

HSBC HOLDINGS PLC  
Form 6-K  
March 27, 2014

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Report of Foreign Private Issuer

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

the Securities Exchange Act of 1934

For the month of March  
HSBC Holdings plc

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

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

Form 20-F  Form 40-F

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

Yes..... No

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

14 Trading assets

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	2013 US\$m	2012 US\$m
Trading assets:		
- not subject to repledge or resale by counterparties	201,492	305,312
.....	101,700	103,499

- which may be pledged or resold by counterparties  
 .....

	303,192	408,811
Treasury and other eligible bills .....	21,584	26,282
Debt securities .....	141,644	144,677
Equity securities .....	63,891	41,634
Trading securities at fair value .....	227,119	212,593
Loans and advances to banks .....	27,885	78,271
Loans and advances to customers .....	48,188	117,947
	303,192	408,811

Trading securities valued at fair value<sup>1</sup>

	Fair value	
	2013	2012
	US\$m	US\$m
US Treasury and US Government agencies <sup>2</sup> .....	23,450	28,405
UK Government .....	11,591	11,688
Hong Kong Government .....	5,909	6,228
Other government .....	86,714	91,498
Asset-backed securities <sup>3</sup> .....	2,736	2,896
Corporate debt and other securities .....	32,828	30,244
Equity securities .....	63,891	41,634
	227,119	212,593

<sup>1</sup> Included within these figures are debt securities issued by banks and other financial institutions of US\$22,989m (2012: US\$20,274m), of which US\$3,973m (2012: US\$3,469m) are guaranteed by various governments.

<sup>2</sup> Include securities that are supported by an explicit guarantee issued by the US Government.

<sup>3</sup> Exclude asset-backed securities included under US Treasury and US Government agencies.

Trading securities listed on a recognised exchange and unlisted

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	Treasury and other eligible bills US\$m	Debt securities US\$m	Equity securities US\$m	Total US\$m
Fair value at 31 December 2013				
Listed <sup>1</sup>	194	85,821	62,724	148,739
.....				
Unlisted <sup>2</sup>	21,390	55,823	1,167	78,380
.....				
	21,584	141,644	63,891	227,119
Fair value at 31 December 2012				
Listed <sup>1</sup>	606	82,732	39,945	123,283
.....				
Unlisted <sup>2</sup>	25,676	61,945	1,689	89,310
.....				
	26,282	144,677	41,634	212,593

1 Included within listed investments are US\$3,836m (2012: US\$2,828m) of investments listed on a recognised exchange in Hong Kong.

2 Unlisted treasury and other eligible bills primarily comprise treasury bills not listed on an exchange but for which there is a liquid market.

Loans and advances to banks held for trading

	2013 US\$m	2012 US\$m
Reverse repos <sup>1</sup>	2,940	45,015
.....		
Settlement accounts	7,572	6,324
.....		
Stock borrowing	2,323	5,361
.....		
Other	15,050	21,571
.....		
	27,885	78,271

Loans and advances to customers held for trading

	2013 US\$m	2012 US\$m
Reverse repos <sup>1</sup>	7,180	73,666
.....		
	11,863	8,186

## Settlement accounts

Stock borrowing	7,995	10,710
Other	21,150	25,385
	48,188	117,947

1 In 2013, GB&M changed the way it manages repo and reverse repo activities in the Credit and Rates businesses as set out on page 220. This led to a reduction in the amount of reverse repos classified as trading assets.

## 15 Fair values of financial instruments carried at fair value

The accounting policies which determine the classification of financial instruments and the use of assumptions and estimation in valuing them are described on pages 432 to 450 and page 74. The fair value of financial instruments is generally measured on the basis of the individual financial instrument. However, when HSBC manages a group of financial assets and financial liabilities on the basis of its net exposure to either market risks or credit risk, it measures the fair value of the group of financial instruments on a net basis, but presents the underlying financial assets and liabilities separately in the financial statements, unless they satisfy the IFRSs offsetting criteria as described on page 442.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The following table sets out the financial instruments carried at fair value.

## Financial instruments carried at fair value and bases of valuation

	Valuation techniques			Total US\$m
	Quoted market price Level 1 US\$m	Using observable inputs Level 2 US\$m	With significant unobservable inputs Level 3 US\$m	
Recurring fair value measurements				
At 31 December 2013				
Assets				
Trading assets	182,721	115,124	5,347	303,192
Financial assets designated at fair value	30,173	7,649	608	38,430
Derivatives	2,539	277,224	2,502	282,265
Financial investments: available for sale	262,836	130,760	7,245	400,841
Liabilities				
Trading liabilities	88,935	110,576	7,514	207,025
	10,482	78,602	-	89,084

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Financial liabilities designated at fair value

.....				
Derivatives		267,441	2,335	274,284
.....	4,508			

At 31 December 2012

Assets

Trading assets		205,590	4,378	408,811
.....	198,843			
Financial assets designated at fair value		7,594	413	33,582
.....	25,575			
Derivatives		352,960	3,059	357,450
.....	1,431			
Financial investments: available for sale		135,931	8,511	397,688
.....	253,246			

Liabilities

Trading liabilities		180,543	7,470	304,563
.....	116,550			
Financial liabilities designated at fair value		77,017	-	87,720
.....	10,703			
Derivatives		354,375	3,005	358,886
.....	1,506			

The decrease in Level 2 trading assets and liabilities reflects the change in the way GB&M manages repo and reverse repo activities described on page 220. Movement in derivative balances is described in Note 18.

Transfers between Level 1 and Level 2 fair values

	Assets			Liabilities			
	Available for sale	Held for trading	Designated at fair value through profit or loss	Derivatives	Held for trading	Designated at fair value through profit or loss	Derivatives
	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m
At 31 December 2013							
Transfers from Level 1 to Level 2	110	24,140	-	18	35,274	-	17
.....							
Transfers from Level 2 to Level 1	1,275	1,264	423	-	-	-	-
.....							

Transfers between levels of the fair value hierarchy are deemed to occur at the end of each semi-annual reporting period. Transfers from Level 1 to Level 2 reflect the reclassification of settlement balances and cash collateral following reassessment of the application of levelling criteria to these balances. Transfers from Level 2 to Level 1 related to increased liquidity in certain emerging market government bonds.

Control framework

Fair values are subject to a control framework designed to ensure that they are either determined or validated by a function independent of the risk-taker.

For all financial instruments where fair values are determined by reference to externally quoted prices or observable pricing inputs to models, independent price determination or validation is utilised. In inactive markets, direct observation of a traded price may not be possible. In these circumstances, HSBC will source alternative market information to validate the financial instrument's fair value, with greater weight given to information that is considered to be more relevant and reliable. The factors that are considered in this regard are, inter alia:

- the extent to which prices may be expected to represent genuine traded or tradeable prices;
- the degree of similarity between financial instruments;
- the degree of consistency between different sources;
- the process followed by the pricing provider to derive the data;
- the elapsed time between the date to which the market data relates and the balance sheet date; and
- the manner in which the data was sourced.

For fair values determined using valuation models, the control framework may include, as applicable, development or validation by independent support functions of (i) the logic within valuation models; (ii) the inputs to those models; (iii) any adjustments required outside the valuation models; and (iv) where possible, model outputs. Valuation models are subject to a process of due diligence and calibration before becoming operational and are calibrated against external market data on an ongoing basis.

The majority of financial instruments measured at fair value are in GB&M. GB&M's fair value governance structure is illustrated below as an example:

Determination of fair value

Fair values are determined according to the following hierarchy:

- Level 1 - quoted market price: financial instruments with quoted prices for identical instruments in active markets that HSBC can access at the measurement date.
- Level 2 - valuation technique using observable inputs: financial instruments with quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in inactive markets and financial instruments valued using models where all significant inputs are observable.
- Level 3 - valuation technique with significant unobservable inputs: financial instruments valued using valuation techniques where one or more significant inputs are unobservable.

The best evidence of fair value is a quoted price in an actively traded market. The fair values of financial instruments that are quoted in active markets are based on bid prices for assets held and offer prices for liabilities issued. Where a financial instrument has a quoted price in an active market, the fair value of the total holding of the financial instrument is calculated as the product of the number of units and quoted price. In the event that the market for a financial instrument is not active, a valuation technique is used.

The judgement as to whether a market is active may include, but is not restricted to, the consideration of factors such as the magnitude and frequency of trading activity, the availability of prices and the size of bid/offer spreads. The bid/offer spread represents the difference in prices at which a market participant would be willing to buy compared with the price at which they would be willing to sell. In inactive markets, obtaining assurance that the transaction price provides evidence of fair value or determining the adjustments to transaction prices that are necessary to measure the fair value of the instrument requires additional work during the valuation process.

## Valuation techniques

Valuation techniques incorporate assumptions about factors that other market participants would use in their valuations. A range of valuation techniques is employed, dependent on the instrument type and available market data. Most valuation techniques are based upon discounted cash flow analyses, in which expected future cash flows are calculated and discounted to present value using a discounting curve. Prior to considering credit risk, the expected future cash flows may be known, as would be the case for the fixed leg of an interest rate swap, or may be uncertain and require projection, as would be the case for the floating leg of an interest rate swap. 'Projection' utilises market forward curves, if available. In option models, the probability of different potential future outcomes must be considered. In addition, the value of some products are dependent on more than one market factor, and in these cases it will typically be necessary to consider how movements in one market factor may affect the other market factors. The model inputs necessary to perform such calculations include interest rate yield curves, exchange rates, volatilities, correlations, prepayment and default rates. For interest rate derivatives with collateralised counterparties and in significant currencies, HSBC uses a discounting curve that reflects the overnight interest rate ('OIS discounting').

The majority of valuation techniques employ only observable market data. However, certain financial instruments are valued on the basis of valuation techniques that feature one or more significant market inputs that are unobservable, and for them the measurement of fair value is more judgemental. An instrument in its entirety is classified as valued using significant unobservable inputs if, in the opinion of management, a significant proportion of the instrument's inception profit ('day 1 gain or loss') or greater than 5% of the instrument's valuation is driven by unobservable inputs. 'Unobservable' in this context means that there is little or no current market data available from which to determine the price at which an arm's length transaction would be likely to occur. It generally does not mean that there is no data available at all upon which to base a determination of fair value (consensus pricing data may, for example, be used). All fair value adjustments are included within the levelling determination.

In certain circumstances, HSBC records its own debt in issue at fair value, based on quoted prices in an active market for the specific instrument concerned, where available. An example of this is where own debt in issue is hedged with interest rate derivatives. When quoted market prices are unavailable, the own debt in issue is valued using valuation techniques, the inputs for which are either based upon quoted prices in an inactive market for the instrument, or are estimated by comparison with quoted prices in an active market for similar instruments. In both cases, the fair value includes the effect of applying the credit spread which is appropriate to HSBC's liabilities. The change in fair value of issued debt securities attributable to the Group's own credit spread is computed as follows: for each security at each reporting date, an externally verifiable price is obtained or a price is derived using credit spreads for similar securities for the same issuer. Then, using discounted cash flow, each security is valued using a Libor-based discount curve. The difference in the valuations is attributable to the Group's own credit spread. This methodology is applied consistently across all securities.

