

HSBC HOLDINGS PLC  
Form 6-K  
February 22, 2016

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 February  
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  Form 40-F

(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

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

HSBC Holdings PLC  
Capital and Risk Management Pillar 3 Disclosures at 31 December 2015

Certain defined terms

Unless the context requires otherwise, 'HSBC Holdings' means HSBC Holdings plc and 'HSBC', the 'Group', 'we', 'us' and 'our' refer 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

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and those preference shares and capital securities issued by HSBC Holdings classified as equity. The abbreviations '\$m' and '\$bn' represent millions and billions (thousands of millions) of US dollars, respectively.

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## Introduction

### Purpose

This document comprises HSBC's Pillar 3 disclosures on capital and risk management at 31 December 2015. It has two principal purposes:

- to provide useful information on the capital and risk profile of the HSBC Group, and
- to meet the regulatory disclosure requirements under the Capital Requirements Regulation (EU) No 575/2013, Part 8 - Disclosure by institutions and the rules of the PRA set out in the Public Disclosure section of the PRA Rulebook and as the PRA has otherwise directed.

Additional relevant information may be found in the HSBC Holdings plc Annual Report and Accounts 2015.

## Abbreviations

The following abbreviated terms are used throughout this document.

### Abbreviation Brief description

#### A

ABCP	Asset-backed commercial paper
ABS1	Asset-backed Security
AFS1	Available-for-sale
ALCM	Asset, Liability and Capital Management
ALCO	Asset and Liability Management Committee
AT1 capital	Additional Tier 1 capital

#### B

Basel Committee	Basel Committee on Banking Supervision
BoCom	Bank of Communications Co., Limited
BSM	Balance Sheet Management

#### C

CCB1	Capital conservation buffer
CCF1	Credit conversion factor
CCP	Central counterparty
CCR1	Counterparty credit risk
CCyB1	Countercyclical capital buffer
CDS1	Credit default swap
CET11	Common equity tier 1
CIU	Collective investment undertakings
CML1	Consumer and Mortgage Lending (US)
CRA1	Credit risk adjustment
CRD1	Capital Requirements Directive
CRE1	Commercial real estate
CRR1	Customer risk rating
CSA1	Credit Support Annex
CVA	Credit valuation adjustment

#### E

EAD1	Exposure at default
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EBA	European Banking Authority
ECAI1	External Credit Assessment Institutions
EEA	European Economic Area
EL1	Expected loss
EU	European Union
EVE1	Economic value of equity
F	
Fitch	Fitch Group
FPC1	Financial Policy Committee (UK)
FSB	Financial Stability Board
G	
GAC	Group Audit Committee
GB&M	Global Banking and Markets, a global business
GMB	Group Management Board
GPB	Global Private Banking, a global business
GRC	Group Risk Committee
Group	HSBC Holdings together with its subsidiary undertakings
G-SIB1	Global systemically important bank
G-SII	Global systemically important institution
H	
HKMA	Hong Kong Monetary Authority
Hong Kong	The Hong Kong Special Administrative Region of the People's Republic of China
HSBC	HSBC Holdings together with its subsidiary undertakings
I	
IAA1	Internal Assessment Approach

Abbreviation	Brief description
ICAAP1	Internal Capital Adequacy Assessment Process
ICG	Individual capital guidance
IFRSs	International Financial Reporting Standards
IMM1	Internal Model Method
IRB1	Internal ratings-based approach
IRC1	Incremental risk charge
ITS	

	Implementing Technical Standards
L	
LGD1	Loss given default
Libor	London Interbank Offered Rate
M	
MDB1	Multilateral Development Bank
MENA	Middle East and North Africa
MOC	Model Oversight Committee
Moody's	Moody's Investor Service
MREL	Minimum requirements for own funds and eligible liabilities
N	
NCOA	Non-credit obligation asset
O	
ORMF	Operational risk management framework
OTC1	Over-the-counter
P	
PD1	Probability of default
PFE1	Potential future exposure
PIT1	Point-in-time
PRA1	Prudential Regulation Authority (UK)
PVA1	Prudent valuation adjustment
R	
RBM1	Ratings Based Method
Retail IRB1	Retail Internal Ratings Based approach
RMM	Risk Management Meeting of the GMB
RNIV	Risks not in VaR
RTS	Regulatory Technical Standards
RWA1	Risk-weighted asset
S	
S&P	Standard and Poor's rating agency
SFM1	Supervisory Formula Method
SFT1	Securities Financing Transactions
SIC	Securities Investment Conduit
SME	Small and medium-sized enterprise
SPE1	Special Purpose Entity
SRB1	Systemic Risk Buffer



STD1	Standardised approach
T	
TLAC1	Total Loss Absorbing Capacity
TTC1	Through-the-cycle
T2 capital	Tier 2 capital
U	
UK	United Kingdom
\$	United States dollar
US	United States of America
V	
VaR1	Value at risk

1 Full definition included in Glossary in Appendix VI.

We are more than 250,000 employees working around the world to provide over 47 million customers with a broad range of banking products and services to meet their financial needs.

**Our values**  
 Our values define who we are as an organisation and make us distinctive.  
**Open**  
 We are open to different ideas and cultures, and value diverse perspectives.  
**Connected**  
 We are connected to our customers, communities, regulators and each other, caring about individuals and their progress.  
**Dependable**  
 We are dependable, standing firm for what is right and delivering on commitments.  
 150-year heritage  
 These values reflect the best aspects of our 150-year heritage. They are critical to fulfilling our purpose to help businesses to thrive, economies to prosper and people to realise their ambitions.

**Our role in society**  
 How we do business is as important as what we do.  
 We seek to build trusting and lasting relationships with our many stakeholders to generate value in society and deliver long-term shareholder returns.  
 Further details on how we do business can be found on page 34 of the Annual Report and Accounts 2015

Key metrics

CRD IV

Common equity tier 1 ratio<sup>1</sup>  
 (end point)  
 11.9%  
 2014: 11.1%

Tier 1 ratio  
 (transitional)  
 13.9%  
 2014: 12.5%

Total capital ratio  
 (transitional)  
 17.2%  
 2014: 15.6%

Common equity tier 1 capital<sup>1</sup>  
 (end point)  
 \$130.9bn  
 - down 4%  
 2014: \$136.0bn  
 Total RWAs

Tier 1 capital  
 (transitional)  
 \$153.3bn  
 - unchanged  
 2014: \$152.7bn  
 Credit risk<sup>2</sup> EAD

Total regulatory capital  
 (transitional)  
 \$189.8bn  
 - unchanged  
 2014: \$190.7bn  
 Credit risk<sup>2</sup> RWA density

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\$1,103bn	\$2,147bn	41%
- down 10%	- down 3%	
2014: \$1,220bn	2014: \$2,210bn	2014: 43%
Leverage ratio		
5.0%		
2014: 4.8%		

1 From 1 January 2015 the CRD IV transitional CET1 and end point CET1 capital ratios became aligned for HSBC Holdings plc due to the recognition of unrealised gains on investment property and AFS securities.

2 'Credit risk', here and in all tables and metrics where the term is used, excludes counterparty credit risk.

Table 1: Pillar 1 overview

	RWAs		Capital required <sup>1</sup>	
	2015 \$bn	2014 \$bn	2015 \$bn	2014 \$bn
Credit risk	875.9	955.3	70.1	76.4
- standardised approach	332.7	356.9	26.6	28.6
- IRB foundation approach	27.4	16.8	2.2	1.3
- IRB advanced approach	515.8	581.6	41.3	46.5
Counterparty credit risk	69.2	90.7	5.5	7.3
- standardised approach	19.1	25.2	1.5	2.0
- advanced approach	50.1	65.5	4.0	5.3
Market risk	42.5	56.0	3.4	4.5
Operational risk	115.4	117.8	9.2	9.4
At 31 December	1,103.0	1,219.8	88.2	97.6
Of which:				
Run-off portfolios	69.3	99.2	5.6	7.9
- legacy credit in GB&M	29.8	44.1	2.4	3.5
- US CML and Other <sup>2</sup>	39.5	55.1	3.2	4.4

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

2 'Other' includes treasury services related to the US CML business and operations in run-off.

Tables 2 and 3 following summarise RWAs by global business and risk type across our five geographical regions.

Table 2: Risk-weighted assets - by global business and region

	Europe	Asia	MENA	North	Latin	Total	Capital
	\$bn	\$bn	\$bn	America	America	RWAs	required
				\$bn	\$bn	\$bn	\$bn
	38.9	63.7	7.7	57.3	21.9	189.5	15.2

Retail Banking and Wealth Management<sup>1</sup>

Commercial Banking <sup>1</sup>	114.3	201.1	26.1	55.3	24.2	421.0	33.7
Global Banking and Markets <sup>2</sup>	170.4	167.3	24.7	70.6	27.1	440.6	35.2
Global Private Banking	10.7	3.9	0.3	4.2	0.2	19.3	1.5
Other <sup>3</sup>	3.1	23.7	1.6	4.2	-	32.6	2.6

At 31 December 2015 337.4 459.7 60.4 191.6 73.4 1,103.0 88.2

Retail Banking and Wealth Management<sup>1</sup>

Commercial Banking <sup>1</sup>	42.4	59.1	7.7	73.5	24.5	207.2	16.6
Global Banking and Markets <sup>2</sup>	106.3	208.6	26.0	58.2	31.2	430.3	34.4
Global Private Banking	209.8	193.0	27.8	81.2	32.9	516.1	41.3
Other <sup>3</sup>	11.9	3.5	0.3	4.9	0.2	20.8	1.7
	5.0	35.6	1.2	3.6	-	45.4	3.6

At 31 December 2014 375.4 499.8 63.0 221.4 88.8 1,219.8 97.6

1 In the first half of 2015, a portfolio of customers was transferred from CMB to RBWM in Latin America in order to better align the combined banking needs of the customers with our established global businesses. Comparative data have been re-presented accordingly.

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

3 Includes HSBC's holding company and financing operations, unallocated investment activities, centrally held investment companies and certain property transactions.

Table 3: Risk-weighted assets - by risk type and region

	Europe \$bn	Asia \$bn	MENA \$bn	North America \$bn	Latin America \$bn	Total RWAs \$bn	Capital required \$bn
Credit risk	239.4	373.6	51.4	156.4	55.1	875.9	70.1
Counterparty credit risk	32.1	17.1	1.8	14.6	3.6	69.2	5.5
Market risk <sup>1</sup>	31.0	21.9	1.0	6.5	1.6	42.5	3.4
Operational risk	34.9	47.1	6.2	14.1	13.1	115.4	9.2
At 31 December 2015	337.4	459.7	60.4	191.6	73.4	1,103.0	88.2
Credit risk	263.2	399.1	54.6	171.6	66.8	955.3	76.4
Counterparty credit risk	40.6	21.9	1.2	23.0	4.0	90.7	7.3
Market risk <sup>1</sup>	36.1	33.0	1.0	11.6	2.9	56.0	4.5
Operational risk	35.5	45.8	6.2	15.2	15.1	117.8	9.4
At 31 December 2014	375.4	499.8	63.0	221.4	88.8	1,219.8	97.6

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

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Click on the attached PDF to view the chart

[http://www.rns-pdf.londonstockexchange.com/rns/6692P\\_-2016-2-21.pdf](http://www.rns-pdf.londonstockexchange.com/rns/6692P_-2016-2-21.pdf)

All RWAs by risk type

Credit risk RWAs by Basel approach

RWAs by region

RWAs by global business

### Regulatory framework for disclosures

HSBC is supervised on a consolidated basis in the UK by the PRA, which 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.

At a consolidated group level, we calculated capital for prudential regulatory reporting purposes throughout 2015 using the Basel III framework of the Basel Committee as implemented by the EU in the amended Capital Requirements Directive, known as CRD IV, and in the PRA's Rulebook for the UK banking industry. The regulators of Group banking entities outside the EU are at varying stages of implementation of the Basel Committee's framework, so local regulation in 2015 may have been on the basis of Basel I, II or III.

