HARMAN INTERNATIONAL INDUSTRIES INC /DE/
Form 3
September 24, 2008

FORM 3

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
Â Suko Todd A

(Last) (First) (Middle)

C/O HARMAN INTERNATIONAL,Â 1101 PENNSYLVANIA AVE, NW #1010

(Street)

WASHINGTON, DCÂ 20004

(City) (State) (Zip)

2. Date of Event Requiring Statement (Month/Day/Year)
09/22/2008

3. Issuer Name **and** Ticker or Trading Symbol
HARMAN INTERNATIONAL INDUSTRIES INC /DE/ [HAR]

4. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

_____ Director _____ 10% Owner
__X__ Officer (give title below) _____ Other (specify below)
VP, General Counsel

5. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
_X_ Form filed by One Reporting Person
___ Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1.Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1473 (7-02)

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Table II - Derivative Securities Beneficially Owned (*e.g.*, puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative	5. Ownership Form of Derivative Security:	6. Nature of Indirect Beneficial Ownership (Instr. 5)

Date Exercisable	Expiration Date	Title	Amount or Number of Shares	Security	Direct (D) or Indirect (I) (Instr. 5)

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Suko Todd A C/O HARMAN INTERNATIONAL 1101 PENNSYLVANIA AVE, NW #1010 WASHINGTON, DCÂ 20004	Â	Â	Â VP, General Counsel	Â

Signatures

/s/ Cherie Curry as attorney in fact, for Todd Suko	09/24/2008
**Signature of Reporting Person	Date

Explanation of Responses:

No securities are beneficially owned

* If the form is filed by more than one reporting person, *see* Instruction 5(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *See* Instruction 6 for procedure.
Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number. > 244,218 23,847 142,106 30,312 651,380

For footnote, see page 191.

Concentration of exposure

The geographical diversification of our lending portfolio and our broad range of global businesses and products ensured that we did not overly depend on a few markets to generate growth in 2015. This diversification also supported our strategy for growth in faster-growing markets and those with international connectivity.

Financial investments

Our holdings of available-for-sale government and government agency debt securities, corporate debt securities, ABSs and other securities were spread across a wide range of issuers and geographical regions in 2015, with 14% invested in securities issued by banks and other financial institutions and 75% in government or government agency debt securities. We also held assets backing insurance and investment contracts.

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Report of the Directors: Risk (continued)

Credit risk

For an analysis of financial investments, see Note 17 on the Financial Statements.

Trading assets

Trading securities remained the largest concentration within trading assets at 77% in 2015 and 2014. The largest concentration within the trading securities portfolio was in government and government agency debt securities. We had significant exposures to US Treasury and government agency debt securities ($15bn) and UK ($10bn) and Hong Kong ($6.5bn) government debt securities.

For an analysis of debt and equity securities held for trading, see Note 12 on the Financial Statements.

Derivatives

Derivative assets were $288bn at 31 December 2015 (2014: $345bn). Details of derivative amounts cleared through an exchange, central counterparty and non-central counterparty are shown on page 142.

For an analysis of derivatives, see page 141 and Note 16 on the Financial Statements.

Loans and advances

The following tables analyse loans by industry sector and by the location of the principal operations of the lending subsidiary or, in the case of the operations of The Hongkong and Shanghai Banking Corporation, HSBC Bank, HSBC Bank Middle East Limited and HSBC Bank USA, by the location of the lending branch. Excluding the effect of the classification of Brazilian assets as Assets held for sale , the distribution of loans across geographical regions and industries remained similar to last year.

For an analysis of loans and advances by country see page 151.

Gross loans and advances by industry sector and by geographical region

(Audited)

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m	As a % of total gross loans
Personal	**170,526**	**132,707**	**6,705**	**58,186**	**5,958**	**374,082**	**36.5**
first lien residential mortgages	**125,544**	**94,606**	**2,258**	**50,117**	**1,986**	**274,511**	**26.8**
other personal[3]	**44,982**	**38,101**	**4,447**	**8,069**	**3,972**	**99,571**	**9.7**
Wholesale							
Corporate and commercial	**191,765**	**211,224**	**22,268**	**62,882**	**11,374**	**499,513**	**48.8**
manufacturing	**39,003**	**34,272**	**2,504**	**17,507**	**2,572**	**95,858**	**9.4**
international trade and services	**62,667**	**72,199**	**9,552**	**11,505**	**3,096**	**159,019**	**15.5**
commercial real estate	**26,256**	**32,371**	**690**	**7,032**	**1,577**	**67,926**	**6.7**
other property-related	**7,323**	**35,206**	**1,908**	**8,982**	**45**	**53,464**	**5.2**
government	**3,653**	**1,132**	**1,695**	**203**	**772**	**7,455**	**0.7**
other commercial[4]	**52,863**	**36,044**	**5,919**	**17,653**	**3,312**	**115,791**	**11.3**
Financial	**51,969**	**68,321**	**10,239**	**16,308**	**3,996**	**150,833**	**14.7**
non-bank financial institutions	**33,621**	**13,969**	**2,321**	**9,822**	**681**	**60,414**	**5.9**
banks	**18,348**	**54,352**	**7,918**	**6,486**	**3,315**	**90,419**	**8.8**
Total wholesale	**243,734**	**279,545**	**32,507**	**79,190**	**15,370**	**650,346**	**63.5**
Total gross loans and advances at 31 December 2015	**414,260**	**412,252**	**39,212**	**137,376**	**21,328**	**1,024,428**	**100.0**
Percentage of total gross loans and advances	**40.4%**	**40.3%**	**3.8%**	**13.4%**	**2.1%**	**100.0%**	
Personal	178,531	129,515	6,571	65,400	13,537	393,554	35.8
first lien residential mortgages	131,000	93,147	2,647	55,577	4,153	286,524	26.0
other personal[3]	47,531	36,368	3,924	9,823	9,384	107,030	9.8
Wholesale							
Corporate and commercial	212,523	220,799	20,588	57,993	30,722	542,625	49.4
manufacturing	39,456	37,767	2,413	15,299	12,051	106,986	9.7
international trade and	76,629	72,814	9,675	13,484	8,189	180,791	16.4

services							
commercial real estate	28,187	35,678	579	6,558	2,291	73,293	6.7
other property-related	7,126	34,379	1,667	8,934	281	52,387	4.8
government	2,264	1,195	1,552	164	968	6,143	0.6
other commercial[4]	58,861	38,966	4,702	13,554	6,942	123,025	11.2
Financial	45,081	76,957	13,786	16,439	10,753	163,016	14.8
non-bank financial institutions	23,103	13,997	3,291	9,034	1,393	50,818	4.6
banks	21,978	62,960	10,495	7,405	9,360	112,198	10.2
Total wholesale	257,604	297,756	34,374	74,432	41,475	705,641	64.2
Total gross loans and advances at 31 December 2014	436,135	427,271	40,945	139,832	55,012	1,099,195	100.0
Percentage of total gross loans and advances	39.7%	38.9%	3.7%	12.7%	5.0%	100.0%	

For footnotes, see page 191.

Credit quality of financial instruments

(Audited)

We assess credit quality on all financial instruments which are subject to credit risk. Additional credit quality information in respect of our consolidated holdings of ABSs is provided on page 153.

For the purpose of the following disclosure, retail loans which are past due up to 90 days and are not otherwise classified as impaired in accordance with our disclosure convention are not disclosed within the expected loss grade to which they relate, but are separately classified as past due but not impaired.

Distribution of financial instruments by credit quality

(Audited)

	Neither past due nor impaired							
	Strong $m	Good $m	Satisfactory $m	Sub-standard $m	Past due but not impaired $m	Impaired $m	Total gross amount $m	Impairment allowances[5] $m
s	97,365	583	939	47			98,934	
	5,318	32	416	2			5,768	
of s	28,410						28,410	
	116,633	21,243	19,894	576			158,346	

nd e	6,749	790	190	100			7,829	
	77,088	10,995	10,656	299			99,038	
	14,546	4,391	3,239	127			22,303	
s	18,250	5,067	5,809	50			29,176	
t	3,037	701	736	383			4,857	
nd e	139	193		64			396	
	2,898	508	616	319			4,341	
			120				120	
s	248,101	32,056	7,209	1,110			288,476	
	472,691	214,152	194,393	16,836	12,179	23,758	934,009	(9,555)
	309,720	29,322	15,021	944	7,568	11,507	374,082	(2,879)
and	127,673	168,772	171,466	15,379	4,274	11,949	499,513	(6,435)
	35,298	16,058	7,906	513	337	302	60,414	(241)
t ost	73,226	11,929	4,836	407	1	20	90,419	(18)
g	108,238	16,552	20,931	46		488	146,255	
	382,328	18,600	16,341	4,525		1,326	423,120	
nd r	93,562	3,963	4,756	2,270			104,551	
	288,766	14,637	11,585	2,255		1,326	318,569	
	10,177	9,605	17,279	1,635	703	2,133	41,532	(1,454)

	10,149	**8,815**	**16,213**	**1,567**	**701**	**2,085**	**39,530**	**(1,433)**
nt or	**28**	**790**	**1,066**	**68**	**2**	**48**	**2,002**	**(21)**
	8,306	**5,688**	**10,204**	**632**	**147**	**333**	**25,310**	
ents	**1,084**	**3,850**	**3,798**	**343**	**22**	**52**	**9,149**	
	7,222	**1,838**	**6,406**	**289**	**125**	**281**	**16,161**	
er	**1,553,830**	**331,141**	**293,178**	**26,199**	**13,030**	**28,058**	**2,245,436**	**(11,027)**
	%	**%**	**%**	**%**	**%**	**%**	**%**	
of	**69.2**	**14.7**	**13.1**	**1.2**	**0.6**	**1.2**	**100.0**	

HSBC HOLDINGS PLC

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Report of the Directors: Risk (continued)

Credit risk

Distribution of financial instruments by credit quality (continued)

	Neither past due nor impaired							
	Strong $m	Good $m	Satisfactory $m	Sub-standard $m	Past due but not impaired $m	Impaired $m	Total gross amount $m	Impairment allowances[5] $m
t ks e	127,971	1,438	195	353			129,957	
from s g nt	4,515	46	365	1			4,927	
s dness	27,674						27,674	
sets[6]	168,521	35,042	24,740	641			228,944	
and ple	13,938	1,641	559	32			16,170	
urities	111,138	17,786	12,305	303			141,532	
d	17,492	4,961	5,016	112			27,581	
rs	25,953	10,654	6,860	194			43,661	
ssets at	3,017	4,476	1,207	331			9,031	
and ple	5			51			56	
urities	3,011	4,476	1,124	280			8,891	

d									
	1		83				84		
rs									
s[6]	269,490	58,596	15,962	960			345,008		
o									
held									
ed									
	487,734	239,136	196,685	20,802	13,357	29,283	986,997	(12,337)	
	320,678	32,601	15,109	1,130	8,876	15,160	393,554	(4,600)	
e and									
l	141,375	192,799	171,748	18,986	3,922	13,795	542,625	(7,441)	
k									
s	25,681	13,736	9,828	686	559	328	50,818	(296)	
o									
at									
cost	83,766	19,525	7,945	914	1	47	112,198	(49)	
s									
ing	98,470	28,367	33,283	1,593			161,713		
ts	347,218	27,373	22,600	5,304		2,278	404,773		
and									
ar									
	68,966	6,294	4,431	1,826			81,517		
urities	278,252	21,079	18,169	3,478		2,278	323,256		
d for									
	802	43	79		2	465	1,391	(16)	
groups	768	43	79				890		
ent									
for									
	34				2	465	501	(16)	
ts	12,213	7,521	12,897	631	208	419	33,889		
ments									
ances	1,507	4,644	4,281	298	34	11	10,775		
income									
	10,706	2,877	8,616	333	174	408	23,114		
ber									
	1,631,391	421,563	315,958	31,530	13,568	32,492	2,446,502	(12,402)	2
	%	%	%	%	%	%	%		
e of									
	66.7	17.2	12.9	1.3	0.6	1.3	100.0		

For footnotes, see page 191.

Explanation of Responses:

HSBC HOLDINGS PLC

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Past due but not impaired gross financial instruments

(Audited)

Past due but not impaired gross financial instruments are those loans where, although customers have failed to make payments in accordance with the contractual terms of their

facilities, they have not met the impaired loan criteria described on page 128.

In personal lending, past due but not impaired balances decreased, mainly due to the Brazilian reclassification and the continued run-off and loan sales in the CML portfolio.

Past due but not impaired gross financial instruments by geographical region

(Audited)

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Loans and advances to customers held at amortised cost	**1,928**	**3,405**	**909**	**5,392**	**545**	**12,179**
personal	**1,152**	**2,573**	**180**	**3,287**	**376**	**7,568**
corporate and commercial	**762**	**790**	**710**	**1,843**	**169**	**4,274**
non-bank financial institutions	**14**	**42**	**19**	**262**		**337**
Assets held for sale				**2**	**701**	**703**
disposal group					**701**	**701**
non-current assets held for sale				**2**		**2**
Other financial instruments	**10**	**39**	**15**	**80**	**4**	**148**
At 31 December 2015	**1,938**	**3,444**	**924**	**5,474**	**1,250**	**13,030**
Loans and advances to customers held at amortised cost	2,409	4,260	704	4,634	1,350	13,357
personal	1,159	2,880	182	3,759	896	8,876
corporate and commercial	1,244	1,102	508	623	445	3,922
non-bank financial institutions	6	278	14	252	9	559
Assets held for sale				2		2

disposal group						
non-current assets held for sale				2		2
Other financial instruments	6	52	31	95	25	209
At 31 December 2014	2,415	4,312	735	4,731	1,375	13,568

Ageing analysis of days for past due but not impaired gross financial instruments

(Audited)

	Up to 29 days $m	30-59 days $m	60-89 days $m	90-179 days $m	180 days and over $m	Total $m
Loans and advances to customers held at amortised cost	**9,403**	**1,917**	**727**	**111**	**21**	**12,179**
personal	**5,665**	**1,401**	**502**			**7,568**
corporate and commercial	**3,432**	**505**	**225**	**93**	**19**	**4,274**
non-bank financial institutions	**306**	**11**		**18**	**2**	**337**
Assets held for sale	**476**	**137**	**90**			**703**
disposal group	**476**	**136**	**89**			**701**
non-current assets held for sale		**1**	**1**			**2**
Other financial instruments	**80**	**35**	**14**	**10**	**9**	**148**
At 31 December 2015	**9,959**	**2,089**	**831**	**121**	**30**	**13,030**
Loans and advances to customers held at amortised cost	10,427	2,057	801	54	18	13,357
personal	6,477	1,717	676	5	1	8,876
corporate and commercial	3,417	328	114	48	15	3,922
non-bank financial institutions	533	12	11	1	2	559
Assets held for sale				1	1	2
disposal group						
non-current assets held for sale				1	1	2
	130	33	18	11	17	209

Other financial instruments						
At 31 December 2014	10,557	2,090	819	66	36	13,568

Report of the Directors: Risk (continued)

Credit risk

Impaired loans

(Audited)

Impaired loans and advances are those that meet any of the following criteria:

wholesale loans and advances classified as Customer Risk Rating (CRR) 9 or CRR 10. These grades are assigned when the bank considers that either the customer is unlikely to pay their credit obligations in full without recourse to security, or when the customer is more than 90 days past due on any material credit obligation to HSBC.

retail loans and advances classified as Expected Loss (EL) 9 or EL 10. These grades are typically assigned to retail loans and advances more than 90 days past due
unless individually they have been assessed as not impaired.

renegotiated loans and advances that have been subject to a change in contractual cash flows as a result of a concession which the lender would not otherwise consider, and where it is probable that without the concession the borrower would be unable to meet the contractual payment obligations in full, unless the concession is insignificant and there are no other indicators of impairment. Renegotiated loans remain classified as impaired until there is sufficient evidence to demonstrate a significant reduction in the risk of non-payment of future cash flows, and there are no other indicators of impairment.