Structured notes issued and certain other hybrid instrument liabilities are included within trading liabilities and are measured at fair value. The credit spread applied to these instruments is derived from the spreads at which HSBC issues structured notes.

Gains and losses arising from changes in the credit spread of liabilities issued by HSBC reverse over the contractual life of the debt, provided that the debt is not repaid at a premium or a discount.

Changes in fair value are generally subject to a profit and loss analysis process. This process disaggregates changes in fair value into three high level categories; (i) portfolio changes, such as new transactions or maturing transactions, (ii) market movements, such as changes in foreign exchange rates or equity prices, and (iii) other, such as changes in fair value adjustments, discussed below.

## Fair value adjustments

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Fair value adjustments are adopted when HSBC considers that there are additional factors that would be considered by a market participant which are not incorporated within the valuation model. HSBC classifies fair value adjustments as either 'risk-related' or 'model-related'. The majority of these adjustments relate to GB&M.

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

Global Banking and Markets fair value adjustments

	At 31 December 2013 US\$m	At 31 December 2012 US\$m
Type of adjustment		
Risk-related	1,565	
.....		2,013
Bid-offer	561	
.....		638
Uncertainty	343	
.....		142
Credit valuation adjustment	1,274	
.....		1,747
Debit valuation adjustment	(616)	
.....		(518)
Other	3	
.....		4
Model-related	202	
.....		162
Model limitation	199	
.....		161
Other	3	
.....		1
Inception profit (Day 1 P&L reserves) (Note 18)	167	
.....		181
	1,934	2,356

Fair value adjustments declined by US\$422m during the year. The most significant movement was a decline of US\$473m in respect of the credit valuation adjustment, as a result of both reduced derivative counterparty exposures and general narrowing of CDS spreads.

Risk-related adjustments

Bid-offer



IFRS 13 requires use of the price within the bid-offer spread that is most representative of fair value. Valuation models will typically generate mid-market values. The bid-offer adjustment reflects the extent to which bid-offer costs would be incurred if substantially all residual net portfolio market risks were closed using available hedging instruments or by disposing of or unwinding the position.

#### Uncertainty

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

#### Credit valuation adjustment

The credit valuation adjustment is an adjustment to the valuation of OTC derivative contracts to reflect within fair value the possibility that the counterparty may default and that HSBC may not receive the full market value of the transactions (see below).

#### Debit valuation adjustment

The debit valuation adjustment is an adjustment to the valuation of OTC derivative contracts to reflect within fair value the possibility that HSBC may default, and that HSBC may not pay full market value of the transactions (see below).

#### Model-related adjustments

##### Model limitation

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

##### Inception profit (Day 1 P&L reserves)

Inception profit adjustments are adopted when the fair value estimated by a valuation model is based on one or more significant unobservable inputs. The accounting for inception profit adjustments is discussed on page 433. An analysis of the movement in the deferred Day 1 P&L reserve is provided on page 501.

##### Credit valuation adjustment/debit valuation adjustment methodology

HSBC calculates a separate credit valuation adjustment ('CVA') and debit valuation adjustment ('DVA') for each HSBC legal entity, and within each entity for each counterparty to which the entity has exposure. The calculation of the monoline credit valuation adjustment is described on page 208.

HSBC calculates the CVA by applying the probability of default ('PD') of the counterparty, conditional on the non-default of HSBC, to HSBC's expected positive exposure to the counterparty and multiplying the result by the loss expected in the event of default. Conversely, HSBC calculates the DVA by applying the PD of HSBC, conditional on the non-default of the counterparty, to the expected positive exposure of the counterparty to HSBC and multiplying by

the loss expected in the event of default. Both calculations are performed over the life of the potential exposure.

For most products HSBC uses a simulation methodology to calculate the expected positive exposure to a counterparty. This incorporates a range of potential exposures across the portfolio of transactions with the counterparty over the life of the portfolio. The simulation methodology includes credit mitigants such as counterparty netting agreements and collateral agreements with the counterparty. A standard loss given default ('LGD') assumption of 60% is generally adopted for developed market exposures, and 75% for emerging market exposures. Alternative loss given default assumptions may be adopted when both the nature of the exposure and the available data support this.

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

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

With the exception of certain central clearing parties, HSBC includes all third-party counterparties in the CVA and DVA calculations and does not net these adjustments across Group entities. During the year, HSBC refined the methodologies used to calculate the CVA and DVA to more accurately reflect the impact of ratings downgrade triggers on credit mitigation. HSBC reviews and refines the CVA and DVA methodologies on an ongoing basis.

#### Valuation of uncollateralised derivatives

HSBC values uncollateralised derivatives by discounting expected future cash flows at a benchmark interest rate, typically Libor or its equivalent. This approach has historically been adopted across the industry, and has therefore been an appropriate basis for fair value. HSBC and other industry participants are currently considering whether this approach appropriately reflects the manner in which the derivatives are funded, which may occur at rates other than interbank offer rates. No consensus has yet emerged on how such funding should be reflected in the fair value measurement for uncollateralised derivatives. In the future, and possibly in 2014, HSBC may adopt a 'funding fair value adjustment' to reflect funding of uncollateralised derivatives at rates other than interbank offer rates.

#### Fair value valuation bases

Financial instruments measured at fair value using a valuation technique with significant unobservable inputs - Level 3

	Assets				Liabilities				
	Available for sale US\$m	Held for trading US\$m	At fair value1 US\$m	Deriv- atives US\$m	Total US\$m	Held for trading US\$m	At fair value1 US\$m	Deriv- atives US\$m	Total US\$m
At 31 December 2013									
Private equity including strategic investments .....	3,729	103	420	-	4,252	-	-	-	-

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Asset-backed securities .....	1,677	643	-	-	2,320	-	-	-	-
Loans held for securitisation .....	-	83	-	-	83	-	-	-	-
Structured notes .....	-	14	-	-	14	7,514	-	-	7,514
Derivatives with monolines .....	-	-	-	320	320	-	-	-	-
Other derivatives .....	-	-	-	2,182	2,182	-	-	2,335	2,335
Other portfolios .....	1,839	4,504	188	-	6,531	-	-	-	-
	7,245	5,347	608	2,502	15,702	7,514	-	2,335	9,849
At 31 December 2012									
Private equity including strategic investments .....	3,582	92	377	-	4,051	-	-	-	-
Asset-backed securities .....	2,288	652	-	-	2,940	-	-	-	-
Loans held for securitisation .....	-	547	-	-	547	-	-	-	-
Structured notes .....	-	23	-	-	23	6,987	-	-	6,987
Derivatives with monolines .....	-	-	-	630	630	-	-	-	-
Other derivatives .....	-	-	-	2,429	2,429	-	-	3,005	3,005
Other portfolios .....	2,641	3,064	36	-	5,741	483	-	-	483
	8,511	4,378	413	3,059	16,361	7,470	-	3,005	10,475

1 Designated at fair value through profit or loss.

Level 3 instruments are present in both ongoing and legacy businesses. Loans held for securitisation, derivatives with monolines, certain 'other derivatives' and all level 3 asset-backed securities are legacy. HSBC has the capability to hold these positions.

#### Private equity and strategic investments

HSBC's private equity and strategic investments are generally classified as available for sale and are not traded in active markets. In the absence of an active market, an investment's fair value is estimated on the basis of an analysis of the investee's financial position and results, risk profile, prospects and other factors, as well as by reference to market valuations for similar entities quoted in an active market, or the price at which similar companies have changed ownership.

#### Asset-backed securities

While quoted market prices are generally used to determine the fair value of these securities, valuation models are used to substantiate the reliability of the limited market data available and to identify whether any adjustments to quoted market prices are required. For ABSs including residential MBSs, the valuation uses an industry standard model and the assumptions relating to prepayment speeds, default rates and loss severity based on collateral type, and performance, as appropriate. The valuations output is benchmarked for consistency against observable data for securities of a similar nature.

#### Loans, including leveraged finance and loans held for securitisation

Loans held at fair value are valued from broker quotes and/or market data consensus providers when available. In the absence of an observable market, the fair value is determined using valuation techniques. These techniques include discounted cash flow models, which incorporate assumptions regarding an appropriate credit spread for the loan, derived from other market instruments issued by the same or comparable entities.

#### Structured notes

The fair value of structured notes valued using a valuation technique is derived from the fair value of the underlying debt security, and the fair value of the embedded derivative is determined as described in the paragraph below on derivatives.

Trading liabilities valued using a valuation technique with significant unobservable inputs principally comprised equity-linked structured notes which are issued by HSBC and provide the counterparty with a return that is linked to the performance of certain equity securities, and other portfolios. The notes are classified as Level 3 due to the unobservability of parameters such as long-dated equity volatilities and correlations between equity prices, between equity prices and interest rates and between interest rates and foreign exchange rates.

#### Derivatives

OTC (i.e. non-exchange traded) derivatives are valued using valuation models. Valuation models calculate the present value of expected future cash flows, based upon 'no-arbitrage' principles. For many vanilla derivative products, such as interest rate swaps and European options, the modelling approaches used are standard across the industry. For more complex derivative products, there may be some differences in market practice. Inputs to valuation models are determined from observable market data wherever possible, including prices available from exchanges, dealers, brokers or providers of consensus pricing. Certain inputs may not be observable in the market directly, but can be determined from observable prices via model calibration procedures or estimated from historical data or other sources. Examples of inputs that may be unobservable include volatility surfaces, in whole or in part, for less commonly traded option products, and correlations between market factors such as foreign exchange rates, interest rates and equity prices. The valuation of derivatives with monolines is discussed on page 208.

Derivative products valued using valuation techniques with significant unobservable inputs included certain types of correlation products, such as foreign exchange basket options, equity basket options, foreign exchange interest rate hybrid transactions and long-dated option transactions. Examples of the latter are equity options, interest rate and foreign exchange options and certain credit derivatives. Credit derivatives include certain tranching CDS transactions.

