 5% and less than 10%	0.6	0.1		1.2	1.9
greater than or equal to 10% and less than 20%	0.2			0.9	1.1
greater than or equal to 20% and less than 40%	0.1			0.4	0.5
greater than or equal to 40% or exposures in default	0.6	0.1		0.7	1.4
	36.5	10.0	2.8	13.7	63.0
Total retail					
Expected loss band					
less than 1%	191.2	72.8	34.2	109.1	407.3
greater than or equal to 1% and less than 5%	16.2	4.0	0.6	41.8	62.6
greater than or equal to 5% and less than 10%	2.6	0.6		13.2	16.4
greater than or equal to 10% and less than 20%	1.2	0.1		8.8	10.1

greater than or equal to 20% and less than 40%	1.2	0.1		5.5	6.8
greater than or equal to 40% or exposures in default	2.4	0.2	0.3	12.5	15.4
	214.8	77.8	35.1	190.9	518.6

1 *The MENA and Latin America regions are not included in this table as retail exposures in these regions are calculated under the standardised approach.*
2 *Total exposure to an SME of less than one million euros may be treated under the Retail IRB approach.*

Key points

The growth in secured on real estate exposures in Europe results from the succesful sales campaigns in the UK, and is reflected in the increased proportion in the high quality, low EL band.

The continued run-off of the CML portfolio in North America has reduced our secured on real estate and other retail exposures.

Qualifying revolving retail exposures decreased in North America following the sale of Cards and Retail Services portfolio in the US.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Model performance

Model validation within HSBC is subject to global internal standards. All material models whose outputs are used in calculations of IRB capital requirements fall under this governance framework. These arrangements are designed to support a comprehensive quantitative and qualitative process within a cycle of model monitoring and validation that includes:

- investigation of model stability;
- model performance measured through testing the model s outputs against actual outcomes, and
- model use within the business, e.g. user input data quality, override activity, and the assessment of results from key controls around the usage of the rating system as a whole within the overall credit process.

The purpose of periodic monitoring and validation is therefore:

- to determine that the model continues to produce accurate outputs, suitable for the intended purposes;
- to confirm that the model remains conceptually sound, that the model design is still appropriate and the assumptions made at development remain valid;
- to ensure that the model is used for its intended purpose and for appropriate exposures only (use test); and
- to prompt corrective actions when the model outputs move away from the expected levels.

Models are validated against a series of metrics and triggers approved by the governance committee. The metrics and quantitative checks for periodic validation include a review of the data inputs and overall population stability, and an assessment of the model s discriminatory power or rank order capability, its calibration accuracy, and its performance against available benchmarks. The qualitative checks include and reconfirm all elements assessed at design phase, including the model s conceptual soundness.

The results of periodic in-depth validation must be presented to a model governing committee at least annually. A subset of the key performance metrics is produced and reviewed as part of the ongoing monitoring process.

A large number of models are used within the Group, and data at individual model level is, in most

cases, immaterial in the context of the Group overall. We therefore disclose data covering most wholesale models and several of our most material retail models. The tables below show estimated values at the beginning of the relevant observation periods, and subsequent actual experienced values, for key Basel II metrics, for wholesale models in Tables 18 and 19, and for retail models in Table 20. The detailed basis of

preparation of each table is set out in footnotes.

Wholesale credit models

For wholesale portfolios, we disclose performance for models covering sovereign obligors, banks and corporates. As explained on page 30, we operate global models for the first two of these customer groups. In the case of corporates, we have aggregated data on models covering a customer population ranging from large multinational companies to medium-sized and smaller corporates. The PD analysis for this group includes mainly advanced IRB exposures but also a small element of foundation IRB.

In Table 18 below, the data for sovereigns and banks are based on such a small number of defaults that the comparison of estimated with actual results, even where these are available, is not fully reflective of a model s performance. To mitigate this characteristic of low-default portfolios, additional analysis is carried out on these models at annual validation. This analysis shows that they discriminate risk well and are conservatively calibrated. The latter reflects both a prudent modelling approach and the conservatism required by regulations. There are as yet no significant explicit regulatory floors within our wholesale models, though this will change in 2013 with the introduction by the FSA of floors for sovereign LGD and other low default portfolios see comments on page 5 on LGD and EAD floors.

The basis of preparation of this table has been enhanced, compared with the prior year, with more meaningful back-testing comparators. For back-testing purposes, a customer s CRR/PD is observed at a point in time and then their default or non-default status in the following one-year period is recorded against that PD grade. The PD presentation here is expressed for all exposure classes on an obligor count basis, as model performance is judged on this basis in validation. LGD refers to observed losses for the defaulted population, being the appropriate focus of an assessment of the models performance.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 18: IRB models estimated and actual values (wholesale)

	PD[1]		LGD[2]		EAD[3]	
	Estimated %	Actuals %	Estimated %	Actuals %	Estimated %	Actuals %
2012						
Sovereigns model[4]	**3.56**	**0.69**				
Banks model[5]	**1.55**	**0.37**	**55.00**		**0.01**	**0.01**
Corporates models	**2.79**	**1.41**	**40.46**	**37.30**	**2.45**	**2.27**

1 *Estimated PD for all models is average PD calculated on the number of obligors covered by the model(s).*
2 *Estimated and actual LGD represent defaulted populations. Average LGD values are EAD-weighted.*
3 *Estimated and actual EAD represent defaulted populations, expressed as a percentage of total EAD which includes all defaulted and non-defaulted exposures for the relevant population.*
4 *Sovereign Actual PD is based on a single instance of observed default. No banking book facilities were outstanding at the time of default, so neither estimated nor actual LGD and EAD are available, these being assigned at facility level.*
5 *Banks PD and EAD figures are calculated based on two observed defaults. There are no new resolved cases since 31 December 2011, hence actual LGD is not yet crystallised.*
6 *The top band of the wholesale CRR master scale is not available to entities in the corporates exposure class, but restricted to the strongest central governments, central banks and institutions.*

Table 19 below expands upon the estimated and actual corporate PD in table 18, as sufficient defaults in this population make analysis at this level meaningful. This analysis is conducted as part of regular validation to ensure that, throughout the entire population, there is a satisfactory degree of conservative performance at all grades. The underlying data have differing observation periods,

depending on the date that validation was carried out. The distribution of risk facility limits is not directly comparable with that presented in table 9 of this report, because the corporate model population below is smaller than that for all exposures captured within the corporate exposure class in that table, as it excludes, for example, non-bank financial institutions and specialised lending.