The Basel Committee's framework 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 Committee's framework and the rules in their jurisdiction, their capital condition, risk exposures and risk management 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 PRA's final rules adopted national discretions in order to accelerate significantly the transition timetable to full 'end point' CRD IV compliance. Notwithstanding this, and other major developments in regulation during 2015, important elements of the capital adequacy framework have yet to be clarified. In particular, in December 2015, the FPC published its view of the capital framework as applicable to UK banks, which set out expectations in relation to Tier 1 capital across the industry. However, requirements applicable to individual banks are subject to PRA determination. While there is emerging clarity around the interaction of capital buffers and the PRA's Pillar 2 framework, uncertainty remains around the broader capital framework, including Basel Committee's revisions to the RWA framework and capital floors. Furthermore, there remains a number of draft and unpublished EBA RTSs due in 2016. Details of the major continuing regulatory reforms are set out under 'Regulatory developments' on page 28.

Pillar 3 Disclosures 2015

The Pillar 3 Disclosures 2015 comprise all information required under Pillar 3, both quantitative and qualitative. They are made in accordance with Part 8 of the Capital Requirements Regulation within CRD IV, supplemented by any specific additional requirements of the PRA and discretionary disclosures on our part.

In our disclosures, to give insight into movements during the year, we provide comparative figures for the previous year, analytical review of variances and 'flow' tables for capital requirements. However, where disclosures have been enhanced or are new we do not generally re-state or provide prior year comparatives. The capital resources tables track the position from a CRD IV transitional to an end point basis. Specific changes to our Pillar 3 disclosures are set out below.

The principal changes in our Pillar 3 Disclosures 2015, compared with 2014, are:

- enhanced capital and leverage disclosures:
  - additional disclosure on the impact of the CCyB
  - disclosures on the leverage ratio now follow the EBA disclosure templates
- more granular risk disclosures:
  - the tables on wholesale IRB exposure by obligor grade and retail IRB exposure by PD band have been expanded to show average exposure value and undrawn commitments by grade/band
  - new section and tables on past due but not impaired, impaired exposures and CRA
  - new tables showing PD, LGD, RWA and exposure by country
- other items:
  - new appendix summarising disclosures withheld due to their immateriality, confidentiality or proprietary nature

In 2015, the PRA adopted EBA Guidelines on frequency, materiality and the confidential or proprietary nature of Pillar 3 disclosures. HSBC implemented these guidelines by integrating them into Group policy and process for the governance of disclosures after approval by the GAC, which exercises oversight of controls over disclosures.

Information relating to the rationale for withholding certain disclosures is provided in Appendix V.

We publish comprehensive Pillar 3 disclosures annually on the HSBC internet site [www.hsbc.com](http://www.hsbc.com), simultaneously with the release of our Annual Report and Accounts 2015. Our G-SIB Indicator disclosure is also published in the same location. Our Interim Reports and Earnings Releases include regulatory information complementing the financial and risk information presented there and in line with the new requirements on the frequency of regulatory disclosures.

Pillar 3 requirements may be met by inclusion in other disclosure media. Where we adopt this approach, references are provided to the relevant pages of the Annual Report and Accounts 2015 or other location.

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.

### [Linkage to the Annual Report and Accounts 2015](#)

#### Basis of consolidation

The basis of consolidation for the purpose of financial accounting under IFRSs, described in Note 1 of the Annual Report and Accounts 2015, differs from that used for regulatory purposes as described in 'Structure of the regulatory group' on page 12. Table 4 provides a reconciliation of the balance sheet from the financial accounting basis to the regulatory scope of consolidation.

The regulatory balance sheet forms the basis for the calculation of regulatory capital requirements.

The alphabetic references in this table link to the corresponding references in table 7: 'Composition of Regulatory Capital', identifying those balances which form part of that calculation.

Table 4: Reconciliation of balance sheets - financial accounting to regulatory scope of consolidation

	Accounting balance sheet Ref	Accounting balance sheet \$m	Deconsolidation of insurance/ other entities \$m	Consolidation of banking associates \$m	Regulatory balance sheet \$m
Assets					
Cash and balances at central banks		98,934	(2)	28,784	127,716
Items in the course of collection from other banks		5,768	-	22	5,790
Hong Kong Government certificates of indebtedness		28,410	-	-	28,410
Trading assets		224,837	340	4,390	229,567
Financial assets designated at fair value		23,852	(23,521)	2,034	2,365
Derivatives		288,476	(146)	495	288,825
Loans and advances to banks		90,401	(3,008)	16,413	103,806
Loans and advances to customers		924,454	(7,427)	120,016	1,037,043
of which:					
- impairment allowances on IRB portfolios	i	(6,291)	-	-	(6,291)
- impairment allowances on standardised portfolios		(3,263)	-	(2,780)	(6,043)
Reverse repurchase agreements - non-trading		146,255	711	5,935	152,901
Financial investments		428,955	(51,684)	42,732	420,003

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Assets held for sale		43,900	(4,107)	-	39,793
of which:					
- goodwill and intangible assets	h	1,680	(219)	-	1,461
- impairment allowances		(1,454)	-	-	(1,454)
of which:					
- IRB portfolios	i	(7)	-	-	(7)
- standardised portfolios		(1,447)	-	-	(1,447)
Capital invested in insurance and other entities		-	2,371	-	2,371
Current tax assets		1,221	(15)	-	1,206
Prepayments, accrued income and other assets		54,398	(2,539)	9,692	61,551
of which:					
- retirement benefit assets	g	5,272	-	-	5,272
Interests in associates and joint ventures		19,139	-	(18,571)	568
of which:					
- positive goodwill on acquisition	h	593	-	(579)	14
Goodwill and intangible assets	h	24,605	(6,068)	623	19,160
Deferred tax assets	n	6,051	195	518	6,764
Total assets at 31 December 2015		2,409,656	(94,900)	213,083	2,527,839

	Accounting	Deconsolidation	Consolidation	Regulatory
	balance	of	of	balance
	sheet	insurance/	banking	sheet
	sheet	other	associates	sheet
Ref	\$m	entities	\$m	\$m
				\$m
Liabilities and equity				
Hong Kong currency notes in circulation				
	28,410	-	-	28,410
Deposits by banks	54,371	(97)	50,005	104,279
Customer accounts	1,289,586	(119)	147,522	1,436,989
Repurchase agreements - non-trading	80,400	-	-	80,400
Items in course of transmission to other banks	5,638	-	-	5,638
Trading liabilities	141,614	(66)	59	141,607
Financial liabilities designated at fair value	66,408	(6,046)	-	60,362
of which:				
- term subordinated debt included in tier 2 capital	m	21,168	-	21,168
- hybrid capital securities included in tier 1 capital	j	1,342	-	1,342

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Derivatives		281,071	87	508	281,666
Debt securities in issue		88,949	(7,885)	5,065	86,129
Liabilities of disposal groups held for sale		36,840	(3,690)	-	33,150
Current tax liabilities		783	(84)	409	1,108
Liabilities under insurance contracts		69,938	(69,938)	-	-
Accruals, deferred income and other liabilities		38,116	2,326	6,669	47,111
of which:					
- retirement benefit liabilities		2,809	(2)	61	2,868
Provisions		5,552	(25)	-	5,527
of which:					
- contingent liabilities and contractual commitments		240	-	-	240
of which:					
- credit-related provisions on IRB portfolios	i	201	-	-	201
- credit-related provisions on standardised portfolios		39	-	-	39
Deferred tax liabilities		1,760	(868)	5	897
Subordinated liabilities		22,702	-	2,841	25,543
of which:					
- hybrid capital securities included in tier 1 capital	j	1,929	-	-	1,929
- perpetual subordinated debt included in tier 2 capital	l	2,368	-	-	2,368
- term subordinated debt included in tier 2 capital	m	18,405	-	-	18,405
Total shareholders' equity	a	188,460	(7,562)	-	180,898
of which:					
- other equity instruments included in tier 1 capital	c, j	15,112	-	-	15,112
- preference share premium included in tier 1 capital	b	1,405	-	-	1,405
Non-controlling interests	d	9,058	(933)	-	8,125
of which:					
- non-cumulative preference shares issued by subsidiaries included in tier 1 capital	e	2,077	-	-	2,077
- non-controlling interests included in tier 2 capital, cumulative preferred stock	f	-	-	-	-
- non-controlling interests attributable to holders of ordinary shares in subsidiaries included in tier 2 capital	f, m	-	-	-	-



Total liabilities and equity at 31 December 2015	2,409,656	(94,900)	213,083	2,527,839
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Table 4: Reconciliation of balance sheets - financial accounting to regulatory scope of consolidation (continued)

	Accounting balance sheet Ref \$m	Deconsolidation of insurance/ other entities \$m	Consolidation of banking associates \$m	Regulatory balance sheet \$m
Assets				
Cash and balances at central banks	129,957	-	30,731	160,688
Items in the course of collection from other banks	4,927	-	80	5,007
Hong Kong Government certificates of indebtedness	27,674	-	-	27,674
Trading assets	304,193	(720)	2,357	305,830
Financial assets designated at fair value	29,037	(28,791)	3,312	3,558
Derivatives	345,008	(94)	353	345,267
Loans and advances to banks	112,149	(2,727)	7,992	117,414
Loans and advances to customers	974,660	(10,809)	116,484	1,080,335
of which:				
- impairment allowances on IRB portfolios	i (6,942)	-	-	(6,942)
- impairment allowances on standardised portfolios	(5,395)	-	(2,744)	(8,139)
Reverse repurchase agreements - non-trading	161,713	(30)	7,510	169,193
Financial investments	415,467	(50,420)	33,123	398,170
Capital invested in insurance and other entities	-	2,542	-	2,542
Current tax assets	1,309	(16)	-	1,293
Prepayments, accrued income and other assets	75,176	(5,295)	8,501	78,382
of which:				
- goodwill and intangible assets of disposal groups held for sale	h 8	-	-	8
- retirement benefit assets	g 5,028	-	-	5,028
- impairment allowances on assets held for sale	(16)	-	-	(16)
of which:				
- IRB portfolios	i (16)	-	-	(16)
- standardised portfolios	-	-	-	-

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Interests in associates and joint ventures		18,181	-	(17,479)	702
of which:					
- positive goodwill on acquisition	h	621	-	(606)	15
Goodwill and intangible assets	h	27,577	(5,593)	571	22,555
Deferred tax assets	n	7,111	163	474	7,748
Total assets at 31 December 2014		2,634,139	(101,790)	194,009	2,726,358

		Accounting balance sheet Ref \$m	Deconsolidation of insurance/ other entities \$m	Consolidation of banking of associates \$m	Regulatory balance sheet \$m
Liabilities and equity					
Hong Kong currency notes in circulation		27,674	-	-	27,674
Deposits by banks		77,426	(21)	40,530	117,935
Customer accounts		1,350,642	(535)	141,858	1,491,965
Repurchase agreements - non-trading		107,432	-	-	107,432
Items in course of transmission to other banks		5,990	(3)	-	5,987
Trading liabilities		190,572	(42)	50	190,580
Financial liabilities designated at fair value		76,153	(6,317)	-	69,836
of which:					
- term subordinated debt included in tier 2 capital	m	21,822	-	-	21,822
- hybrid capital securities included in tier 1 capital	j	1,495	-	-	1,495
Derivatives		340,669	37	331	341,037
Debt securities in issue		95,947	(7,797)	3,720	91,870
Current tax liabilities		1,213	(138)	317	1,392
Liabilities under insurance contracts		73,861	(73,861)	-	-
Accruals, deferred income and other liabilities		53,396	(3,659)	5,145	54,882
of which:					
- retirement benefit liabilities		3,208	(2)	56	3,262
Provisions		4,998	(63)	-	4,935
of which:					
- contingent liabilities and contractual commitments		234	-	-	234
of which:					
- credit-related provisions on IRB portfolios	i	132	-	-	132

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- credit-related provisions on standardised portfolios		102	-	-	102
Deferred tax liabilities		1,524	(1,009)	2	517
Subordinated liabilities		26,664	-	2,056	28,720
of which:					
- hybrid capital securities included in tier 1 capital	j	2,761	-	-	2,761
- perpetual subordinated debt included in tier 2 capital	l	2,773	-	-	2,773
- term subordinated debt included in tier 2 capital	m	21,130	-	-	21,130
Total shareholders' equity	a	190,447	(7,531)	-	182,916
of which:					
- other equity instruments included in tier 1 capital	c, j	11,532	-	-	11,532
- preference share premium included in tier 1 capital	b	1,405	-	-	1,405
Non-controlling interests	d	9,531	(851)	-	8,680
of which:					
- non-cumulative preference shares issued by subsidiaries included in tier 1 capital	e	2,127	-	-	2,127
- non-controlling interests included in tier 2 capital, cumulative preferred stock	f	300	-	-	300
- non-controlling interests attributable to holders of ordinary shares in subsidiaries included in tier 2 capital	f, m	173	-	-	173
Total liabilities and equity at 31 December 2014		2,634,139	(101,790)	194,009	2,726,358

The references (a) - (n) identify balance sheet components which are used in the calculation of regulatory capital on page 20.