#### Reconciliation of fair value measurements in Level 3 of the fair value hierarchy

The following table provides a reconciliation of the movement between opening and closing balances of Level 3 financial instruments, measured at fair value using a valuation technique with significant unobservable inputs:

#### Movement in Level 3 financial instruments

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	Assets			Liabilities			
	Available for sale US\$m	Designated at fair value		Derivatives US\$m	Designated at fair value		Derivatives US\$m
Held for trading US\$m		through profit or loss US\$m	Held for trading US\$m		through profit or loss US\$m		
At 1 January 2013							
.....	8,511	4,378	413	3,059	7,470	-	3,005
Total gains/(losses) recognised							
in profit or loss .....	(52)	343	36	(205)	(747)	-	393
- trading income excluding net interest income .....	-	343	-	(205)	(747)	-	393
- net income/(expense) from other financial instruments designated at fair value .....	-	-	36	-	-	-	-
- gains less losses from financial investments .....	(66)	-	-	-	-	-	-
- loan impairment charges and other credit risk provisions .....	14	-	-	-	-	-	-
Total gains/(losses) recognised in other comprehensive income1							
.....	487	20	-	(7)	9	-	57
- available-for-sale investments:							
fair value gains/(losses) .....	568	-	-	-	-	-	-
- cash flow hedges:							
fair value gains/(losses) .....	-	-	-	(11)	-	-	-
- exchange differences .....	(81)	20	-	4	9	-	57
Purchases							
.....	1,838	1,293	56	-	(482)	-	-
New issuances							
.....	-	-	-	-	3,161	-	-
Sales							
.....	(766)	(1,821)	(4)	-	(14)	-	-
Settlements							
.....	(756)	(473)	(27)	(311)	(1,150)	-	(1,004)
Transfers out							
.....	(3,121)	(385)	(68)	(171)	(1,051)	-	(160)
Transfers in							
.....	1,104	1,992	202	137	318	-	44
	7,245	5,347	608	2,502	7,514	-	2,335

At 31 December 2013

.....

Unrealised gains/(losses)  
recognised  
in profit or loss relating to  
assets

and liabilities held at 31

December 2013 .....	(166)	362	41	(297)	(401)	-	72
- trading income excluding net interest income .....	-	362	-	(297)	(401)	-	72
- net income/(expense) from other financial instruments designated at fair value .....	-	-	41	-	-	-	-
- loan impairment charges and other credit risk provisions .....	(166)?	-	-	-	-	-	-

At 1 January 2012

.....	9,121	4,780	716	4,449	7,827	567	3,129
Total gains/(losses) recognised in profit or loss .....	(414)	356	10	(974)	319	-	10
Total gains/(losses) recognised in other comprehensive income 1 .....	472	78	(32)	92	143	-	84
Purchases .....	1,738	942	113	-	(368)	-	-
New issuances .....	-	-	-	-	2,852	-	-
Sales .....	(840)	(1,408)	(69)	-	-	-	-
Settlements .....	(367)	(617)	(25)	(14)	(1,604)	-	18
Transfers out .....	(2,944)	(298)	(350)	(571)	(1,901)	(567)	(291)
Transfers in .....	1,745	545	50	77	202	-	55
At 31 December 2012 .....	8,511	4,378	413	3,059	7,470	-	3,005
Total gains/(losses) recognised in profit or loss relating to assets and liabilities held at 31 December 2012	166	339	9	(1,294)	384	-	(395)

.....

1 Included in 'Available-for-sale investments: fair value gains/(losses)' and 'Exchange differences' in the consolidated statement of comprehensive income.

Purchases of Level 3 available-for-sale assets primarily reflect the acquisition of certain less liquid emerging market government and corporate debt. Transfers in of Level 3 available-for-sale securities reflect decreased confidence in the pricing of certain ABS assets. This is offset by transfers out reflecting increased confidence in the pricing of certain other ABS assets and increased liquidity in certain emerging market sovereign and corporate debt. Sales of Level 3 trading assets reflect the unwind of certain legacy monoline and structured credit exposures. New issuances of trading liabilities reflect structured note issuances, predominantly equity-linked notes.

Effect of changes in significant unobservable assumptions to reasonably possible alternatives

The following table shows the sensitivity of Level 3 fair values to reasonably possible alternative assumptions:

Sensitivity of fair values to reasonably possible alternative assumptions

	Reflected in profit or loss		Reflected in other comprehensive income	
	Favourable changes US\$m	Unfavourable changes US\$m	Favourable changes US\$m	Unfavourable changes US\$m
At 31 December 2013				
Derivatives, trading assets and trading liabilities <sup>1</sup> .....	350	(285)	-	-
Financial assets and liabilities designated at fair value .....	32	(51)	-	-
Financial investments: available for sale .....	-	-	434	(673)
	382	(336)	434	(673)
At 31 December 2012				
Derivatives, trading assets and trading liabilities <sup>1</sup> .....	465	(384)	-	-
Financial assets and liabilities designated at fair value .....	41	(41)	-	-
Financial investments: available for sale .....	-	-	680	(710)
	506	(425)	680	(710)

<sup>1</sup> Derivatives, trading assets and trading liabilities are presented as one category to reflect the manner in which these financial instruments are risk-managed.

The decrease in the effect of favourable and unfavourable changes in significant unobservable inputs in relation to derivatives, trading assets and trading liabilities reflects a reduction in exposures and reduced market data dispersion as market volatility generally declined over the year. The reduction in the effect of favourable changes in financial investments primarily reflects a decline in private equity, following a reassessment of potential upside.

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Sensitivity of fair values to reasonably possible alternative assumptions by Level 3 instrument type

	Reflected in profit or loss		Reflected in other comprehensive income	
	Favourable changes US\$m	Unfavourable changes US\$m	Favourable changes US\$m	Unfavourable changes US\$m
At 31 December 2013				
Private equity including strategic investments .....	31	(61)	226	(436)
Asset-backed securities .....	60	(27)	113	(99)
Loans held for securitisation .....	3	(3)	-	-
Structured notes .....	16	(9)	-	-
Derivatives with monolines .....	25	(16)	-	-
Other derivatives .....	212	(164)	-	-
Other portfolios .....	35	(56)	95	(138)
	382	(336)	434	(673)
At 31 December 2012				
Private equity including strategic investments .....	62	(62)	353	(353)
Asset-backed securities .....	41	(27)	143	(139)
Loans held for securitisation .....	3	(3)	-	-
Structured notes .....	4	(5)	-	-
Derivatives with monolines .....	36	(20)	-	-
Other derivatives .....	320	(267)	-	-
Other portfolios .....	40	(41)	184	(218)
	506	(425)	680	(710)

Favourable and unfavourable changes are determined on the basis of sensitivity analysis. The sensitivity analysis aims to measure a range of fair values consistent with the application of a 95% confidence interval. Methodologies take account of the nature of the valuation technique employed, as well as the availability and reliability of observable proxy and historical data. When the available data is not amenable to statistical analysis, the quantification of uncertainty is judgemental, but remains guided by the 95% confidence interval.

When the fair value of a financial instrument is affected by more than one unobservable assumption, the above table reflects the most favourable or the most unfavourable change from varying the assumptions individually.



### Key unobservable inputs to Level 3 financial instruments

The table below lists key unobservable inputs to Level 3 financial instruments, and provides the range of those inputs as at 31 December 2013. The core range of inputs is the estimated range within which 90% of the inputs fall. A further description of the categories of key unobservable inputs is given below.

#### Private equity including strategic investments

HSBC's private equity and strategic investments are generally classified as available for sale and are not traded in active markets. In the absence of an active market, an investment's fair value is estimated on the basis of an analysis of the investee's financial position and results, risk profile, prospects and other factors, as well as by reference to market valuations for similar entities quoted in an active market, or the price at which similar companies have changed ownership. Given the bespoke nature of the analysis in respect of each holding, it is not practical to quote a range of key unobservable inputs.

#### Prepayment rates

Prepayment rates are a measure of the anticipated future speed at which a loan portfolio will be repaid in advance of the due date. Prepayment rates are an important input into modelled values of ABSs. A modelled price may be used where insufficient observable market prices exist to enable a market price to be determined directly. Prepayment rates are also an important input into the valuation of derivatives linked to securitisations. For example, so-called securitisation swaps have a notional value that is linked to the size of the outstanding loan portfolio in a securitisation, which may fall as prepayments occur. Prepayment rates vary according to the nature of the loan portfolio, and expectations of future market conditions. For example, current prepayment rates in US residential mortgage-backed securities would generally be expected to rise as the US economy improves. Prepayment rates may be estimated using a variety of evidence, such as prepayment rates implied from proxy observable security prices, current or historic prepayment rates and macro-economic modelling.

#### Market proxy

Market proxy pricing may be used for an instrument for which specific market pricing is not available, but evidence is available in respect of instruments that have some characteristics in common. In some cases it might be possible to identify a specific proxy, but more generally evidence across a wider range of instruments will be used to understand the factors that influence current market pricing and the manner of that influence. For example, in the collateralised loan obligation market it may be possible to establish that A-rated securities exhibit prices in a range, and to isolate key factors that influence position within the range. Application of this to a specific A-rated security within HSBC's portfolio allows assignment of a price.

The range of prices used as inputs into a market proxy pricing methodology may therefore be wide. This range is not indicative of the uncertainty associated with the price derived for an individual security.

#### Volatility

Volatility is a measure of the anticipated future variability of a market price. Volatility tends to increase in stressed market conditions, and decrease in calmer market conditions. Volatility is an important input in the pricing of options. In general, the higher the volatility, the more expensive the option will be. This reflects both the higher probability of an increased return from the option, and the potentially higher costs that HSBC may incur in hedging the risks associated with the option. If option prices become more expensive, this will increase the value of HSBC's long option positions (i.e. the positions in which HSBC has purchased options), while HSBC's short option positions (i.e. the positions in which HSBC has sold options) will suffer losses.

## Quantitative information about significant unobservable inputs in Level 3 valuations

	Fair value		Valuation technique	Key unobservable inputs	Full range of inputs		Core range of inputs	
	Assets US\$m	Liabilities US\$m			Lower	Higher	Lower	Higher
At 31 December 2013								
Private equity including strategic investments	4,252	-	See notes on page 491	See notes on page 491	n/a	n/a	n/a	n/a
Asset-backed securities	2,320	-	Model - Discounted cash flow	Prepayment rate		5%	0%	
CLO/CDO1	1,180	-	Market proxy	Bid quotes	0	102	46	95
Other ABSs	1,140	-						
Loans held for securitisation	83	-						
Structured notes	14	7,514	Model - Option	Equity volatility		73%	13%	
Equity-linked notes	-	5,750	Model - Option	Equity correlation	6%	59%	52%	39%
Fund-linked notes	-	717	Model - Option	Fund volatility	51%	22%	20%	57%
FX-linked notes	14	662	Model - Option	FX volatility	18%	28%	5%	21%
Other	-	385	Model - Discounted cash flow	Credit spread	0.1%	5%	4%	5%
Derivatives with monolines	320	-	Model - Discounted cash flow	Credit spread	3%			
Other derivatives	2,182	2,335						
Interest rate derivatives:								
- securitisation swaps	275	1,127	Model - Discounted cash flow	Prepayment rate		22%	2%	
- long-dated swaptions	655	185	Model - Option	IR volatility	0%	160%	13%	20%
	540	265			3%			41%

- other								
.....								
FX derivatives:								
- FX			Model - Option			75%	7%	
options.....	114	151	model .....	FX volatility ...	0.1%			18%
-								
other.....	69	51						
Equity derivatives:								
- long-dated single stock						73%	15%	
options			Model - Option	Equity				
.....	218	247	model .....	volatility.....	6%			36%
- other								
.....	24	151						
Credit derivatives:								
- other								
.....	287	158						
Other portfolios								
.....	6,531	-						
			Model -			3%	1%	
Structured certificates			Discounted cash	Credit				
.....	3,800	-	flow	volatility.....	1%			3%
EM corporate debt						17%	1%	
.....	2,073	-	Market proxy ....	Credit spread	0.2%			7%
			Market proxy ....	Bid quotes .....	57	141	100	134
Other2								
.....	658	-						
	15,702	9,849						

1 Collateralised loan obligation/collateralised debt obligation.

2 Includes a range of smaller asset holdings.

Volatility varies by underlying reference market price, and by strike and maturity of the option. Volatility also varies over time. As a result, it is difficult to make general statements regarding volatility levels. For example, while it is generally the case that foreign exchange volatilities are lower than equity volatilities, there may be examples in particular currency pairs or for particular equities where this is not the case.