Table 19: IRB models corporate PD models performance by CRR grade

	Corporates[1]				
	Facility[2] %	Defaulted[3] %	Estimated PD[4] %	Actual PD[5] %	Diff. in PD %
At 31 December 2012					
CRR 0.1	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**
CRR 1.1	**7.24**	**0.00**	**0.02**	**0.00**	**0.02**
CRR 1.2	**9.42**	**0.00**	**0.04**	**0.00**	**0.04**

CRR 2.1	**9.09**	**0.01**	**0.07**	**0.12**	**(0.05)**
CRR 2.2	**11.51**	**0.01**	**0.13**	**0.02**	**0.11**
CRR 3.1	**15.81**	**0.00**	**0.22**	**0.06**	**0.16**
CRR 3.2	**12.46**	**0.06**	**0.37**	**0.19**	**0.18**
CRR 3.3	**8.96**	**0.25**	**0.63**	**0.31**	**0.32**
CRR 4.1	**6.45**	**0.25**	**0.87**	**0.29**	**0.58**
CRR 4.2	**4.13**	**0.78**	**1.20**	**0.86**	**0.34**
CRR 4.3	**4.08**	**0.30**	**1.65**	**0.64**	**1.01**
CRR 5.1	**3.75**	**0.68**	**2.25**	**0.90**	**1.35**
CRR 5.2	**2.43**	**0.84**	**3.05**	**1.05**	**2.00**
CRR 5.3	**1.81**	**1.31**	**4.20**	**1.61**	**2.59**
CRR 6.1	**1.10**	**6.37**	**5.75**	**3.75**	**2.00**
CRR 6.2	**0.73**	**2.62**	**7.85**	**3.48**	**4.37**
CRR 7.1	**0.43**	**7.06**	**10.00**	**7.41**	**2.59**
CRR 7.2	**0.17**	**5.91**	**13.00**	**10.42**	**2.58**
CRR 8.1	**0.24**	**10.02**	**19.00**	**11.90**	**7.10**
CRR 8.2	**0.13**	**21.36**	**36.00**	**16.70**	**19.30**
CRR 8.3	**0.06**	**14.68**	**75.00**	**28.57**	**46.43**
Total:	**100%**				

1 *Covers the combined populations of the global Large Corporate Scorecard model and all regional IRB models for large, medium and small corporates only.*
2 *Total facility limits for each CRR grade, expressed as a percentage of total limits granted.*
3 *Defaulted facilities as a percentage of total facility limits.*
4 *The estimated PD is before the application of the 0.03% regulatory floor required under BIPRU 4.4.64.*
5 *Actual PD is based on the number of defaulted obligors covered by the model(s), without taking into account the size of the facility granted or the exposures to the obligor.*

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Retail credit models

In the case of retail portfolios, we do not operate global models and disclose information on our individually most material residential mortgage models in each jurisdiction, and the cards models in the UK and Hong Kong.

The actual and estimated values are derived from the model monitoring and calibration processes performed at a local level. Within the constraints of our Global standards, our regions adopt back-testing criteria specific to local conditions in order to assess the accuracy of their models. The estimates are made at the start of the period and actuals are reported at end of December 2012.

Our retail models in the UK and Hong Kong continue to perform satisfactorily. Modelled estimates have typically been close to, or higher than, actual outcomes.

The UK estimated PD and LGD values are based on model outputs prior to the inclusion of any conservatism or regulatory floors. In conducting the back-testing process, the actual LGD value for our UK residential mortgages is supplemented by the latest LGD estimate to determine the percentage of loss for those defaulted accounts which are still in the workout process.

The Hong Kong estimated PD and LGD values include additional conservatism and stressed factors to reflect downturn conditions, especially in the case

of the residential mortgage model, although they do not include any regulatory floors. For back-testing purposes, the estimated LGD value for our Hong Kong residential mortgages uses a performance period of two years in order to make a more accurate assessment of actual losses.

In the US, the risk profile of our portfolios has undergone significant change in recent years, not only due to the difficult economic environment, increasing levels of loan modifications and regulatory measures including the foreclosure moratoria, but also through the Group s strategic decision to run off the CML portfolios. In 2012, in addition to the recalibration process, we re-developed the CML models for these portfolios, including those disclosed below, and presented them to the FSA for approval.

Our management of these portfolios is informed by the outputs of both the existing and re-developed models, and we make a quantitative adjustment to the amount of capital we hold against these portfolios to reflect the underperformance of the approved models. That adjustment is not included in the model estimates below. The performance metrics shown represent the approved models at the start of the year before recalibration. For both estimates and actuals, the US applies a two-year recovery period, at the close of which, if defaulted loans remain classified as incomplete work-outs, it is assumed that the loss will be 100%.