#### 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 in Appendix I.

Interests in banking associates are equity accounted in the financial accounting consolidation, whereas their exposures are proportionally consolidated for regulatory purposes by including our share of assets, liabilities, profit and loss and RWAs in accordance with the PRA's application of EU legislation. The principal associates subject to proportional regulatory consolidation at 31 December 2015 are shown in table 5, representing 99% of our associates' total assets as shown in table 4.

Subsidiaries engaged in insurance activities are excluded from the regulatory consolidation by excluding assets, liabilities and post-acquisition reserves, leaving the investment of these insurance subsidiaries to be recorded at cost and deducted from CET1 (subject to thresholds). In the column 'Deconsolidation of insurance/other entities' in the table above the amount of \$2.4bn (2014: \$2.5bn) shown as 'Capital invested in insurance and other entities' represents the cost of investment in our insurance business. The principal insurance entities are listed in table 5.

The regulatory consolidation also excludes SPEs where significant risk has been transferred to third parties. Exposures to these SPEs are risk-weighted as securitisation positions for regulatory purposes. 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'. Table 5 lists the principal SPEs excluded from the regulatory consolidation with their total assets and total equity. Further details of the use of SPEs in the Group's securitisation activities are shown in Note 39 of the Annual Report and Accounts 2015 and on page 85.

Table 5: Principal entities with a different regulatory and accounting scope of consolidation

	Principal activities	At 31 December 2015		At 31 December 2014	
		Total assets \$m	Total equity \$m	Total assets \$m	Total equity \$m
<b>Principal associates</b>					
Bank of Communications Co., Limited <sup>1</sup>	Banking services	1,110,088	80,657	1,001,995	74,094
The Saudi British Bank	Banking services	50,189	7,356	50,161	6,807
<b>Principal insurance entities excluded from the regulatory consolidation</b>					
HSBC Life (UK) Ltd	Life insurance manufacturing	1,941	390	9,113	520
HSBC Assurances Vie (France)	Life insurance manufacturing	23,713	663	26,260	714
HSBC Life (International) Ltd	Life insurance manufacturing	34,808	2,805	32,578	2,778
Hang Seng Insurance Company Ltd	Life insurance manufacturing	14,455	1,154	13,353	1,323
HSBC Insurance (Singapore) Pte Ltd	Life insurance manufacturing	3,102	315	2,843	379
HSBC Life Insurance Company Ltd	Life insurance manufacturing	764	109	560	87
HSBC Amanah Takaful (Malaysia) SB	Life insurance manufacturing	302	27	349	31
HSBC Seguros (Brasil) S.A.		484	283	619	357

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	Life insurance manufacturing				
HSBC Vida e Previdência (Brasil) S.A.	Life insurance manufacturing	3,418	155	5,044	119
HSBC Seguros de Vida (Argentina) S.A.	Life insurance manufacturing	203	42	225	55
HSBC Seguros de Retiro (Argentina) S.A.	Life insurance manufacturing	563	102	633	74
HSBC Seguros S.A. (Mexico)	Life insurance manufacturing	870	182	1,013	199
Principal SPEs excluded from the regulatory consolidation <sup>2</sup>					
Regency Assets Ltd	Securitisation	15,183	-	10,984	-
Mazarin Funding Ltd	Securitisation	1,879	(9)	3,913	(26)
Barion Funding Ltd	Securitisation	1,132	68	1,970	90
Malachite Funding Ltd	Securitisation	442	26	1,403	63

<sup>1</sup> Total assets and total equity at 30 September 2015.

<sup>2</sup> These SPEs hold no or de minimis share capital. The negative equity represents net unrealised losses on unimpaired assets on their balance sheets and negative retained earnings.

Table 5 also presents as closely as possible the total assets and total equity, on a standalone IFRSs basis, of the entities which are included in the Group consolidation on different bases for accounting and regulatory purposes. The figures shown therefore include intra-Group balances.

For insurance entities, the present value of in-force long-term insurance business asset of \$5.7bn and the related deferred tax liability are recognised at the financial reporting consolidated level only, and are therefore not included in the asset or equity positions for the stand-alone entities presented in table 5. In addition, these figures exclude any deferred acquisition cost assets that may be recognised in the entities' stand-alone financial reporting.

For associates, table 5 shows the total assets and total equity of the entity as a whole rather than HSBC's share in the entities' balance sheets.

#### Measurement of regulatory exposures

This section sets out the main reasons why the measurement of regulatory exposures is not directly comparable with the financial information presented in the Annual Report and Accounts 2015.

The Pillar 3 Disclosures 2015 are prepared in accordance with regulatory capital adequacy concepts and rules, while the Annual Report and Accounts 2015 are prepared in accordance with IFRSs. The purpose of the regulatory balance sheet is to provide a point in time value of all on-balance sheet assets. The regulatory exposure value includes an estimation of risk, and is expressed as the amount expected to be outstanding if and when the counterparty defaults. The difference between total assets on the regulatory balance sheet as shown in table 6a, and the credit risk and CCR exposure values shown in table 6b below, is principally attributable to the following factors:

#### Credit risk and CCR exposures

Various assets on the regulatory balance sheet, such as intangible goodwill and assets, are excluded from the calculation of the credit risk exposure value as they are deducted from capital. The regulatory balances are adjusted for the effect of the differences in the basis for regulatory and accounting netting, and in the treatment of financial collateral.

#### Credit risk exposures only

When assessing credit risk exposures within the regulatory balance sheet, the Basel Committee's approach used to report the asset in question determines the calculation method for EAD. Using the STD approach, the regulatory exposure value is based on the regulatory balance sheet amount, applying a number of further regulatory adjustments. Using IRB approaches, the regulatory EAD is either determined using supervisory (foundation) or internally modelled (advanced) methods.

EAD takes account of off-balance sheet items, such as the undrawn portion of committed facilities, various trade finance commitments and guarantees, by applying CCFs to these items.

Assets on the regulatory balance sheet, as shown in table 4, are net of impairments. EAD, however, is only reduced for impairments under the standardised approach. Impairments under the IRB approach are not used to reduce the EAD amount.

#### CCR exposures only

For regulatory purposes, trading book items, derivatives and securities financing items in the banking book are treated under the rules for CCR. CCR exposures express the risk that the counterparty to a transaction may default before completing the satisfactory settlement of the transaction. See table 48 for a comparison of derivative accounting balances and CCR exposure for derivatives.

HSBC uses the mark-to-market method and the IMM approach to calculate CCR EAD. Under the mark-to-market method EAD is based on the balance sheet fair value of the instrument plus an add-on for PFE. Under the IMM approach, modelled exposure value replaces the fair value on the balance sheet.

Moreover, regulatory exposure classes are based on different criteria from accounting asset types and are therefore not comparable on a line by line basis.

The following tables show in two steps how the accounting values in the regulatory balance sheet link to regulatory EAD.

In a first step, table 6a below shows a breakdown of the accounting balances into the risk types that form the basis for regulatory capital requirements. Table 6b then shows the main differences between the accounting balances and regulatory exposures by regulatory risk type.

Table 6a: Mapping of financial statement categories with regulatory risk categories

	Carrying value of items:					Subject to deduction from capital or not subject to regulatory capital requirements
	Regulatory balance sheet1	Subject to credit risk framework	Subject to CCR framework2	Subject to securitisation framework3	Subject to market risk framework	
	\$bn	\$bn	\$bn	\$bn	\$bn	\$bn
Assets						
Cash and balances at central banks	127.7	127.7	-	-	-	-
Items in the course of collection from other banks	5.8	5.8	-	-	-	-
Hong Kong Government certificates of indebtedness	28.4	28.4	-	-	-	-
Trading assets	229.5	4.4	17.4	-	225.1	-
Financial assets designated at fair value	2.4	2.4	-	-	-	-
Derivatives	288.8	0.3	287.5	0.9	288.5	-
	103.8	103.8	-	-	-	-

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Loans and advances to banks						
Loans and advances to customers	1,037.0	1,027.5	-	9.5	-	-
Reverse repurchase agreements - non-trading	152.9	5.9	147.0		-	-
Financial investments	420.0	408.7	-	11.3	-	-
Assets held for sale	39.8	32.8	5.3	-	-	1.7
Capital invested in insurance and other entities	2.4	2.4	-	-	-	-
Current tax assets	1.2	1.2	-	-	-	-
Prepayments, accrued income and other assets	61.5	44.9	-	-	11.5	5.1
Interests in associates and joint ventures	0.6	-	-	-	-	0.6
Goodwill and intangible assets	19.2	-	-	-	-	19.2
Deferred tax assets	6.8	7.8	-	-	-	(1.0)
<b>Total assets at 31 December 2015</b>	<b>2,527.8</b>	<b>1,804.0</b>	<b>457.2</b>	<b>21.7</b>	<b>525.1</b>	<b>25.6</b>
Cash and balances at central banks	160.7	160.7	-	-	-	-
Items in the course of collection from other banks	5.0	5.0	-	-	-	-
Hong Kong Government certificates of indebtedness	27.7	27.7	-	-	-	-
Trading assets	305.8	-	23.1	-	305.8	1.1
Financial assets designated at fair value	3.6	3.6	-	-	-	-
Derivatives	345.3	-	344.6	0.7	345.3	-
Loans and advances to banks	117.4	115.3	-	2.1	-	-
Loans and advances to customers	1,080.3	1,078.1	-	2.2	-	-
Reverse repurchase agreements - non-trading	169.2	7.5	161.7	-	-	-
Financial investments	398.2	385.8	-	12.4	-	-
Capital invested in insurance and other entities	2.5	2.5	-	-	-	-
Current tax assets	1.3	1.3	-	-	-	-
Prepayments, accrued income and other assets	78.4	57.6	-	-	15.7	5.0
Interests in associates and joint ventures	0.7	0.7	-	-	-	-
	22.6	-	-	-	-	22.6



Goodwill and intangible assets						
Deferred tax assets	7.7	6.7	-	-	-	1.0
Total assets at 31 December 2014	2,726.4	1,852.5	529.4	17.4	666.8	29.7

1 The amounts shown in the column 'Regulatory balance sheet' do not equal the sum of the amounts shown in the remaining columns of this table for line items 'Derivatives' and 'Trading assets', as some of the assets included in these items are subject to regulatory capital charges for both CCR and market risk.

2 The amounts shown in the column 'Subject to CCR framework' include both banking book and trading book.

3 The amounts shown in the column 'Subject to securitisation framework' only include banking book. Trading book securitisation positions are included in the market risk column.