Certain volatilities, typically those of a longer-dated nature, are unobservable. The unobservable volatility is then estimated from observable data. For example, longer-dated volatilities may be extrapolated from shorter-dated volatilities.

The range of unobservable volatilities quoted in the table reflects the wide variation in volatility inputs by reference market price. For example, foreign exchange volatilities for a pegged currency may be very low, whereas for non-managed currencies the foreign exchange volatility may be higher. As a further example, volatilities for deep-in-the-money or deep-out-of-the-money equity options may be significantly higher than at-the-money options. The core range is significantly narrower than the full range because these examples with extreme volatilities occur relatively rarely within the HSBC portfolio. For any single unobservable volatility, the uncertainty in the volatility

determination is significantly less than the range quoted above.

#### Correlation

Correlation is a measure of the inter-relationship between two market prices. Correlation is a number between minus one and one. A positive correlation implies that the two market prices tend to move in the same direction, with a correlation of one implying that they always move in the same direction. A negative correlation implies that the two market prices tend to move in opposite directions, with a correlation of minus one implying that the two market prices always move in opposite directions.

Correlation is used to value more complex instruments where the payout is dependent upon more than one market price. For example, an equity basket option has a payout that is dependent upon the performance of a basket of single stocks, and the correlation between the price movements of those stocks will be an input to the valuation. This is referred to as equity-equity correlation. There is a wide range of instruments for which correlation is an input, and consequently a wide range of both same-asset correlations (e.g. equity-equity correlation) and cross-asset correlations (e.g. foreign exchange rate-interest rate correlation) used. In general, the range of same-asset correlations will be narrower than the range of cross-asset correlations.

Correlation may be unobservable. Unobservable correlations may be estimated on the basis of a range of evidence, including consensus pricing services, HSBC trade prices, proxy correlations and examination of historical price relationships.

The range of unobservable correlations quoted in the table reflects the wide variation in correlation inputs by market price pair. For any single unobservable correlation, the uncertainty in the correlation determination is likely to be less than the range quoted above.

#### Credit spread

Credit spread is the premium over a benchmark interest rate required by the market to accept lower credit quality. In a discounted cash flow model, the credit spread increases the discount factors applied to future cash flows, thereby reducing the value of an asset. Credit spreads may be implied from market prices. Credit spreads may not be observable in more illiquid markets.

#### Inter-relationships between key unobservable inputs

Key unobservable inputs to Level 3 financial instruments may not be independent of each other. As described above, market variables may be correlated. This correlation typically reflects the manner in which different markets tend to react to macroeconomic or other events. For example, improving economic conditions may lead to a 'risk on' market, in which prices of risky assets such as equities and high yield bonds rise, while 'safe haven' assets such as gold and US Treasuries decline. Furthermore, the impact of changing market variables upon the HSBC portfolio will depend on HSBC's net risk position in respect of each variable. For example, increasing high-yield bond prices will benefit long high-yield bond positions, but the value of any credit derivative protection held against these bonds will fall.

#### HSBC Holdings

The following table provides an analysis of the basis for valuing financial assets and financial liabilities measured at fair value in the financial statements:

Basis of valuing HSBC Holdings' financial assets and liabilities measured at fair value

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	At 31 December	
	2013	2012
	US\$m	US\$m
Valuation technique using observable inputs: Level 2		
Assets		
Derivatives		
.....	2,789	3,768
Available for sale		
.....	1,210	1,208
Liabilities		
Designated at fair value		
.....	21,027	23,195
Derivatives		
.....	704	760

Financial instruments measured at fair value - Level 3

Financial instruments measured using a valuation technique with significant unobservable inputs (Level 3) comprised fixed-rate preferred securities and senior notes purchased from HSBC undertakings. The unobservable elements of the valuation technique included the use of implied credit spreads and simplified bond pricing assumptions.

Movement in Level 3 financial instruments available for sale

	2013	2012
	US\$m	US\$m
At 1 January	-	1,078
.....		
Total gains or losses:		
- recognised in profit or loss	-	-
.....		
- recognised in other comprehensive income	-	130
.....		
Settlements	-	-
.....		
Transfers out	-	(1,208)
.....		
At 31 December	-	-
.....		
Unrealised gains/(losses) recognised in profit or loss relating to assets and liabilities held at 31 December	-	-
.....		

16 Fair values of financial instruments not carried at fair value

The classification of financial instruments is determined in accordance with the accounting policies set out in Note 2.

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Fair values of financial instruments which are not carried at fair value and bases of valuation

	At 31 December 2013				At 31 December 2012		
	Fair value				Total US\$m	Carrying amount US\$m	Fair value US\$m
	Valuation techniques						
	Quoted market price Level 1 US\$m	Using observable inputs Level 2 US\$m	With significant unobserv- able inputs Level 3 US\$m				
Carrying amount US\$m							
Assets and liabilities not held for sale							
Assets							
Loans and advances to banks							
.....	211,521	-	201,643	9,858	211,501	152,546	152,823
Loans and advances to customers <sup>1</sup>							
.....	1,080,304	-	98,932	971,555	1,070,487	997,623	973,741
Financial investments: debt securities							
.....	25,084	1,432	23,960	25	25,417	23,413	25,458
Liabilities							
Deposits by banks							
.....	129,212	-	129,144	52	129,196	107,429	107,392
Customer accounts							
.....	1,482,812	-	1,467,812	14,622	1,482,434	1,340,014	1,340,521
Debt securities in issue							
.....	104,080	166	101,551	2,941	104,658	119,461	120,779
Subordinated liabilities							
.....	28,976	-	29,704	1,309	31,013	29,479	32,159
Loans and advances and customer accounts held for sale <sup>2</sup>							
Loans and advances to banks and customers							
.....	1,973	-	249	1,731	1,980	6,632	6,387
Customer accounts							
.....	2,187	-	2,186	-	2,186	2,990	2,990

1 Level 2 fair value amounts primarily include reverse repos.

2 Including financial instruments within disposal groups held for sale.

Fair values are determined according to the hierarchy set out in Note 15.

The following is a list of financial instruments whose carrying amount is a reasonable approximation of fair value because, for example, they are short-term in nature or reprice to current market rates frequently:

Assets

Cash and balances at central banks

Items in the course of collection from other banks

Hong Kong Government certificates of indebtedness

Endorsements and acceptances

## Short-term receivables within 'Other assets'

## Liabilities

Hong Kong currency notes in circulation

Items in the course of transmission to other banks

Investment contracts with discretionary participation features within 'Liabilities under insurance contracts'

Endorsements and acceptances

Short-term payables within 'Other liabilities'

## Carrying amount and fair value of loans and advances to customers by industry sector

	Carrying amount at 31 December			
	Not impaired US\$m	Impaired US\$m	Impairment allowances <sup>1</sup> US\$m	Total US\$m
2013				
Loans and advances to customers			(15,143)	
.....	1,059,019	36,428		1,080,304
- personal			(6,602)	
.....	391,930	18,798		404,126
- corporate and commercial			(8,059)	
.....	529,661	16,877		538,479
- financial			(482)	
.....	137,428	753		137,699
2012				
Loans and advances to customers			(16,112)	
.....	975,064	38,671		997,623
- personal			(8,212)	
.....	391,342	23,751		406,881
- corporate and commercial			(7,346)	
.....	503,291	14,093		510,038
- financial			(554)	
.....	80,431	827		80,704

	Fair value at 31 December		
	Not impaired US\$m	Impaired US\$m	Total US\$m
2013			
Loans and advances to customers			
.....	1,045,900	24,587	1,070,487
- personal			
.....	379,353	13,774	393,127
- corporate and commercial			
.....	529,586	10,340	539,926
- financial			
.....	136,961	473	137,434

2012

Loans and advances to customers	948,822	24,919	973,741
- personal	369,692	15,369	385,061
- corporate and commercial	499,261	9,158	508,419
- financial	79,869	392	80,261

1 Impairment allowances relate to both impaired and not impaired loans and advances.

Analysis of loans and advances to customers by geographical segment

	At 31 December 2013		At 31 December 2012	
	Carrying amount US\$m	Fair value US\$m	Carrying amount US\$m	Fair value US\$m
Loans and advances to customers				
Europe	504,201	501,422	463,440	453,382
Hong Kong	195,549	194,081	173,613	171,926
Rest of Asia-Pacific	147,796	147,488	138,119	138,015
Middle East and North Africa	27,211	26,891	28,086	27,954
North America	161,629	156,500	140,756	128,637
Latin America	43,918	44,105	53,609	53,827
	1,080,304	1,070,487	997,623	973,741

#### Valuation

The fair value measurement is HSBC's estimate of the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It does not reflect the economic benefits and costs that HSBC expects to flow from the instruments' cash flows over their expected future lives. Other reporting entities may use different valuation methodologies and assumptions in determining fair values for which no observable market prices are available.

The fair values of loans and advances to customers in the US are substantially lower than their carrying amount, reflecting the market conditions at the balance sheet date. The secondary market demand and estimated value for US loans and advances have been heavily influenced by the challenging economic conditions during the past number of years, including house price depreciation, rising unemployment, changes in consumer behaviour, changes in discount rates and the lack of financing options available to support the purchase of loans and advances. Many investors are non-bank financial institutions or hedge funds with high equity levels and a high cost of debt. For certain consumer loans, investors take a more conservative view of future performance than HSBC. As a result, third parties are likely to assume higher charge-off levels and/or slower voluntary prepayment speeds than HSBC believes will ultimately be the case. The investor discount rates reflect this difference in the overall cost of capital as well as the potential



volatility in the underlying cash flow assumptions, the combination of which may yield a significant pricing discount from HSBC's intrinsic value. The relative fair value of loans and advances to customers increased during 2013 largely due to improved conditions in the housing industry driven by increased property values and, to a lesser extent, lower required market yields and increased investor demand for these types of loans and advances.

The fair value of loans and advances to customers has improved in Europe relative to carrying amounts, primarily in the UK mortgage market where increased competition and Central Bank policies to stimulate lending have reduced interest rates and increased fair values accordingly. The overall improvement in fair value has also benefited from higher valuations of ABSs classified as loans and advances following improved market appetite for such securities.

The fair values of loans and advances to customers in Latin America are higher than their carrying amount, primarily driven by mortgages where the market interest rate remains below the historic average.