Movement in impaired loans by geographical region

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Impaired loans at 1 January 2015	**10,242**	**2,048**	**1,981**	**11,694**	**3,365**	**29,330**

personal	**2,544**	**491**	**242**	**10,826**	**1,057**	**15,160**
corporate and commercial	**7,385**	**1,545**	**1,696**	**862**	**2,307**	**13,795**
financial	**313**	**12**	**43**	**6**	**1**	**375**
Classified as impaired during the year	**3,909**	**1,893**	**338**	**2,986**	**2,434**	**11,560**
personal	**1,257**	**813**	**178**	**2,245**	**1,502**	**5,995**
corporate and commercial	**2,567**	**1,079**	**159**	**740**	**924**	**5,469**
financial	**85**	**1**	**1**	**1**	**8**	**96**
Transferred from impaired to unimpaired during the year	**(964)**	**(204)**	**(107)**	**(1,786)**	**(245)**	**(3,306)**
personal	**(211)**	**(169)**	**(82)**	**(1,699)**	**(185)**	**(2,346)**
corporate and commercial	**(734)**	**(35)**	**(6)**	**(87)**	**(60)**	**(922)**
financial	**(19)**		**(19)**			**(38)**
Amounts written off	**(870)**	**(595)**	**(335)**	**(589)**	**(1,312)**	**(3,701)**
personal	**(280)**	**(416)**	**(113)**	**(493)**	**(961)**	**(2,263)**
corporate and commercial	**(577)**	**(179)**	**(222)**	**(95)**	**(351)**	**(1,424)**
financial	**(13)**			**(1)**		**(14)**
Net repayments and other	**(2,640)**	**(767)**	**(111)**	**(3,375)**	**(3,212)**	**(10,105)**
personal	**(780)**	**(203)**		**(2,885)**	**(1,171)**	**(5,039)**
corporate and commercial	**(1,778)**	**(562)**	**(110)**	**(486)**	**(2,033)**	**(4,969)**
financial	**(82)**	**(2)**	**(1)**	**(4)**	**(8)**	**(97)**
Impaired loans at 31 December 2015	**9,677**	**2,375**	**1,766**	**8,930**	**1,030**	**23,778**
personal	**2,530**	**516**	**225**	**7,994**	**242**	**11,507**
corporate and commercial	**6,863**	**1,848**	**1,517**	**934**	**787**	**11,949**
financial	**284**	**11**	**24**	**2**	**1**	**322**
	%	%	%	%	%	%
Impaired loans as a percentage of gross loans	**2.3**	**0.6**	**4.5**	**6.5**	**4.8**	**2.3**
personal	**1.5**	**0.4**	**3.4**	**13.7**	**4.1**	**3.1**
corporate and commercial	**3.6**	**0.9**	**6.8**	**1.5**	**6.9**	**2.4**
financial	**0.5**	**0.0**	**0.2**	**0.0**	**0.0**	**0.2**

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Impaired loans at 1 January 2014	13,228	1,623	2,285	15,123	4,244	36,503
personal	2,938	526	317	13,669	1,348	18,798
corporate and commercial	9,714	1,082	1,765	1,427	2,889	16,877
financial	576	15	203	27	7	828
Classified as impaired during the year	3,367	1,970	346	4,724	3,342	13,749
personal	1,168	857	193	4,360	1,958	8,536
corporate and commercial	2,166	1,113	153	354	1,383	5,169
financial	33			10	1	44
Transferred from impaired to unimpaired during the year	(1,661)	(230)	(320)	(2,609)	(730)	(5,550)
personal	(282)	(184)	(178)	(2,551)	(364)	(3,559)
corporate and commercial	(1,319)	(46)	(53)	(57)	(366)	(1,841)
financial	(60)		(89)	(1)		(150)
Amounts written off	(2,037)	(617)	(111)	(1,369)	(2,048)	(6,182)
personal	(631)	(470)	(77)	(1,007)	(1,371)	(3,556)
corporate and commercial	(1,201)	(147)	(29)	(356)	(673)	(2,406)
financial	(205)		(5)	(6)	(4)	(220)
Net repayments and other	(2,655)	(698)	(219)	(4,175)	(1,443)	(9,190)
personal	(649)	(238)	(13)	(3,645)	(514)	(5,059)
corporate and commercial	(1,975)	(457)	(140)	(506)	(926)	(4,004)
financial	(31)	(3)	(66)	(24)	(3)	(127)
Impaired loans at 31 December 2014	10,242	2,048	1,981	11,694	3,365	29,330
personal	2,544	491	242	10,826	1,057	15,160

corporate and commercial	7,385	1,545	1,696	862	2,307	13,795
financial	313	12	43	6	1	375
	%	%	%	%	%	%
Impaired loans as a percentage of gross loans	2.3	0.5	4.8	8.4	6.1	2.7
personal	1.4	0.4	3.7	16.6	7.8	3.9
corporate and commercial	3.5	0.7	8.2	1.5	7.5	2.5
financial	0.7	0.0	0.3	0.0	0.0	0.2

At 31 December 2014, our Brazilian impaired loans were $1.4bn in corporate and commercial and $0.8bn in personal.

Excluding the Brazilian reclassification to Assets held for sale , corporate and commercial impaired loans decreased $0.4bn including the favourable effects of a $0.8bn foreign exchange reduction. In personal, the continued run-off of the US CML portfolio reduced collectively assessed impaired loan balances by a further $2.7bn. Net repayments and other included $2.1bn of CML portfolio assets that were reclassified as held for sale or sold during the year. Whilst there was a reduction in total personal impaired loans, there was a marginal increase in the UK resulting from improved identification of impaired residential mortgages.

Renegotiated loans and forbearance

The contractual terms of a loan may be modified for a number of reasons, including changes in market conditions, customer retention and other factors not related to the current or potential credit deterioration of a customer. Forbearance describes concessions made on the contractual terms of a loan in response to an obligor s financial difficulties. We classify and report loans on which concessions have been granted under conditions of credit distress as renegotiated loans when their contractual payment terms have been modified because we have

significant concerns about the borrowers ability to meet contractual payments when due. On renegotiation, where the existing agreement is cancelled and a new agreement is made on substantially different terms, or if the terms of an existing agreement are modified such that the renegotiated loan is substantially a different financial instrument, the loan would be derecognised and recognised as a new loan for accounting purposes. However, the newly recognised financial asset will retain the renegotiated loan classification. Concessions on loans made to customers which do not affect the payment structure or basis of repayment, such as waivers of financial or security covenants, do not directly provide concessionary relief to customers in terms of their ability to service obligations as they fall due and are therefore not included in this classification.

The most significant portfolio of renegotiated loans remained in North America, substantially all of which were retail loans held by HSBC Finance Corporation (HSBC Finance).

The following tables show the gross carrying amounts of the Group s holdings of renegotiated loans and advances to customers by industry sector, geography, credit quality classification and by arrangement type.

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Report of the Directors: Risk (continued)

Credit risk

Renegotiated loans and advances to customers by geographical region

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
First lien residential mortgages	**1,461**	**68**	**36**	**10,680**	**37**	**12,282**
neither past due nor impaired	**512**	**47**	**11**	**3,376**	**27**	**3,973**
past due but not impaired	**174**	**5**	**4**	**1,567**	**3**	**1,753**
impaired	**775**	**16**	**21**	**5,737**	**7**	**6,556**
Other personal lending[3]	**298**	**272**	**33**	**1,054**	**35**	**1,692**
neither past due nor impaired	**131**	**141**	**24**	**410**	**10**	**716**
past due but not impaired	**51**	**16**	**2**	**173**	**1**	**243**
impaired	**116**	**115**	**7**	**471**	**24**	**733**
Corporate and commercial	**5,215**	**599**	**1,411**	**638**	**506**	**8,369**
neither past due nor impaired	**1,467**	**119**	**343**	**93**	**130**	**2,152**
past due but not impaired	**109**		**14**			**123**
impaired	**3,639**	**480**	**1,054**	**545**	**376**	**6,094**
Non-bank financial institutions	**340**	**4**	**272**			**616**
neither past due nor impaired	**143**		**248**			**391**
past due but not impaired			**24**			**24**
impaired	**197**	**4**				**201**
Renegotiated loans at 31 December 2015	**7,314**	**943**	**1,752**	**12,372**	**578**	**22,959**
neither past due nor impaired	**2,253**	**307**	**626**	**3,879**	**167**	**7,232**
past due but not impaired	**334**	**21**	**44**	**1,740**	**4**	**2,143**
impaired	**4,727**	**615**	**1,082**	**6,753**	**407**	**13,584**

Impairment allowances on renegotiated loans	**1,402**	**193**	**575**	**1,014**	**155**	**3,339**
renegotiated loans as % of total gross loans	**1.8%**	**0.3%**	**5.6%**	**9.5%**	**3.2%**	**2.5%**
First lien residential mortgages	1,605	94	58	13,540	60	15,357
neither past due nor impaired	529	63	19	3,695	32	4,338
past due but not impaired	221	8	1	1,894	5	2,129
impaired	855	23	38	7,951	23	8,890
Other personal lending[3]	324	292	27	1,267	326	2,236
neither past due nor impaired	184	173	16	453	14	840
past due but not impaired	40	22	5	214	1	282
impaired	100	97	6	600	311	1,114
Corporate and commercial	5,469	501	1,439	427	1,324	9,160
neither past due nor impaired	1,383	102	483	36	303	2,307
past due but not impaired	68		31	1	1	101
impaired	4,018	399	925	390	1,020	6,752
Non-bank financial institutions	413	4	323	1	1	742
neither past due nor impaired	219		305			524
past due but not impaired						
impaired	194	4	18	1	1	218
Renegotiated loans at 31 December 2014	7,811	891	1,847	15,235	1,711	27,495
neither past due nor impaired	2,315	338	823	4,184	349	8,009
past due but not impaired	329	30	37	2,109	7	2,512
impaired	5,167	523	987	8,942	1,355	16,974
Impairment allowances on renegotiated loans	1,458	170	458	1,499	704	4,289
renegotiated loans as % of total gross loans	1.9%	0.2%	6.1%	11.5%	3.7%	2.8%

For footnote, see page 191.

The following table shows movements in renegotiated loans during the year. Renegotiated loans decreased by $4.5bn to $23bn in 2015, partly due to the Brazilian reclassification of $1bn. Renegotiated loans in personal lending reduced by $3.6bn. Included within other

movements is $2.1bn of CML portfolio assets that were transferred to Assets held for sale . Write-offs reduced as a result of improvements in US economic conditions and housing market.

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Movement in renegotiated loans and advances to customers by geographical region

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Renegotiated loans at 1 January 2015	**7,811**	**891**	**1,847**	**15,235**	**1,711**	**27,495**
personal	**1,929**	**386**	**85**	**14,807**	**386**	**17,593**
corporate and commercial	**5,469**	**501**	**1,439**	**427**	**1,324**	**9,160**
non-bank financial institutions	**413**	**4**	**323**	**1**	**1**	**742**
Loans renegotiated in the year without derecognition	**1,970**	**421**	**115**	**999**	**553**	**4,058**
personal	**471**	**87**	**7**	**625**	**250**	**1,440**
corporate and commercial	**1,494**	**334**	**89**	**374**	**303**	**2,594**
non-bank financial institutions	**5**		**19**			**24**
Loans renegotiated in the year resulting in recognition of a new loan	**222**	**16**	**196**	**(1)**	**175**	**608**
personal	**57**			**(1)**	**18**	**74**
corporate and commercial	**156**	**16**	**4**		**157**	**333**
non-bank financial institutions	**9**		**192**			**201**
Repayments	**(1,675)**	**(351)**	**(276)**	**(1,304)**	**(467)**	**(4,073)**
personal	**(574)**	**(88)**	**(32)**	**(1,166)**	**(185)**	**(2,045)**
corporate and commercial	**(1,054)**	**(263)**	**(159)**	**(138)**	**(282)**	**(1,896)**
non-bank financial institutions	**(47)**		**(85)**			**(132)**
Amounts written off	**(294)**	**(52)**	**(11)**	**(254)**	**(290)**	**(901)**
personal	**(45)**	**(24)**	**(5)**	**(241)**	**(139)**	**(454)**
corporate and commercial	**(249)**	**(28)**	**(6)**	**(12)**	**(150)**	**(445)**
non-bank financial institutions				**(1)**	**(1)**	**(2)**

Other	**(720)**	**18**	**(119)**	**(2,303)**	**(1,104)**	**(4,228)**
personal	**(79)**	**(21)**	**14**	**(2,290)**	**(258)**	**(2,634)**
corporate and commercial	**(601)**	**39**	**44**	**(13)**	**(846)**	**(1,377)**
non-bank financial institutions	**(40)**		**(177)**			**(217)**
At 31 December 2015	**7,314**	**943**	**1,752**	**12,372**	**578**	**22,959**
personal	**1,759**	**340**	**69**	**11,734**	**72**	**13,974**
corporate and commercial	**5,215**	**599**	**1,411**	**638**	**506**	**8,369**
non-bank financial institutions	**340**	**4**	**272**			**616**
Renegotiated loans at 1 January 2014	9,756	767	2,094	18,789	2,769	34,175
personal	2,251	435	149	18,130	607	21,572
corporate and commercial	7,270	330	1,583	658	2,161	12,002
non-bank financial institutions	235	2	362	1	1	601
Loans renegotiated in the year without derecognition	1,543	371	296	862	725	3,797
personal	433	83	10	774	310	1,610
corporate and commercial	939	288	286	78	415	2,006
non-bank financial institutions	171			10		181
Loans renegotiated in the year resulting in recognition of a new loan	500	5	79		92	676
personal	69	2			28	99
corporate and commercial	381		61		64	506
non-bank financial institutions	50	3	18			71
Repayments	(2,416)	(246)	(562)	(1,518)	(1,036)	(5,778)
personal	(635)	(96)	(47)	(1,319)	(288)	(2,385)
corporate and commercial	(1,757)	(149)	(445)	(189)	(747)	(3,287)
non-bank financial institutions	(24)	(1)	(70)	(10)	(1)	(106)
Amounts written off	(828)	(42)	(23)	(640)	(510)	(2,043)
personal	(88)	(28)	(7)	(568)	(223)	(914)
corporate and commercial	(740)	(14)	(16)	(72)	(286)	(1,128)
non-bank financial institutions					(1)	(1)
Other	(744)	36	(37)	(2,258)	(329)	(3,332)
personal	(101)	(10)	(20)	(2,210)	(48)	(2,389)
corporate and commercial	(624)	46	(30)	(48)	(283)	(939)
non-bank financial institutions	(19)		13		2	(4)

At 31 December 2014	7,811	891	1,847	15,235	1,711	27,495
personal	1,929	386	85	14,807	386	17,593
corporate and commercial	5,469	501	1,439	427	1,324	9,160
non-bank financial institutions	413	4	323	1	1	742

A range of forbearance strategies are employed in order to improve the management of customer relationships, maximise collection opportunities and, if possible, avoid default, foreclosure or repossession.

The table below shows the arrangement type as a percentage of the total value of arrangements offered. Corporate renegotiated loans often require the granting of more than one arrangement type as part of an effective strategy. The percentages reported in the table below includes the effect of loans being reported in more than one arrangement type.

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Report of the Directors: Risk (continued)

Credit risk

Renegotiated loans by arrangement type: corporate and commercial and financial

	%
Maturity term extensions	**42.4**
Reductions in margin, principal forgiveness, debt equity swaps and interest, fees or penalty payment forgiveness	**19.6**
Other changes to repayment profile	**14.1**
Interest only conversion	**13.9**
Other	**10.0**
At 31 December 2015	**100.0**

In personal lending, renegotiated loans have been allocated to the single most dominant arrangement type.

Renegotiated loans by arrangement type: personal lending

	%
Personal	
interest rate and terms modifications	**11.4**
payment concessions	**6.0**
collection re-age[8]	**35.0**
modification re-age[9]	**42.9**
other	**4.7**
At 31 December 2015	**100.0**

For footnotes, see page 191.

Impairment of loans and advances

(Audited)

The tables below analyse the loan impairment charges for the year by industry sector, for impaired loans and advances that are either individually or collectively assessed, and collective impairment allowances on loans and advances that are classified as not impaired.

Loan impairment charge to the income statement by industry sector

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Personal	**263**	**309**	**122**	**157**	**983**	**1,834**
first lien residential mortgages	**(7)**	**(1)**	**49**	**70**	**41**	**152**
other personal[3]	**270**	**310**	**73**	**87**	**942**	**1,682**
Corporate and commercial	**432**	**372**	**195**	**319**	**451**	**1,769**
manufacturing and international trade and services	**158**	**250**	**107**	**26**	**305**	**846**
commercial real estate and other property-related	**33**	**18**	**49**	**24**	**47**	**171**
other commercial[4]	**241**	**104**	**39**	**269**	**99**	**752**
Financial	**14**		**(18)**	**(7)**		**(11)**
Total loan impairment charge for the year ended 31 December 2015	**709**	**681**	**299**	**469**	**1,434**	**3,592**
Personal	245	321	25	117	1,095	1,803
first lien residential mortgages	(75)	6	(24)	26	15	(52)
other personal[3]	320	315	49	91	1,080	1,855
Corporate and commercial	790	327	6	196	937	2,256
manufacturing and international trade and services	520	197	36	116	382	1,251
commercial real estate and other property-related	78	29	(28)	27	176	282
other commercial[4]	192	101	(2)	53	379	723
Financial	44	(4)	(32)	(13)	1	(4)
Total loan impairment charge for the year ended 31 December 2014	1,079	644	(1)	300	2,033	4,055

For footnotes, see page 191.

Loan impairment charge to the income statement by assessment type

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Individually assessed impairment allowances	**495**	**300**	**161**	**227**	**322**	**1,505**
new allowances	**991**	**518**	**216**	**290**	**401**	**2,416**
release of allowances no longer required	**(455)**	**(179)**	**(52)**	**(46)**	**(93)**	**(825)**
recoveries of amounts previously written off	**(41)**	**(39)**	**(3)**	**(17)**	**14**	**(86)**
Collectively assessed impairment allowances[10]	**214**	**381**	**138**	**242**	**1,112**	**2,087**
new allowances net of allowance releases	**561**	**507**	**168**	**301**	**1,272**	**2,809**
recoveries of amounts previously written off	**(347)**	**(126)**	**(30)**	**(59)**	**(160)**	**(722)**
Total loan impairment charge for the year ended 31 December 2015	**709**	**681**	**299**	**469**	**1,434**	**3,592**

For footnote, see page 99.