Table 6b: Main sources of differences between regulatory exposure values and carrying values in financial statements

	Items subject to:		
	Credit risk \$bn	CCR \$bn	Securitisation framework \$bn
Asset carrying value amount under scope of regulatory consolidation	1,804.0	457.2	21.7
- differences due to reversal of IFRSs netting	31.7	-	-
- differences due to financial collateral on standardised approach	(13.8)	-	-
- differences due to consideration of provisions on IRB approach	7.2	-	0.6
- differences due to modelling and standardised CCFs for credit risk and other differences <sup>1</sup>	275.8	-	19.3
- differences due to credit risk mitigation and potential exposures for counterparty risk	-	(285.5)	-
- differences due to free deliveries and sundry balances	-	6.9	-
Exposure values considered for regulatory purposes at 31 December 2015	2,104.9	178.6	41.6
Asset carrying value amount under scope of regulatory consolidation	1,852.5	529.4	17.4
- differences due to reversal of IFRSs netting	37.5	-	-
- differences due to financial collateral on standardised approach	(13.9)	-	-
- differences due to consideration of provisions on IRB approach	7.3	-	-
	289.6		

- differences due to modelling and standardised CCFs for credit risk and other differences <sup>1</sup>		-	21.4
- differences due to credit risk mitigation and potential exposures for counterparty risk	-	(336.8)	-
- differences due to free deliveries and sundry balances	-	8.5	-
Exposure values considered for regulatory purposes at 31 December 2014	2,173.0	201.1	38.8

<sup>1</sup> This includes the undrawn portion of committed facilities, various trade finance commitments and guarantees, by applying CCFs to these items.

## Capital and risk

### Capital management Approach and policy

Our approach to capital management is designed to ensure that we exceed current regulatory requirements and that we respect the payment priority of our capital providers. We aim to maintain a strong capital base, to support the risks inherent in our business and to invest in accordance with our six filters framework, exceeding both consolidated and local regulatory capital requirements at all times.

Our capital management process culminates 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' issuance of equity and non-equity capital and by 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. Subject to the above, there is no current or foreseen impediment to HSBC Holdings' ability to provide such investments.

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.

The ability of subsidiaries to pay dividends or advance monies to HSBC Holdings depends on, among other things, their respective local regulatory capital and banking requirements, exchange controls, statutory reserves, and financial and operating performance. During 2015, none of the Group's subsidiaries experienced significant restrictions on paying dividends or repaying loans and advances. Also, there are no foreseen restrictions envisaged by our subsidiaries, with the exception of HSBC North America Holdings Inc., on paying dividends or repaying loans and advances. None of our subsidiaries which are excluded from the regulatory consolidation have capital resources below their minimum regulatory requirement.

For further details of our approach to capital management, please see page 243 of the Annual Report and Accounts 2015.

## Risks to capital

Our top and emerging risks are regularly evaluated to assess the impact on our businesses and core capital position. This evaluation extends to a number of risks not technically within the scope of our top and emerging risks, but which are identified as presenting risks to capital due to their potential to impact the Group's RWAs and/or capital supply position. The downside or upside scenarios are assessed against the Group's capital management objectives and mitigating actions are assigned to senior management as necessary.

### Stress testing

Our stress testing and scenario analysis programme enables us to understand the sensitivities of the core assumptions in our capital plans and assessment of our internal and regulatory capital requirements to the adverse effect of extreme, but plausible events. Stress testing allows us to formulate our response and mitigate risk in advance of actual conditions exhibiting the stresses identified in the scenarios and is closely aligned to our monitoring of top and emerging risks.

The governance and management of enterprise-wide stress testing is overseen by the Stress Testing Management Board, chaired by the Group Finance Director, to ensure appropriate senior management oversight and governance of the stress test programmes. Models used within stress testing are approved through functional MOCs, with expert stress testing support during development. Updates are provided regularly to meetings of the RMM. The GRC is informed and consulted on the Group's stress testing activities, as appropriate, and approves the key elements of the Bank of England concurrent stress test, including final results.

We are subject to regulatory stress testing in many jurisdictions. These exercises are designed to assess the resilience of banks to adverse economic or political developments and ensure that they have robust, forward-looking capital planning processes that account for their unique risks. They include the programmes of the Bank of England, the Federal Reserve Board, the Office of the Comptroller of the Currency, the EBA, HKMA and other regulators. Assessment by regulators is on both a quantitative and qualitative basis, the latter focusing on our portfolio quality, data provision, stress testing capability and internal management processes.

In addition, we have conducted an internal stress test, which incorporated the latest portfolio developments and business plan. For this exercise, management considered that the Bank of England 2015 scenario reflected key risks which merited examination at that time. The results of this exercise are used for internal risk and capital management processes, including the ICAAP.

Further details of the Group's regulatory stress tests are given on page 116 of the Annual Report and Accounts 2015.

## Overview of regulatory capital framework

### Introduction

Capital and RWAs are calculated and presented on the Group's interpretation of CRD IV legislation and the PRA's rules as set out in the PRA Rulebook.

The section below sets out details of the capital that is eligible for regulatory purposes, and the composition of the Group's regulatory capital. It describes our Pillar 1 capital requirements as well as the Pillar 2 and capital buffers framework. Finally, it discusses the leverage ratio, which has assumed increasing importance for the FPC and the PRA as a non-risk-based measure supplementing the Basel Committee's risk-based methodology.

## Eligible regulatory capital

The capital position presented on a CRD IV transitional basis follows the Group's interpretation of CRD IV legislation and the PRA's rules as set out in the PRA Rulebook.

The effects of draft EBA technical standards are not generally captured in our numbers.

While CRD IV allows for the majority of regulatory adjustments and deductions from CET1 to be implemented on a gradual basis from 1 January 2014 to 1 January 2018, the PRA has largely decided not to make use of these transitional provisions. From 1 January 2015, unrealised gains on investment property and AFS securities were recognised in CET1 capital. As a result, our end point and transitional CET1 capital and ratios are now aligned.

For additional tier 1 and tier 2 capital, the PRA has followed the transitional provisions timing as set out in CRD IV to apply the necessary regulatory adjustments and deductions. The effect of these adjustments is being phased in at 20% per annum from 1 January 2014 to 1 January 2018.

Non-CRD IV compliant additional tier 1 and tier 2 instruments also benefit from a grandfathering period. This progressively reduces the eligible amount by 10% annually, following an initial reduction of 20% on 1 January 2014, until they are fully phased out by 1 January 2022.

Under CRD IV, as implemented in the UK, banks are required to meet a minimum CET1 ratio of 4.5% of RWAs, a minimum tier 1 ratio of 6% of RWAs, and a total capital ratio of 8% of RWAs. In addition to the Pillar 1 minimum ratios, the PRA sets Pillar 2A capital requirements, which together are considered the minimum level of regulatory capital to be maintained at all times. Pillar 2A is to be met with at least 56% CET1 capital and the remaining with non-common equity capital.

In addition to minimum requirements, CRD IV establishes a number of capital buffers to be met with CET1 capital, which largely phase-in from 1 January 2016. To the extent our CET1 capital is not enough to meet these buffer requirements, the Group would suffer automatic restrictions on capital distributions.

Going forward, as the grandfathering provisions fall away, we intend to meet our overall regulatory minima in an economically efficient manner by issuing non-common equity capital as necessary. At 31 December 2015, the Group had \$25.1bn of CRD IV compliant non-common equity capital instruments, of which \$3.2bn of tier 2 and \$3.6bn of additional tier 1 were issued during the year (for details on the additional tier 1 instruments issued during the year see Note 35 of the Annual Report and Accounts 2015). At 31 December 2015, the Group also had \$32.8bn of non-common equity capital instruments qualifying as eligible capital under CRD IV by virtue of the application of the grandfathering provisions, after applying a 30% reduction as outlined above.

For a full disclosure of the CET1, tier 1 and total capital position on a 'transitional basis' at 31 December 2015, see Appendix III of this report.

## Pillar 1

Pillar 1 covers the capital resources requirements for credit risk, market risk and operational risk. Credit risk includes CCR and securitisation requirements. These requirements are expressed in terms of RWAs.

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Risk category	Scope of permissible approaches	Approach adopted by HSBC
Credit risk	<p>The Basel Committee framework 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 PD, but subjects their quantified estimates of EAD and LGD to standard supervisory parameters. Finally, the IRB advanced approach allows banks to use their own internal assessment in both determining PD and quantifying EAD and LGD.</p>	<p>For consolidated Group reporting, we have adopted the advanced IRB approach for the majority of our business. Some portfolios remain on the standardised or foundation IRB approaches:</p> <ul style="list-style-type: none"> <li>· pending the issuance of local regulations or model approval;</li> <li>· following supervisory prescription of a non-advanced approach; or</li> <li>· under exemptions from IRB treatment.</li> </ul> <p>Further information on our IRB roll-out plan may be found on page 46.</p>
Counterparty credit risk	<p>Three approaches to calculating CCR and determining exposure values are defined by the Basel Committee: mark-to-market, standardised and IMM. These exposure values are used to determine capital requirements under one of the credit risk approaches; standardised, IRB</p>	<p>We use the mark-to-market and IMM approaches for CCR. Details of the IMM permission we have received from the PRA can be found in the Financial Services Register on the PRA website. Our aim is to increase the proportion of positions on IMM over time.</p>

foundation and IRB advanced.

Equity	For banking book, equity exposures can be assessed under standardised or IRB approaches.	For Group reporting purposes all equity exposures are treated under the standardised approach.
Securitisation	Basel specifies two methods for calculating credit risk requirements for securitisation positions in the banking book: the standardised approach and the IRB approach, which incorporates the RBM, the IAA and the 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 the IAA and the SFM. We also use the standardised approach for an immaterial amount of non-trading book positions. Securitisation positions in the trading book are treated within market risk, using the PRA's standard rules.
Market risk	Market risk capital requirements can be determined under either the standard rules or the IMA. The latter involves the use of internal VaR models to measure market risks and determine the appropriate capital requirement. The IRC also applies.	The market risk capital requirement is measured using internal market risk models, where approved by the PRA, or under the standard rules. Our internal market risk models comprise VaR, stressed VaR and IRC. Non-proprietary details of the scope of our IMA permission are available in the Financial Services Register on the PRA website. We are in compliance with the requirements set out in Articles 104 and 105 of the Capital Requirements Regulation.
Operational risk	The Basel Committee allows for firms to calculate their operational risk capital requirement under the basic indicator approach, the	We have historically adopted and currently use the standardised approach in determining our operational risk capital requirement.

standardised approach or the advanced measurement approach.	We are in the process of implementing an operational risk model which we will use for economic capital calculation purposes.
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## Capital buffers

CRD IV establishes a number of capital buffers, to be met by CET1 capital, broadly aligned with the Basel III framework. In the UK, with the exception of the CCyB which applied with immediate effect, the remaining CRD IV capital buffers are phased in from 1 January 2016.

For more details on capital buffers, see page 28.

## Pillar 2

We conduct an annual ICAAP to determine a forward-looking assessment of our capital requirements given our business strategy, risk profile, risk appetite and capital plan. This process incorporates the Group's risk management processes and governance framework. A range of stress tests are applied to our base capital plan. These, coupled with our economic capital framework and other risk management practices, are used to assess our internal capital adequacy requirements and inform our view of our internal capital planning buffer. The ICAAP is formally approved by the Board, which has the ultimate responsibility for the effective management of risk and approval of HSBC's risk appetite.

The ICAAP is examined by the PRA as part of its supervisory review and evaluation process, which occurs periodically to enable the regulator to define the ICG or minimum capital requirements for HSBC and our PRA buffer where required. Under the revised Pillar 2 PRA regime, which came into effect from 1 January 2016, the capital planning buffer was replaced with a PRA buffer. This is not intended to duplicate the CRD IV buffers, and where necessary will be set according to vulnerability in a stress scenario, as assessed through the annual PRA stress testing exercise.

For more details on Pillar 2, see pages 25 and 29.

## Leverage ratio

The leverage ratio was introduced into the Basel III framework as a non-risk-based 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 Basel III leverage ratio is a volume-based measure calculated as tier 1 capital divided by total on- and off-balance sheet exposures. This ratio has been implemented in the EU for reporting and disclosure purposes but, at this stage, has not been set as a binding requirement.

The PRA has implemented a UK framework for the leverage ratio with effect from 1 January 2016, setting minimum requirements.

For more details on the leverage ratio, see pages 27 and 30.