Fair values of the following assets and liabilities are estimated for the purpose of disclosure as described below:

#### Loans and advances to banks and customers

The fair value of loans and advances is based on observable market transactions, where available. In the absence of observable market transactions, fair value is estimated using valuation models that incorporate a range of input assumptions. These assumptions may include value estimates from third party brokers which reflect over-the-counter trading activity, forward looking discounted cash flow models using assumptions which HSBC believes are consistent with those which would be used by market participants in valuing such loans, and trading inputs from other market participants which includes observed primary and secondary trades.

Loans are grouped, as far as possible, into homogeneous groups and stratified by loans with similar characteristics to improve the accuracy of estimated valuation outputs. The stratification of a loan book considers all material factors including vintage, origination period, estimates of future interest rates, prepayment speeds, delinquency rates, loan-to-value ratios, the quality of collateral, default probability, and internal credit risk ratings.

Valuation techniques are calibrated on a regular basis and tested for validity using prices from observable current market transactions in the same instrument, without modification or repackaging, or are based on any available observable market data.

The fair value of a loan reflects both loan impairments at the balance sheet date and estimates of market participants' expectations of credit losses over the life of the loans, and the fair value effect of repricing between origination and the balance sheet date.

#### Financial investments

The fair values of listed financial investments are determined using bid market prices. The fair values of unlisted financial investments are determined using valuation techniques that take into consideration the prices and future earnings streams of equivalent quoted securities.

#### Deposits by banks and customer accounts

For the purpose of estimating fair value, deposits by banks and customer accounts are grouped by remaining contractual maturity. Fair values are estimated using discounted cash flows, applying current rates offered for deposits of similar remaining maturities. The fair value of a deposit repayable on demand is approximated by its carrying value.

#### Debt securities in issue and subordinated liabilities

Fair values are determined using quoted market prices at the balance sheet date where available, or by reference to quoted market prices for similar instruments.

The fair values in this note are stated at a specific date and may be significantly different from the amounts which will actually be paid on the maturity or settlement dates of the instruments. In many cases, it would not be possible to realise immediately the estimated fair values given the size of the portfolios measured. Accordingly, these fair values do not represent the value of these financial instruments to HSBC as a going concern.

## HSBC Holdings

The methods used by HSBC Holdings to determine fair values of financial instruments for the purpose of measurement and disclosure are described above.

The following table provides an analysis of the fair value of financial instruments not carried at fair value on the balance sheet:

Fair values of HSBC Holdings' financial instruments not carried at fair value on the balance sheet

	At 31 December 2013		At 31 December 2012	
	Carrying amount US\$m	Fair value <sup>1</sup> US\$m	Carrying amount US\$m	Fair value US\$m
<b>Assets</b>				
Loans and advances to HSBC undertakings .....	53,344	55,332	41,675	42,843
<b>Liabilities</b>				
Amounts owed to HSBC undertakings .....	11,685	11,868	12,856	13,133
Debt securities in issue .....	2,791	3,124	2,691	3,188
Subordinated liabilities .....	14,167	16,633	11,907	14,865

<sup>1</sup> Fair values were determined using valuation techniques with observable inputs (Level 2).

<sup>17</sup> Financial assets designated at fair value

	At 31 December	
	2013 US\$m	2012 US\$m
Financial assets designated at fair value:		
- not subject to repledge or resale by counterparties .....	38,062	33,562
- which may be repledged or resold by counterparties .....	368	20
	38,430	33,582

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Treasury and other eligible bills	50	54
.....		
Debt securities	12,589	12,551
.....		
Equity securities	25,711	20,868
.....		
Securities designated at fair value	38,350	33,473
.....		
Loans and advances to banks	76	55
.....		
Loans and advances to customers	4	54
.....		
	38,430	33,582

Securities designated at fair value<sup>1</sup>

	At 31 December	
	2013	2012
	US\$m	US\$m
Fair value		
US Treasury and US Government agencies <sup>2</sup>	34	37
.....		
UK Government	534	625
.....		
Hong Kong Government	113	135
.....		
Other government	4,097	4,508
.....		
Asset-backed securities <sup>3</sup>	140	158
.....		
Corporate debt and other securities	7,721	7,142
.....		
Equities	25,711	20,868
.....		
	38,350	33,473

<sup>1</sup> Included within these figures are debt securities issued by banks and other financial institutions of US\$4,419m (2012: US\$3,509m), of which US\$92m (2012: US\$5m) are guaranteed by various governments.

<sup>2</sup> Include securities that are supported by an explicit guarantee issued by the US Government.

<sup>3</sup> Exclude asset-backed securities included under US Treasury and US Government agencies.

Securities listed on a recognised exchange and unlisted

Treasury and other	Debt securities	Equity securities	Total
-----------------------	--------------------	----------------------	-------

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	eligible bills US\$m	US\$m	US\$m	US\$m
Fair value at 31 December 2013				
Listed1	–	2,773	18,235	
.....				21,008
Unlisted	50	9,816	7,476	
.....				17,342
	50	12,589	25,711	38,350
Fair value at 31 December 2012				
Listed1	-	3,007	14,063	
.....				17,070
Unlisted	54	9,544	6,805	
.....				16,403
	54	12,551	20,868	33,473

1 Included within listed investments are US\$1,148m of investments listed on a recognised exchange in Hong Kong (2012: US\$931m).

18 Derivatives

Fair values of derivatives by product contract type held by HSBC

	Trading US\$m	Assets Hedging US\$m	Total US\$m	Trading US\$m	Liabilities Hedging US\$m	Total US\$m
At 31 December 2013						
Foreign exchange	78,652	2,262	80,914	75,350	448	75,798
.....						
Interest rate	456,282	2,294	458,576	448,434	4,097	452,531
Equity	18,389	-	18,389	22,573	-	22,573
Credit	9,092	-	9,092	8,926	-	8,926
Commodity and other	2,624	-	2,624	1,786	-	1,786
Gross total fair values	565,039	4,556	569,595	557,069	4,545	561,614
.....						
Offset			(287,330)			(287,330)
Total			282,265			274,284
At 31 December 2012						
Foreign exchange	68,277	1,227	69,504	70,944	239	71,183
.....						
Interest rate	628,162	2,417	630,579	618,808	6,491	625,299
Equity	15,413	-	15,413	19,889	-	19,889
Credit	12,740	-	12,740	13,508	-	13,508
Commodity and other	1,443	-	1,443	1,236	-	1,236

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Gross total fair values	726,035	3,644	729,679	724,385	6,730	731,115
.....						
Offset.....			(372,229)			(372,229)
Total .....			357,450			358,886

Derivative assets and liabilities decreased during the year, driven by a decrease in the fair value of interest rate derivatives as yield curves in major currencies steepened. This resulted in the decrease in gross fair values and a commensurate decrease in the offset amount.

Fair values of derivatives by product contract type held by HSBC Holdings with subsidiaries

	Trading US\$m	Assets Hedging US\$m	Total US\$m	Trading US\$m	Liabilities Hedging US\$m	Total US\$m
At 31 December 2013						
Foreign exchange	1,774	45	1,819	471	-	471
.....						
Interest rate	955	15	970	233	-	233
.....						
	2,729	60	2,789	704	-	704
At 31 December 2012						
Foreign exchange	1,636	-	1,636	760	-	760
.....						
Interest rate	2,132	-	2,132	-	-	-
.....						
	3,768	-	3,768	760	-	760

Derivatives are financial instruments that derive their value from the price of underlying items such as equities, bonds, interest rates, foreign exchange, credit spreads, commodities and equity or other indices. Derivatives enable users to increase, reduce or alter exposure to credit or market risks.

Derivatives are carried at fair value and shown in the balance sheet as separate totals of assets and liabilities. A description of how the fair value of derivatives is derived is set out on page 488. Derivative assets and liabilities are only offset and reported net in the balance sheet when there is a legally enforceable right to offset and the cash flows are intended to be settled on a net basis.

Use of derivatives

HSBC transacts derivatives for three primary purposes: to create risk management solutions for clients, to manage the portfolio risks arising from client business and to manage and hedge HSBC's own risks. Derivatives (except for derivatives which are designated as effective hedging instruments as defined in IAS 39) are held for trading. Within the held-for-trading classification are two types of derivatives: those used in sales and trading activities, and those used for risk management purposes but which for various reasons do not meet the qualifying criteria for hedge accounting. The second category includes derivatives managed in conjunction with financial instruments designated at

fair value. These activities are described more fully below.

HSBC's derivative activities give rise to significant open positions in portfolios of derivatives. These positions are managed constantly to ensure that they remain within acceptable risk levels. When entering into derivative transactions, HSBC employs the same credit risk management framework to assess and approve potential credit exposures that it uses for traditional lending.

#### Trading derivatives

Most of HSBC's derivative transactions relate to sales and trading activities. Sales activities include the structuring and marketing of derivative products to customers to enable them to take, transfer, modify or reduce current or expected risks. Trading activities include market-making and risk management. Market-making entails quoting bid and offer prices to other market participants for the purpose of generating revenues based on spread and volume. Risk management activity is undertaken to manage the risk arising from client transactions, with the principal purpose of retaining client margin.

Other derivatives classified as held for trading include non-qualifying hedging derivatives, ineffective hedging derivatives and the components of hedging derivatives that are excluded from assessing hedge effectiveness. Non-qualifying hedging derivatives are entered into for risk management purposes but do not meet the criteria for hedge accounting. Trading derivatives also include derivatives managed in conjunction with financial instruments designated at fair value.

Gains and losses from changes in the fair value of derivatives, including the contractual interest, that do not qualify for hedge accounting are reported in 'Net trading income' except for derivatives managed in conjunction with financial instruments designated at fair value, where gains and losses are reported in 'Net income from financial instruments designated at fair value' together with the gains and losses on the economically hedged items. Where the derivatives are managed with debt securities in issue, the contractual interest is shown in 'Interest expense' together with the interest payable on the issued debt. Substantially all of HSBC Holdings' derivatives entered into with HSBC undertakings are managed in conjunction with financial liabilities designated at fair value.

The notional contract amounts of derivatives held for trading purposes indicate the nominal value of transactions outstanding at the balance sheet date; they do not represent amounts at risk. The 23% increase in the notional contract amounts of HSBC's derivatives during 2013 was primarily driven by an increase in the trading volumes of interest rate contracts.

#### Notional contract amounts of derivatives held for trading purposes by product type

	HSBC		HSBC Holdings	
	At 31 December 2013 US\$m	At 31 December 2012 US\$m	At 31 December 2013 US\$m	At 31 December 2012 US\$m
Foreign exchange	5,264,978	4,435,729	17,280	17,576
Interest rate	27,056,367	21,355,749	10,304	11,554
Equity	589,903	495,668	-	-
	678,256	901,507	-	-

## Credit

.....				
Commodity and other	77,842	80,219	-	-
.....				
	33,667,346	27,268,872	27,584	29,130

## Credit derivatives

HSBC trades credit derivatives through its principal dealing operations and acts as a principal counterparty to a broad range of users, structuring transactions to produce risk management products for its customers, or making markets in certain products. Risk is typically controlled through entering into offsetting credit derivative contracts with other counterparties.