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Individually assessed impairment allowances	617	351	32	190	590	1,780
new allowances	1,112	542	134	298	738	2,824
release of allowances no longer required	(486)	(171)	(95)	(88)	(90)	(930)
recoveries of amounts previously written off	(9)	(20)	(7)	(20)	(58)	(114)
Collectively assessed impairment allowances[10]	462	293	(33)	110	1,443	2,275
new allowances net of allowance releases	757	426	2	205	1,726	3,116
recoveries of amounts previously written off	(295)	(133)	(35)	(95)	(283)	(841)
Total loan impairment charge for the year ended 31 December 2014	1,079	644	(1)	300	2,033	4,055

For footnote, see page 191.

On a reported basis, loan impairment charges of $3.6bn were $0.5bn lower than in 2014, primarily due to favourable currency translation in Latin America and Europe.

The commentary that follows is on a constant currency basis, while tables are presented on a reported basis.

Loan impairment charges increased by $219m compared with 2014. Notably, in the fourth quarter of 2015, our loan impairment charges increased compared with the third quarter following a rise in individually assessed loan impairment charges in a small number of countries. This was reflective of specific circumstances associated with those countries with no common underlying theme. In addition, we increased our collectively assessed loan impairment allowances on exposures related to the oil and gas industry by $0.2bn. This was primarily in North America, Middle East and North Africa, and Asia.

The commentary that follows sets out in more detail the factors that have contributed to movements in loan impairment charges compared with 2014.

Collectively assessed loan impairment allowances rose by $221m, mainly in Middle East and North Africa, North America and Asia, partly offset in Europe. It arose from the following:

in Middle East and North Africa (up by $167m), this was mainly in the UAE and reflected increased impairment allowances on our residential mortgage book following a review of the quality and value of collateral. In addition, loan impairment allowances increased on our corporate and commercial exposures, notably in the oil and foodstuffs industries;

in North America (up by $132m) and Asia (up by $108m), the increase was in the other commercial sector. This reflected an increase in allowances against our oil and gas exposures in the regions. In our US CML portfolio, loan impairment allowances on residential mortgages were higher than in 2014 following lower favourable market value adjustments of underlying properties as improvements in housing market conditions were less pronounced in 2015.

in Europe, collectively assessed loan impairment allowances were $192m lower as 2014 included additional impairment charges from revisions to certain estimates used in our corporate collective loan impairment calculation.

Individually assessed loan impairment allowances were broadly unchanged from 2014. This reflected decreases in Latin America, Europe and Asia which were offset by increases in Middle East and North Africa and in North America. This included the following:

in Latin America (down by $95m), Europe (down by $44m) and Asia (down by $44m), we saw reductions in individually assessed loan impairment allowances as 2014 included significant impairment charges related to corporate and commercial exposures in our respective regions. In Asia, the reduction was partly offset by an increase in loan impairment allowances against a small number of customers in Indonesia; and

in Middle East and North Africa (up by $134m) and North America (up by $47m), individually assessed loan impairment allowances increased. In the former, this primarily related to higher loan impairment allowances on food wholesalers, while in North America the rise was in the oil and gas sector.

Charge for impairment losses as a percentage of average gross loans and advances to customers by geographical region

	Europe %	Asia %	MENA %	North America %	Latin America %	Total %
New allowances net of allowance releases	**0.31**	**0.23**	**1.07**	**0.41**	**5.37**	**0.48**
Recoveries	**(0.11)**	**(0.05)**	**(0.11)**	**(0.06)**	**(0.50)**	**(0.09)**
Total charge for impairment losses at 31 December 2015	**0.20**	**0.18**	**0.96**	**0.35**	**4.87**	**0.39**
Amount written off net of recoveries	**0.25**	**0.12**	**0.97**	**0.45**	**3.94**	**0.37**
New allowances net of allowance releases	0.37	0.22	0.14	0.32	5.00	0.53
Recoveries	(0.08)	(0.04)	(0.14)	(0.09)	(0.72)	(0.10)
Total charge for impairment losses at 31 December 2014	0.29	0.18		0.23	4.28	0.43
Amount written off net of recoveries	0.49	0.13	0.58	0.97	3.59	0.58

Report of the Directors: Risk (continued)

Credit risk

Movement in impairment allowances by industry sector and by geographical region

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Impairment allowances at 1 January 2015	**4,455**	**1,356**	**1,406**	**2,640**	**2,529**	**12,386**
Amounts written off						
Personal	**(627)**	**(416)**	**(114)**	**(554)**	**(996)**	**(2,707)**
first lien residential mortgages	**(12)**	**(6)**	**(1)**	**(344)**	**(24)**	**(387)**
other personal[3]	**(615)**	**(410)**	**(113)**	**(210)**	**(972)**	**(2,320)**
Corporate and commercial	**(657)**	**(179)**	**(222)**	**(106)**	**(309)**	**(1,473)**
manufacturing and international trade and services	**(234)**	**(149)**	**(214)**	**(28)**	**(213)**	**(838)**
commercial real estate and other property-related	**(244)**	**(5)**	**(8)**	**(57)**	**(30)**	**(344)**
other commercial[4]	**(179)**	**(25)**		**(21)**	**(66)**	**(291)**
Financial	**(12)**			**(2)**		**(14)**
Total amounts written off	**(1,296)**	**(595)**	**(336)**	**(662)**	**(1,305)**	**(4,194)**
Recoveries of amounts written off in previous years						
Personal	**340**	**135**	**30**	**57**	**119**	**681**
first lien residential mortgages	**6**	**4**		**26**	**(17)**	**19**
other personal[3]	**334**	**131**	**30**	**31**	**136**	**662**
Corporate and commercial	**46**	**30**	**3**	**18**	**27**	**124**
manufacturing and international trade and services	**16**	**20**	**2**	**8**	**15**	**61**
commercial real estate and other property-related	**24**	**5**		**5**	**2**	**36**
other commercial[4]	**6**	**5**	**1**	**5**	**10**	**27**
Financial	**2**			**1**		**3**
Total recoveries of amounts written off in previous years	**388**	**165**	**33**	**76**	**146**	**808**
Charge to income statement	**709**	**681**	**299**	**469**	**1,434**	**3,592**
Exchange and other movements[11]	**(387)**	**(82)**	**16**	**(482)**	**(2,084)**	**(3,019)**

Impairment allowances at 31 December 2015	**3,869**	**1,525**	**1,418**	**2,041**	**720**	**9,573**
Impairment allowances against banks:						
individually assessed			**18**			**18**
Impairment allowances against customers:						
individually assessed	**2,661**	**908**	**1,068**	**327**	**438**	**5,402**
collectively assessed[10]	**1,208**	**617**	**332**	**1,714**	**282**	**4,153**
Impairment allowances at 31 December 2015	**3,869**	**1,525**	**1,418**	**2,041**	**720**	**9,573**
Impairment allowances at 1 January 2014	5,598	1,214	1,583	4,242	2,564	15,201
Amounts written off						
Personal	(724)	(463)	(157)	(1,030)	(1,359)	(3,733)
first lien residential mortgages	(21)	(17)	(4)	(731)	(40)	(813)
other personal[3]	(703)	(446)	(153)	(299)	(1,319)	(2,920)
Corporate and commercial	(1,202)	(146)	(47)	(346)	(684)	(2,425)
manufacturing and international trade and services	(732)	(86)	(41)	(81)	(428)	(1,368)
commercial real estate and other property-related	(342)	(53)	(6)	(153)	(39)	(593)
other commercial[4]	(128)	(7)		(112)	(217)	(464)
Financial	(203)		(8)	(6)	(4)	(221)
Total amounts written off	(2,129)	(609)	(212)	(1,382)	(2,047)	(6,379)
Recoveries of amounts written off in previous years						
Personal	271	143	35	86	283	818
first lien residential mortgages	3	3		40	33	79
other personal[3]	268	140	35	46	250	739
Corporate and commercial	29	9	7	25	58	128
manufacturing and international trade and services	19	7	7	6	46	85
commercial real estate and other property-related	11			3	1	15
other commercial[4]	(1)	2		16	11	28
Financial	4	1		4		9
Total recoveries of amounts written off in previous years	304	153	42	115	341	955
Charge to income statement	1,079	644	(1)	300	2,033	4,055
Exchange and other movements[11]	(397)	(46)	(6)	(635)	(362)	(1,446)
Impairment allowances at 31 December 2014	4,455	1,356	1,406	2,640	2,529	12,386
Impairment allowances against banks:						
individually assessed	31		18			49
Impairment allowances against customers:						
individually assessed	2,981	812	1,110	276	1,016	6,195
collectively assessed[10]	1,443	544	278	2,364	1,513	6,142

Impairment allowances at 31 December 2014	4,455	1,356	1,406	2,640	2,529	12,386

For footnotes, see page 191.

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Movement in impairment allowances on loans and advances to customers and banks

(Audited)

	Banks individually assessed	Customers Individually assessed	Collectively assessed[10]	Total
	$m	**$m**	**$m**	**$m**
At 1 January 2015	**49**	**6,195**	**6,142**	**12,386**
Amounts written off		**(1,368)**	**(2,826)**	**(4,194)**
Recoveries of loans and advances previously written off		**86**	**722**	**808**
Charge to income statement	**(11)**	**1,516**	**2,087**	**3,592**
Exchange and other movements[11]	**(20)**	**(1,027)**	**(1,972)**	**(3,019)**
At 31 December 2015	**18**	**5,402**	**4,153**	**9,573**
Impairment allowances:				
on loans and advances to customers		**5,402**	**4,153**	**9,555**
personal		**426**	**2,453**	**2,879**
corporate and commercial		**4,800**	**1,635**	**6,435**
non-bank financial institutions		**176**	**65**	**241**
	%	**%**	**%**	**%**
as a percentage of loans and advances		**0.6**	**0.4**	**0.9**
	$m	$m	$m	$m
At 1 January 2014	58	7,072	8,071	15,201
Amounts written off	(6)	(2,313)	(4,060)	(6,379)
Recoveries of loans and advances previously written off		114	841	955
Charge to income statement	4	1,776	2,275	4,055
Exchange and other movements[11]	(7)	(454)	(985)	(1,446)
At 31 December 2014	49	6,195	6,142	12,386
Impairment allowances:				
on loans and advances to customers		6,195	6,142	12,337

personal		468	4,132	4,600
corporate and commercial		5,532	1,909	7,441
non-bank financial institutions		195	101	296
	%	%	%	%
as a percentage of loans and advances		0.6	0.6	1.1

For footnotes, see page 191.

Wholesale lending

On a reported basis and excluding the effects of the Brazilian reclassification of loans and advances to Assets held for sale, gross loans decreased by $32bn, mainly due to adverse foreign exchange effects.

The commentary that follows is on a constant currency basis, while tables are presented on a reported basis.

Wholesale lending increased by $0.5bn in the year. However, in Asia it fell by $9.6bn, mainly in Hong Kong and, to a lesser extent, mainland China and Taiwan. In Asia, the fourth quarter of 2015 saw lower than expected credit growth with a continuation of the slowdown in trade, the repayment of some existing corporate loans and slower demand for new lending.

In Europe, lending increased by $3.2bn, mainly in the UK and Germany. In the UK it rose by $1.9bn with increases in financial partly offset by decreases in corporate and commercial, mainly relating to corporate overdraft

balances where a small number of clients benefit from the use of net interest arrangements between overdrafts and deposits.

In Middle East and North Africa, overall lending reduced by $1.2bn with decreases of $3.2bn in financial offset by increases of $2.0bn in corporate and commercial.

In North America, lending increased by $7.5bn, mainly comprising $3.7bn in the US and $4.9bn in Canada.
The increase in Canada included: $3.8bn following a change in balance sheet presentation where certain bankers acceptances previously disclosed under Trading assets were included in Loans and advances; and $1.0bn relating to corporate overdraft balances and the use of net interest arrangements between overdraft and deposits. Comparatives have not been restated.

Excluding the effects of the Brazilian reclassification, lending in Latin America increased by $0.6bn, mainly in Argentina.

Report of the Directors: Risk (continued)

Credit risk

Total wholesale lending

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Corporate and commercial (A)	**191,765**	**211,224**	**22,268**	**62,882**	**11,374**	**499,513**
manufacturing	**39,003**	**34,272**	**2,504**	**17,507**	**2,572**	**95,858**
international trade and services	**62,667**	**72,199**	**9,552**	**11,505**	**3,096**	**159,019**
commercial real estate	**26,256**	**32,371**	**690**	**7,032**	**1,577**	**67,926**
other property-related	**7,323**	**35,206**	**1,908**	**8,982**	**45**	**53,464**
government	**3,653**	**1,132**	**1,695**	**203**	**772**	**7,455**
other commercial[1]	**52,863**	**36,044**	**5,919**	**17,653**	**3,312**	**115,791**
Financial	**51,969**	**68,321**	**10,239**	**16,308**	**3,996**	**150,833**
non-bank financial institutions (B)	**33,621**	**13,969**	**2,321**	**9,822**	**681**	**60,414**
banks (C)	**18,348**	**54,352**	**7,918**	**6,486**	**3,315**	**90,419**
Gross loans at 31 December 2015 (D)	**243,734**	**279,545**	**32,507**	**79,190**	**15,370**	**650,346**
Impairment allowances on wholesale lending						
Corporate and commercial (a)	**2,735**	**1,256**	**1,157**	**777**	**510**	**6,435**
manufacturing	**528**	**254**	**135**	**140**	**49**	**1,106**
international trade and services	**813**	**599**	**439**	**123**	**48**	**2,022**
commercial real estate	**613**	**35**	**145**	**76**	**343**	**1,212**
	237	**72**	**267**	**55**	**1**	**632**

other property-related						
government	**6**				**2**	**8**
other commercial	**538**	**296**	**171**	**383**	**67**	**1,455**
Financial	**194**	**13**	**22**	**30**		**259**
non-bank financial institutions (b)	**194**	**13**	**4**	**30**		**241**
banks (c)			**18**			**18**
Impairment allowances at 31 December 2015 (d)	**2,929**	**1,269**	**1,179**	**807**	**510**	**6,694**
	%	*%*	*%*	*%*	*%*	*%*
(a) as a percentage of (A)	**1.4**	**0.6**	**5.2**	**1.2**	**4.5**	**1.3**
(b) as a percentage of (B)	**0.6**	**0.1**	**0.2**	**0.3**		**0.4**
(c) as a percentage of (C)			**0.2**			
(d) as a percentage of (D)	**1.2**	**0.5**	**3.6**	**1.0**	**3.3**	**1.0**
	$m	$m	$m	$m	$m	$m
Corporate and commercial (E)	212,523	220,799	20,588	57,993	30,722	542,625
manufacturing	39,456	37,767	2,413	15,299	12,051	106,986
international trade and services	76,629	72,814	9,675	13,484	8,189	180,791
commercial real estate	28,187	35,678	579	6,558	2,291	73,293
other property-related	7,126	34,379	1,667	8,934	281	52,387
government	2,264	1,195	1,552	164	968	6,143
other commercial[4]	58,861	38,966	4,702	13,554	6,942	123,025
Financial	45,081	76,957	13,786	16,439	10,753	163,016
non-bank financial institutions (F)	23,103	13,997	3,291	9,034	1,393	50,818
banks (G)	21,978	62,960	10,495	7,405	9,360	112,198
Gross loans at 31 December 2014 (H)	257,604	297,756	34,374	74,432	41,475	705,641
Impairment allowances on wholesale lending						
Corporate and commercial (e)	3,112	1,089	1,171	608	1,461	7,441
manufacturing	529	242	141	152	348	1,412
	877	533	536	157	237	2,340

Explanation of Responses:

international trade and services						
commercial real estate	909	44	147	101	476	1,677
other property-related	203	55	219	57	12	546
government	4		1			5
other commercial	590	215	127	141	388	1,461
Financial	252	13	39	39	2	345
non-bank financial institutions (f)	221	13	21	39	2	296
banks (g)	31		18			49
Impairment allowances at 31 December 2014 (h)	3,364	1,102	1,210	647	1,463	7,786
	%	%	%	%	%	%
(e) as a percentage of (E)	1.5	0.5	5.7	1.0	4.8	1.4
(f) as a percentage of (F)	0.9	0.1	0.6	0.4	0.1	0.6
(g) as a percentage of (G)	0.1		0.2			
(h) as a percentage of (H)	1.3	0.4	3.5	0.9	3.5	1.1

For footnote, see page 191.