Table 20: IRB advanced models estimated and actual values (retail)[2]

	PD		LGD		EAD[3]	
	Estimated %	Actuals %	Estimated %	Actuals %	Estimated US$m	Actuals US$m
December 2012						
UK						

Residential mortgage[4]	**0.45**	**0.41**	**7.50**	**7.20**		
Credit card	**1.63**	**1.42**	**90.80**	**90.40**	**205.20**	**205.40**
Hong Kong[4]						
Residential mortgage	**0.82**	**0.04**	**0.87**	**0.21**		
Credit card	**0.69**	**0.32**	**89.23**	**83.94**	**58.41**	**59.24**
US						
Consumer Lending Real Estate First Lien[5]	**8.77**	**9.99**	**52.03**	**76.10**		
Mortgage Services Real Estate First Lien[5]	**14.92**	**10.99**	**56.36**	**63.54**		

1 *All Retail estimated PD values are based on the total number of accounts not in default at the start of 2012, while LGD and EAD values are based on the analysis of defaulted accounts only. LGD values represent the amount of loss as a percentage of EAD, based on a recovery period starting at the date of default and ending: for the UK, sixteen months from the date of default; for Hong Kong and the US, two years from the date of default.*

2 *The information provided in this table is not comparable with that in table 15 due to differences in the basis of preparation, as set out in the descriptions of the tables.*

3 *EAD values are not included for mortgages, as these are closed-end products with no facility for additional drawdowns. Consequently, EAD is the same as the outstanding balance.*

4 *UK excludes the First Direct division of HSBC Bank plc. Hong Kong excludes Hang Seng Bank.*

5 *In US mortgage business, First Lien is a primary claim on a property which takes precedence over all subsequent claims and will be paid first from the proceeds in case of the property s foreclosure sale.*

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

EL and impairment

We analyse credit loss experience in order to assess the performance of our risk measurement and control processes, and to inform our understanding of the implications for risk and capital management of dynamic changes occurring in the risk profile of our exposures.

This analysis includes comparison of the EL calculated in the use of IRB risk rating models, which influences the regulatory capital calculation, with other reported measures of loss within financial statements prepared under IFRSs. The excess of EL over impairment allowances is treated as a capital deduction in the composition of regulatory capital.

The disclosures below set out:

- commentary on aspects of the relationship between regulatory EL and impairments recognised in our financial statements; and
- tables of EL and impairment charges by exposure class (within Retail IRB, also by sub-class) and by region.

When comparing regulatory EL with measures of impairment under IFRSs, it is necessary to take into account differences in the definition and scope of each. The following are examples of matters that can give rise to material differences in the way economic, business and methodological drivers are reflected quantitatively in the accounting and regulatory measures of loss.

Tables 21 and 22 set out, for IRB credit exposures, the EL and the actual loss experience reflected in impairment charges. Impairment charges represent a movement in the impairment allowance balance during the year, reflecting loss events which occured during the financial year and changes in estimates of losses arising on events which occurred prior to the current year. EL represents the one-year

Examples of differences in definition and scope between EL and impairment allowances

- EL is based on exposure values that incorporate expected future drawings of committed credit lines, while impairment allowances are recognised in respect of financial assets recognised on the balance sheet and in respect of committed credit lines where a loss is probable;
- EL is generally based on TTC estimates of PD over a one-year future horizon, determined via statistical analysis of historical default experience. Impairment allowances are recognised for losses that have been incurred at the balance sheet date;
- In the majority of cases, EL is based on economic downturn estimates of LGD, while impairment allowances are measured using estimated future cash flows as at the balance sheet date;
- EL incorporates LGD, which may discount recoveries at a different rate from the Effective Interest Rate employed in discounted cash flow analysis for impairment;

LGDs typically include all costs associated with recovery, whereas the measurement of impairment considers only the costs of obtaining and selling collateral;

The LGD and EAD used for the EL calculation in the Foundation IRB approach is set by regulations and may differ significantly from the assumptions about estimated cash flows used to calculate impairment allowances;

For EL, certain exposures are subject to regulatory minimum thresholds for one or more parameters, whereas impairments under IFRSs are determined using management s judgement about estimated future cashflows; and

In the case of EL, to meet regulatory prudential standards, HSBC s model philosophy favours the incorporation of conservative estimation to accommodate undertainty, for instance where modelling portfolios with limited data. Under IFRSs, uncertainty is considered when forming management s estimated of future cash flows, using balanced and neutral judgement.

regulatory expected loss accumulated in the book and calculated at a point in time.

The figures for impairment charges shown below are prepared on an accounting consolidation basis, but are not significantly different from those calculated on a regulatory consolidation basis.

Table 21: IRB expected loss and impairment charges by exposure class[1]

	Expected loss at 1 January 2012 US$bn	**Impairment charge for 2012 US$bn**	Expected loss at 1 January 2011 US$bn	Impairment charge for 2011 US$bn
IRB exposure classes				
Central governments and central banks	**0.2**		0.1	
Institutions	**0.3**		0.3	
Corporates	**4.5**	**1.3**	4.8	1.3
Retail	**14.5**	**3.5**	15.7	7.4
secured on real estate property	**8.6**	**2.4**	8.4	4.9
qualifying revolving retail	**3.6**	**0.6**	4.3	1.9
SMEs	**0.8**		0.8	
other retail	**1.5**	**0.5**	2.2	0.6
	19.5	**4.8**	20.9	8.7

1 *Excludes securitisation exposures because EL is not calculated for this exposure class.*

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 22: IRB expected loss and impairment charges by geographical region[1]

	Expected loss at 1 January 2012 US$bn	**Impairment charge for 2012 US$bn**	Expected loss at 1 January 2011[1] US$bn	Impairment charge for 2011 US$bn
Europe	4.8	1.3	5.6	1.6
Hong Kong	0.8	0.1	0.9	0.2
Rest of Asia-Pacific	0.9	0.1	1.0	
MENA	0.3	0.1	0.1	
North America	12.7	3.2	13.2	6.9
Latin America			0.1	
	19.5	4.8	20.9	8.7

1 *Excludes securitisation exposures because EL is not calculated for this exposure class.*

Key points

The majority of EL at 1 January 2012 and of impairment charges for the year ended 31 December 2012, as for the previous reported period, related to our retail exposures in North America. The EL for North America primarily reflects the accumulated EL in the defaulted book. It decreased by US$0.5bn or 4% at 1 January 2012 compared with 1 January 2011 in line with the continued run-off of the CML portfolios.