HSBC manages the credit risk arising on buying and selling credit derivative protection by including the related credit exposures within its overall credit limit structure for the relevant counterparty. Trading of credit derivatives is restricted to a small number of offices within the major centres which have the control infrastructure and market skills to manage effectively the credit risk inherent in the products.

Credit derivatives are also deployed to a limited extent for the risk management of the Group's loan portfolios. The notional contract amount of credit derivatives of US\$678bn (2012: US\$902bn) consisted of protection bought of US\$339bn (2012: US\$446bn) and protection sold of US\$339bn (2012: US\$455bn). The credit derivative business operates within the market risk management framework described on page 281.

## Derivatives valued using models with unobservable inputs

The difference between the fair value at initial recognition (the transaction price) and the value that would have been derived had valuation techniques used for subsequent measurement been applied at initial recognition, less subsequent releases, is as follows:

## Unamortised balance of derivatives valued using models with significant unobservable inputs

	2013 US\$m	2012 US\$m
Unamortised balance at 1 January	181	200
.....		
Deferral on new transactions	206	149
.....		
Recognised in the income statement during the period:		
- amortisation	(105)	(112)
.....		
- subsequent to unobservable inputs becoming observable	(39)	(1)
.....		
- maturity, termination or offsetting derivative	(77)	(46)
.....		
- risk hedged	-	(11)
.....		
Exchange differences	1	2
.....		

Unamortised balance at 31 December <sup>1</sup>	167	181
.....		

<sup>1</sup> This amount is yet to be recognised in the consolidated income statement.

#### Hedge accounting derivatives

HSBC uses derivatives (principally interest rate swaps) for hedging purposes in the management of its own asset and liability portfolios and structural positions. This enables HSBC to optimise the overall cost to the Group of accessing debt capital markets, and to mitigate the market risk which would otherwise arise from structural imbalances in the maturity and other profiles of its assets and liabilities.

The accounting treatment of hedge transactions varies according to the nature of the instrument hedged and the type of hedge transactions. Derivatives may qualify as hedges for accounting purposes if they are fair value hedges, cash flow hedges, or hedges of net investment in foreign operations. These are described under the relevant headings below.

The notional contract amounts of derivatives held for hedge accounting purposes indicate the nominal value of transactions outstanding at the balance sheet date; they do not represent amounts at risk.

#### Notional contract amounts of derivatives held for hedge accounting purposes by product type

	At 31 December 2013		At 31 December 2012	
	Cash flow hedge US\$m	Fair value hedge US\$m	Cash flow hedge US\$m	Fair value hedge US\$m
HSBC				
Foreign exchange	25,799		16,716	
.....		226		112
Interest rate	201,197		182,688	
.....		90,354		75,505
	226,996	90,580	199,404	75,617

	Fair value hedge at 31 December	
	2013 US\$m	2012 US\$m
HSBC Holdings		
Foreign exchange	1,120	-
.....		
Interest rate	1,977	-
.....		
	3,097	-

#### Fair value hedges



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HSBC's fair value hedges principally consist of interest rate swaps that are used to protect against changes in the fair value of fixed-rate long-term financial instruments due to movements in market interest rates. For fair value hedges, all changes in the fair value of the derivative and in the fair value of the item in relation to the risk being hedged are recognised in the income statement. If the hedge relationship is terminated, the fair value adjustment to the hedged item continues to be reported as part of the basis of the item and is amortised to the income statement as a yield adjustment over the remainder of the hedging period.

Fair value of derivatives designated as fair value hedges

	At 31 December 2013		At 31 December 2012	
	Assets US\$m	Liabilities US\$m	Assets US\$m	Liabilities US\$m
HSBC				
Foreign exchange	5	-	-	-
.....		-		-
Interest rate	1,163	2,889	199	4,450
.....				
	1,168	2,889	199	4,450
HSBC Holdings				
Foreign exchange	45	-	-	-
.....		-		-
Interest rate	15	-	-	-
.....		-		-
	60	-	-	-

Gains or losses arising from fair value hedges

	2013	2012	2011
	US\$m	US\$m	US\$m
HSBC			
Gains/(losses):			
- on hedging instruments			
.....	1,997	(898)	(4,082)
- on the hedged items attributable to the hedged risk			
.....	(1,932)	871	3,858
	65	(27)	(224)
HSBC Holdings			
Gains/(losses):			
- on hedging instruments			
.....	14	-	-
- on the hedged items attributable to the hedged risk			
.....	(21)	-	-
	(7)	-	-

The gains and losses on ineffective portions of fair value hedges are recognised immediately in 'Net trading income'.

#### Cash flow hedges

HSBC's cash flow hedges consist principally of interest rate swaps, futures and cross-currency swaps that are used to protect against exposures to variability in future interest cash flows on non-trading assets and liabilities which bear interest at variable rates or which are expected to be re-funded or reinvested in the future. The amounts and timing of future cash flows, representing both principal and interest flows, are projected for each portfolio of financial assets and liabilities on the basis of their contractual terms and other relevant factors, including estimates of prepayments and defaults. The aggregate principal balances and interest cash flows across all portfolios over time form the basis for identifying gains and losses on the effective portions of derivatives designated as cash flow hedges of forecast transactions. Gains and losses are initially recognised in other comprehensive income, and accumulated in the cash flow hedging reserve, and are transferred to the income statement when the forecast cash flows affect the income statement.

#### Fair value of derivatives designated as cash flow hedges

	At 31 December 2013		At 31 December 2012	
	Assets US\$m	Liabilities US\$m	Assets US\$m	Liabilities US\$m
Foreign exchange	2,257		1,230	
.....		439		200
Interest rate	1,131		2,218	
.....		1,208		2,041
	3,388	1,647	3,448	2,241

#### Forecast principal balances on which interest cash flows are expected to arise

	3 months or less US\$m	More than 3 months but less than 1 year US\$m	5 years or less but more than 1 year US\$m	More than 5 years US\$m
At 31 December 2013				
Assets	135,857	124,670		2,156
.....			89,405	
Liabilities	(60,402)	(46,990)		(10,221)
.....			(38,406)	
Net cash inflows/(outflows) exposure	75,455	77,680		(8,065)
.....			50,999	
At 31 December 2012				
Assets	112,846	93,072		5,055
.....			72,557	
Liabilities	(68,534)	(43,800)		(4,777)
.....			(29,401)	

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Net cash inflows exposure	44,312	49,272	278
.....		43,156	

This table reflects the interest rate repricing profile of the underlying hedged items.

The gains and losses on ineffective portions of such derivatives are recognised immediately in 'Net trading income'. During the year to 31 December 2013 a gain of US\$22m (2012: gain of US\$35m; 2011: gain of US\$26m) was recognised due to hedge ineffectiveness.

Hedges of net investments in foreign operations

The Group applies hedge accounting in respect of certain consolidated net investments. Hedging is undertaken using forward foreign exchange contracts or by financing with currency borrowings.

At 31 December 2013, the fair values of outstanding financial instruments designated as hedges of net investments in foreign operations were assets of US\$4m (2012: US\$3m), liabilities of US\$23m (2012: US\$50m) and notional contract values of US\$2,840m (2012: US\$2,654m).

The ineffectiveness recognised in 'Net trading income' in the year ended 31 December 2013 that arose from hedges in foreign operations was nil (2012 and 2011: nil).

19 Financial investments

	At 31 December	
	2013	2012
	US\$m	US\$m
Financial investments:		
- not subject to repledge or resale by counterparties	394,207	399,613
.....		
- which may be repledged or resold by counterparties	31,718	21,488
.....		
	425,925	421,101

Carrying amount and fair value of financial investments

	At 31 December 2013		At 31 December 2012	
	Carrying amount	Fair value	Carrying amount	Fair value
	US\$m	US\$m	US\$m	US\$m
Treasury and other eligible bills	78,111	78,111	87,550	87,550
.....				
- available for sale	78,111	78,111	87,550	87,550
.....				
Debt securities	338,674	339,007	327,762	329,807
.....				
- available for sale	313,590	313,590	304,349	304,349
.....				

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- held to maturity	25,084	25,417	23,413	25,458
.....				
Equity securities	9,140	9,140	5,789	5,789
.....				
- available for sale	9,140	9,140	5,789	5,789
.....				
Total financial investments	425,925	426,258	421,101	423,146
.....				

Financial investments at amortised cost and fair value

	Amortised cost <sup>1</sup> US\$m	Fair value <sup>2</sup> US\$m
At 31 December 2013		
US Treasury	50,369	50,421
.....		
US Government agencies <sup>3</sup>	19,211	18,771
.....		
US Government sponsored entities <sup>3</sup>	5,263	5,445
.....		
UK Government	23,565	23,580
.....		
Hong Kong Government	49,570	49,579
.....		
Other government	153,619	156,208
.....		
Asset-backed securities <sup>4</sup>	25,961	24,115
.....		
Corporate debt and other securities	87,469	88,999
.....		
Equities	8,081	9,140
.....		
	423,108	426,258

	Amortised cost <sup>1</sup> US\$m	Fair value <sup>2</sup> US\$m
At 31 December 2012		
US Treasury	60,657	61,925
.....		
US Government agencies <sup>3</sup>	22,579	23,500
.....		
US Government sponsored entities <sup>3</sup>	5,262	5,907
.....		

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UK Government	17,018	17,940
.....		
Hong Kong Government	42,687	42,711
.....		
Other government	146,507	149,179
.....		
Asset-backed securities <sup>4</sup>	29,960	26,418
.....		
Corporate debt and other securities	86,099	89,777
.....		
Equities	4,284	5,789
.....		
	415,053	423,146
At 31 December 2011		
US Treasury	43,848	45,283
.....		
US Government agencies <sup>3</sup>	25,079	26,093
.....		
US Government sponsored entities <sup>3</sup>	4,425	5,056
.....		
UK Government	32,165	33,603
.....		
Hong Kong Government	33,359	33,374
.....		
Other government	125,623	127,049
.....		
Asset-backed securities <sup>4</sup>	35,096	28,625
.....		
Corporate debt and other securities	94,110	95,233
.....		
Equities	5,122	7,210
.....		
	398,827	401,526

1 Represents the amortised cost or cost basis of the financial investment.

2 Included within these figures are debt securities issued by banks and other financial institutions of US\$55,303m (2012: US\$59,908m; 2011: US\$68,334m), of which US\$8,946m (2012: US\$6,916m; 2011: US\$17,079m) are guaranteed by various governments. The fair value of the debt securities issued by banks and other financial institutions was US\$55,467m (2012: US\$60,616m; 2011: US\$68,765m).