Commercial real estate

Commercial real estate lending

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Neither past due nor impaired	**24,533**	**32,182**	**466**	**6,659**	**1,086**	**64,926**
Past due but not impaired	**89**	**119**	**25**	**212**	**9**	**454**
Impaired loans	**1,634**	**70**	**199**	**161**	**482**	**2,546**
Total gross loans and advances at 31 December 2015	**26,256**	**32,371**	**690**	**7,032**	**1,577**	**67,926**
Of which:						
renegotiated loans[12]	**1,586**	**6**	**182**	**150**	**210**	**2,134**
Impairment allowances	**613**	**35**	**145**	**76**	**343**	**1,212**
Neither past due nor impaired	25,860	35,430	333	6,136	1,535	69,294
Past due but not impaired	18	170	47	100	28	363
Impaired loans	2,309	78	199	322	728	3,636
Total gross loans and advances at 31 December 2014	28,187	35,678	579	6,558	2,291	73,293
Of which:						
renegotiated loans[12]	1,954	19	183	191	377	2,724
Impairment allowances	909	44	147	101	476	1,677

For footnote, see page 191.

Commercial real estate lending includes the financing of corporate, institutional and high net worth individuals who are investing primarily in income-producing assets and, to a lesser extent, in their construction and development. The business focuses mainly on traditional core asset classes such as retail, offices, light industrial and residential building projects. The portfolio is globally diversified with larger concentrations in Hong Kong, the UK, the US and Canada.

In more developed markets, our exposure mainly comprises the financing of investment assets, the redevelopment of existing stock and the augmentation of both commercial and residential markets to support economic and population growth. In lesser developed commercial real estate markets our exposures comprise lending for development assets on relatively short tenors with a particular focus on supporting the larger, better capitalised developers involved in residential construction or in assets supporting economic expansion.

Our global exposure is centred largely on cities representing key locations of economic, political or cultural significance. In many lesser developed markets, industry is evolving to move away from the development and rapid construction of recent years to increasingly focus on investment stock consistent with more developed markets.

Excluding the effects of the Brazilian reclassification, commercial real estate lending was lower by $4.5bn including decreases of $3.2bn relating to adverse foreign exchange movements.

The commentary that follows is on a constant currency basis, while tables are presented on a reported basis.

The commercial real estate lending was lower by $1.3bn, largely due to a decrease of $2.6bn in Asia, mainly in Hong Kong and, to a lesser extent, mainland China and Singapore. The decrease in Asia was mainly due to the repayment and maturity of loans and was partly offset by increases of $1.0bn in North America and $0.4bn in Mexico. Europe and Middle East and Africa remained largely unchanged.

Refinance risk in commercial real estate

Commercial real estate lending tends to require the repayment of a significant proportion of the principal at maturity. Typically, a customer will arrange repayment through the acquisition of a new loan to settle the existing debt. Refinance risk is the risk that a customer, being unable to repay the debt on maturity, fails to refinance it at commercial rates. We monitor our commercial real estate portfolio closely, assessing those drivers that may indicate potential issues with refinancing. The principal driver is the vintage of the loan, when origination reflected previous market norms which do not apply in the current market. Examples might be higher loan-to-value (LTV) ratios and/or lower interest cover ratios. The range of refinancing sources in the local market is also an important consideration, with risk increasing when lenders are restricted to banks and when bank liquidity is limited. In addition, underlying fundamentals such as the reliability of tenants, the ability to let and the condition of the property are important as they influence property values.

Report of the Directors: Risk (continued)

Credit risk

Commercial real estate loans and advances maturity analysis

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
On demand, overdrafts or revolving						
< 1 year[13]	**6,830**	**8,811**	**252**	**2,992**	**694**	**19,579**
1-2 years	**4,367**	**5,934**	**66**	**939**	**102**	**11,408**
2-5 years	**11,459**	**11,399**	**235**	**2,037**	**138**	**25,268**
> 5 years	**3,600**	**6,227**	**137**	**1,064**	**643**	**11,671**
At 31 December 2015	**26,256**	**32,371**	**690**	**7,032**	**1,577**	**67,926**
On demand, overdrafts or revolving						
< 1 year[13]	7,382	9,810	264	1,855	1,325	20,636
1-2 years	4,643	6,689	24	1,158	205	12,719
2-5 years	11,686	12,156	156	2,131	320	26,449
> 5 years	4,476	7,023	135	1,414	441	13,489
At 31 December 2014	28,187	35,678	579	6,558	2,291	73,293

For footnote, see page 191.

Collateral on loans and advances

Collateral held is analysed separately below for commercial real estate and for other corporate, commercial and financial (non-bank) lending. This reflects the greater correlation between collateral performance and principal repayment in the commercial real estate sector than applies to other lending. In each case, the analysis includes off-balance sheet loan commitments, primarily undrawn credit lines.

The collateral measured in the tables below consists of fixed first charges on real estate and charges over cash and marketable financial instruments. The values in the tables represent the expected market value on an open market basis; no adjustment has been made to the collateral for any expected costs of recovery. Cash is valued at its nominal value and marketable securities at their fair value. The LTV ratios presented are calculated by directly associating loans and advances with the collateral that individually and uniquely supports each facility. When collateral assets are shared by multiple loans and advances, whether specifically or, more generally, by way of an all monies charge, the collateral value is pro-rated across the loans and advances protected by the collateral.

Other types of collateral which are commonly taken for corporate and commercial lending such as unsupported guarantees and floating charges over the assets of a customer s business are not measured in the tables below. While such mitigants have value, often providing rights in insolvency, their assignable value is not sufficiently certain and they are therefore assigned no value for disclosure purposes.

For impaired loans the collateral values cannot be directly compared with impairment allowances recognised. The LTV tables below use open market values with no adjustments. Impairment allowances are calculated on a different basis, by considering other cash flows and adjusting collateral values for costs of realising collateral as explained further on page 202.

Commercial real estate loans and advances

The value of commercial real estate collateral is determined by using a combination of professional and internal valuations and physical inspections. Due to the complexity of valuing collateral for commercial real estate, local valuation policies determine the frequency of review on the basis of local market conditions. Revaluations are sought with greater frequency as concerns over the performance of the collateral or the direct obligor increase. Revaluations may also be sought where customers amend their banking requirements, resulting in the Group extending further funds or other significant rearrangements of exposure or collateral, which may change the customer risk profile. As a result, the real estate collateral values used for CRR1-7 might date back to the last point at which such considerations applied. For CRR 8 and 9-10 almost all collateral would have been revalued within the last three years.

In Hong Kong, market practice is typically for lending to major property companies to be either secured by guarantees or unsecured. In Europe, facilities of a working capital nature are generally not secured by a first fixed charge and are therefore disclosed as not collateralised.

Commercial real estate loans and advances including loan commitments by level of collateral

(Audited)

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Rated CRR/EL 1 to 7						
Not collateralised	**4,498**	**12,329**	**499**	**8**	**500**	**17,834**
Fully collateralised	**25,773**	**26,270**	**36**	**9,997**	**542**	**62,618**
Partially collateralised (A)	**3,025**	**1,924**		**1,264**	**52**	**6,265**
collateral value on A	**2,106**	**1,175**		**981**	**8**	**4,270**
	33,296	**40,523**	**535**	**11,269**	**1,094**	**86,717**
Rated CRR/EL 8						
Not collateralised	**28**					**28**
Fully collateralised	**668**	**4**		**9**	**1**	**682**
LTV ratio:						
less than 50%	**86**			**5**	**1**	**92**
51% to 75%	**377**	**4**		**4**		**385**
76% to 90%	**174**					**174**
91% to 100%	**31**					**31**
Partially collateralised (B)	**120**	**1**		**1**		**122**
collateral value on B	**87**					**87**
	816	**5**		**10**	**1**	**832**
Rated CRR/EL 9 to 10						
Not collateralised	**65**	**51**	**5**	**2**	**299**	**422**
Fully collateralised	**900**	**18**	**7**	**76**	**123**	**1,124**
LTV ratio:						
less than 50%	**174**	**10**	**7**	**15**	**15**	**221**
51% to 75%	**425**	**2**		**27**	**59**	**513**
76% to 90%	**140**	**2**		**10**	**4**	**156**
91% to 100%	**161**	**4**		**24**	**45**	**234**
Partially collateralised (C)	**716**	**5**	**181**	**66**	**64**	**1,032**
collateral value on C	**397**	**3**	**89**	**35**	**31**	**555**

	1,681	**74**	**193**	**144**	**486**	**2,578**
At 31 December 2015	**35,793**	**40,602**	**728**	**11,423**	**1,581**	**90,127**
Rated CRR/EL 1 to 7						
Not collateralised	5,351	16,132	361	87	1,719	23,650
Fully collateralised	25,873	26,323	23	9,093	556	61,868
Partially collateralised (D)	1,384	1,599		1,819	152	4,954
collateral value on D	1,032	901		1,199	47	3,179
	32,608	44,054	384	10,999	2,427	90,472
Rated CRR/EL 8						
Not collateralised	34	7		9	2	52
Fully collateralised	568	23		30	1	622
LTV ratio:						
less than 50%	64			16	1	81
51% to 75%	222	11		10		243
76% to 90%	132	9		4		145
91% to 100%	150	3				153
Partially collateralised (E)	365			7		372
collateral value on E	296			2		298
	967	30		46	3	1,046
Rated CRR/EL 9 to 10						
Not collateralised	369	48	6	1	499	923
Fully collateralised	992	15	7	166	178	1,358
LTV ratio:						
less than 50%	78	6	7	28	10	129
51% to 75%	593	2		91	43	729
76% to 90%	167	2		17	53	239
91% to 100%	154	5		30	72	261
Partially collateralised (F)	1,085	15	181	37	50	1,368
collateral value on F	664	5	89	30	13	801
	2,446	78	194	204	727	3,649
At 31 December 2014	36,021	44,162	578	11,249	3,157	95,167

HSBC HOLDINGS PLC

Report of the Directors: Risk (continued)

Credit risk

Other corporate, commercial and financial (non-bank) loans are analysed separately below. For financing activities in other corporate and commercial lending, collateral value is not strongly correlated to principal repayment performance. Collateral values are generally refreshed when an obligor s general credit performance deteriorates and we have to

assess the likely performance of secondary sources of repayment should it prove necessary to rely on them.

Accordingly, the table below reports values only for customers with CRR 8 to 10, recognising that these loans and advances generally have valuations which are comparatively recent.

Other corporate, commercial and non-bank financial institutions loans and advances including loan commitments by level of collateral rated CRR/EL 8 to 10 only

(Audited)

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
Rated CRR/EL 8						
Not collateralised	**1,618**	**164**	**36**	**609**	**102**	**2,529**
Fully collateralised	**434**	**41**		**454**	**1**	**930**
LTV ratio:						
less than 50%	**65**	**13**		**95**	**1**	**174**
51% to 75%	**337**	**8**		**85**		**430**
76% to 90%	**28**	**18**		**168**		**214**
91% to 100%	**4**	**2**		**106**		**112**
Partially collateralised (A)	**109**	**47**	**1**	**179**		**336**
collateral value on A	**73**	**17**		**58**		**148**
	2,161	**252**	**37**	**1,242**	**103**	**3,795**
Rated CRR/EL 9 to 10						
Not collateralised	**2,850**	**889**	**814**	**80**	**244**	**4,877**
Fully collateralised	**824**	**440**	**188**	**323**	**78**	**1,853**
LTV ratio:						

less than 50%	**283**	**94**	**46**	**47**	**44**	**514**
51% to 75%	**346**	**149**	**3**	**47**	**8**	**553**
76% to 90%	**96**	**74**	**25**	**27**	**9**	**231**
91% to 100%	**99**	**123**	**114**	**202**	**17**	**555**
Partially collateralised (B)	**1,702**	**506**	**441**	**423**	**7**	**3,079**
collateral value on B	**795**	**236**	**55**	**283**	**5**	**1,374**
	5,376	**1,835**	**1,443**	**826**	**329**	**9,809**
At 31 December 2015	**7,537**	**2,087**	**1,480**	**2,068**	**432**	**13,604**
Rated CRR/EL 8						
Not collateralised	2,051	237	15	320	227	2,850
Fully collateralised	629	56	72	331	11	1,099
LTV ratio:						
less than 50%	120	13		186	5	324
51% to 75%	293			72	6	371
76% to 90%	51	9	69	46		175
91% to 100%	165	34	3	27		229
Partially collateralised (C)	105	44	1	148	6	304
collateral value on C	46	17	1	68	4	136
	2,785	337	88	799	244	4,253
Rated CRR/EL 9 to 10						
Not collateralised	4,185	939	813	62	1,420	7,419
Fully collateralised	615	143	147	231	124	1,260
LTV ratio:						
less than 50%	169	68	25	48	48	358
51% to 75%	136	27	19	39	35	256
76% to 90%	168	16	6	35	26	251
91% to 100%	142	32	97	109	15	395
Partially collateralised (D)	624	364	547	251	140	1,926
collateral value on D	341	169	92	141	46	789
	5,424	1,446	1,507	544	1,684	10,605
At 31 December 2014	8,209	1,783	1,595	1,343	1,928	14,858

Other credit risk exposures

In addition to collateralised lending, other credit enhancements are employed and methods used to mitigate credit risk arising from financial assets. These are described in more detail below:

- some securities issued by governments, banks and other financial institutions benefit from additional credit enhancement provided by government guarantees that cover the assets.

- debt securities issued by banks and financial institutions include ABSs and similar instruments which are supported by underlying pools of financial assets. Credit risk associated with ABSs is reduced through the purchase of credit default swap (CDS) protection.

Disclosure of the Group s holdings of ABSs and associated CDS protection is provided on page 153.

- trading assets include loans and advances held with trading intent. These mainly consist of cash collateral posted to satisfy margin requirements on derivatives, settlement accounts, reverse repos and stock borrowing. There is limited credit risk on cash collateral posted since in the event of default of the counterparty these would be set-off against the related liability. Reverse repos and stock borrowing are by their nature collateralised.

Collateral accepted as security that the Group is permitted to sell or repledge under these arrangements is described on page 162 on the Financial Statements.

- the Group s maximum exposure to credit risk includes financial guarantees and similar contracts granted, as well as loan and other credit-related commitments. Depending on the terms of the arrangement, we may have recourse to additional credit mitigation in the event that a guarantee is called upon or a loan commitment is drawn and subsequently defaults.

For further information on these arrangements, see Note 37 on the Financial Statements.

Derivatives

HSBC participates in transactions exposing us to counterparty credit risk. Counterparty credit risk is the risk of financial loss if the counterparty to a transaction defaults before satisfactorily settling it. It arises principally from OTC derivatives and securities financing transactions and is calculated in both the trading and non-trading books. Transactions vary in value by reference to a market factor such as interest rate, exchange rate or asset price.

The counterparty risk from derivative transactions is taken into account when reporting the fair value of derivative positions. The adjustment to the fair value is known as the credit value adjustment (CVA).

For an analysis of CVA, see Note 13 on the Financial Statements.

The table below reflects by risk type the fair values and gross notional contract amounts of derivatives cleared through an exchange, central counterparty and non-central counterparty.

Report of the Directors: Risk (continued)

Credit risk

Notional contract amounts and fair values of derivatives by product type

	2015			2014		
	Notional amount	**Fair value**		Notional amount	Fair value	
		Assets	**Liabilities**		Assets	Liabilities
	$m	**$m**	**$m**	$m	$m	$m
Foreign exchange	**5,690,354**	**96,341**	**95,598**	5,573,415	97,312	95,759
exchange traded	**195,612**	**167**	**76**	81,785	229	369
central counterparty cleared OTC	**29,263**	**406**	**443**	18,567	321	349
non-central counterparty cleared OTC	**5,465,479**	**95,768**	**95,079**	5,473,063	96,762	95,041
Interest rate	**14,675,036**	**279,154**	**271,367**	22,328,518	473,243	468,152
exchange traded	**1,259,888**	**49**	**8**	1,432,333	112	161
central counterparty cleared OTC	**8,774,674**	**117,877**	**117,695**	15,039,001	261,880	264,509
non-central counterparty cleared OTC	**4,640,474**	**161,228**	**153,664**	5,857,184	211,251	203,482
Equity	**501,834**	**8,732**	**10,383**	568,932	11,694	13,654
exchange traded	**265,129**	**1,888**	**2,601**	289,140	2,318	3,201
non-central counterparty cleared OTC	**236,705**	**6,844**	**7,782**	279,792	9,376	10,453
Credit	**463,344**	**6,961**	**6,884**	550,197	9,340	10,061
central counterparty cleared OTC	**90,863**	**1,779**	**2,069**	126,115	1,999	2,111

non-central counterparty cleared OTC	**372,481**	**5,182**	**4,815**	424,082	7,341	7,950
Commodity and other	**51,683**	**3,148**	**2,699**	77,565	3,884	3,508
exchange traded	**8,136**	**38**		7,015	80	23
non-central counterparty cleared OTC	**43,547**	**3,110**	**2,699**	70,550	3,804	3,485
Total OTC derivatives	**19,653,486**	**392,194**	**384,246**	27,288,354	592,735	587,379
total OTC derivatives cleared by central counterparties	**8,894,800**	**120,062**	**120,207**	15,183,683	264,200	266,968
total OTC derivatives not cleared by central counterparties	**10,758,686**	**272,132**	**264,039**	12,104,671	328,535	320,411
Total exchange traded derivatives	**1,728,765**	**2,142**	**2,685**	1,810,273	2,739	3,755
Gross	**21,382,251**	**394,336**	**386,931**	29,098,627	595,473	591,134
Offset		**(105,860)**	**(105,860)**		(250,465)	(250,465)
Total at 31 December		**288,476**	**281,071**		345,008	340,669

The purposes for which HSBC uses derivatives are described in Note 16 on the Financial Statements.