The fall in the impairment charge in North America reflects the continuing run-off of the CML portfolio, the sale of our Card and Retail Services business and improved portfolio characteristics.

At 31 December 2012, total EL remained high at US$17.4bn (2011: US$19.5bn), while impairment allowances related to the IRB exposure classes (not shown above) were US$11.2bn (2011: US$13.9bn).

The excess of EL over impairment allowances was therefore US$6.2bn (2011: US$5.6bn) as shown in table 3 on page 9 against alphabetic reference i . This represented a greater charge to capital in 2012 than in 2011, principally due to the EL in North America lagging improvements in the current performance of the related portfolios.

The drivers of the impairment allowances and charges for 2012 in North America, including delinquency experience and loss severities, are extensively discussed on pages 151 and 171 of the *Annual* Report and Accounts 2012.

Other movements in EL and impairment charges in 2012 were less significant. In Europe, both the impairment charge and EL fell, despite the generally difficult economic environment. Both impairment charges and EL in other regions were relatively low.

Full details of the Group s impaired loans and advances, past due but not impaired assets and impairment allowances and charges are set out from page 155 of the Annual Report and Accounts 2012.

Our approach for determining impairment allowances is explained on page 389 of the Annual Report and Accounts 2012.

Risk mitigation under IRB approaches

Our approach when granting credit facilities is to do so on the basis of capacity to repay rather than place primary reliance on credit risk mitigants. 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.

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. 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.

We have safeguards designed to ensure exposures to providers or types of risk mitigation do not become excessive in relation to the Group s capital resources.

Physical collateral

The most common method of mitigating credit risk is to take collateral. Usually, in our residential and commercial real estate businesses a mortgage over the property is taken to help secure claims. Physical collateral is also taken in various forms of specialised lending and leasing transactions where income from the physical assets that are financed is

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

also 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 a pledge of eligible marketable securities, cash 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.

Further information regarding collateral held over Residential and Commercial Real Estate (CRE) properties is provided from page 163 of the *Annual Report and Accounts 2012*.

Financial collateral

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 securities financing transactions (SFT s) such as repos, reverse repos, securities lending and borrowing. Netting is used extensively and is a prominent feature of market standard documentation. Further information regarding collateral held for trading exposures can be found on page 48.

Other forms of collateral

Our Global Banking and Markets business utilises credit risk mitigation to 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 swap (CDS) purchases, 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 to the relevant protection provider. Where applicable the transaction is entered into directly with a central clearing house counterparty, otherwise our exposure to CDS protection providers is diversified among mainly banking counterparties with strong credit ratings.

Policy and procedures

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.

Valuing collateral

Valuation strategies are established to monitor collateral mitigants to ensure that they will continue to provide the anticipated secure secondary repayment source. Where collateral is subject to high volatility, valuation is frequent; where stable, less so. Market trading activities such as collateralised OTC derivatives and SFTs typically carry out daily valuations in support of margining arrangements. In the residential mortgage business, Group policy prescribes re-valuation at intervals of up to three years, or more frequently as the need arises, for example where market conditions are subject to significant change. Residential property collateral values are determined through a combination of professional appraisals, house price indices or statistical analysis.

Local market conditions determine the frequency of valuation for CRE. Revaluations are sought where, for example, as part of the regular credit assessment of the obligor, material concerns arise in relation to the performance of the collateral. CRE revaluation also occurs commonly in circumstances where an obligor s credit quality has declined sufficiently to cause concern that the principal payment source may not fully meet

the obligation. Where such concerns exist the revaluation method selected will depend upon the loan to value relationship, the direction in which the local CRE market has moved since last valuation, and most importantly the specific characteristics of the underlying commercial real estate which is of concern.

Risk mitigation under the IRB approach

Within an IRB approach, risk mitigants are considered in two broad categories: first, those which reduce the intrinsic PD of an obligor and therefore operate as determinants of PD; and second, those which affect the estimated recoverability of obligations and require adjustment of LGD or, in certain circumstances, EAD.

The first typically include full parental guarantees where one obligor within a group of companies guarantees another. This is usually factored into the estimate of the latter s PD, as it is assumed that the guarantor s performance materially informs the PD of the guaranteed entity. PD estimates are also subject to supplementary

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

methodologies in respect of a sovereign ceiling , constraining the risk ratings assigned to obligors in countries of higher risk, and where only partial parental support exists. In addition, in certain jurisdictions, certain types of third party guarantee are recognised through substitution of the obligor s PD by the guarantor s PD.

In the second category, LGD estimates are affected by a wider range of collateral including cash, charges over real estate property, fixed assets, trade goods, receivables and floating charges such as mortgage debentures. Unfunded mitigants, such as third party guarantees, are also taken into consideration in LGD estimates where there is evidence they reduce loss expectation.

The creditworthiness of providers of unfunded credit risk mitigation is taken into consideration as part of the guarantor s risk profile when, for example, assessing the risk of other exposures such as direct lending to the guarantor. Internal limits for such contingent exposure are approved in the same way as direct exposures.