3 Include securities that are supported by an explicit guarantee issued by the US Government.

4 Exclude asset-backed securities included under US Government agencies and sponsored entities.

Financial investments listed on a recognised exchange and unlisted

Treasury and other	Debt securities available	Debt securities held to	Equity securities available	Total
-----------------------	---------------------------------	-------------------------------	-----------------------------------	-------

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	eligible bills available for sale US\$m	for sale US\$m	maturity US\$m	for sale US\$m	US\$m
Carrying amount at 31 December 2013					
Listed1	1,404	134,473	6,176	3,950	146,003
Unlisted2	76,707	179,117	18,908	5,190	279,922
	78,111	313,590	25,084	9,140	425,925
Carrying amount at 31 December 2012					
Listed1	3,284	113,399	5,599	536	122,818
Unlisted2	84,266	190,950	17,814	5,253	298,283
	87,550	304,349	23,413	5,789	421,101

1 The fair value of listed held-to-maturity debt securities as at 31 December 2013 was US\$6,281m (2012: US\$6,123m). Included within listed investments were US\$2,832m (2012: US\$3,512m) of investments listed on a recognised exchange in Hong Kong.

2 Unlisted treasury and other eligible bills available for sale primarily comprise treasury bills not listed on an exchange but for which there is a liquid market.

Maturities of investments in debt securities at their carrying amount

	At 31 December	
	2013 US\$m	2012 US\$m
Remaining contractual maturity of total debt securities:		
1 year or less	81,215	67,268
5 years or less but over 1 year	154,580	157,075
10 years or less but over 5 years	50,998	47,123
Over 10 years	51,881	56,296
	338,674	327,762
Remaining contractual maturity of debt securities available for sale:		
1 year or less	78,222	65,500
5 years or less but over 1 year	146,200	149,195
10 years or less but over 5 years	44,556	39,498
	44,612	50,156

Over 10 years

.....		
	313,590	304,349
Remaining contractual maturity of debt securities held to maturity:		
1 year or less	2,993	1,768
.....		
5 years or less but over 1 year	8,380	7,880
.....		
10 years or less but over 5 years	6,442	7,625
.....		
Over 10 years	7,269	6,140
.....		
	25,084	23,413

Contractual maturities and weighted average yields of investment debt securities at 31 December 2013

	Within one year		After one year but within five years		After five years but within ten years		After ten years	
	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
	US\$m	%	US\$m	%	US\$m	%	US\$m	%
Available for sale								
US Treasury	11,876	0.3	29,185	0.7	5,871	2.2	1,991	4.1
US Government agencies	-	-	46	2.1	98	2.1	18,802	2.6
US Government-sponsored agencies ..	50	0.4	821	2.3	2,773	3.3	775	3.8
UK Government	-	-	12,129	3.6	10,165	7.2	644	5.1
Hong Kong Government	773	1.8	109	0.7	-	-	-	-
Other governments	49,919	2.5	63,276	3.2	10,212	5.1	2,432	5.2
Asset-backed securities	72	1.7	1,681	2.4	6,666	0.7	17,524	0.8
Corporate debt and other securities ....	15,244	2.9	36,703	2.0	8,136	2.0	4,249	3.3
Total amortised cost	77,934		143,950		43,921		46,417	
Total carrying value	78,222		146,200		44,556		44,612	
Held to maturity								
US Treasury	1	4.0	55	4.8	59	4.8	109	4.2
.....	-	-	1	7.6	2	7.7	262	6.5

US Government agencies .....								
US Government-sponsored agencies ..	1	8.0	1	6.9	2	8.0	843	6.1
Hong Kong Government .....	-	-	30	0.4	28	2.7	2	1.2
Other governments .....	267	4.1	317	4.5	278	4.9	661	4.8
Asset-backed securities .....	-	-	-	-	-	-	18	6.2
Corporate debt and other securities ....	2,724	3.9	7,976	3.7	6,073	4.1	5,374	4.1
Total amortised cost .....	2,993		8,380		6,442		7,269	
Total carrying value .....	2,993		8,380		6,442		7,269	

The maturity distributions of asset-backed securities are presented in the above table on the basis of contractual maturity dates. The weighted average yield for each range of maturities is calculated by dividing the annualised interest income for the year ended 31 December 2013 by the book amount of available-for-sale debt securities at that date. The yields do not include the effect of related derivatives.

## 20 Transfers of financial assets

HSBC enters into transactions in the normal course of business by which it transfers financial assets to third parties including structured entities ('SEs'). Depending on the circumstances, these transfers may either result in these financial assets being derecognised or continuing to be recognised.

· Full derecognition occurs when HSBC transfers its contractual right to receive cash flows from the financial assets, or retains the right but assumes an obligation to pass on the cash flows from the asset, and transfers substantially all the risks and rewards of ownership. The risks include credit, interest rate, foreign currency, prepayment and other price risks.

· Derecognition does not occur when HSBC transfers its contractual right to receive cash flows from the financial assets, or retains the right but assumes an obligation to pass on the cash flows from the asset, but either:

- (i) retains substantially all of the risks and rewards of ownership of the transferred asset; or
- (ii) neither retains nor transfers substantially all of the risks and rewards of ownership but has retained control of the financial asset. In this situation, the financial assets are recognised on the balance sheet to the extent of HSBC's continuing involvement.

The majority of transferred financial assets that do not qualify for derecognition are (i) debt securities held by counterparties as collateral under repurchase agreements or (ii) equity securities lent under securities lending agreements. As the substance of these transactions is secured borrowings the asset collateral continues to be recognised in full and the related liability reflecting the Group's obligation to repurchase the transferred assets for a fixed price at a future date is recognised in deposits from banks or customers as appropriate. As a result of these transactions, the Group is unable to use, sell or pledge the transferred assets for the duration of the transaction. The Group remains exposed to interest rate risk and credit risk on these pledged instruments. The counterparty's recourse



is not limited to the transferred assets.

Other transactions that do not qualify for full derecognition include other sales where the counterparty's recourse is only to the transferred asset. 'Other sales (recourse to transferred asset only)' in the table below includes a Canadian government sponsored securitisation programme, where HSBC Bank Canada assigns ownership and its right to sell or pledge residential mortgages. HSBC Bank Canada remains exposed to credit and interest rate risk on the assigned residential mortgages, which continue to be recorded as loans and advances. Third party funds received by HSBC Bank Canada under the programme are accounted for as secured borrowings and presented as debt securities in issue on the consolidated balance sheet.

In a small number of securitisation transactions, HSBC has neither transferred nor retained substantially all the risks and rewards of ownership of the transferred assets, and has retained control of the transferred assets. Circumstances in which HSBC has continuing involvement in the transferred assets may include retention of servicing rights over the transferred assets, entering into a derivative transaction with the securitisation vehicle or retaining an interest in the securitisation vehicle. Where HSBC has continuing involvement it continues to recognise the transferred assets to the extent of its continuing involvement and recognises an associated liability. The net carrying amount of the transferred assets and associated liabilities reflects the rights and obligations that HSBC has retained.

The following table analyses the carrying amount of financial assets that did not qualify for derecognition and their associated financial liabilities, including those that are recognised to the extent of HSBC's continuing involvement and the associated liabilities.

#### Financial assets not qualifying for full derecognition and associated financial liabilities

	Carrying amount of assets before transfer US\$m	Carrying amount of transferred assets US\$m	Carrying amount of associated liabilities US\$m	Fair value of transferred assets US\$m	Fair value of associated liabilities US\$m	Net position US\$m
At 31 December 2013						
Repurchase agreements		125,508	126,175			
Securities lending agreements		9,175	8,884			
Other sales (recourse to transferred asset only)		6,707	7,019	6,827	6,707	120
Securitisations recognised to the extent of continuing involvement	17,427	16	8	16	8	8
At 31 December 2012						
Repurchase agreements		122,130	121,589			
Securities lending agreements		5,891	5,820			
Other sales (recourse to transferred asset only)		9,727	9,733	9,767	9,856	(89)

## Securitisations recognised to the extent of continuing involvement

.....	17,427	12	6	12	6	6
-------	--------	----	---	----	---	---

## Financial assets qualifying for full derecognition and associated financial liabilities by type of continuing involvement

	At 31 December					For the year		Income/ (expenses) recognised cumulatively US\$m
	Carrying amount of continuing involvement in the balance sheet		Fair value of continuing involvement		Maximum exposure to loss US\$m	Gain or loss recognised at transfer date US\$m	Income/ (expenses) recognised in year US\$m	
	Assets US\$m	Liabilities US\$m	Assets US\$m	Liabilities US\$m				
Interest in structured entities								
2013	305	-	307	-	305	10	8	68
2012	393	-	354	-	393	10	8	58

The assets in the table above represent our continuing involvement in securitisations where HSBC has transferred assets to an unconsolidated SE, but has retained some of the notes issued by the SE. These notes are reported in loans and advances to customers. The maximum exposure to loss is the carrying amount of the notes.

## 21 Interests in associates and joint ventures

## Associates

At 31 December 2013, the carrying amount of HSBC's interests in associates was US\$16,417m (2012: US\$17,523m).

## Principal associates of HSBC

	At 31 December 2013		At 31 December 2012	
	Carrying amount US\$m	Fair value <sup>1</sup> US\$m	Carrying amount US\$m	Fair value <sup>1</sup> US\$m
Listed				
Bank of Communications Co., Limited	13,412	9,954	11,770	10,633
.....				
Industrial Bank Co., Limited	-	-	2,851	3,665
.....				
The Saudi British Bank	2,437	4,693	2,135	3,189
.....				
	15,849	14,647	16,756	17,487

<sup>1</sup> Principal associates are listed on recognised stock exchanges. The fair values are based on the quoted market prices of the shares held (Level 1 in the fair value hierarchy).

At 31 December 2013

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	Country of incorporation and principal place of business	Principal activity	HSBC's interest in equity capital	Issued equity capital
Bank of Communications Co., Limited .....	PRC1	Banking services	19.03%	RMB74,263m
The Saudi British Bank .....	Saudi Arabia	Banking services	40.00%	SR10,000m

1 People's Republic of China.

Details of all HSBC associates and joint ventures, as required under Section 409 of the Companies Act 2006, will be annexed to the next Annual Return of HSBC Holdings filed with the UK Registrar of Companies.

HSBC had US\$13,412m (2012: US\$11,770m) of interests in associates listed in Hong Kong.

HSBC's interest in Industrial Bank Co., Limited ('Industrial Bank') was equity accounted with effect from May 2004. HSBC's significant influence was established as a result of representation on Industrial Bank's Board of Directors. In January 2013, Industrial Bank completed a private placement of additional share capital to a number of third parties which diluted HSBC's equity holding from 12.8% to 10.9%. As a result of this and other factors, HSBC is no longer in a position to exercise significant influence over Industrial Bank and ceased to account for the interest as an associate from that date, giving rise to a gain of US\$1.1bn recognised in other operating income. Thereafter, the holding was recognised as an available-for-sale financial investment.

Bank of Communications Co., Limited ('BoCom')

HSBC's investment in BoCom was equity accounted with effect from August 2004. HSBC's significant influence in BoCom was established as a result of representation on the Board of Directors and, in accordance with the Technical Cooperation and Exchange Programme, HSBC is assisting in the maintenance of financial and operating policies and a number of staff have been seconded to assist in this process.