## Composition of regulatory capital

Capital and RWAs are calculated and presented on the Group's interpretation of final CRD IV legislation and the PRA's final rules as set out in the PRA Rulebook.

For a table of the movement in total regulatory capital during the year to 31 December 2015, see page 233 of the Annual Report and Accounts 2015.

All capital securities included in the capital base of HSBC have been either issued as fully compliant CRD IV securities (on an end point basis) or in accordance with the rules and guidance in the PRA's previous General Prudential Sourcebook which are included in the capital base by virtue of application of the CRD IV grandfathering provisions. The main features of capital securities issued by the Group, categorised as tier 1 and tier 2 capital, are set out on the HSBC internet site [www.hsbc.com](http://www.hsbc.com).

The values disclosed are the IFRSs balance sheet carrying amounts, not the amounts that these securities contribute to regulatory capital. For example, the IFRSs accounting and the regulatory treatments differ in their approaches to issuance costs, regulatory amortisation and regulatory eligibility limits prescribed in the grand-fathering provisions under CRD IV. The composition of capital under the current regulatory requirements is provided in the table below. The alphabetic references link back to table 4: '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-common equity capital securities before they can be included in the Group's regulatory capital base.

Table 7: Composition of regulatory capital

		At 31 December	
	Ref1	2015	2014
		\$m	\$m
Common equity tier 1 capital			
Shareholders' equity		160,664	166,617
- shareholders' equity per balance sheet <sup>2</sup>	a	188,460	190,447
- foreseeable interim dividend <sup>3</sup>		(3,717)	(3,362)
- preference share premium	b	(1,405)	(1,405)
- other equity instruments	c	(15,112)	(11,532)
- deconsolidation of special purpose entities <sup>4</sup>	a	(91)	(323)
- deconsolidation of insurance entities	a, h	(7,471)	(7,208)
Non-controlling interests		3,519	4,640
- non-controlling interests per balance sheet	d	9,058	9,531
- preference share non-controlling interests	e	(2,077)	(2,127)
- non-controlling interests transferred to tier 2 capital	f	-	(473)
- non-controlling interests in deconsolidated subsidiaries	d	(933)	(851)
- surplus non-controlling interests disallowed in CET1		(2,529)	(1,440)
Regulatory adjustments to the accounting basis		(4,556)	(3,556)
- own credit spread <sup>5</sup>		(159)	767



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- debit valuation adjustment		(336)	(197)
- defined benefit pension fund adjustment	g	(4,009)	(4,069)
- cash flow hedging reserve		(52)	(57)
Deductions		(28,764)	(31,748)
- goodwill and intangible assets	h	(20,650)	(22,475)
- deferred tax assets that rely on future profitability (excludes those arising from temporary differences)	n	(1,204)	(1,036)
- additional valuation adjustment (referred to as PVA)		(1,151)	(1,341)
- investments in own shares through the holding of composite products of which HSBC is a component (exchange traded funds, derivatives and index stock)		(839)	(1,083)
- negative amounts resulting from the calculation of expected loss amounts	i	(4,920)	(5,813)
			-
Common equity tier 1 capital on an end point basis		130,863	135,953
Tier 1 and tier 2 capital on a transitional basis			
Common equity tier 1 capital on an end point basis		130,863	135,953
Transitional adjustments			(2,753)
- unrealised gains arising from revaluation of property			(1,375)
- unrealised gains in available-for-sale debt and equities			(1,378)
Common equity tier 1 capital on a transitional basis		130,863	133,200
Additional tier 1 capital on a transitional basis			
Other tier 1 capital before deductions		22,621	19,687
- preference share premium	b	1,015	1,160
- preference share non-controlling interests	e	1,711	1,955
- allowable non-controlling interest in AT1	d	1,546	884
- hybrid capital securities	j	18,349	15,688
Deductions		(181)	(148)
- unconsolidated investments <sup>6</sup>		(121)	(148)
- holding of own additional tier 1 instruments		(60)	-
Tier 1 capital on a transitional basis		153,303	152,739
Tier 2 capital on a transitional basis			
Total qualifying tier 2 capital before deductions		36,852	38,213
- allowable non-controlling interest in tier 2	d	14	99
- perpetual subordinated debt	l	1,941	2,218
- term subordinated debt	m	34,897	35,656
- non-controlling interests in tier 2 capital	f	-	240
Total deductions other than from tier 1 capital		(322)	(222)
- unconsolidated investments <sup>6</sup>		(282)	(222)

- holding of own tier 2 instruments (40) -

Total regulatory capital on a transitional basis 189,833 190,730

1 The references (a) - (n) identify balance sheet components on page 8 which are used in the calculation of regulatory capital.

2 Includes externally verified profits for the year ended 31 December 2015.

3 This includes dividends on ordinary shares, quarterly dividends on preference shares and coupons on capital securities, classified as equity.

4 Mainly comprise unrealised gains/losses in AFS debt securities related to SPEs.

5 Includes own credit spread on trading liabilities.

6 Mainly comprise investments in insurance entities.

Table 8: Reconciliation of regulatory capital from transitional basis to an estimated CRD IV end point basis

	At 31 December	
	2015	2014
	\$m	\$m
Common equity tier 1 capital on a transitional basis	130,863	133,200
Unrealised gains arising from revaluation of property		1,375
Unrealised gains in available-for-sale debt and equities		1,378
Common equity tier 1 capital on an end point basis	130,863	135,953
Additional tier 1 capital on a transitional basis	22,440	19,539
Grandfathered instruments:		
Preference share premium	(1,015)	(1,160)
Preference share non-controlling interests	(1,711)	(1,955)
Hybrid capital securities	(9,088)	(10,007)
Transitional provisions:		
Allowable non-controlling interest in AT1	(1,377)	(487)
Unconsolidated investments <sup>1</sup>	121	148
Additional tier 1 capital end point basis	9,370	6,078
Tier 1 capital on an end point basis	140,233	142,031
Tier 2 capital on a transitional basis	36,530	37,991
Grandfathered instruments:		
Perpetual subordinated debt	(1,941)	(2,218)
Term subordinated debt	(19,034)	(21,513)
Transitional provisions:		
Non-controlling interest in tier 2 capital	-	(240)
Allowable non-controlling interest in tier 2	21	396
Unconsolidated investments <sup>1</sup>	(121)	(148)
Tier 2 capital on an end point basis	15,455	14,268

Total regulatory capital on an end point basis	155,688	156,299
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1 Mainly comprise investments in insurance entities.

### Pillar 1 requirements and RWA flow

This section describes our Pillar 1 capital requirements, with a high-level view of the related RWAs.

Table 9 shows total RWAs by risk type. Tables 10 to 17 with accompanying narratives set out, for credit, counterparty credit and market risks, first RWAs by Basel approach and then the movements during the year in IRB/model-based RWAs.

Table 9: Total RWAs by risk type

	At 31 December	
	2015	2014
	\$bn	\$bn
Credit risk	875.9	955.3
Counterparty credit risk	69.2	90.7
Market risk	42.5	56.0
Operational risk	115.4	117.8
	1,103.0	1,219.8

The following comments describe the key RWA movements excluding foreign currency translation differences.

#### RWA initiatives

The main drivers were:

- \$38bn as a result of reduced exposures, the partial disposal of our investment in Industrial Bank, a decrease in trading positions subject to the Incremental Risk Charge, client facility reductions and trade compressions;
- \$30bn from refining our calculations, including the further application of the SME supporting factor, a more refined application of CCF, increased usage of 'IRB' models and the move of certain exposures from residual to cash flow weighted maturity;
- \$25bn from process improvements such as better linking of collateral and guarantees to facilities, enhanced risk parameters and the use of more granular data resulting in lower CCFs for off-balance sheet items; and

- \$30bn through the continued reduction in the GB&M legacy credit and US run-off portfolios.

Business growth

Business growth increased RWAs by \$49bn, principally in:

- CMB, from higher term lending to corporate customers, principally in Europe, North America and Asia, \$23bn;
  - our associates, Bank of Communications and Saudi British Bank, \$14bn; and
- GB&M, from higher general lending to corporates which increased RWAs by \$10bn, mainly in Europe.

Credit Risk RWAs

Table 10: Credit risk - RWAs by region and approach

	Europe \$bn	Asia \$bn	MENA \$bn	North America \$bn	Latin America \$bn	Total \$bn
IRB approach	192.6	195.9	19.4	122.5	12.8	543.2
- IRB advanced approach	175.1	195.9	9.5	122.5	12.8	515.8
- IRB foundation approach	17.5	-	9.9	-	-	27.4
Standardised approach	46.8	177.7	32.0	33.9	42.3	332.7
At 31 December 2015	239.4	373.6	51.4	156.4	55.1	875.9
IRB approach	216.1	213.1	15.6	142.0	11.6	598.4
- IRB advanced approach	203.3	213.1	11.6	142.0	11.6	581.6
- IRB foundation approach	12.8	-	4.0	-	-	16.8
Standardised approach	47.1	186.0	39.0	29.6	55.2	356.9
At 31 December 2014	263.2	399.1	54.6	171.6	66.8	955.3

Table 11: Credit risk - RWAs by global business and approach

Principal RBWMS	RBWM (run-off)	Total RBWM	CMB 1	GB&M	GPB	Other	Total
\$bn	\$bn	\$bn	\$bn	\$bn	\$bn	\$bn	\$bn

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IRB approach	59.0	33.2	92.2	218.0	214.8	8.5	9.7	543.2
- IRB advanced approach	59.0		92.2					
- IRB foundation approach	-	33.2	-	199.0	207.5	8.4	8.7	515.8
		-	-	19.0	7.3	0.1	1.0	27.4
Standardised approach	57.6	3.8	61.4	172.0	69.7	7.2	22.4	332.7
At 31 December 2015	116.6		153.6					
		37.0		390.0	284.5	15.7	32.1	875.9
IRB approach	56.1	47.3	103.4	217.2	255.6	10.2	12.0	598.4
- IRB advanced approach	56.1		103.4					
- IRB foundation approach	-	47.3	-	209.2	248.1	10.0	10.9	581.6
		-	-	8.0	7.5	0.2	1.1	16.8
Standardised approach	61.2	4.8	66.0	181.0	70.1	6.6	33.2	356.9
At 31 December 2014	117.3		169.4					
		52.1		398.2	325.7	16.8	45.2	955.3

1 In the first half of 2015, a portfolio of customers was transferred from CMB to RBWM in Latin America in order to better align the combined banking needs of the customers with our established global businesses. Comparative data have been re-presented accordingly.

Credit risk RWAs are calculated using three approaches, as permitted by the PRA. For consolidated Group reporting, we have adopted the advanced IRB approach for the majority of our business, with a small proportion being on the foundation IRB approach and the remaining portfolios on the standardised approach.

#### Standardised approach

For portfolios treated under the standardised approach, credit risk RWAs decreased by \$24bn, which included a reduction of \$27bn due to foreign exchange movements.

- RWAs increased by \$23bn across all regions as a result of higher lending. Growth in our associate, BoCom, accounted for \$15bn.
- This was offset by RWA initiatives reducing RWAs by \$29bn, mainly comprising portfolios moving to an IRB approach (reducing the standardised approach by \$10.2bn and increasing the IRB approach by \$7.2bn) and partial disposal of our investment in Industrial Bank reducing RWAs by \$12.4bn.