The International Swaps and Derivatives Association (ISDA) Master Agreement is our preferred agreement for documenting derivatives activity. It provides the contractual framework within which dealing activity across a full range of OTC products is conducted, and contractually binds both parties to apply close-out netting across all outstanding transactions covered by an agreement if either party defaults or another pre-agreed termination event occurs. It is common, and our preferred practice, for the parties to execute a Credit Support Annex (CSA) in conjunction with the ISDA Master Agreement. Under a CSA, collateral is passed between the parties to mitigate the counterparty risk inherent in outstanding positions.

We manage the counterparty exposure arising from market risk on our OTC derivative contracts by using collateral agreements with counterparties and netting agreements. Currently, we do not actively manage our general OTC derivative counterparty exposure in the credit markets, although we may manage individual exposures in certain circumstances.

We place strict policy restrictions on collateral types and as a consequence the types of collateral received and pledged are, by value, highly liquid and of a strong quality, being predominantly cash.

Where a collateral type is required to be approved outside the collateral policy (which includes collateral that includes

wrong way risks), a submission to one of three regional Documentation Approval Committees (DAC s) for approval is required. These DACs require the participation and sign-off of senior representatives from regional Markets Chief Operating Officers, Legal and Risk.

The majority of our CSAs are with financial institutional clients.

As a consequence of our policy, the type of agreement we enter into is predominately ISDA CSAs, the majority of which are written under English law. The table below provides a breakdown of OTC collateral agreements by agreement type:

OTC collateral agreements by type

	Number of agreements
ISDA CSA (English law)	**2,670**
ISDA CSA (New York law)	**1,702**
ISDA CSA (Japanese law)	**17**
French Master Agreement and CSA equivalent[14]	**223**
German Master Agreement and CSA equivalent[15]	**93**
Others	**395**
At 31 December 2015	**5,100**

For footnotes, see page 191.

See page 122 and Note 32 on the Financial Statements for details regarding legally enforceable right of offset in the event of counterparty default and collateral received in respect of derivatives.

Reverse repos non-trading by geographical region

The amount of non-trading reverse repos include transactions with customers and banks and is set out below.

Reverse repos non-trading by geographical region

(Audited)

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
With customers	28,366	5,650		40,316		74,332
With banks	15,824	21,804	779	32,034	1,482	71,923
At 31 December 2015	**44,190**	**27,454**	**779**	**72,350**	**1,482**	**146,255**
With customers	25,841	5,409		35,060		66,310
With banks	34,748	22,813	19	29,008	8,815	95,403
At 31 December 2014	**60,589**	**28,222**	**19**	**64,068**	**8,815**	**161,713**

Personal lending

We provide a broad range of secured and unsecured personal lending products to meet customer needs. Personal lending includes advances to customers for asset purchases such as residential property where the

loans are secured by the assets being acquired. We also offer loans secured on existing assets, such as first liens on residential property, and unsecured lending products such as overdrafts, credit cards and payroll loans.

Total personal lending

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
First lien residential mortgages (A)	**125,544**	**94,606**	**2,258**	**50,117**	**1,986**	**274,511**
Of which:						
interest only (including offset)	**40,906**	**936**		**180**		**42,022**
affordability including ARMs	**356**	**3,966**		**17,041**		**21,363**
Other personal lending (B)	**44,982**	**38,101**	**4,447**	**8,069**	**3,972**	**99,571**
other	**32,862**	**27,682**	**3,147**	**3,284**	**1,816**	**68,791**
credit cards	**12,115**	**10,189**	**929**	**996**	**1,780**	**26,009**
second lien residential mortgages		**33**	**2**	**3,762**		**3,797**
motor vehicle finance	**5**	**197**	**369**	**27**	**376**	**974**
Total gross loans at 31 December 2015 (C)	**170,526**	**132,707**	**6,705**	**58,186**	**5,958**	**374,082**
Impairment allowances on personal lending						
First lien residential mortgages (a)	**278**	**29**	**24**	**991**	**22**	**1,344**
Other personal lending (b)	**667**	**227**	**214**	**241**	**186**	**1,535**
other	**401**	**104**	**180**	**31**	**80**	**796**
credit cards	**265**	**122**	**29**	**30**	**102**	**548**
second lien residential mortgages				**180**		**180**
motor vehicle finance	**1**	**1**	**5**		**4**	**11**
Total impairment allowances at 31 December 2015 (c)	**945**	**256**	**238**	**1,232**	**208**	**2,879**
	%	%	%	%	%	%
(a) as a percentage of A	**0.2**	**0.0**	**1.1**	**2.0**	**1.1**	**0.5**
(b) as a percentage of B	**1.5**	**0.6**	**4.8**	**3.0**	**4.7**	**1.5**
(c) as a percentage of C	**0.6**	**0.2**	**3.5**	**2.1**	**3.5**	**0.8**

Report of the Directors: Risk (continued)

Credit risk

Total personal lending (continued)

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m
First lien residential mortgages (D)	131,000	93,147	2,647	55,577	4,153	286,524
Of which:						
interest only (including offset)	44,163	956		276		45,395
affordability including ARMs	337	5,248		16,452		22,037
Other personal lending (E)	47,531	36,368	3,924	9,823	9,384	107,030
other	34,567	25,695	2,633	4,328	4,846	72,069
credit cards	12,959	10,289	897	1,050	3,322	28,517
second lien residential mortgages		56	2	4,433		4,491
motor vehicle finance	5	328	392	12	1,216	1,953
Total gross loans at 31 December 2014 (F)	178,531	129,515	6,571	65,400	13,537	393,554
Impairment allowances on personal lending						
First lien residential mortgages (d)	306	46	97	1,644	36	2,129
Other personal lending (e)	786	208	97	350	1,030	2,471
other	438	87	59	43	672	1,299
credit cards	347	119	33	36	298	833
second lien residential mortgages				271		271
motor vehicle finance	1	2	5		60	68
Total impairment allowances at 31 December 2014 (f)	1,092	254	194	1,994	1,066	4,600
	%	%	%	%	%	%
(d) as a percentage of D	0.2		3.7	3.0	0.9	0.7

Explanation of Responses:

(e) as a percentage of E	1.7	0.6	2.5	3.6	11.0	2.3
(f) as a percentage of F	0.6	0.2	3.0	3.0	7.9	1.2

On a reported basis, total personal lending was $374bn at 31 December 2015, down from $394bn at the end of 2014. The reduction of $20bn was mainly due to adverse foreign exchange movements of $19bn, the reclassification of $7.6bn of assets of our Brazilian operations as Assets held for sale and the run-off of our CML portfolio in North America of $5bn during the year. Excluding these factors, personal lending balances grew by $12bn in 2015. This was primarily driven by increased mortgage and other lending in Asia.

Loan impairment allowances reduced by $1.7bn on a reported basis, mainly due to the Brazilian reclassification ($0.8bn) and the run-off of the US CML portfolio ($0.7bn).

Personal lending loan impairment charges were largely unchanged at $1.8bn on a reported basis. On a constant currency basis, they were $0.3bn higher than in 2014, reflecting increased write-offs in the UAE following a review of the quality and value of residential mortgage collateral and the effects of adverse macroeconomic conditions in Brazil.

Mortgage lending

We offer a wide range of mortgage products designed to meet customer needs, including capital repayment, interest-only, affordability and offset mortgages.

Group credit policy prescribes the range of acceptable residential property LTV thresholds with the maximum upper limit for new loans set at between 75% and 95%.

Specific LTV thresholds and debt-to-income ratios are managed at regional and country levels and, although the parameters must comply with Group policy, strategy and risk appetite, they differ in the various locations in which we operate to reflect the local economic and housing market conditions, regulations, portfolio performance, pricing and other product features.

Reported gross mortgage lending balances declined by $12bn. Adverse foreign exchange differences and the Brazilian reclassification reduced the gross mortgage lending balances by further $13bn and $2.1bn respectively.

The commentary that follows is on a constant currency basis, while tables are presented on a reported basis.

Excluding the effect of the Brazilian reclassification and the US CML run-off portfolio, mortgage lending balances increased by $7.7bn during the year.

Mortgage lending in Asia, excluding the reclassification to other personal lending discussed on page 145, grew by $6.4bn. The increases were primarily attributable to continued growth in Hong Kong ($4.2bn), mainland China ($1.7bn) and Australia ($1.1bn) as a result of strong demand and our competitive customer offerings. During the year, mortgage lending in Singapore fell by $1.1bn due to a business decision to constrain the level of our mortgage portfolio, coupled with the effect of a range of personal lending regulations. The quality of our Asian mortgage book remained high with negligible defaults and impairment allowances. The average LTV ratio on new mortgage lending in Hong Kong was 43% compared with an estimated 29% for the overall portfolio.

In North America, the US CML portfolio, including second lien mortgages, declined by $5.2bn in 2015 as we continued to run it off. The US Premier mortgage portfolio increased by $1.1bn during 2015 as we focused on growth in our core portfolios of higher quality mortgages. Our Canadian mortgage lending balances also grew by $0.8bn during the year. Collectively assessed impairment allowances reduced during the year due to continued improvements in the credit quality of the mortgage portfolio and continued loan sales.

In Europe, UK mortgage balances were unchanged and our products remained competitive in the prolonged low interest rate market environment. In the UK, the credit

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quality of our mortgage portfolio remained high, the LTV ratio on new lending was 57.8% compared with an average of 42.6% for the overall portfolio.

Exposure to UK interest-only mortgage loans

Interest-only mortgage products made up $40bn of total UK mortgage lending, including $16bn of offset mortgages in First Direct and $1.7bn of endowment mortgages.

The following information is presented for HSBC Bank plc s UK interest-only mortgage loans with balances of $18bn at the end of 2015. $0.2bn of interest-only mortgages matured during 2015. Of these, 2,636 loans with total balances of $0.1bn were repaid in full, 164 loans with balances of $0.03bn have agreed future repayment plans and 550 loans with balances of $0.1bn are subject to ongoing individual assessments.

The profile of expiring UK interest-only loans was as follows:

UK interest-only mortgage loans

	$m
2015 expired interest-only mortgage loans	**266**
Interest-only mortgage loans by maturity	
2016	**314**
2017	**384**
2018	**723**
2019	**801**
2020	**805**
2021-2025	**3,997**
Post 2025	**10,390**
Total at 31 December 2015	**17,680**

Other personal lending

Reported other personal lending balances declined by $7.5bn during the year, mainly due to adverse foreign exchange movements of $5.8bn and the Brazilian reclassification of $5.5bn. The reduction was offset by the growth in other personal lending in Hong Kong.

The commentary that follows is on a constant currency basis, while tables are presented on a reported basis.

Excluding the Brazilian reclassification, other personal lending increased by $4bn in 2015. This was driven by strong growth in personal loans and overdrafts in Hong Kong ($1.5bn), other unsecured personal lending portfolio in UK ($0.7bn) and other personal lending in France

($0.6bn). In Mexico, other unsecured personal lending grew by $0.6bn mainly in payroll and personal loans as a result of various sales and credit initiatives. In addition, we reclassified a total of $1.8bn of loans in Malaysia and India, and $0.4bn in the UAE, from residential mortgages to other personal lending following a review of the supporting collateral.

HSBC Finance

HSBC Finance US Consumer and Mortgage Lending residential mortgages[16]

	2015 **$m**	2014 $m
Residential mortgages:		
first lien	**17,157**	21,915
Other personal lending:		
second lien	**2,089**	2,509
Total (A) at 31 December	**19,246**	24,424
Impairment allowances	**986**	1,679
as a percentage of A	**5.1%**	6.9%

For footnote, see page 191.

Mortgage lending balances in HSBC Finance declined by $5.2bn or 21% during 2015. In addition to the continued loan sales in the CML portfolio, we transferred a further $2.4bn to Assets held for sale during the year, and these loans were sold in May, August and November 2015.

There was a decrease in impairment allowances reflecting reduced levels of delinquency, and lower levels of both new impaired loans and loan balances outstanding as a result of continued liquidation of the portfolio.

Among the first and second lien residential mortgages in our CML portfolio, two months and over delinquent balances halved to $1.2bn during 2015.

At 31 December 2015, renegotiated real estate secured accounts in HSBC Finance represented 91% (2014: 93%) of North America s total renegotiated loans. $5.1bn of renegotiated real estate secured loans was classified as impaired (2014: $7.6bn).

HSBC Bank USA

In HSBC Bank USA, mortgage balances grew by $1.1bn to $18bn at 31 December 2015 as we continued to implement our strategy to grow the HSBC Premier and Advance customer base. We continued to sell all agency-eligible new originations in the secondary market.

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Report of the Directors: Risk (continued)

Credit risk

Trends in two months and over contractual delinquency in the US

	2015 $m	2014 $m
In personal lending in the US		
First lien residential mortgages	**1,954**	3,271
Consumer and Mortgage Lending	**1,049**	2,210
other mortgage lending	**905**	1,061
Second lien residential mortgages	**161**	216
Consumer and Mortgage Lending	**106**	154
other mortgage lending	**55**	62
Credit card	**16**	17
Personal non-credit card	**3**	7
Total at 31 December	**2,134**	3,511
	%	%
As a percentage of the equivalent loans and receivables balances		
First lien residential mortgages	**5.7**	8.6
Second lien residential mortgages	**4.4**	5.0
Credit card	**2.3**	2.4
Personal non-credit card	**0.7**	1.4
Total at 31 December	**5.4**	8.1

Gross loan portfolio of HSBC Finance real estate secured balances

	Re-aged[17] $m	Modified and re-aged $m	Modified $m	Total renegotiated loans $m	Total non-renegotiated loans $m	Total gross loans $m	Total impairment allowances $m	Impairmen allowance gross loan
December 15	**4,858**	**5,257**	**519**	**10,634**	**8,612**	**19,246**	**986**	**5**
	6,637	6,581	587	13,805	10,619	24,424	1,679	6

Explanation of Responses:

December
.4

For footnote, see page 191.

Number of renegotiated real estate secured accounts remaining in HSBC Finance s portfolio

	Number of renegotiated loans (000s)				Total number of loans
	Re-aged	Modified and re-aged	Modified	Total	(000s)
At 31 December 2015	**66**	**54**	**6**	**126**	**240**
At 31 December 2014	85	64	6	155	297

HSBC Finance loan modifications and re-age programmes

HSBC Finance maintains loan modification and re-age (loan renegotiation) programmes in order to manage customer relationships, improve collection opportunities and, if possible, avoid foreclosure.

Qualifying criteria

For an account to qualify for renegotiation it must meet certain criteria, and HSBC Finance retains the right to decline a renegotiation.

Renegotiated real estate secured loans are not eligible for a subsequent renegotiation for six or 12 months depending upon the action, with a maximum of five renegotiations permitted within a five-year period. Borrowers must be approved for a modification and, to activate it, must generally make two minimum qualifying monthly payments within 60 days. In certain circumstances where the debt has been restructured in bankruptcy proceedings, fewer or no payments may be required. Real estate secured loans

involving a bankruptcy and accounts whose borrowers are subject to a Chapter 13 plan filed with a bankruptcy court generally may be considered current upon receipt of one qualifying payment, while accounts whose borrowers have filed for Chapter 7 bankruptcy protection may be re-aged upon receipt of a signed reaffirmation agreement. In addition, any account may be re-aged without receipt of a payment in certain special circumstances (for example, in the event of a natural disaster or a hardship programme).

Within the constraints of our Group credit policy, we allow for multiple renegotiations under certain circumstances. Consequently, a significant proportion of loans included in the table above have undergone multiple re-ages or modifications. In this regard, multiple modifications have remained consistent at 70% to 75% of total modifications.

The accounts that received second or subsequent renegotiations during the year do not appear in the statistics presented. These statistics treat a loan as an addition to the volume of renegotiated loans on its first renegotiation only.

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Types of loan renegotiation programmes in HSBC Finance

A temporary modification is a change to the contractual terms of a loan that results in HSBC Finance giving up a right to contractual cash flows over a pre-defined period, typically two years. With a temporary modification the loan is expected to revert back to the original contractual terms, including the interest rate charged, after the modification period. An example is reduced interest payments.

A substantial number of HSBC Finance modifications involve interest rate reductions, which lower the amount of interest income HSBC Finance is contractually entitled to receive in future periods. Historically, modifications were granted for terms as low as six months, although more recent modifications have a minimum term of two years.

A permanent modification is a change to the contractual terms of a loan that results in HSBC Finance giving up a right to contractual cash flows over the life of the loan.