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 risk mitigation data is incorporated into the internal risk parameters for exposures and feeds into the calculation of the EL band value summarising both customer delinquency and product or facility risk. Credit and credit risk mitigation data form inputs submitted by all Group offices to centralised databases and processing, including performance of calculations to apply the relevant Basel II rules and approach. A range of

collateral recognition approaches are applied to IRB capital treatments:

- unfunded protection, which includes credit derivatives and guarantees, is reflected through adjustment or determination of PD, or LGD. Under the IRB advanced approach, recognition may be through PD (as a significant factor in grade determination) or LGD, or both;

- eligible financial collateral under the IRB advanced approach is taken into account in LGD models. Under the IRB foundation approach, regulatory LGD values are adjusted. The adjustment to LGD is based on the degree to which the exposure value would be adjusted notionally if the Financial Collateral Comprehensive Method (FCCM) were applied; and

- for all other types of collateral, including real estate, the LGD for exposures calculated under the IRB advanced approach will be calculated by models. For IRB foundation, base regulatory LGDs are adjusted depending on the value and type of the asset taken as collateral relative to the exposure. The types of eligible mitigant recognised under the IRB foundation approach are more limited.

The table below sets out for IRB exposures the exposure value and the effective value of credit risk mitigation expressed as the exposure value covered by the credit risk mitigant.

Further information on credit risk mitigation may be found on page 163 of the Annual Report and Accounts 2012.

Table 23: IRB exposure credit risk mitigation

	At 31 December 2012		At 31 December 2011	
	Exposure value covered by credit derivatives or guarantees	**Exposure value**	Exposure value covered by credit derivatives or guarantees	Exposure value
	US$bn	**US$bn**	US$bn	US$bn
Exposures under the IRB advanced approach				
Central governments and central banks		**355.8**	0.3	408.0
Institutions	**1.9**	**131.1**	6.2	145.4
Corporates	**43.8**	**479.1**	50.0	444.2
Retail	**29.7**	**454.6**	29.5	518.6
Equity		**0.3**		0.4
Securitisation positions		**49.1**		58.8
		1,470.0		1,575.4
Exposures under the IRB foundation approach				
Corporates[1]	**0.2**	**19.4**	0.2	16.5

1 *The value of exposures under the IRB foundation approach covered by eligible financial and other collateral was US$0.6bn (2011: US$0.2bn).*

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Application of the standardised approach

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 (Moody s), S&P and Fitch Group (Fitch). We have not nominated any Export Credit Agencies.

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.

Exposures to, or guaranteed by, central governments and central banks of EEA States are risk-weighted at 0% using the Standardised approach, provided they would be eligible under that approach for a 0% risk weighting.

Associates exposures are calculated under the standardised approach and, at 31 December 2012, represented approximately 18% (2011: 16%) of Group credit risk RWAs. The increase is mainly caused by an increase in corporate lending and lending to institutions in our Chinese associates, partly offset by the partial sale of our investment in Ping An, see page 8 of the *Annual Report and Accounts 2012*. For accounting purposes, Ping An was previously treated as an associate. The regulatory treatment was to deduct the insurance business from capital and to partially consolidate and risk-weight their banking subsidiary. Following the partial sale, the whole investment in Ping An, including the insurance business and the banking subsidiary, is treated as a material holding and deducted from capital.

Risk mitigation under the standardised approach

Where credit risk mitigation is available in the form of an eligible guarantee, non-financial collateral, or credit derivatives, the exposure is divided into covered and uncovered portions. The covered portion, which is 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 the protection provided, attracts the risk weight of the protection provider. 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 FCCM 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.

Table 24 sets out the credit risk mitigation for exposures under the standardised approach, expressed as the exposure value covered by the credit risk mitigant, and table 25 sets out the distribution of standardised exposures across credit quality steps. This analysis excludes regional governments or local authorities, short-term claims, securitisation positions, collective investment undertakings and multilateral development banks, as these exposures continue to be immaterial as a percentage of total standardised exposures. Also excluded, because the credit quality step methodology does not apply, are retail, equity, past due items and exposures secured on real estate property.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 24: Standardised exposure credit risk mitigation

	At 31 December 2012			At 31 December 2011		
	Exposure value covered by eligible financial and other collateral	**Exposure value covered by credit derivatives or guarantees**	**Total exposure value**	Exposure value covered by eligible financial and other collateral	Exposure value covered by credit derivatives or guarantees	Total exposure value
	US$bn	**US$bn**	**US$bn**	US$bn	US$bn	US$bn
Exposures under the standardised approach						
Central governments and central banks		**0.4**	**177.4**		0.5	104.6
Institutions	**0.3**	**1.5**	**57.5**		2.5	41.9
Corporates	**4.7**	**5.6**	**254.5**	7.1	6.0	250.1
Retail	**0.8**		**52.9**	1.2	0.4	55.5
Secured on real estate property			**45.3**			47.1
Past due items			**4.4**			4.0
Regional governments or local authorities			**1.2**			1.0
Equity			**2.8**			6.5
Other items[1]			**85.5**	0.8		80.5
			681.5			591.2

1 *Primarily includes such items as fixed assets, prepayments, accruals and Hong Kong Government certificates of indebtedness.*

Table 25: Standardised exposure by credit quality step

	At 31 December 2012		At 31 December 2011[1]	
	Exposure value	**RWAs**	Exposure value	RWAs
	US$bn	**US$bn**	US$bn	US$bn
Central governments and central banks				
Credit quality step 1	**176.5**		103.0	

Credit quality step 5	**0.2**		0.2	
Credit quality step unrated	**0.7**		1.4	
	177.4	**0.9**	104.6	1.3
Institutions				
Credit quality step 1	**2.9**		4.3	
Credit quality step 2			0.5	
Credit quality step 3			0.1	
Credit quality step unrated	**54.6**		37.0	
	57.5	**19.4**	41.9	14.0
Corporates				
Credit quality step 1	**6.2**		7.5	
Credit quality step 2	**2.5**		3.0	
Credit quality step 3	**30.0**		33.1	
Credit quality step 4	**7.3**		7.6	
Credit quality step 5	**0.8**		1.2	
Credit quality step 6	**0.8**		0.8	
Credit quality step unrated	**206.9**		196.9	
	254.5	**237.3**	250.1	233.9

1 2011 comparatives have been amended to more accurately reflect the distribution of exposures to associates between CQS1and CQS5.