Table 12: RWA movement by region by key driver - credit risk - IRB only

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	Europe \$bn	Asia \$bn	MENA \$bn	North America \$bn	Latin America \$bn	Total \$bn
RWAs at 1 January 2015	216.1	213.1	15.6	142.0	11.6	598.4
Foreign exchange movement	(10.4)	(7.2)	(0.6)	(4.7)	(3.4)	(26.3)
Acquisitions and disposals	(14.1)	-	(0.1)	(4.9)	-	(19.1)
Book size	11.4	2.9	(0.5)	(2.8)	0.4	11.4
Book quality	(8.0)	(6.9)	(1.4)	0.7	3.9	(11.7)
Model updates	1.2	(2.6)	4.7	0.2	0.1	3.6
- portfolios moving onto IRB approach	(0.1)	-	4.7	0.2	0.1	4.9
- new/updated models	1.3	(2.6)	-	-	-	(1.3)
Methodology and policy	(3.6)	(3.4)	1.7	(8.0)	0.2	(13.1)
- internal updates	(6.2)	(5.4)	1.6	(8.0)	0.2	(17.8)
- external updates - regulatory	2.6	2.0	0.1	-	-	4.7
Total RWA movement	(23.5)	(17.2)	3.8	(19.5)	1.2	(55.2)
RWAs at 31 December 2015	192.6	195.9	19.4	122.5	12.8	543.2
RWAs at 1 January 2014 on Basel 2.5 basis	166.9	182.9	15.0	161.5	8.5	534.8
Foreign exchange movement	(11.6)	(4.0)	(0.2)	(2.4)	(1.9)	(20.1)
Acquisitions and disposals	(3.5)	-	(0.7)	(4.2)	(0.1)	(8.5)
Book size	11.4	19.5	1.8	2.9	2.0	37.6
Book quality	(1.5)	-	(0.8)	(10.3)	1.4	(11.2)
Model updates	19.4	0.3	-	(6.1)	-	13.6
Methodology and policy	35.0	14.4	0.5	0.6	1.7	52.2
- internal updates	(11.7)	(5.2)	(0.2)	(6.4)	(0.1)	(23.6)
- external updates - regulatory	2.2	8.5	(0.2)	0.7	0.1	11.3
- CRD IV impact	37.0	5.7	0.4	4.9	0.2	48.2
- NCOA moving from STD to IRB	7.5	5.4	0.5	1.4	1.5	16.3
Total RWA movement	49.2	30.2	0.6	(19.5)	3.1	63.6
RWAs at 31 December 2014 on CRD IV basis	216.1	213.1	15.6	142.0	11.6	598.4

Table 13: RWA movement by global business by key driver - credit risk - IRB only

	Principal RBWM 1 \$bn	RBWM (US run-off) \$bn	Total RBWM \$bn	CMB1 \$bn	GB&M \$bn	GPB \$bn	Other \$bn	Total \$bn
RWAs at 1 January 2015	56.1	47.3	103.4	217.2	255.6	10.2	12.0	598.4
Foreign exchange movement	(2.9)	-	(2.9)	(11.7)	(11.0)	(0.3)	(0.4)	(26.3)
Acquisitions and disposals	-	(4.9)	(4.9)	-	(14.2)	-	-	(19.1)
Book size	3.7	(5.6)	(1.9)	15.8	(0.8)	(0.5)	(1.2)	11.4
Book quality	(2.8)	(3.7)	(6.5)	6.0	(10.5)	(0.1)	(0.6)	(11.7)
Model updates	0.4	-	0.4	5.6	(2.3)	(0.1)	-	3.6
- portfolios moving onto IRB approach	-	-	-	4.1	0.9	(0.1)	-	4.9
- new/updated models	0.4	-	0.4	1.5	(3.2)	-	-	(1.3)
Methodology and policy	4.5	0.1	4.6	(14.9)	(2.0)	(0.7)	(0.1)	(13.1)
- internal updates	2.5	0.1	2.6	(14.9)	(4.7)	(0.7)	(0.1)	(17.8)
- external updates - regulatory	2.0	-	2.0	-	2.7	-	-	4.7
Total RWA movement	2.9	(14.1)	(11.2)	0.8	(40.8)	1.7	(2.3)	(55.2)
RWAs at 31 December 2015	59.0	33.2	92.2	218.0	214.8	8.5	9.7	543.2
RWAs at 1 January 2014 on Basel 2.5 basis	58.5	72.6	131.1	189.4	198.5	10.6	5.2	534.8
Foreign exchange movement	(2.6)	-	(2.6)	(8.7)	(8.1)	(0.2)	(0.5)	(20.1)
Acquisitions and disposals	-	-	-	-	(8.2)	-	(0.3)	(8.5)
Book size	1.9	(6.9)	(5.0)	23.1	21.1	(0.5)	(1.1)	37.6
Book quality	(5.7)	(8.6)	(14.3)	2.8	(0.2)	(0.3)	0.8	(11.2)
Model updates	0.6	(6.2)	(5.6)	12.2	7.0	-	-	13.6
Methodology and policy	3.4	(3.6)	(0.2)	(1.6)	45.5	0.6	7.9	52.2
- internal updates	(3.0)	(3.9)	(6.9)	(5.0)	(11.2)	(0.5)	-	(23.6)

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- external updates - regulatory	1.8	-	1.8	2.5	6.3	0.5	0.2	11.3
- CRD IV impact	-	-	-	(0.7)	48.6	0.2	0.1	48.2
- NCOA moving from STD to IRB	4.6	0.3	4.9	1.6	1.8	0.4	7.6	16.3
Total RWA movement	(2.4)	(25.3)	(27.7)	27.8	57.1	(0.4)	6.8	63.6
RWAs at 31 December 2014 on CRD IV basis	56.1	47.3	103.4	217.2	255.6	10.2	12.0	598.4

1 In the first half of 2015, a portfolio of customers was transferred from CMB to RBWM in Latin America in order to better align the combined banking needs of the customers with our established global businesses. Comparative data have been re-presented accordingly.

#### Internal ratings-based approach

For portfolios treated under the IRB approach, credit risk RWAs decreased by \$55bn, which included a reduction of \$26bn due to foreign exchange movements.

#### Acquisitions and disposals

- The disposal of US mortgage portfolios reduced RWAs by \$4.9bn.
- The sale of securitisation positions in the GB&M legacy credit portfolio resulted in a RWA decrease of \$14bn.

#### Book size

- The book size grew from higher corporate lending, including term and trade-related lending which increased RWAs by \$16bn, mainly in Europe and Asia for CMB.
- In North America, in RBWM, continued run-off of the US CML retail mortgage portfolios resulted in an RWA reduction of \$5.6bn.

#### Book quality

- RWAs reduced by \$3.7bn in the US run-off portfolio, primarily due to continued run-off which led to an improvement in the book quality of the residual portfolio;
- book quality improvements in the Principal RBWM business of \$2.8bn mainly related to credit quality improvements in Europe;
  - in CMB, RWAs increased by \$6.0bn, primarily as a result of corporate downgrades in Europe;



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- in GB&M, a decrease in RWAs of \$10bn was mainly due to the implementation of netting agreements to new corporate counterparties in Europe, the securitisation of corporate loans and rating upgrades of institutions in Asia; and
- the downgrade of Brazil's rating increased RWAs by \$3.7bn across businesses.

### Methodology and policy changes

- RWA initiatives were the main driver for the reduction of RWAs driven by changes in 'internal updates'. Further details are provided on page 21.
- They were offset by the change in RWA calculation on defaulted exposures in RBWM increasing RWAs by \$2.0bn, the implementation of a risk-weight floor on mortgages in Hong Kong with an RWA impact of \$2.0bn, and the implementation of a 1.06 scaling factor on securitisation positions risk-weighted at 1,250% which increased RWAs by \$2.1bn.

### Counterparty credit risk RWAs

Table 14: Counterparty credit risk RWAs

	2015 \$bn	2014 \$bn
Advanced approach	50.1	65.5
- CCR IRB approach	46.8	62.0
- Credit valuation adjustment	3.3	3.5
Standardised approach	19.1	25.2
- CCR standardised approach	4.7	4.4
- Credit valuation adjustment	12.2	18.0
- Central counterparty	2.2	2.8
At 31 December	69.2	90.7

Table 15: RWA movement by key driver - counterparty credit risk - advanced approach

	2015 \$bn	2014 \$bn
RWAs at 1 January	65.5	42.2
Book size	(10.2)	1.6
Book quality	(0.8)	(0.6)
Model updates	-	0.1
Methodology and policy	(4.4)	22.2

- internal updates	(4.4)	(3.8)
- external updates - regulatory	-	9.0
- CRD IV impact	-	17.0
 Total RWA movement	 (15.4)	 23.3
 RWAs at 31 December	 50.1	 65.5

Counterparty credit risk RWAs reduced by \$21bn during 2015.

#### Standardised approach

A reduction of \$6.1bn in RWAs in the standardised portfolio was mostly due to the impact of market movements and position reductions for derivatives held with counterparties eligible for the standardised CVA charge.

#### Advanced approach

The book size reduced by \$10bn, mainly driven by market movements, particularly in foreign exchange derivatives, trade compression and portfolio management activities.

Further reductions in 'Methodology and policy' were mainly driven by savings from RWA initiatives.

#### Market risk RWAs

Table 16: Market risk RWAs

	2015	2014
	\$bn	\$bn
Internal model based	34.9	44.6
- VaR	7.7	7.3
- stressed VaR	9.8	10.4
- incremental risk charge	11.4	20.1
- other VaR and stressed VaR	6.0	6.8
 Standardised approach	 7.6	 11.4
 Year to 31 December	 42.5	 56.0

Table 17: RWA movement by key driver - market risk - internal model based

	2015 \$bn	2014 \$bn
RWAs at 1 January	44.6	52.2
Acquisitions and disposals	-	(2.2)
Movement in risk levels	(5.5)	(4.2)
Methodology and policy	(4.2)	(1.2)
- internal updates	(4.2)	(3.8)
- external updates - regulatory	-	2.6
	-	
Total RWA movement	(9.7)	(7.6)
RWAs at 31 December	34.9	44.6

Total market risk RWAs decreased by \$13bn in 2015.

#### Standardised approach

The market risk RWAs in the standardised portfolio fell by \$3.8bn, mainly driven by the reduction in the legacy credit portfolio.

#### Internal model based

The reduction in RWAs due to movements in risk levels of \$5.5bn was driven by a combination of active management of the book and market movements, in particular within the incremental risk charge. In addition to these movements, there were savings of \$4.2bn in 'Methodology and policy' due to the refinement of models used for the calculation of the incremental risk charge and risks not in VaR.

#### Operational risk RWAs

The reduction in operational risk RWAs of \$2.4bn was mainly the result of currency exchange differences and decline of income in Latin America.

### Pillar 2 and ICAAP

#### Pillar 2

The processes of internal capital adequacy assessment and supervisory review, lead to a final determination by the PRA of ICG and any PRA buffer 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 any requirements for risk categories not captured by Pillar 1. The risk categories to be covered under Pillar 2A depend on the specific circumstances of a firm and the nature and scale of its business.

Pillar 2B consists of guidance from the PRA on a 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 PRA buffer requirement the PRA may consider necessary. The assessment of this is informed by stress tests and a rounded judgement of a firm's business model, also taking into account the PRA's view of a firm's options and capacity to protect its capital position under stress, for instance through capital generation. Where the PRA assesses a firm's risk management and governance to be significantly weak, it may also set the PRA buffer to cover the risks posed by those weaknesses until they are addressed. The PRA buffer is intended to be drawn upon in times of stress and its use is not of itself a breach of capital requirements that would trigger automatic restrictions on distributions. In specific circumstances, the PRA should agree a plan with a firm for its restoration over an agreed timescale.

#### Internal capital adequacy assessment

The Board manages the Group ICAAP and together with RMM, it 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 current regulatory requirements, and that HSBC is well placed to meet those expected in the future;
- 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 PRA 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 RWA targets are established for our global businesses 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 and trading activities, and to a 99.5% level of confidence for our insurance activities and pension risks.

The ICAAP and its constituent economic capital calculations are examined by the PRA as part of its supervisory review and evaluation process. This examination informs the regulator's view of our Pillar 2 capital requirements.

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 are credit risk including CCR, market and operational risk, non-trading book interest rate risk, insurance risk, pension risk, residual risk and structural foreign exchange risk.