An example is a permanent reduction in the interest rate charged.

HSBC Finance also offers a re-age renegotiation programme, which results in the resetting of an account s contractual delinquency status to current (non-delinquent) upon fulfilment of certain requirements and without additional concessions. The overdue principal and/or interest is deferred and paid at a later date. Loan re-ageing enables customers who have been unable to make a small number of payments to have their loan delinquency status reset to current so that their credit score is not affected by the overdue balances. Re-aging may be offered to customers either without any modification of original loan terms, or as part of a loan modification transaction.

All renegotiation transactions described above with the exception of first time re-ages on accounts that are less than 60 days past due are classified as impaired. These remain classified as impaired until they have demonstrated a history of payment performance against their original contracted terms for at least 12 months, with the exception of permanent modifications. All modified loans with terms over two years are considered to be permanently impaired.

Collateral and other credit enhancements held

(Audited)

The tables below provide a quantification of the value of fixed charges we hold over specific assets where we have a history of enforcing, and are able to enforce, collateral in satisfying a debt in the event of the borrower failing to meet its contractual obligations, and where

the collateral is cash or can be realised by sale in an established market. The collateral valuation excludes any adjustments for obtaining and selling the collateral and, in particular, loans shown as not collateralised or partially collateralised may also benefit from other forms of credit mitigants. UK and Hong Kong are shown, both within regional figures and separately, due to the size of their portfolios.

Residential mortgage loans including loan commitments by level of collateral

(Audited)

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m	UK $m	Hong Kong $m
Non-impaired loans and advances								
Fully collateralised	**128,113**	**100,102**	**2,144**	**41,567**	**1,869**	**273,795**	**122,221**	**61,784**
LTV ratio:								
less than 50%	**70,851**	**59,212**	**595**	**12,369**	**710**	**143,737**	**68,362**	**42,589**
51% to 75%	**47,933**	**33,237**	**985**	**22,071**	**903**	**105,129**	**45,762**	**15,961**
76% to 90%	**8,322**	**6,522**	**535**	**5,502**	**222**	**21,103**	**7,584**	**2,254**
91% to 100%	**1,007**	**1,131**	**29**	**1,625**	**34**	**3,826**	**513**	**980**
Partially collateralised:								
greater than 100% LTV (A)	**540**	**168**	**46**	**1,208**	**13**	**1,975**	**321**	**97**
collateral value on A	**434**	**155**	**37**	**1,147**	**11**	**1,784**	**221**	**95**
	128,653	**100,270**	**2,190**	**42,775**	**1,882**	**275,770**	**122,542**	**61,881**
Impaired loans and advances								
Fully collateralised	**1,407**	**222**	**44**	**6,713**	**109**	**8,495**	**1,191**	**46**
LTV ratio:								
less than 50%	**518**	**105**	**18**	**1,247**	**90**	**1,978**	**469**	**42**
51% to 75%	**619**	**76**	**13**	**2,819**	**14**	**3,541**	**540**	**3**

76% to 90%	**183**	**34**	**8**	**1,811**	**4**	**2,040**	**133**	**1**
91% to 100%	**87**	**7**	**5**	**836**	**1**	**936**	**49**	
Partially collateralised:								
greater than 100% LTV (B)	**178**	**8**	**18**	**628**	**1**	**833**	**49**	
collateral value on B	**160**	**6**	**13**	**547**		**726**	**36**	
	1,585	**230**	**62**	**7,341**	**110**	**9,328**	**1,240**	**46**
At 31 December 2015	**130,238**	**100,500**	**2,252**	**50,116**	**1,992**	**285,098**	**123,782**	**61,927**

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Report of the Directors: Risk (continued)

Credit risk

Residential mortgage loans including loan commitments by level of collateral (continued)

	Europe $m	Asia $m	MENA $m	North America $m	Latin America $m	Total $m	UK $m	Hong Kong $m
Non-impaired loans and advances								
Fully collateralised	135,875	99,257	2,431	43,317	3,759	284,639	130,333	57,703
LTV ratio:								
less than 50%	66,075	60,315	1,324	14,003	1,454	143,171	63,533	42,894
51% to 75%	56,178	31,142	856	20,872	1,777	110,825	54,095	12,135
76% to 90%	11,856	6,906	212	5,994	480	25,448	11,141	2,298
91% to 100%	1,766	894	39	2,448	48	5,195	1,564	376
Partially collateralised:								
greater than 100% LTV (C)	537	99	60	2,209	167	3,072	388	
collateral value on C	532	81	44	1,999	24	2,680	415	
	136,412	99,356	2,491	45,526	3,926	287,711	130,721	57,703
Impaired loans and advances								
Fully collateralised	906	256	122	8,618	154	10,056	781	48
LTV ratio:								
less than 50%	232	130	53	1,291	103	1,809	197	45
51% to 75%	417	90	29	3,462	35	4,033	376	3
76% to 90%	163	32	19	2,471	10	2,695	131	
91% to 100%	94	4	21	1,394	6	1,519	77	
Partially collateralised:								

greater than 100% LTV (D)	55	7	31	1,395	2	1,490	44	
collateral value on D	40	5	23	1,181	1	1,250	30	
	961	263	153	10,013	156	11,546	825	48
At 31 December 2014	137,373	99,619	2,644	55,539	4,082	299,257	131,546	57,751

Supplementary information

Gross loans and advances by industry sector over five years

	2015 $m	**Currency translation adjustment[18] $m**	**Movement $m**	2014 $m	2013 $m	2012 $m	2011 $m
Personal	**374,082**	**(20,232)**	**760**	393,554	410,728	415,093	393,625
first lien residential mortgages	**274,511**	**(13,697)**	**1,684**	286,524	299,875	301,862	278,963
other personal[3]	**99,571**	**(6,535)**	**(924)**	107,030	110,853	113,231	114,662
Corporate and commercial	**499,513**	**(30,496)**	**(12,616)**	542,625	545,981	517,120	478,064
manufacturing	**95,858**	**(8,043)**	**(3,085)**	106,986	113,850	112,149	96,054
international trade and services	**159,019**	**(10,148)**	**(11,624)**	180,791	184,668	169,389	152,709
commercial real estate	**67,926**	**(3,483)**	**(1,884)**	73,293	74,846	76,760	73,941
other property-related	**53,464**	**(1,256)**	**2,333**	52,387	44,832	40,532	39,539
government	**7,455**	**(354)**	**1,666**	6,143	7,277	10,785	11,079
other commercial[4]	**115,791**	**(7,212)**	**(22)**	123,025	120,508	107,505	104,742
Financial	**150,833**	**(9,577)**	**(2,606)**	163,016	170,627	164,013	184,035
non-bank financial institutions	**60,414**	**(2,210)**	**11,806**	50,818	50,523	46,871	44,832
banks	**90,419**	**(7,367)**	**(14,412)**	112,198	120,104	117,142	139,203
Total gross loans and advances	**1,024,428**	**(60,305)**	**(14,462)**	1,099,195	1,127,336	1,096,226	1,055,724
Impaired loans and advances to customers	**23,758**	**(1,868)**	**(3,657)**	29,283	36,428	38,671	41,584

Impairment allowances on loans and advances to customers	**9,555**	**(1,189)**	**(1,593)**	12,337	15,143	16,112	17,511
Loan impairment charge	**3,592**	**(682)**	**219**	4,055	6,048	8,160	11,505
new allowances net of allowance releases	**4,400**	**(821)**	**211**	5,010	7,344	9,306	12,931
recoveries	**(808)**	**139**	**8**	(955)	(1,296)	(1,146)	(1,426)

For footnotes, see page 191.

The personal lending currency effect on gross loans and advances of $20bn was made up as follows: Europe $10bn, Asia $4.2bn, Latin America $2.5bn and North America $3.3bn. The wholesale lending currency effect on gross loans and advances of $40bn was made up as follows:

Europe $17bn, Asia $8.7bn, Latin America $11bn, North America $2.7bn and Middle East and North Africa $0.7bn.

In the following two tables, negative percentage numbers are favourable, positive numbers are unfavourable.

Reconciliation of reported and constant currency impaired loans, allowances and charges by geographical region

	31 December 2014 as reported $m	Currency translation adjustment[18] $m	31 December 2014 at 31 December 2015 exchange rates $m	Movement constant currency basis $m	**31 December 2015 as reported $m**	**Reported change %**	**Constant currency change %**
mpaired oans							
urope	10,242	(748)	9,494	183	**9,677**	**(5.5)**	**1.9**
sia	2,048	(118)	1,930	445	**2,375**	**16.0**	**23.1**
liddle East nd North frica	1,981	(19)	1,962	(196)	**1,766**	**(10.9)**	**(10.0**
orth merica	11,694	(71)	11,623	(2,693)	**8,930**	**(23.6)**	**(23.2**
atin merica	3,365	(913)	2,452	(1,422)	**1,030**	**(69.4)**	**(58.0**
	29,330	(1,869)	27,461	(3,683)	**23,778**	**(18.9)**	**(13.4**
mpairment llowances							
urope	4,455	(364)	4,091	(222)	**3,869**	**(13.2)**	**(5.4**
sia	1,356	(64)	1,292	233	**1,525**	**12.5**	**18.0**
liddle East nd North frica	1,406	(11)	1,395	23	**1,418**	**0.9**	**1.6**
orth merica	2,640	(51)	2,589	(548)	**2,041**	**(22.7)**	**(21.2**
atin merica	2,529	(702)	1,827	(1,107)	**720**	**(71.5)**	**(60.6**
	12,386	(1,192)	11,194	(1,621)	**9,573**	**(22.7)**	**(14.5**

oan mpairment harge							
urope	1,079	(134)	945	(236)	**709**	**(34.3)**	**(25.0**
sia	644	(27)	617	64	**681**	**5.7**	**10.4**
Iiddle East nd North frica	(1)	(1)	(2)	301	**299**		
orth merica	300	(10)	290	179	**469**	**56.3**	**61.7**
atin merica	2,033	(510)	1,523	(89)	**1,434**	**(29.5)**	**(5.8**
	4,055	(682)	3,373	219	**3,592**	**(11.4)**	**6.5**

For footnote, see page 191.

Reconciliation of reported and constant currency loan impairment charges to the income statement

	31 December 2014 as reported $m	Currency translation adjustment[18] $m	31 December 2014 at 31 December 2015 exchange rates $m	Movement constant currency basis $m	**31 December 2015 as reported $m**	**Reported change %**	**Constant currency change %**
oan mpairment harge							
urope	1,079	(134)	945	(236)	**709**	**(34.3)**	**(25.0**
new lowances	2,445	(303)	2,142	(97)	**2,045**	**(16.4)**	**(4.5**
releases	(1,062)	140	(922)	(26)	**(948)**	**(10.7)**	**2.8**
recoveries	(304)	29	(275)	(113)	**(388)**	**27.6**	**41.1**
sia	644	(27)	617	64	**681**	**5.7**	**10.4**
new lowances	1,115	(61)	1,054	224	**1,278**	**14.6**	**21.3**
releases	(318)	21	(297)	(135)	**(432)**	**35.8**	**45.5**
recoveries	(153)	13	(140)	(25)	**(165)**	**7.8**	**17.9**
Iiddle East nd North frica	(1)	(1)	(2)	301	**299**		
new lowances	355	(7)	348	144	**492**	**38.6**	**41.4**
releases	(314)	6	(308)	148	**(160)**	**(49.0)**	**(48.1**
recoveries	(42)		(42)	9	**(33)**	**(21.4)**	**(21.4**
orth merica	300	(10)	290	179	**469**	**56.3**	**61.7**
	908	(20)	888	(157)	**731**	**(19.5)**	**(17.7**

new lowances							
releases	(493)	8	(485)	299	**(186)**	**(62.3)**	**(61.6**
recoveries	(115)	2	(113)	37	**(76)**	**(33.9)**	**(32.7**
atin merica	2,033	(510)	1,523	(89)	**1,434**	**(29.5)**	**(5.8**
new lowances	2,707	(674)	2,033	(239)	**1,794**	**(33.7)**	**(11.8**
releases	(333)	69	(264)	50	**(214)**	**(35.7)**	**(18.9**
recoveries	(341)	95	(246)	100	**(146)**	**(57.2)**	**(40.7**
otal	4,055	(682)	3,373	219	**3,592**	**(11.4)**	**6.5**
new lowances	7,530	(1,065)	6,465	(125)	**6,340**	**(15.8)**	**(1.9**
releases	(2,520)	244	(2,276)	336	**(1,940)**	**(23.0)**	**(14.8**
recoveries	(955)	139	(816)	8	**(808)**	**(15.4)**	**(1.0**

For footnote, see page 191.

Report of the Directors: Risk (continued)

Credit risk

Loan impairment charges by industry sector over five years

	2015 $m	2014 $m	2013 $m	2012 $m	2011 $m
Loan impairment charge/(release)					
Personal	**1,834**	1,803	3,196	5,362	9,318
Corporate and commercial	**1,769**	2,256	2,974	2,802	2,114
Financial	**(11)**	(4)	(122)	(4)	73
Year ended 31 December	**3,592**	4,055	6,048	8,160	11,505

Charge for impairment losses as a percentage of average gross loans and advances to customers

	2015 %	2014 %	2013 %	2012 %	2011 %
New allowances net of allowance releases	**0.48**	0.53	0.81	1.00	1.34
Recoveries	**(0.09)**	(0.10)	(0.14)	(0.12)	(0.15)
Total charge for impairment losses	**0.39**	0.43	0.67	0.88	1.19
Amount written off net of recoveries	**0.37**	0.58	0.59	0.93	1.14

Movement in impairment allowances over five years

	2015 $m	2014 $m	2013 $m	2012 $m	2011 $m
Impairment allowances at 1 January	**12,386**	15,201	16,169	17,636	20,241
Amounts written off	**(4,194)**	(6,379)	(6,655)	(9,812)	(12,480)
personal	**(2,707)**	(3,733)	(4,367)	(6,905)	(10,431)
corporate and commercial	**(1,473)**	(2,425)	(2,229)	(2,677)	(2,009)
financial	**(14)**	(221)	(59)	(230)	(40)
Recoveries of amounts written off in previous years	**808**	955	1,296	1,146	1,426
personal	**681**	818	1,097	966	1,175
corporate and commercial	**124**	128	198	172	242

financial	**3**	9	1	8	9
Loan impairment charge	**3,592**	4,055	6,048	8,160	11,505
Exchange and other movements[11]	**(3,019)**	(1,446)	(1,657)	(961)	(3,056)
Impairment allowances at 31 December	**9,573**	**12,386**	**15,201**	**16,169**	**17,636**
Impairment allowances					
individually assessed	**5,420**	6,244	7,130	6,629	6,662
collectively assessed	**4,153**	6,142	8,071	9,540	10,974
Impairment allowances at 31 December	**9,573**	12,386	15,201	16,169	17,636
	%	%	%	%	%
Amount written off net of recoveries as a percentage of average gross loans and advances to customers	**0.4**	0.6	0.6	1.0	1.2

For footnote, see page 191.