Key points

US$267.4bn (2011: US$245.3bn) of total standardised credit risk exposure of US$681.5bn (2011: US$591.2bn) relates to our associates.

The EEA central bank exposures, previously IRB, are mainly recorded as credit quality step 1 in the standardised approach.

Standardised exposures to institutions rose by US$15.6bn mainly due to the additional lending from our Chinese associates.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Counterparty credit risk

Counterparty credit risk arises for OTC derivatives and SFTs. It is calculated in both the trading and non-trading books, 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 stated on page 12, 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 EL 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 credit risk function assigns a limit against each counterparty to cover derivatives exposure which may arise as a result of a counterparty default. The magnitude of this limit will depend on the overall risk appetite and type of derivatives trading undertaken with the counterparty. Risk is then assessed against each counterparty using models which consider volatility, trade maturity and the counterparty legal documentation.

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

Credit valuation adjustment

The credit valuation adjustment (CVA) is an adjustment to the value of OTC derivative transaction 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. We calculate a separate CVA 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 CVA methodology may be found on page 56 of the Annual Report and Accounts 2012.

Collateral arrangements

It is our policy to 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

The Credit Rating Downgrade clause in a Master Agreement or the Credit Rating Downgrade Threshold clause in the CSA are designed to trigger a series of events which may include the requirement to pay or increase collateral, the termination of transactions by the non-affected party, or assignment by the affected party, if the credit rating of the affected party falls below a specified level.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

We control the inclusion of credit ratings downgrade language in a Master Agreement or a CSA by requiring each Group office to obtain the endorsement of the relevant Credit authority together with the approval of both the Regional Global Markets COO and Group Risk.

Our position with regard to credit ratings downgrade language is monitored through two reports, as below, which ensures a knowledge of the liquidity implications of the contingent risk associated with credit ratings downgrade triggers:

- a report is produced which identifies the trigger ratings and individual details for documentation where credit ratings downgrade language exists within an International Swaps and Derivatives Association (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 2012, the potential value of the additional collateral that we would need to post with counterparties in the event of a one notch downgrade of our rating was US$1.5bn (2011: US$3.0bn) and for a two notch downgrade US$2.5bn (2011: US$3.8bn).

Table 26: Counterparty credit risk exposure credit derivative transactions[1]

	At 31 December 2012			At 31 December 2011		
	Protection bought	**Protection sold**	**Total**	Protection bought	Protection sold	Total
	US$bn	**US$bn**	**US$bn**	US$bn	US$bn	US$bn
Credit derivative products used for own credit portfolio						
Credit default swaps	**1.6**		**1.6**	2.5		2.5
Total notional value	**1.6**		**1.6**	2.5		2.5
Credit derivative products used for intermediation[2]						
Credit default swaps	**428.0**	**421.7**	**849.7**	496.5	503.5	1,000.0
Total return swaps	**16.8**	**33.4**	**50.2**	17.2	27.0	44.2
Credit spread options				0.3		0.3
Other				1.3	0.9	2.2
Total notional value	**444.8**	**455.1**	**899.9**	515.3	531.4	1,046.7
Total credit derivative notional value	**446.4**	**455.1**	**901.5**	517.8	531.4	1,049.2

1 *This table provides a further breakdown of totals reported on page 452 of the* Annual Report and Accounts 2012 *on an accounting consolidation basis.*
2 *This is where we act as intermediary for our clients, enabling them to take a position in the underlying securities but without having to take on the risks ourselves.*

Table 27: Counterparty credit risk net derivative credit exposure[1]

	At 31 December	
	2012	2011
	US$bn	US$bn
Counterparty credit risk[2]		
Gross total fair values	**729.7**	632.2
Accounting offset arrangements	**(372.2)**	(285.8)
Total gross derivatives	**357.5**	346.4
Less: netting benefits[3]	**(270.2)**	(271.9)
Netted current credit exposure	**87.3**	74.5
Less: collateral held	**(40.7)**	(33.7)
Net derivative credit exposure	**46.6**	40.8

1 *This table provides a further breakdown of totals reported on page 452 in the* Annual Report and Accounts 2012 *on an accounting consolidation basis.*
2 *Excludes add-on for potential future credit exposure.*
3 *This is the netting benefit available for regulatory capital purposes which is not recognised under accounting rules.*

Under IFRSs, netting is only permitted if legal right of set-off exists and the cash flows are intended to be settled on a net basis, while under FSA

regulatory rules, netting is applied for capital calculations if there is legal certainty and the positions are managed on a net collateralised basis.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

As a consequence, we recognise greater netting under the FSA rules as it reflects the close out provisions that would result in the default of a counterparty, rather than just those transactions that are actually settled net in the normal course of business.

The difference in total value of exposures between table 27 and table 28 reflects the difference in the basis of accounting and regulatory consolidations, and also the inclusion of the adjustment for potential future credit exposures in the regulatory figures in table 28.

Table 28: Counterparty credit risk exposure by exposure class, product and method