### Leverage ratio

Table 18: Summary reconciliation of accounting assets and leverage ratio exposures

	At 31 December
Ref1	2015
	\$bn
1 Total assets as per published financial statements	2,410
2 Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	112
3 Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure	-
4 Adjustments for derivative financial instruments	(141)
5 Adjustments for securities financing transactions	13
6 Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures) (Adjustment for intragroup exposures excluded from the leverage ratio exposure measure)	401
(Adjustment for exposures excluded from the leverage ratio exposure measure)	-
7 Other adjustments	(1)
8 Total leverage ratio exposure	2,794

Table 19: Leverage ratio common disclosure

	At 31 December
Ref1	2015
	\$bn
1 On-balance sheet exposures (excluding derivatives and SFTs) On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	2,104

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2	(Asset amounts deducted in determining Tier 1 capital)	(33)
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)	2,071
	Derivative exposures	
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	31
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	125
EU-5a	Exposure determined under Original Exposure Method	-
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	4
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(31)
8	(Exempted CCP leg of client-cleared trade exposures)	-
9	Adjusted effective notional amount of written credit derivatives	20
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-
11	Total derivative exposures	149
	Securities financing transaction exposures	
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	243
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(78)
14	Counterparty credit risk exposure for SFT assets	8
EU-14a	Derogation for SFTs: Counterparty credit risk exposure	-
15	Agent transaction exposures	-
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	-
16	Total securities financing transaction exposures	173
	Other off-balance sheet exposures	
17	Off-balance sheet exposures at gross notional amount	906
18	(Adjustments for conversion to credit equivalent amounts)	(505)
19	Total off-balance sheet exposures	401
	Exempted exposures	
EU-19a	(Exemption of intragroup exposures (solo basis))	-
EU-19b	(Exposures exempted)	-
	Capital and total exposures	
20	Tier 1 capital	140
21	Total leverage ratio exposures	2,794
	Leverage ratios	
22	Leverage ratio	5.0%
	Choice on transitional arrangements and amount of derecognised fiduciary items	
EU-23		Fully phased in

Choice on transitional arrangements for the definition of the capital measure

EU-24 Amount of derecognised fiduciary items

-

Table 20: Leverage ratio - Split of on-balance sheet exposures (excluding derivatives, SFTs and exempted exposures)

Ref1	At 31 December 2015	\$bn
EU-1 Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures)		
of which:		2,104
EU-2 Trading book exposures		225
EU-3 Banking book exposures		
of which:		1,879
EU-4 - covered bonds		1
EU-5 - exposures treated as sovereigns		521
EU-6 - exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns		1
EU-7 - institutions		129
EU-8 - secured by mortgages of immovable properties		292
EU-9 - retail exposures		113
EU-10- corporate		677
EU-11- exposures in default		15
EU-12- other exposures (e.g. equity, securitisations, and other non-credit obligation assets)		130

1 The references identify the lines prescribed in the EBA template. Lines represented in this table are those lines which are applicable and where there is a value.

Leverage ratio: disclosure on qualitative items:

- The leverage exposure measure is calculated on a regional and global business basis each month and presented to Group ALCO, which monitors the risk of excessive leverage.
- The increase in the leverage ratio to 5.0% (2014: 4.8%) was mainly as a result of the reduction in the size of the balance sheet.

Further details can be found on page 30.

**Regulatory developments**

The regulatory capital requirements comprise a Pillar 1 minimum, the ICG set by the PRA in the form of Pillar 2A, a number of capital buffers established by CRD IV and any PRA buffer that the PRA may set in addition to ICG.

The Pillar 1 minimum ratio and the CCB rates are certain. The macro-prudential tools, Pillar 2A, the PRA buffer and the systemic buffers are time-varying elements. This uncertainty is reflected in the regulatory and management buffer we have included in the 12% to 13% CET1 range that is used to model our medium-term target for return on equity of more than 10% by 2017. This buffer is currently in the range of 1% to 2%.

In December 2015, the FPC published its end point view of the calibration of the capital framework as applicable to UK banks. This set out the FPC's final expectations in relation to the levels of capital across the industry, while specific requirements for individual banks will vary at the PRA's determination. These expectations do not include time-varying additional requirements such as the CCyB and are based on the assumption that existing deficiencies in the definition and measurement of RWAs under Pillar 1 requirements will be addressed over time. These deficiencies in Pillar 1 are currently compensated through additional Pillar 2 requirements. The FPC stated its expectation that by 2019, once such deficiencies were corrected, Pillar 2A requirements would reduce.

In addition to the above, consideration of the finalised FSB proposals in relation to TLAC requirements, and the UK implementation of the EU minimum requirement for own funds and eligible liabilities will also be required.

Based on the known and quantifiable requirements to date, including the announced CCyB rates and current ICG, the overall capital requirements applicable to the Group on an end-point basis (at 1 January 2019) are presented in the table below.

Capital requirements framework (end point)

Click on the attached PDF to view the chart

[http://www.rns-pdf.londonstockexchange.com/rns/6692P\\_-2016-2-21.pdf](http://www.rns-pdf.londonstockexchange.com/rns/6692P_-2016-2-21.pdf)

#### CRD IV capital buffers

CRD IV established a number of capital buffers, to be met with CET1 capital, broadly aligned with the Basel III framework. In the UK, with the exception of the CCyB which applied with immediate effect, CRD IV capital buffers are being phased in from 1 January 2016.

Automatic restrictions on capital distributions apply if a bank's CET1 capital falls below the level of its CRD IV combined buffer. The CRD IV combined buffer is defined as the total of the CCB, the CCyB, the G-SII's buffer and the SRB, as these become applicable.

At 31 December 2015, the applicable CCyB rates in force were 1% set by Norway and Sweden. Relevant credit exposures located in Norway and Sweden were \$2.4bn and \$1.5bn, respectively. At 31 December 2015, this resulted in an immaterial Group institution-specific CCyB requirement.

The HKMA CCyB rate of 0.625% was implemented on 27 January 2016 in respect of Hong Kong exposures, following communication from the FPC. The impact of the HKMA CCyB rate on our Group institution-specific CCyB rate is expected to be 7bps (based on RWAs at 31 December 2015).

The CCyB rates introduced by Norway and Sweden will increase to 1.5% from June 2016. In January 2016, the HKMA also announced that the CCyB rate applied to exposures in Hong Kong will be increased to 1.25% from



1 January 2017.

In December 2015, the FPC maintained a 0% CCyB rate for UK exposures. At the same time, the FPC published the final calibration of the capital framework for UK banks. Within this, the FPC indicated that going forward it would apply a more active use of the CCyB and stated that it intends to publish a revised policy statement on the use of the CCyB in March 2016. The FPC also noted that it expects to set a countercyclical buffer rate for UK exposures in the region of 1%, when risks are judged to be neither subdued nor elevated. The CCyB rate will be informed by the annual UK concurrent stress test of major UK banks. If a rate change is introduced it is expected to come into effect 12 months later.

In December 2015, the PRA confirmed our applicable G-SII buffer as 2.5%. The G-SII buffer together with the CCB of 2.5%, came into effect on 1 January 2016. These are being phased in until 2019 in increments of 25% of the end point buffer requirement. Therefore, as of 1 January 2016, the requirement for each buffer is 0.625% of RWAs.

Alongside CRD IV requirements, since 2014, the PRA has expected major UK banks and building societies to meet a 7% CET1 ratio using the CRD IV end point definition. At 1 January 2016, with the introduction of the G-SII buffer and the CCB, our minimum CET1 capital requirements and combined buffer requirement taken together amount to 7.1% (based on RWAs at 31 December 2015), effectively superseding the previous PRA guidance on the CET1 ratio.

In January 2016, the FPC published a consultation on its proposed framework for the SRB. It is proposed that it will apply to ring-fenced banks and large building societies and will be implemented from 1 January 2019. The buffer to be applied to HSBC's ring-fenced bank has yet to be determined.

#### Pillar 2 and the 'PRA buffer'

The Pillar 2 framework requires banks to hold capital in respect of risks not captured in the Pillar 1 framework and to assess risks which banks may become exposed to over a forward-looking planning horizon. The PRA's assessment results in the determination of ICG/Pillar 2A and Pillar 2B, respectively.

Pillar 2A was previously required to be met by total capital but, since 1 January 2015, must be met with at least 56% CET1. Furthermore, the PRA expects firms not to meet the CRD IV buffers with any CET1 required to meet its ICG.

The Pillar 2A requirement is a point in time assessment of the amount of capital the PRA considers that a bank should hold to meet the overall financial adequacy rule. It is therefore subject to change as part of the PRA's supervisory review process. In November 2015, our Pillar 2A requirement was set at 2.3% of RWAs, of which 1.3% of RWAs is met by CET1.

In July 2015, the PRA published a final policy statement PS17/15, setting out amendments to the PRA Rulebook and Supervisory Statements in relation to the Pillar 2 framework. The revised framework became effective on 1 January 2016. The PRA's Statement of Policy sets out the methodologies that it will use to inform its setting of firms' Pillar 2 capital requirements, including new approaches for determining Pillar 2 requirements for credit risk, operational risk, credit concentration risk and pension obligation risk.

In parallel, in July 2015, the PRA also issued its supervisory statement SS31/15 in which it introduced a PRA buffer to replace the capital planning buffer determined under Pillar 2B from 1 January 2016. This is to be met in the form of CET1 capital.

The statement sets out that the PRA buffer is intended to avoid duplication with CRD IV buffers and will be set for a particular firm depending on its vulnerability in a stress scenario. In order to address significant weaknesses in risk management and governance, a scalar may be applied to firms' CET1 Pillar 1 and Pillar 2A capital requirements. This

will also form part of the PRA Buffer.

Where the PRA considers there is overlap between the CRD IV buffers and the PRA buffer assessment, the PRA buffer will be set as the excess capital required over and above the CRD IV combined buffer. From 1 January 2016, the CCB and the systemic buffers are permitted to offset against the PRA buffer with the exception of any risk management and governance scalar where applicable. The use of the PRA buffer will not result in automatic restrictions to distributions.

#### Regulatory stress testing

The Group is subject to supervisory stress testing in many jurisdictions. These requirements are increasing in frequency and granularity. As such, stress testing represents a key focus for the Group.

The Bank of England published the results of the 2015 UK stress test in December 2015 confirming that these tests did not reveal any capital inadequacies for HSBC. At the European level, the EBA did not undertake a stress testing exercise in 2015 but instead carried out a transparency exercise, the results of which were published in November 2015.

In July 2015, the EBA also disclosed a timeline for the 2016 EU wide stress test exercise. The EBA expects to publish the 2016 stress test scenario and methodology in the first quarter of 2016, with results published in the third quarter of 2016.

In October 2015, the Bank of England published its approach to stress testing in the UK. This set out that the outcome of the UK stress testing exercise will be considered by the FPC when determining the UK CCyB rate, and will also inform the PRA buffer. Furthermore, from 2016, the applicable hurdle rate, which is the amount of capital that banks are expected to maintain under a stress, is to include Pillar 1, Pillar 2A and G-SII buffer requirements.

#### RWA developments

Throughout 2015, UK, EU and international regulators issued a series of consultations designed to revise the various components of the RWA regime and increase related reporting and disclosures. In particular, the Basel Committee published proposals relating to certain Pillar 1 risk types to update standardised, non-modelled approaches for calculating capital requirements. Details of the most significant consultations are set out below.

In December 2015, the Basel Committee published its second consultation paper on a revised standardised approach for credit risk. This included proposals to reintroduce external credit ratings, moderated by internal due diligence, as the basis for calculating risk weights for banks and corporates. The risk weights for other assets are to be determined by a variety of treatments tailored for each exposure class, which are designed to increase risk sensitivity and comparability.

In January 2016, the Basel Committee published the final rules arising from the Fundamental Review of the Trading Book, with implementation planned for 2019. The new regime includes amendments to the trading book boundary and new market risk capital calculations for both the modelled and standardised approaches. The Basel Committee acknowledges that there is considerable ongoing work which could require further revisions to the framework.

The final changes to the CVA capital charge are expected to be published in 2016. Following the finalisation of the CVA capital regime, the EU is expected to review the exemptions to the CVA charge currently applied to corporates, sovereigns and intragroup exposures. In the interim, the EU has consulted upon a methodology for calculating a Pillar 2 charge for excessive CVA risk resulting from exempted transactions.