Gross loans and advances to customers by country

	First lien residential mortgages $m	Other personal[3] $m	Property-related $m	Commercial, international trade and other $m	Total $m
Europe	**125,544**	**44,982**	**33,579**	**191,807**	**395,912**
UK	**117,346**	**20,797**	**25,700**	**149,327**	**313,170**
France	**3,606**	**12,130**	**6,070**	**20,380**	**42,186**
Germany	**4**	**203**	**347**	**7,941**	**8,495**
Switzerland	**511**	**8,045**	**224**	**834**	**9,614**
Other	**4,077**	**3,807**	**1,238**	**13,325**	**22,447**
Asia	**94,606**	**38,101**	**67,577**	**157,616**	**357,900**
Hong Kong	**60,943**	**24,389**	**50,825**	**80,609**	**216,766**
Australia	**9,297**	**726**	**1,592**	**6,448**	**18,063**
India	**1,248**	**431**	**637**	**5,728**	**8,044**
Indonesia	**56**	**346**	**71**	**4,965**	**5,438**
Mainland China	**5,716**	**1,645**	**6,185**	**23,703**	**37,249**
Malaysia	**2,792**	**3,113**	**1,993**	**4,947**	**12,845**
Singapore	**7,743**	**5,392**	**3,334**	**11,021**	**27,490**
Taiwan	**3,866**	**629**	**126**	**5,291**	**9,912**
Other	**2,945**	**1,430**	**2,814**	**14,904**	**22,093**
Middle East and North Africa (excluding Saudi Arabia)	**2,258**	**4,447**	**2,598**	**21,991**	**31,294**
Egypt	**1**	**549**	**104**	**2,097**	**2,751**
UAE	**1,854**	**2,286**	**1,833**	**14,199**	**20,172**
Other	**403**	**1,612**	**661**	**5,695**	**8,371**

North America	**50,117**	**8,069**	**16,014**	**56,690**	**130,890**
US	**34,382**	**4,813**	**11,435**	**42,439**	**93,069**
Canada	**14,418**	**3,029**	**4,315**	**13,490**	**35,252**
Other	**1,317**	**227**	**264**	**761**	**2,569**
Latin America	**1,986**	**3,972**	**1,622**	**10,433**	**18,013**
Mexico	**1,881**	**2,828**	**1,498**	**7,844**	**14,051**
Other	**105**	**1,144**	**124**	**2,589**	**3,962**
At 31 December 2015	**274,511**	**99,571**	**121,390**	**438,537**	**934,009**
Europe	131,000	47,531	35,313	200,313	414,157
UK	123,239	21,023	25,927	156,577	326,766
France	2,914	12,820	7,341	21,834	44,909
Germany	6	212	304	7,275	7,797
Switzerland	298	8,149	225	614	9,286
Other	4,543	5,327	1,516	14,013	25,399
Asia	93,147	36,368	70,057	164,739	364,311
Hong Kong	56,656	22,891	52,208	82,362	214,117
Australia	9,154	815	2,130	6,360	18,459
India	1,235	285	613	5,099	7,232
Indonesia	64	469	202	5,476	6,211
Mainland China	4,238	1,981	6,606	24,875	37,700
Malaysia	5,201	1,750	1,988	5,217	14,156
Singapore	9,521	5,878	4,210	11,951	31,560
Taiwan	3,920	626	118	7,057	11,721
Other	3,158	1,673	1,982	16,342	23,155
Middle East and North Africa (excluding Saudi Arabia)	2,647	3,924	2,246	21,633	30,450
Egypt	1	510	98	2,272	2,881
UAE	2,263	1,782	1,545	13,814	19,404
Other	383	1,632	603	5,547	8,165
North America	55,577	9,823	15,492	51,535	132,427
US	37,937	5,482	11,461	38,632	93,512
Canada	16,236	4,085	3,708	11,825	35,854
Other	1,404	256	323	1,078	3,061
Latin America	4,153	9,384	2,572	29,543	45,652
Mexico	1,967	2,642	1,336	9,503	15,448
Other	2,186	6,742	1,236	20,040	30,204
Included in Other: Brazil	2,067	5,531	1,077	16,814	25,489
	286,524	107,030	125,680	467,763	986,997

At
31 December
2014

For footnote, see page 191.

Report of the Directors: Risk (continued)

Credit risk

The above tables analyse loans and advances by industry sector and by the location of the principal operations of the lending subsidiary or, in the case of the operations of The Hongkong and Shanghai Banking Corporation, HSBC Bank, HSBC Bank Middle East and HSBC Bank USA, by the location of the lending branch.

HSBC Holdings

(Audited)

Risk in HSBC Holdings is overseen by the HSBC Holdings Asset and Liability Management Committee (HALCO). The major risks faced by HSBC Holdings are credit risk, liquidity risk and market risk (in the form of interest rate risk and foreign exchange risk), of which the most significant is credit risk.

Credit risk in HSBC Holdings primarily arises from transactions with Group subsidiaries and from guarantees issued in support of obligations assumed by certain Group

operations in the normal conduct of their business. It is reviewed and managed within regulatory and internal limits for exposures by our Global Risk function, which provides high-level centralised oversight and management of credit risks worldwide.

HSBC Holdings maximum exposure to credit risk at 31 December 2015 is shown below. Its financial assets principally represent claims on Group subsidiaries in Europe and North America.

All the derivative transactions are with HSBC undertakings that are banking counterparties (2014: 100%) and for which HSBC Holdings has in place master netting arrangements. Since 2012, the credit risk exposure has been managed on a net basis and the remaining net exposure is specifically collateralised in the form of cash.

HSBC Holdings maximum exposure to credit risk

(Audited)

	2015			2014		
	Maximum exposure	**Offset**	**Exposure to credit**	Maximum exposure	Offset	Exposure to credit

			risk (net)			risk (net)
	$m	**$m**	**$m**	$m	$m	$m
Cash at bank and in hand: balances with HSBC undertakings	**242**		**242**	249		249
Derivatives	**2,467**	**(2,467)**		2,771	(2,610)	161
Loans and advances to HSBC undertakings	**44,350**		**44,350**	43,910		43,910
Financial investments in HSBC undertakings	**4,285**		**4,285**	4,073		4,073
Other assets	**109**		**109**			
Financial guarantees and similar contracts	**68,333**		**68,333**	52,023		52,023
Loan and other credit-related commitments				16		16
At 31 December	**119,786**	**(2,467)**	**117,319**	**103,042**	**(2,610)**	**100,432**

The credit quality of loans and advances and financial investments, both of which consist of intra-Group lending, is assessed as strong or good , with 100% of the exposure being neither past due nor impaired (2014: 100%).

Securitisation exposures and other structured products

The following table summarises the carrying amount of our ABS exposure by categories of collateral and includes assets held in the GB&M legacy credit portfolio with a carrying value of $15bn (2014: $23bn).

At 31 December 2015, the available-for-sale reserve in respect of ABSs was a deficit of $1,021m (2014: deficit of $777m). For 2015, the impairment write-back in respect of ABSs was $85m (2014: write-back of $276m).

Carrying amount of HSBC s consolidated holdings of ABSs

	Trading $m	Available for sale $m	Held to maturity $m	Designated at fair value through profit or loss $m	Loans and receivables $m	Total $m	Of which held through consolidated SEs $m
Mortgage-related assets:							
Sub-prime residential	**73**	**2,247**		**1**	**132**	**2,453**	**1,075**
US Alt-A residential		**1,989**	**7**		**55**	**2,051**	**1,796**
US Government agency and sponsored enterprises:							
MBSs	**166**	**15,082**	**13,997**			**29,245**	
Other residential	**812**	**780**			**108**	**1,700**	**253**
Commercial property	**590**	**2,308**			**201**	**3,099**	**1,656**
Leveraged finance-related assets	**240**	**2,294**			**149**	**2,683**	**1,310**
Student loan-related assets	**236**	**2,991**			**25**	**3,252**	**2,679**
Other assets	**1,184**	**880**		**23**	**128**	**2,215**	**565**
At 31 December 2015	**3,301**	**28,571**	**14,004**	**24**	**798**	**46,698**	**9,334**
Mortgage-related assets:							
Sub-prime residential	122	3,081			308	3,511	2,075
US Alt-A residential	96	3,022	11		110	3,239	2,411
US Government agency and sponsored enterprises:							
MBSs	82	10,401	13,436			23,919	
Other residential	928	1,220			330	2,478	652
Commercial property	654	3,627			516	4,797	2,854
	172	3,660			218	4,050	2,526

Leveraged finance-related assets							
Student loan-related assets	242	3,545			119	3,906	3,284
Other assets	1,264	1,114		19	646	3,043	758
At 31 December 2014	3,560	29,670	13,447	19	2,247	48,943	14,560

Risk elements in the loan portfolio

The disclosure of credit risk elements in this section reflects US accounting practice and classifications. The purpose of the disclosure is to present within the US disclosure framework those elements of the loan portfolios with a greater risk of loss. The three main classifications of credit risk elements presented are:

- impaired loans;
- unimpaired loans contractually more than 90 days past due as to interest or principal; and
- troubled debt restructurings not included in the above.

Interest foregone on impaired and restructured loans

Interest income that would have been recognised under the original terms of impaired and restructured loans amounted to approximately $2.1bn in 2015 (2014: $2.2bn). The table below analyses this by geographic region.

	2015	2014
	$m	$m
Europe	**276**	218
Asia	**164**	113
Middle East and North Africa	**138**	135
North America	**1,097**	1,350
Latin America	**409**	411
Year ended 31 December	**2,084**	**2,227**

Interest recognised on impaired and restructured loans

Interest income from such loans of approximately $1.3bn was recorded in 2015 (2014: $1.5bn). The table below analyses this by geographical region.

	2015	2014
	$m	$m
Europe	**92**	112
Asia	**57**	38
Middle East and North Africa	**27**	40
North America	**832**	995
Latin America	**248**	284
Year ended 31 December	**1,256**	**1,469**

Impaired loans

In the following tables we present information on our impaired loans and advances in accordance with the classification approach described on page 128.

A loan is impaired, and an impairment allowance is recognised, when there is objective evidence of a loss event that has an effect on the cash flows of the loan which can be reliably estimated. In accordance with IFRSs, we recognise interest income on assets after they have been written down as a result of an impairment loss.

The balance of impaired loans at 31 December 2015 was $5.6bn lower than at 31 December 2014. This reduction was largely due to the reclassification of the assets of our Brazilian operations as Assets held for sale , and a combination of the continued run-off of the CML portfolio and reductions in corporate individually assessed impaired loans in Europe.

Unimpaired loans more than 90 days past due

Examples of unimpaired loans more than 90 days past due include individually assessed mortgages that are in arrears more than 90 days where there are no other indicators of impairment, but where the value of collateral is sufficient to repay both the principal debt and all potential interest for at least one year; and short-term trade facilities past due more than 90 days for technical reasons such as delays in documentation, but where there is no concern over the creditworthiness of the counterparty.

The amount of unimpaired loans contractually more than 90 days past due as to principal or interest at 31 December 2015 was $132m, $60m higher than at 31 December 2014. The increase was primarily in Middle East and North Africa.

Troubled debt restructurings

Under US GAAP, a troubled debt restructuring (TDR) is a loan the terms of which have been modified for economic or legal reasons related to the borrower s financial difficulties to grant a concession to the borrower that the lender would not otherwise consider. A modification which results in a delay in payment that is considered insignificant is not regarded as a concession for the purposes of this disclosure. The SEC requires separate disclosure of any loans which meet the definition of a TDR that are not included in the previous two loan categories. These are classified as TDRs in the table on page 153c. Loans that have been identified as a TDR under the US guidance retain this designation until maturity or derecognition. This treatment differs from the Group s impaired loans disclosure convention under IFRSs under which a loan may return to unimpaired status after demonstrating a significant reduction in the risk of non-payment of future cash flows. As a result, reported TDRs include those loans that have returned to unimpaired status under the Group s disclosure convention for renegotiated loans.

The balance of TDRs not included as impaired loans at 31 December 2015 was $6.2bn, $0.8bn lower than 2014 due to a reduction across all regions except Asia.

Potential problem loans

Potential problem loans are loans where information on possible credit problems among borrowers causes management to seriously doubt their ability to comply with the loan repayment terms. The following concentrations of credit risk have a higher risk of containing potential problem loans.

Mortgage lending on page 144 includes disclosure about certain homogeneous groups of loans which are collectively assessed for impairment, which may represent exposures to potential problem loans, including interest-only mortgages and affordability mortgages including ARMs (adjustable rate mortgages). Collectively assessed loans and advances, although not classified as impaired until more than 90 days past due, are assessed collectively

Report of the Directors: Financial Review (continued)

for losses that have been incurred but have not yet been individually identified. This policy is further described on page 201 and page 356.

Renegotiated loans and forbearance on page 129 includes disclosure about the credit quality of loans whose contractual terms have been changed at some point in the life of the loan because of significant concerns about the borrower s ability to make contractual payments when due. Renegotiated loans are classified as impaired when:

- there has been a change in contractual cash flow as a result of a concession which the lender would otherwise not consider; and

- it is probable that without the concession, the borrower would be unable to meet contractual payment obligations in full.

This presentation applies unless the concession is insignificant and there are no other indicators of impairment. The renegotiated loan will continue to be disclosed as impaired until there is sufficient evidence to demonstrate a significant reduction in the risk of non-repayment of future cash flows, and there are no other indicators of impairment.

Renegotiated loans that are not classified as impaired may have a higher risk of becoming delinquent in the future, and may therefore be potential problem loans. Further information regarding the credit quality classification of renegotiated loans can be found on page 198.

Areas of special interest on page 117 includes information on metals and mining, oil and gas and mainland China. Refinancing risk in the commercial real estate sector is a separate area of focus and is covered on page 137.

Analysis of risk elements in the loan portfolio by geographical region

The analysis below sets out the amount of risk elements in loan portfolios included within loans and advances to customers and banks in the consolidated balance sheet, trading loans classified as in default and assets obtained by taking possession of security. The table excludes the

amount of risk elements in loan portfolios classified as Assets held for sale in the consolidated balance sheet, which is set out in footnote 56 on page 192a.

During 2015, our Brazilian operations were reclassified to Assets held for sale . Further information can be found on page 121.

	2015	2014	2013	2012	2011
	$m	$m	$m	$m	$m
Impaired loans					
Europe	**9,677**	10,242	13,228	11,145	11,819
Asia	**2,375**	2,048	1,623	1,624	1,678
Middle East and North Africa	**1,766**	1,981	2,285	2,474	2,445
North America	**8,930**	11,694	15,123	20,345	22,758
Latin America	**1,030**	3,365	4,244	3,188	3,039
	23,778	29,330	36,503	38,776	41,739
Unimpaired loans contractually more than 90 days past due as to principal or interest					
Europe	**7**	6	25	33	41
Asia	**2**	1	33	14	24
Middle East and North Africa	**96**	59	56	108	214
North America	**27**	3	13	69	74
Latin America		3			10
	132	72	127	224	363

Troubled debt restructurings (not included in the classifications above)					
Europe	**1,495**	1,652	1,427	1,306	753
Asia	**284**	267	277	236	230
Middle East and North Africa	**584**	778	406	593	444
North America	**3,698**	3,932	4,643	3,813	2,300
Latin America	**164**	353	482	1,001	1,037
	6,225	6,982	7,235	6,949	4,764
Trading loans classified as in default					
North America		4	133	166	230
Risk elements on loans[57]					
Europe	**11,179**	11,900	14,680	12,484	12,613
Asia	**2,661**	2,316	1,933	1,874	1,932
Middle East and North Africa	**2,446**	2,818	2,747	3,175	3,103
North America	**12,655**	15,633	19,912	24,393	25,362
Latin America	**1,194**	3,721	4,726	4,189	4,086
	30,135	36,388	43,998	46,115	47,096
Assets held for resale[57]					
Europe	**24**	29	46	51	60
Asia	**19**	14	10	19	14
Middle East and North Africa					
North America	**116**	186	370	319	359
Latin America	**20**	16	27	55	69
	179	245	453	444	502
Total risk elements[56]					
Europe	**11,203**	11,929	14,726	12,535	12,673
Asia	**2,680**	2,330	1,943	1,893	1,946
Middle East and North Africa	**2,446**	2,818	2,747	3,175	3,103
North America	**12,771**	15,819	20,282	24,712	25,721
Latin America	**1,214**	3,737	4,753	4,244	4,155
At 31 December	**30,314**	**36,633**	**44,451**	**46,559**	**47,598**
	%	%	%	%	%
Loan impairment allowances as a percentage of risk elements on loans[58]	**31.8**	34.0	34.7	35.2	37.6

For footnotes, see page 192a.

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Country distribution of outstandings and cross-border exposures

We control the risk associated with cross-border lending through a centralised structure of internal country limits. Exposures to individual countries and cross-border exposure in the aggregate are kept under continual review.

The following table summarises the aggregate of our in-country foreign currency and cross-border outstandings by type of borrower to countries which individually

represent in excess of 0.75% of our total assets. The classification is based on the country of residence of the borrower but also recognises the transfer of country risk in respect of third-party guarantees, eligible collateral held and residence of the head office when the borrower is a branch. In accordance with the Bank of England Country Exposure Report (Form CE) guidelines, outstandings comprise loans and advances (excluding settlement accounts), amounts receivable under finance leases, acceptances, commercial bills, certificates of deposit and debt and equity securities (net of short positions), and exclude accrued interest and intra-HSBC exposures.

In-country foreign currency and cross-border amounts outstanding

	Banks $bn	Government and official institutions $bn	Other $bn	Total $bn
At 31 December 2015				
US	**4.7**	**51.3**	**24.7**	**80.7**
Mainland China	**21.2**	**6.8**	**26.0**	**54.0**
UK	**23.1**	**9.2**	**25.3**	**57.6**
Germany	**7.0**	**23.1**	**6.9**	**37.0**
Hong Kong	**3.1**	**0.5**	**30.0**	**33.6**
Japan	**7.6**	**19.4**	**14.4**	**41.4**
France[60]	**4.2**	**7.1**	**13.0**	**24.3**
Canada[60]	**6.2**	**8.3**	**7.5**	**22.0**
At 31 December 2014				

US	6.8	30.3	32.4	69.5
Mainland China	26.5	5.7	28.5	60.7
UK	24.0	8.3	41.8	74.2
Germany	7.7	26.6	6.7	41.0
Hong Kong	8.1	0.4	29.0	37.5
Japan	9.0	15.7	12.2	36.9
France	7.3	3.1	11.6	22.1
At 31 December 2013				
US	10.0	2.3	42.5	54.8
UK	5.9	34.3	24.5	64.7
Mainland China	28.8	6.9	19.3	55.0
Germany	10.0	12.9	31.9	54.8
France	12.8	21.1	5.6	39.5
Hong Kong	10.9	0.7	26.5	38.1
Japan	7.2	14.8	7.0	29.0
Ireland	6.2	8.7	11.2	26.1

For footnote, see page 192a.