	IMM		Mark-to-market method		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 2012						
By exposure class						
IRB advanced approach	**24.9**	**10.0**	**107.2**	**33.9**	**132.1**	**43.9**
Central governments and central banks	**2.8**	**0.3**	**6.9**	**0.6**	**9.7**	**0.9**
Institutions	**4.8**	**1.6**	**64.1**	**14.5**	**68.9**	**16.1**
Corporates	**17.3**	**8.1**	**36.2**	**18.8**	**53.5**	**26.9**
IRB foundation approach			**3.5**	**1.8**	**3.5**	**1.8**
Corporates			**3.5**	**1.8**	**3.5**	**1.8**
Standardised approach			**5.8**	**2.6**	**5.8**	**2.6**
Central governments and central banks			**2.2**		**2.2**	
Institutions			**0.5**		**0.5**	
Corporates			**3.1**	**2.6**	**3.1**	**2.6**
	24.9	**10.0**	**116.5**	**38.3**	**141.4**	**48.3**
By product						
OTC derivatives	**24.9**	**10.0**	**85.3**	**33.6**	**110.2**	**43.6**
Securities financing transactions			**23.8**	**2.9**	**23.8**	**2.9**
Other[1]			**7.4**	**1.8**	**7.4**	**1.8**
	24.9	**10.0**	**116.5**	**38.3**	**141.4**	**48.3**
At 31 December 2011						
By exposure class						
IRB advanced approach	25.3	10.2	109.9	38.4	135.2	48.6
Central governments and central banks	2.9	0.2	11.6	1.5	14.5	1.7
Institutions	5.9	2.4	58.1	12.9	64.0	15.3
Corporates	16.5	7.6	40.2	24.0	56.7	31.6
IRB foundation approach			4.3	2.0	4.3	2.0
Corporates			4.3	2.0	4.3	2.0
Standardised approach			6.3	3.2	6.3	3.2
Central governments and central banks			2.4		2.4	

Institutions			0.1		0.1	
Corporates			3.8	3.2	3.8	3.2
	25.3	10.2	120.5	43.6	145.8	53.8
By product						
OTC derivatives	25.3	10.2	95.2	38.7	120.5	48.9
Securities financing transactions			24.0	3.7	24.0	3.7
Other[1]			1.3	1.2	1.3	1.2
	25.3	10.2	120.5	43.6	145.8	53.8

1 *Includes free deliveries not deducted from regulatory capital.*

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

The following three tables set out the exposure values, RWAs and RWA density of counterparty credit risk exposures across the regions.

Table 29: Counterparty credit risk exposure by exposure class, product and geographical region

	Exposure value						
	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	MENA US$bn	North America US$bn	Latin America US$bn	Total US$bn
At 31 December 2012							
By exposure class							
IRB advanced approach	**65.9**	**19.9**	**15.6**	**0.8**	**27.4**	**2.5**	**132.1**
Central governments and central banks	**6.8**	**0.5**	**1.1**		**0.3**	**1.0**	**9.7**
Institutions	**32.6**	**13.9**	**7.6**	**0.8**	**12.5**	**1.5**	**68.9**
Corporates	**26.5**	**5.5**	**6.9**		**14.6**		**53.5**
IRB foundation approach	**3.2**			**0.3**			**3.5**
Corporates	**3.2**			**0.3**			**3.5**
Standardised approach	**2.2**			**2.0**		**1.6**	**5.8**
Central governments and central banks	**0.9**			**1.3**			**2.2**
Institutions	**0.4**			**0.1**			**0.5**
Corporates	**0.9**			**0.6**		**1.6**	**3.1**
	71.3	**19.9**	**15.6**	**3.1**	**27.4**	**4.1**	**141.4**
By product							
OTC derivatives	**52.0**	**14.0**	**15.1**	**1.2**	**25.1**	**2.8**	**110.2**
Securities financing transactions	**17.7**	**0.1**	**0.5**	**1.9**	**2.3**	**1.3**	**23.8**
Other	**1.6**	**5.8**					**7.4**
	71.3	**19.9**	**15.6**	**3.1**	**27.4**	**4.1**	**141.4**

Table 30: Counterparty credit risk RWA by exposure class, product and geographical region

	RWA						
	Europe US$bn	Hong Kong US$bn	Rest of Asia-Pacific US$bn	MENA US$bn	North America US$bn	Latin America US$bn	Total US$bn

At 31 December 2012							
By exposure class							
IRB advanced approach	**20.4**	**5.3**	**5.9**	**0.2**	**11.3**	**0.8**	**43.9**
Central governments and central banks	**0.5**	**0.1**	**0.1**		**0.1**	**0.1**	**0.9**
Institutions	**9.4**	**2.1**	**1.5**	**0.2**	**2.2**	**0.7**	**16.1**
Corporates	**10.5**	**3.1**	**4.3**		**9.0**		**26.9**
IRB foundation approach	**1.6**			**0.2**			**1.8**
Corporates	**1.6**			**0.2**			**1.8**
Standardised approach	**0.5**			**0.6**		**1.5**	**2.6**
Central governments and central banks							
Institutions							
Corporates	**0.5**			**0.6**		**1.5**	**2.6**
	22.5	**5.3**	**5.9**	**1.0**	**11.3**	**2.3**	**48.3**
By product							
OTC derivatives	**19.6**	**4.4**	**5.7**	**0.9**	**10.9**	**2.1**	**43.6**
Securities financing transactions	**1.9**	**0.1**	**0.2**	**0.1**	**0.4**	**0.2**	**2.9**
Other	**1.0**	**0.8**					**1.8**
	22.5	**5.3**	**5.9**	**1.0**	**11.3**	**2.3**	**48.3**

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 31: Counterparty credit risk RWA density by exposure class, product and geographical region

	RWA density						
	Europe %	Hong Kong %	Rest of Asia-Pacific %	MENA %	North America %	Latin America %	Total %
At 31 December 2012							
By exposure class							
IRB advanced approach							
Central governments and central banks	**7**	**22**	**11**		**22**	**15**	**9**
Institutions	**29**	**16**	**20**	**23**	**18**	**41**	**23**
Corporates	**40**	**54**	**62**		**62**		**50**
IRB foundation approach							
Corporates	**48**			**70**			**50**
Standardised approach							
Central governments and central banks							
Institutions							
Corporates	**62**			**97**		**95**	**86**
Total	**31**	**27**	**38**	**32**	**42**	**56**	**34**
By product							
OTC derivatives	**38**	**32**	**38**	**70**	**44**	**70**	**40**
Securities financing transactions	**11**	**20**	**24**	**7**	**18**	**26**	**12**
Other	**63**	**14**					**24**
Total	**31**	**27**	**38**	**32**	**42**	**56**	**34**

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 PD 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 a higher-risk country 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 CDS 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 monitor and control 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 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.