The revised consultations for standardised operational risk and the design and calibration of a capital floor based on the standardised approaches, are expected by the end of 2016.

All of the Basel Committee's consultations will need to be transposed into EU law before coming into effect. This includes the finalised changes that relate to the counterparty risk and securitisation regimes.

#### UK leverage ratio framework

Following consultations in 2014, secondary legislation came into force in April 2015 to provide the FPC with direction powers in relation to the UK leverage ratio framework. In July 2015, the FPC published its final policy statement setting out its intention to use its new powers of direction. As a result the PRA issued a consultation paper to introduce requirements for the UK leverage ratio framework. This established a minimum tier 1 leverage ratio of 3%, an additional leverage ratio buffer for G-SIIs and a countercyclical leverage ratio buffer, and was implemented on 1 January 2016. The additional leverage ratio buffer and countercyclical leverage ratio buffer are to be met entirely with CET1 capital and will be set at 35% of the relevant buffers in the risk-weighted capital framework. At 1 January 2016, our minimum leverage ratio requirement of 3% was supplemented with an additional leverage ratio buffer of 0.2% and a countercyclical leverage ratio buffer which rounds to 0%. We comfortably exceed these leverage requirements.

It is anticipated that a minimum leverage ratio requirement, including potential buffers for G-SIBs, will be consulted upon by the Basel Committee in 2016 and a formal Pillar 1 measure finalised by 1 January 2018.

#### Total loss absorbing capacity proposals

As part of Recovery and Resolution frameworks both in the EU and internationally, there have been various developments in relation to TLAC. In the EU, the Bank Recovery and Resolution Directive introduces an MREL.

In July 2015, the EBA published a final draft RTS for MREL which seeks to provide additional clarity on the criteria that resolution authorities should take into account when setting a firm specific MREL requirement. The EBA notes that it aims to implement the MREL in a way which is consistent with the finalised international standard on TLAC.

In November 2015, the FSB published finalised proposals on TLAC for G-SIBs to be applied in accordance with individual bank resolution strategies. This set out a requirement of 16% of RWAs and a TLAC leverage ratio of 6% to be met from 1 January 2019, increasing to 18% and a 6.75% respectively, from 1 January 2022. Existing regulatory capital buffers will need to be met in addition to the minimum TLAC requirement. A breach of TLAC will be treated as severely as a breach of minimum capital requirements.

In November 2015, the Basel Committee also published a consultation on the treatment of banks' holdings of TLAC instruments issued by a G-SIB, which proposed new deductions from regulatory capital. Once finalised, any additional requirements in relation to TLAC are expected to be reflected in MREL and to be implemented in the UK.

In December 2015, the Bank of England published a consultation paper on the UK's implementation of MREL. The Bank of England stated that it intends to set MREL consistent with both TLAC and the final EBA RTS expected to be published later this year. The MREL is expected to comprise a loss absorption amount which reflects existing regulatory capital requirements and a recapitalisation amount which reflects the capital that a firm is likely to need post resolution. The latter can be met with both regulatory capital and eligible liabilities.

While MREL is to be set on an individual basis, the Bank of England generally expects MREL for banks whose appropriate resolution strategy is bail-in, to be equivalent to twice the current minimum capital requirements. A finalised Statement of Policy is expected by mid-2016. The Bank of England is also expected to provide firms with an indication of their prospective 2020 MREL during 2016, and will set MREL on a transitional basis until then. For

G-SIBs, MREL is proposed to apply from 2019, consistent with FSB timelines.

In parallel to the above, the PRA separately published a consultation paper on the interaction between MREL and capital buffers and how it would treat a breach of MREL requirements. This proposed that banks should not be able to meet MREL requirements with CET1 used to meet existing capital and leverage ratio buffers.

#### Structural reform and recovery and resolution planning

Globally there have been a number of developments relating to banking structural reform and the introduction of recovery and resolution regimes. As part of recovery and resolution planning, some regulators and national authorities have also required changes to the corporate structures of banks. These include requiring the local incorporation of banks or ring-fencing of certain businesses.

In 2013 and 2014, UK legislation was enacted requiring large banking groups to ring-fence UK retail and SME banking activity in a separately incorporated banking subsidiary (a 'ring-fenced bank') that is prohibited from engaging in significant trading activity. Ring-fencing is to be completed by 1 January 2019. The legislation also detailed the applicable individual customers to be transferred to the ring-fenced bank. In addition, the legislation places restrictions on the activities and geographical scope of ring-fenced banks. Throughout 2015, the PRA published a number of consultations on the implementation of ring-fencing requirements and the finalisation of rules is expected to continue in 2016.

The key proposals included near final rules published in May 2015 on legal structure, corporate governance, and continuity of services and facilities. Additionally, in October 2015 the PRA issued a consultation on the application of capital and liquidity rules for ring-fenced banks, management of intra-group exposures, and use of financial market infrastructures.

The PRA intends to undertake a further consultation in 2016 in respect of reporting and disclosure, and publish finalised rules and supervisory statements thereafter, with implementation by 1 January 2019.

We are working with our primary regulators to develop and agree a resolution strategy for HSBC. It is our view that a strategy by which the Group breaks up at a subsidiary bank level at the point of resolution (referred to as a Multiple Point of Entry) is the optimal approach, as it is aligned to our existing legal and business structure. Similarly to all G-SIBs, we are working with our regulators to mitigate or remove critical inter-dependencies between our subsidiaries to further facilitate the resolution of the Group. In particular, in order to remove operational dependencies (where one subsidiary bank provides critical services to another), we are in the process of transferring critical services from our subsidiary banks to a separate internal group of service companies.

During 2015, more than 18,000 employees performing shared services in the UK were transferred to the service companies. Further transfers of employees, critical shared services and assets in the UK, Hong Kong and other jurisdictions will occur in due course.

## Risk management

### Overview

All our activities involve, to varying degrees, the measurement, evaluation, acceptance and management of risk or a combination of risks, which we assess on a Group-wide basis. Our risk management framework, employed at all levels of the organisation, ensures that our risk profile remains conservative and aligned to our risk appetite and strategy by fostering continuous monitoring of the risk environment and an integrated evaluation of risks and their interactions. It also ensures that we have a robust and consistent approach to risk management at all levels of the organisation and across all risk types.

Risk management is embedded through:

- a strong risk culture, with personal accountability for decisions;
- a formal risk governance framework, with clear and well understood risk ownership, standards and policies;
- the alignment of risk and business objectives, with integration of risk appetite into business planning and capital management;
- the alignment of remuneration with our risk framework and risk outcomes; and
- an independent, expert global risk function ('Global Risk').

Our approach to risk management, including risk appetite, is set out on page 42 of the Annual Report and Accounts 2015.

#### Risk culture

HSBC has long recognised the importance of a strong risk culture, the fostering of which is a key responsibility of senior executives. It is reinforced by HSBC Values and our Global Standards. Our risk management framework is underpinned by our risk culture which is instrumental in aligning the behaviours of individuals with the Group's risk profile and our attitude to assuming and managing risk.

The risk culture is reinforced by our approach to remuneration. Individual awards, including those for executives, are based on compliance with HSBC Values and the achievement of financial and non-financial objectives which are aligned to our risk appetite and strategy. For further information on risk and remuneration, see page 285 of the Annual Report and Accounts 2015.

#### Risk governance and risk appetite

Our strong risk governance reflects the importance placed by the Board and the GRC on shaping the Group's risk strategy and managing risks effectively. The activities of the GRC are discussed further on page 266 of the Annual Report and Accounts 2015.

Strong risk governance is supported by:

- a clear policy framework of risk ownership;
- a globally consistent risk appetite framework through which the types and quantum of risk that we are prepared to accept in executing our strategy are articulated and monitored;
- performance scorecards cascaded from the GMB that align business and risk objectives; and

- the accountability of all staff for identifying, assessing and managing risks in accordance with the three lines of defence model.

This personal accountability, reinforced by the governance structure, documented standards, policy and procedures, and experience and mandatory learning, helps to foster a disciplined and constructive culture of risk management and control throughout HSBC.

Our risk management framework is described on page 101 of the Annual Report and Accounts 2015. The executive and non-executive risk governance structures for the management of risk are set out on page 193 of the Annual Report and Accounts 2015.

Information on directorships held by Board members, their skills and experience is set out in their biographies from page 249 of the Annual Report and Accounts 2015. Information on board recruitment and diversity policies is set out from page 256 of the Annual Report and Accounts 2015.

Risk appetite is a key component in our management of risk. It describes the types and quantum of risks that we are willing to accept in achieving our medium to long-term strategic objectives. Within HSBC, risk appetite is managed through the Global Risk Appetite Framework and articulated in a risk appetite statement, which is annually approved by the Board on the advice of the GRC.

The risk appetite statement guides the annual planning process by defining the desired forward looking risk profile of the Group in achieving our strategic objectives and plays an important role in our six filters process. Our risk appetite may be revised in response to our assessment of the top and emerging risks we have identified and the stressed view of our business plan.

Diversification is an important aspect of our management of risk. The diversification of our lending portfolio across global businesses and regions, together with our broad range of products, ensures that we are not overly dependent on a limited number of countries or markets to generate income and growth.

## Global Risk

Global Risk, headed by the GRCO, is responsible for enterprise-wide risk oversight including the establishment of global policy, the monitoring of risk profiles, and forward looking risk identification and management. Global Risk also has functional responsibility for risk management in support of HSBC's global businesses and regions through an integrated network of Risk sub-functions which are independent from the sales and trading functions of our businesses. This independence ensures the necessary balance in risk/return decisions.

### Global Risk:

- forms part of the second line of defence, with responsibility for setting policy and for providing oversight and challenge of the activities conducted by the first line;
- supports our global businesses, regions, countries and global functions in the development and achievement of strategic objectives;
- fosters development of a conservative but constructive Group risk culture;

- works with global businesses, regions and global functions in the setting and monitoring of risk appetite;
- carries out central approvals, controls, risk systems design and the analysis and reporting of management information;
- addresses risk issues in dealings with external stakeholders including regulators and analysts;
- is jointly responsible with Global Finance for the delivery of enterprise-wide stress testing; 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 management and internal control systems

The Directors are responsible for maintaining and reviewing the effectiveness of risk management and internal control systems and for determining the nature and extent of the significant risks they are willing to take in achieving the Group's strategic objectives. On behalf of the Board, the GAC has responsibility for oversight of risk management and internal controls over financial reporting, and the GRC has responsibility for oversight of risk management and internal controls other than over financial reporting, including enterprise-wide stress testing.

HSBC's key risk management and internal control procedures are described on page 275 of the Annual Report and Accounts 2015, where the Directors' Report on the effectiveness of internal controls can also be found.

Annually, the Directors, through the GRC and the GAC, conduct a review of the effectiveness of our system of risk management and internal control covering all material controls, including financial, operational and compliance controls, risk management systems, the adequacy of resources, qualifications and experience of staff of the accounting and financial reporting function and the risk function, and their training programmes and budget. The review does not extend to joint ventures or associates.

The GRC and the GAC received confirmation that executive management has taken or is taking the necessary actions to remedy any failings or weaknesses identified through the operation of our framework of controls.

#### 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 systems development is a key responsibility of the Global Risk function, while the development and operation of risk rating and management systems and processes are ultimately subject to the oversight of the Board.

We continue to invest significant resources in IT systems and processes in order to maintain and improve our risk management capabilities. A number of key initiatives and projects to enable consistent data aggregation, reporting and management, and work towards meeting our Basel Committee data obligations are in progress. 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 level are applied throughout 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 Group, global business, region 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 Global MOC. Global MOC is supported by specific global functional MOCs for wholesale credit risk ('Wholesale MOC') and market risk ('Markets MOC') and RBWM, and has regional and entity-level counterparts with comparable terms of reference. The Global MOC meets bi-monthly and reports to 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, within the regulatory framework. Through its oversight of the functional wholesale, markets 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.

#### 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



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By:

Name: Ben J S Mathews

Title: Group Company Secretary

Date: 22 February 2016