Report of the Directors: Risk (continued)

Liquidity and funding

Liquidity and funding

1 *Appendix to Risk risk policies and practices.*

Liquidity and funding

Liquidity risk is the risk that the Group will not have sufficient financial resources to meet its obligations as they fall due, or will have to do so at an excessive cost. The risk arises from mismatches in the timing of cash flows.

The risk arises when the funding needed for illiquid asset positions cannot be obtained at the expected terms and when required.

A summary of our current policies and practices regarding liquidity and funding is provided in the Appendix to Risk on page 204.

Liquidity and funding risk management framework

The objective of our liquidity framework is to allow us to withstand very severe liquidity stresses. It is designed to be adaptable to changing business models, markets and regulations.

Our Liquidity and Funding Risk Management Framework (LFRF) requires:

- liquidity to be managed by operating entities on a stand-alone basis with no implicit reliance on the Group or central banks;
- all operating entities to comply with their limits for the advances to core funding ratio; and
- all operating entities to maintain a positive stressed cash flow position out to three months under prescribed Group stress scenarios.

Liquidity and funding in 2015

The liquidity position of the Group remained strong in 2015. Our ratio of customer advances to customer deposits was 72% (2014: 72%). Both customer loans and customer accounts fell on a reported basis with these movements including:

- the transfer to Assets held for sale and Liabilities of disposal groups held for sale of balances relating to the planned disposal of our operations in Brazil;

- a reduction in corporate overdraft and current account balances relating to a small number of clients in our Payments and Cash Management business in the UK who settled their overdraft and deposit balances on a net basis, with customers increasing the frequency with which they settled their positions; and

- movements in currency markets, which changed the value of our customer loans and customer accounts when translated from their local currency into US dollars.

The HSBC UK liquidity group recorded an increase in its advances to core funding (ACF) ratio to 101% at 31 December 2015 (2014: 97%), mainly because of higher wholesale lending while core funding remained unchanged.

The Hongkong and Shanghai Banking Corporation recorded a decrease in its ACF ratio to 69% at 31 December 2015 (2014: 75%), mainly because of an increase in core deposits coupled with a decrease in corporate loans.

HSBC USA recorded a decrease in its ACF ratio to 89% at 31 December 2015 (2014: 100%), mainly because of growth in core funding, which was partially offset by higher loans to customers.

The HSBC UK liquidity group, The Hongkong and Shanghai Banking Corporation and HSBC USA are defined in footnotes 19 to 21 on page 191. The ACF ratio is discussed on page 205.

Wholesale senior funding markets

Conditions in the bank wholesale debt markets were generally positive in 2015. Periods of volatility remained, however, particularly during the latter months of the year when concerns over the decline in oil prices and economic growth in Europe and mainland China combined with a variety of other factors to leave the outlook uncertain, affecting market confidence.

In 2015, a number of Group entities issued the equivalent of $22bn (2014: $20bn) of long-term debt securities in the public capital markets in a range of currencies and maturities.

Liquidity regulation

Under European Commission (EC) Delegated Regulation 2015/61, the consolidated liquidity coverage ratio (LCR) became a minimum regulatory standard from 1 October 2015.

The European calibration of the net stable funding ratio (NSFR) is still pending following the Basel Committee s final recommendation in October 2014, and therefore external disclosure of this metric is currently on hold.

Non-EU regulators are expected to apply the LCR and NSFR reporting requirement locally and there is the potential for local requirements to diverge from the rules applicable to the Group.

Liquidity coverage ratio EC LCR Delegated Regulation

The calculation of the EC LCR metric involves two key assumptions: the definition of operational deposits and the ability to transfer liquidity from non-EU legal entities.

We define operational deposits as transactional (current) accounts arising from the provision of custody services by HSBC Security Services or Payments and Cash Management services, where the operational component is assessed to be the lower of the current balance and the separate notional values of debits and credits across the account in the previous calculation period.

No transferability of liquidity from non-EU entities is assumed other than to the extent currently permitted. This results in $94bn of high-quality liquid assets (HQLA) being excluded from the Group s LCR.

On the basis of these assumptions, we reported to the PRA a Group EC LCR at 31 December 2015 (on the basis of the Delegated Regulation) of 116%.

The ratio of total consolidated HQLAs to the EC LCR denominator at 31 December 2015 was 142%, reflecting the additional $94bn of HQLAs excluded from the Group LCR.

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Report of the Directors: Risk (continued)

Liquidity and funding

The liquidity position of the Group can also be represented by the stand-alone ratios of each of our principal operating entities. The table below displays the individual LCR levels for the principal HSBC operating entities on an EC LCR Delegated Regulation basis. The ratios shown for operating entities in non-EU jurisdictions can vary from their local LCR measures due to differences in the way non-EU regulators have implemented the Basel III recommendations.

Operating entities LCRs

	At 31 December 2015 %
HSBC UK liquidity group[19]	**107**
The Hongkong and Shanghai Banking Corporation Hong Kong Branch[20]	**150**
The Hongkong and Shanghai Banking Corporation Singapore Branch[20]	**189**
HSBC Bank USA[21]	**116**
HSBC France[22]	**127**
Hang Seng Bank	**199**
HSBC Canada[22]	**142**
HSBC Bank China	**183**

For footnotes, see page 191.

At 31 December 2015, all the Group s operating entities were individually within the risk tolerance level established by the Board and applicable under the new internal framework which took effect from 1 January 2016.

Management of liquidity and funding risk

Forward-looking framework

From 1 January 2016, the Group implemented a new internal LFRF, using the external LCR and NSFR regulatory framework as a foundation, but adding extra metrics/limits and overlays to address the risks that we consider are not adequately reflected by the external regulatory framework.

The key aspects of the new internal LFRF are:

i. stand-alone management of liquidity and funding by operating entity;

ii. operating entity classification by inherent liquidity risk (ILR) categorisation;

iii. minimum operating entity EC LCR requirement depending on ILR categorisation (EC LCR Delegated Regulation basis);

iv. minimum operating entity NSFR requirement depending on ILR categorisation (on the basis of the Basel 295 publication, pending finalisation of the EC NSFR delegated regulation);

v. legal entity depositor concentration limit;

vi. operating entity three-month and twelve-month cumulative rolling term contractual maturity limits covering deposits from banks, deposits from non-bank financials and securities issued;

vii. annual individual liquidity adequacy assessment (ILAA) by operating entity; and

viii. during 2016, we will also introduce a minimum operating entity LCR requirement by currency.

The new internal LFRF and the risk tolerance (limits) were approved by the RMM and the Board on the basis of recommendations made by the Group Risk Committee.

Our ILAA process has been designed to identify risks that are not reflected in the Group framework and where additional limits are assessed to be required locally, and to validate the risk tolerance at the operating entity level.

The decision to create an internal framework modelled around the external regulatory framework was driven by the need to ensure that the external and internal frameworks are directionally aligned and that the Group s internal funds transfer pricing framework incentivises the global businesses within each operating entity to collectively comply with both the external (regulatory) and the internal risk tolerance.

Current framework

The 2015, LFRF employed two key measures to define, monitor and control the liquidity and funding risk of each of our operating entities. The ACF ratio was used to monitor the structural long-term funding position, and the stressed coverage ratio, incorporating Group-defined stress scenarios, was used to monitor the resilience to severe liquidity stresses. Although in place before and during 2015, this framework and its accompanying metrics will be demised as the new framework outlined above is implemented.

The three principal entities listed in the tables below represented 65% (2014: 66%) of the Group s customer accounts. Including the other principal entities, the percentage was 88% (2014: 88%).

Advances to core funding ratio

The table overleaf shows the extent to which loans and advances to customers in our principal banking entities were financed by reliable and stable sources of funding.

ACF limits set for principal operating entities at 31 December 2015 ranged between 80% and 120%.

Core funding represents the core component of customer deposits and any term professional funding with a residual contractual maturity beyond one year. Capital is excluded from our definition of core funding.

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Advances to core funding ratios[23]

	At 31 December	
	2015	2014
	%	%
HSBC UK liquidity group[19]		
Year-end	**101**	97
Maximum	**101**	102
Minimum	**96**	97
Average	**98**	100
The Hongkong and Shanghai Banking Corporation[20]		
Year-end	**69**	75
Maximum	**75**	75
Minimum	**69**	72
Average	**72**	74
HSBC USA[21]		
Year-end	**89**	100
Maximum	**100**	100
Minimum	**89**	85
Average	**94**	95
Total of HSBC s other principal entities[24]		
Year-end	**91**	92
Maximum	**95**	94
Minimum	**91**	92
Average	**93**	93

For footnotes, see page 191.

Stressed coverage ratios

The ratios tabulated below express stressed cash inflows as a percentage of stressed cash outflows over both one-month and three-month time horizons. Operating entities are required to maintain a ratio of 100% or more out to three months.

Inflows included in the numerator of the stressed coverage ratio are generated from liquid assets (net of assumed haircuts) and cash inflows relating to assets contractually maturing within the time period.

In general, customer loans and advances are assumed to be renewed on maturity and as a result do not generate a cash inflow.

The stressed coverage ratios for The Hongkong and Shanghai Banking Corporation increased due to higher deposits and lower advances year-on-year. The ratios for HSBC USA increased due to a growth in core funding.

The stressed coverage ratios for the other entities remained broadly unchanged.

Stressed one-month and three-month coverage ratios[23]

	Stressed one-month coverage ratios at 31 December		Stressed three-month coverage ratios at 31 December	
	2015	2014	**2015**	2014
	%	%	**%**	%
HSBC UK liquidity group[19]				
Year-end	**113**	117	**105**	109
Maximum	**127**	117	**114**	109
Minimum	**112**	102	**105**	103
Average	**117**	107	**108**	104
The Hongkong and Shanghai Banking Corporation[20]				
Year-end	**129**	117	**120**	112
Maximum	**129**	119	**120**	114
Minimum	**113**	114	**111**	111
Average	**119**	116	**115**	112
HSBC USA[21]				
Year-end	**126**	111	**116**	104
Maximum	**126**	122	**116**	111
Minimum	**109**	108	**101**	104
Average	**117**	115	**108**	107
Total of HSBC s other principal entities[24]				
Year-end	**126**	122	**111**	108
Maximum	**126**	126	**111**	120
Minimum	**110**	114	**105**	108
Average	**116**	118	**108**	111

For footnotes, see page 191.

Liquid assets of HSBC s principal operating entities

The table below shows the estimated liquidity value (before assumed haircuts) of assets categorised as liquid and used for the purposes of calculating the three-month stressed coverage ratios, as defined under the LFRF.

The level of liquid assets reported reflects the stock of unencumbered liquid assets at the reporting date adjusted for the effect of reverse repo, repo and collateral swaps maturing within three months as the liquidity value of these transactions is reflected as a contractual cash flow reported in the net contractual cash flow table. Repos are sale and repurchase transactions while reverse repos are transactions under which securities are purchased under commitments to sell.

Like reverse repo transactions with residual contractual maturities within three months, unsecured interbank loans

maturing within three months are not included in liquid assets, but are treated as contractual cash inflows.

Liquid assets are held and managed on a stand-alone operating entity basis. Most of the liquid assets shown are held directly by each operating entity s Balance Sheet Management (BSM) department, primarily for the purpose of managing liquidity risk, in line with the LFRF.

The liquid asset buffer may also include securities held in held-to-maturity portfolios. In order to qualify as part of the liquid asset buffer, all held-to-maturity portfolios must have a deep and liquid repo market in the underlying security.

Report of the Directors: Risk (continued)

Liquidity and funding

Liquid assets also include any unencumbered liquid assets held outside BSM for any other purpose. The LFRF gives ultimate control of all unencumbered assets and sources of liquidity to BSM.

For a summary of our liquid asset policy and definitions of the classifications shown in the table below, see the Appendix to Risk on page 206.

Liquid assets of HSBC s principal entities

	Estimated liquidity value[25]	
	31 December 2015	31 December 2014
	$m	$m
HSBC UK liquidity group[19]		
Level 1	**118,193**	131,756
Level 2	**4,722**	4,688
Level 3	**59,378**	66,011
	182,293	202,455
The Hongkong and Shanghai Banking Corporation[20]		
Level 1	**132,870**	109,683
Level 2	**6,029**	4,854
Level 3	**7,346**	7,043
	146,245	121,580
HSBC USA[21]		
Level 1	**42,596**	51,969
Level 2	**11,798**	15,184
Level 3	**9**	197
Other	**5,557**	9,492
	59,960	76,842
Total of HSBC s other principal entities[24]		
Level 1	**108,789**	115,770

Level 2	**10,764**	7,940
Level 3	**5,486**	9,360
	125,039	133,070

For footnotes, see page 191.

All assets held within the liquid asset portfolio are unencumbered.

The quantum of liquid assets held by the HSBC UK liquidity group on a constant currency basis was broadly unchanged.

Liquid assets held by The Hongkong and Shanghai Banking Corporation increased due to added holdings of government securities and higher regulatory reserves. This was driven by the investment of surplus deposits.

Liquid assets held by HSBC USA decreased, mainly due to a switch from regulatory reserves to reverse repo placements. A corresponding improvement can be seen in HSBC USA s net repo cash flow shown in the net contractual cash flow table.

Net contractual cash flows

The following table quantifies the contractual cash flows from interbank and intra-Group loans and deposits, and reverse repo, repo (including intra-Group transactions) and short positions for the principal entities shown. These contractual cash inflows and outflows are reflected gross in the numerator and denominator, respectively, of the one and three-month stressed coverage ratios and should be considered alongside the level of liquid assets.

Outflows included in the denominator of the stressed coverage ratios include the principal outflows associated with the contractual maturity of wholesale debt securities reported in the table headed Wholesale funding cash flows payable by HSBC under financial liabilities by remaining contractual maturities on page 161.

For a summary of our policy and definitions of the classifications shown in the table on page 159, see the Appendix to Risk on page 206.

Net cash inflows/(outflows) for interbank and intra-Group loans and deposits and reverse repo, repo and short positions

	At 31 December 2015		At 31 December 2014	
	Cash flows within 1 month	Cash flows from 1 to 3 months	Cash flows within 1 month	Cash flows from 1 to 3 months
	$m	$m	$m	$m
Interbank and intra-Group loans and deposits				
HSBC UK liquidity group[19]	**(18,534)**	**(3,712)**	(14,110)	(2,846)
The Hongkong and Shanghai Banking Corporation[20]	**3,702**	**6,027**	(1,277)	6,862
HSBC USA[21]	**(12,432)**	**937**	(18,353)	1,648
Total of HSBC s other principal entities[24]	**2,875**	**6,123**	(1,522)	7,310
Reverse repo, repo, stock borrowing, stock lending and outright short positions (including intra-Group)				
HSBC UK liquidity group[19]	**(16,861)**	**1,313**	(16,070)	11,551
The Hongkong and Shanghai Banking Corporation[20]	**15,068**	**12,326**	8,139	8,189
HSBC USA[21]	**19,431**		(4,928)	
Total of HSBC s other principal entities[24]	**(22,571)**	**5,240**	(33,235)	(11,528)

For footnotes, see page 191.

Contingent liquidity risk arising from committed lending facilities

The Group s operating entities provide commitments to various counterparties. The most significant liquidity risk relates to committed lending facilities which, whilst undrawn, give rise to contingent liquidity risk as they could be drawn during a period of liquidity stress. Commitments are given to customers and committed lending facilities are provided to consolidated multi-seller conduits established to enable clients to access flexible market-based sources of finance (see page 442), consolidated securities investment conduits and third-party sponsored conduits.

The consolidated securities investment conduits include Solitaire Funding Limited (Solitaire) and Mazarin Funding Limited (Mazarin). They issue asset-backed commercial paper secured against the portfolio of securities held by them. At 31 December 2015, the HSBC UK liquidity group had undrawn committed lending facilities to these conduits of

$8.2bn (2014: $11bn), of which Solitaire represented $7.7bn (2014: $9.5bn) and the remaining $0.5bn (2014: $1.6bn) pertained to Mazarin. Although the HSBC UK liquidity

group provides a liquidity facility, Solitaire and Mazarin have no need to draw on it so long as HSBC purchases the commercial paper issued, which it intends to do for the foreseeable future. At 31 December 2015, the commercial paper issued by Solitaire and Mazarin was entirely held by the HSBC UK liquidity group. Since HSBC controls the size of the portfolio of securities held by these conduits, no contingent liquidity risk exposure arises as a result of these undrawn committed lending facilities.

The table below shows the level of undrawn commitments to customers outstanding for the five largest single facilities and the largest market sector, and the extent to which they are undrawn.

The Group s contractual undrawn exposures at 31 December monitored under the contingent liquidity risk limit structure

(Audited)

	HSBC UK liquidity group[19]		HSBC USA[21]		HSBC Canada[22]		The Hongkong and Shanghai Banking Corporation[20]	
	2015	2014	**2015**	2014	**2015**	2014	**2015**	2014
	$bn	$bn	**$bn**	$bn	**$bn**	$bn	**$bn**	$bn
Commitments to conduits								
Consolidated multi-seller conduits								