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 or capital management, 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.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

HSBC as originator

We use SPEs to securitise customer loans and advances and other debt 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 CDS 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:

- two active multi-seller conduit vehicles which were established to provide finance to clients Regency Assets Limited in Europe and Bryant Park Funding LLC in the US to which we provide senior liquidity facilities and programme-wide credit enhancement; and

- four SICs established to provide tailored investments to third party clients, backed primarily by senior tranches of securitisations and securities issued by financial institutions. 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. The performance of our exposure to these vehicles
is primarily subject to the credit risk of the underlying securities.

Further details of these entities may be found on page 504 of the Annual Report and Accounts 2012.

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. These are primarily legacy exposures that are expected to be held to maturity.

These securitisation positions are managed by a dedicated team that uses a combination of market standard systems and third party data providers to monitor performance data and manage market and credit risks.

In the case of re-securitisation positions, similar processes are conducted in respect of the underlying securitisations.

Valuation of securitisation positions

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 2012.

Further details may be found on page 184 of the Annual Report and Accounts 2012.

We perform hedging in respect of our sponsored SICs interest rate and currency exposures. Credit risk is hedged by credit default swaps in respect of some securitisation positions.

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 may be found on page 384 of the Annual Report and Accounts 2012.

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.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

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.

A small portion of financial assets that do not qualify for derecognition relate to 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. 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, where significant risk in SPEs has been transferred to third parties, these SPEs are not consolidated but exposure to them, including derivatives or liquidity facilities, is risk-weighted as securitisation positions. Of the US$2.2bn (2011: US$5.1bn) of unrealised losses on available-for-sale (AFS) asset-backed securities disclosed in the *Annual Report and Accounts 2012*, US$0.8bn (2011: US$2.7bn) relates to assets within SPEs that are not consolidated for regulatory purposes. The remainder 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.

Analysis of securitisation exposures

Securitisation exposures analysed below are on a regulatory consolidated basis and include those deducted from capital, rather than risk-weighted.

Table 32: Securitisation exposure by approach

	31 December 2012			31 December 2011		
	Trading book US$bn	**Non-trading book US$bn**	**Total US$bn**	Trading book US$bn	Non-trading book US$bn	Total US$bn
IRB approach	**2.7**	**52.5**	**55.2**	25.9	61.1	87.0
Ratings based	**2.7**	**38.2**	**40.9**	9.6	46.0	55.6
Internal assessment approach		**13.9**	**13.9**		14.7	14.7
Supervisory method		**0.4**	**0.4**	16.3	0.4	16.7
Standardised		**0.1**	**0.1**		0.1	0.1
	2.7	**52.6**	**55.3**	25.9	61.2	87.1

The 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 of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 33: Securitisation exposure movement in the year

	Total at 1 January US$bn	Movement in year As originator US$bn	Movement in year As sponsor US$bn	Movement in year As investor US$bn	Total at 31 December US$bn
2012					
Aggregate amount of securitisation exposures					
Residential mortgages	**12.9**			**(8.7)**	**4.2**
Commercial mortgages	**4.6**			**(0.7)**	**3.9**
Credit cards					
Loans to corporates or SMEs	**16.4**		**(16.2)**		**0.2**
Consumer loans	**0.8**			**(0.1)**	**0.7**
Trade receivables	**15.2**		**(0.9)**	**(0.1)**	**14.2**
Re-securitisations[1]	**36.7**	**2.7**	**(5.8)**	**(2.0)**	**31.6**
Other assets	**0.5**				**0.5**
	87.1	**2.7**	**(22.9)**	**(11.6)**	**55.3**
2011					
Aggregate amount of securitisation exposures					
Residential mortgages	4.4			8.5	12.9
Commercial mortgages	3.7		(0.1)	1.0	4.6
Credit cards	0.1			(0.1)	
Loans to corporates or SMEs	0.1		16.2	0.1	16.4
Consumer loans	0.8				0.8
Trade receivables	12.4		2.6	0.2	15.2
Re-securitisations[1]	43.4		(4.1)	(2.6)	36.7
Other assets	0.4		0.1		0.5
	65.3		14.7	7.1	87.1

1 *Re-securitisations principally include exposures to Solitaire Funding Limited, Mazarin Funding Limited, Barion Funding Limited and Malachite Funding Limited and restructured on-balance sheet assets. The re-securitisation pools primarily comprise the senior tranches of retail mortgage backed securities, commercial mortgage backed securities, Auto ABS, credit card ABS, student loans, collateralised debt obligations, and also include bank subordinated debt.*

Key points

The reduction in exposure during the year was driven by a number of factors, the largest of which was a US$16.2bn unwind of leveraged super senior positions in the trading book.

HSBC s involvement in securitisation activities continued to reduce in the year, which is reflected in the following:

- no securitisation positions backed by revolving exposures;
- no positions held as synthetic transactions (2011: nil);
- no assets awaiting securitisation; and
- we do not provide financial support for securitised assets.

Realised losses were US$0.4bn (2011: US$0.3bn) on securitisation asset disposals during the year. Total exposure includes off-balance sheet assets of US$26.1bn which relate to liquidity lines to securitisation vehicles.

Table of Contents

HSBC HOLDINGS PLC

Capital and Risk Management Pillar 3 Disclosures at 31 December 2012 (continued)

Table 34: Securitisation exposure by trading and non-trading book

	At 31 December 2012			At 31 December 2011		
	Trading book US$bn	**Non-trading book US$bn**	**Total US$bn**	Trading book US$bn	Non-trading book US$bn	Total US$bn
As originator		**2.7**	**2.7**			
Re-securitisations		**2.7**	**2.7**			