Impairment testing

As at 31 December 2013, the fair value of HSBC's investment in BoCom had been below the carrying amount for approximately 20 months, apart from a short period in 2013. As a result, we performed an impairment test on the carrying amount of the investment in BoCom. The test confirmed that there was no impairment as at 31 December 2013.

Basis of recoverable amount

The impairment test was performed by comparing the recoverable amount of BoCom, determined by a value-in-use ('VIU') calculation, with its carrying amount. The VIU calculation used discounted cash flow projections based on management's estimates. Cash flows beyond the short to medium-term were then extrapolated in perpetuity using a long-term growth rate. Management judgement is required in estimating the future cash flows of BoCom. The projected values are particularly sensitive to the following key assumptions.

Key assumptions in VIU calculation

Long-term growth rate: the growth rate is 5% for periods after 2018 and does not exceed forecast GDP growth in China.

Discount rate: the discount rate of 13% is derived from a range of values obtained by applying a Capital Asset Pricing Model ('CAPM') calculation for BoCom, using market data. Management supplements this by comparing the rates derived from the CAPM with discount rates available from external sources, and HSBC's discount rate for evaluating investments in mainland China. The discount rate used is within the range of 10.5% to 15% indicated by the CAPM and external sources.

Loan impairment charge as a percentage of customer advances: the ratio used increases from 0.64% to 1% in the short to medium term. The long-term ratio is assumed to revert to a historical rate of 0.64%. The rates are within the medium-term range forecast of 0.55% and 1.20% used by external analysts.

Management's judgement in estimating the VIU

In 2013, the impairment testing model for BoCom was changed to reflect the expected regulatory impact on cash flow projections. The changes reduced the projected available cash flows by including a regulatory cap on the loan-to-deposit ratio and by retaining a proportion of cash flows to maintain capital ratio requirements above the expected regulatory minima. If these changes had been made as at 31 December 2012, the VIU would still have been above the carrying amount as at that date.

VIU was US\$14bn, or US\$0.6bn ('headroom') in excess of the carrying amount of the investment in BoCom of US\$13.4bn as at 31 December 2013. The carrying amount increased by US\$1.6bn during 2013. At the point where the carrying amount exceeds the value in use, the carrying amount would be reduced to equal value in use, with a corresponding reduction in income, unless the market value has increased to a level above the carrying amount.

Sensitivity analyses were performed on each key assumption to ascertain the impact of reasonably possible changes in assumptions. The following changes to the key assumptions used in the VIU calculation would be necessary to reduce headroom to nil:

---

Key assumption to key assumption to reduce headroom to nil	
Discount rate by 20 basis points	
Long-term growth rate	
Decrease by 23 basis points	
Loan impairment charge as a percentage of customer advances from 2013 to 2018 respectively	Increase by 0.12% in each of the years

---

The following illustrates the impact on VIU of reasonably possible changes to key assumptions:

Favourable change	Current model	Unfavourable change
-------------------	---------------	---------------------

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	US\$bn	US\$bn	US\$bn	US\$bn	US\$bn
Carrying value					
Long-term growth rate (basis points)					
.....	+50	+100	5%	-50	-100
VIU				12.9	11.8
.....	15.4	16.9	14.0		
Increase/(decrease) in VIU					
.....	1.4	2.9		(1.1)	(2.2)
Discount rate (basis points)					
.....	-50	-100	13%	+50	+100
VIU				12.7	11.6
.....	15.6	17.3	14.0		
Increase/(decrease) in VIU					
.....	1.6	3.3		(1.3)	(2.4)
Loan impairment charge as a percentage of customer advances			2013 to 2018: 0.64% to 1% 2019 onwards	1% from 2014 to 2018	
.....	0.64%	throughout	0.64%	13.5	
VIU					
.....	14.8		14.0		
Increase/(decrease) in VIU					
.....	0.8			(0.5)	

Selected financial information of BoCom

The statutory accounting reference date of BoCom is 31 December. For the year ended 31 December 2013, HSBC included the associate's results on the basis of financial statements made up for the 12 months to 30 September 2013, taking into account changes in the subsequent period from 1 October 2013 to 31 December 2013 that would have materially affected the results. BoCom's results announcements for the nine months ended 30 September formed the bases for the 12 month financial statements which include adjustments made by HSBC when applying equity accounting.

	At 30 September 2013 US\$m	At 30 September 2012 US\$m
Selected balance sheet information of BoCom		
Cash and balances at central banks	142,209	131,044
.....		
Loans and advances to banks and other financial institutions	88,049	82,042
.....		
Loans and advances to customers	516,161	445,958
.....		
Other financial assets	165,521	138,283
.....		
	34,392	25,997

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Other assets		
.....		
Total assets	946,332	823,324
.....		
Deposits by banks and other financial institutions	170,916	151,147
.....		
Customer accounts	667,588	579,158
.....		
Other financial liabilities	20,564	16,177
.....		
Other liabilities	19,655	18,072
.....		
Total liabilities	878,723	764,554
.....		
Total equity	67,609	58,770
.....		
Reconciliation of BoCom's total shareholders' equity to the carrying amount in HSBC's consolidated financial statements as at 31 December 2013		
HSBC's share of total shareholders' equity	12,810	11,142
.....		
Add: Goodwill	541	524
.....		
Add: Intangible assets	61	104
.....		
Carrying amount	13,412	11,770
.....		

	For the 12 months ended	
	30 September	
	2013	2012
	US\$m	US\$m
Selected income statement information of BoCom		
Net interest income	20,768	18,404
.....		
Net fee and commission income	4,010	3,118
.....		
Loan impairment charges	(2,811)	(2,153)
.....		
Depreciation and amortisation	(809)	(689)
.....		
Tax expense	(2,823)	(2,618)
.....		
Profit for the year	10,099	9,002
.....		

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Other comprehensive income	(375)	250
.....		
Total comprehensive income	9,724	9,264
.....		
Dividends received from BoCom	549	188
.....		

Summarised aggregate financial information in respect of all associates excluding BoCom

	2013 US\$m	2012 US\$m
Carrying amount	3,005	5,753
.....		
HSBC's share of:		
- total assets	21,007	80,659
.....		
- total liabilities	18,056	74,960
.....		
- revenues	927	9,825
.....		
- profit or loss from continuing operations	408	1,851
.....		
- other comprehensive income	9	243
.....		
- total comprehensive income	417	2,094
.....		

Joint ventures

At 31 December 2013, the carrying amount of HSBC's interests in joint ventures was US\$223m (2012: US\$311m).

Principal joint ventures of HSBC

		2013		
	Country of incorporation and principal place of business	Principal activity	HSBC's interest in equity capital	Issued equity capital
HSBC Saudi Arabia Limited		Investment		
.....	Saudi Arabia	banking	49.00%	SR500m
Vaultex UK Limited		Cash		
.....	England	management	50.00%	£10m

Summarised aggregate financial information in respect of all joint ventures

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	2013 US\$m	2012 US\$m
Carrying amount	223	311
.....		
HSBC's share of:		
- total assets	734	2,166
.....		
- total liabilities	526	1,885
.....		
- revenues	251	347
.....		
- profit or loss from continuing operation	39	36
.....		
- other comprehensive income	-	3
.....		
- total comprehensive income	39	39
.....		

Associates and joint ventures

For the year ended 31 December 2013, HSBC's share of associates and joint ventures' tax on profit was US\$556m (2012: US\$959m), which is included within 'Share of profit in associates and joint ventures' in the income statement.

Movements in interests in associates and joint ventures

	2013 US\$m	2012 US\$m
At 1 January	17,834	20,399
.....		
Additions	26	1,804
.....		
Disposals	(3,148)	(7,580)
.....		
Share of results	2,325	3,557
.....		
Dividends	(694)	(489)
.....		
Exchange differences	396	60
.....		
Share of other comprehensive income/(expense) of associates and joint ventures	(35)	311
.....		
Other movements	(64)	(228)
.....		
	16,640	17,834



At 31 December

Goodwill included in carrying amount of associates and joint ventures

	2013 US\$m	2012 US\$m
Gross amount		
At 1 January	670	1,551
Disposals	(75)	(874)
Exchange differences	13	3
Other changes	-	(10)
At 31 December <sup>1</sup>	608	670

<sup>1</sup> Includes the carrying amount of goodwill arising from joint ventures of US\$15m (2012: US\$30m).

22 Goodwill and intangible assets

	At 31 December	
	2013 US\$m	2012 US\$m
Goodwill	21,179	21,390
Present value of in-force long-term insurance business ('PVIIF')	5,335	4,847
Other intangible assets	3,404	3,616
	29,918	29,853

Goodwill

Reconciliation of goodwill

	Europe US\$m	Hong Kong US\$m	Rest of Asia- Pacific US\$m	MENA US\$m	North America US\$m	Latin America US\$m	Total US\$m
Gross amount							
At 1 January 2013	14,660	114	1,020	60	8,339	3,646	27,839
	-	-	-	-	-	(1)	(1)

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Disposals

.....							
Exchange differences	596	6	(135)	(5)	(2)	(132)	328
.....							
Reclassified to held for sale1 .	(611)	-	-	-	-	(272)	(883)
Reinstated from held for sale	332	-	-	-	-	-	332
Other	-	-	11	-	(476)	-	(465)
.....							

At 31 December 2013 14,977 120 896 55 7,861 3,241 27,150

.....

Accumulated impairment losses

At 1 January 2013	-	-	-	-	(6,449)	-	(6,449)
.....							
Exchange differences	-	-	-	-	2	-	2
.....							
Other	-	-	-	-	476	-	476
.....							

At 31 December 2013 - - - - (5,971) - (5,971)

.....

Net carrying amount at 31 December 2013

..... 14,977 120 896 55 1,890 3,241 21,179

Gross amount

At 1 January 2012 14,433 124 1,063 63 8,747 3,765 28,195

..... Disposals (2) (4) (5) - - (21) (32)

..... Exchange differences 229 (6) (38) (3) - 23 205

..... Reclassified to held for sale ... - - - - (408) (121) (529)

At 31 December 2012 14,660 114 1,020 60 8,339 3,646 27,839

.....

Accumulated impairment losses

At 1 January 2012 - - - - (6,857) - (6,857)

..... Reclassified to held for sale ... - - - - 408 - 408

..... - - - - (6,449) - (6,449)

At 31 December 2012

.....

Net carrying amount at  
31 December 2012

.....	14,660	114	1,020	60	1,890	3,646	21,390
-------	--------	-----	-------	----	-------	-------	--------

1 During the year, goodwill in Europe amounting to US\$611m was reclassified to assets held for sale following the decision to sell the private banking operations of HSBC Private Bank Holdings (Suisse) SA. On transfer to held for sale, a write down of the disposal group by US\$279m was recorded and allocated to goodwill. Following the later decision to retain the private banking operations in Monaco, the reclassification of the private banking operations in Monaco out of held for sale resulted in the reinstatement of the remaining goodwill.

Impairment testing

Timing of impairment testing

HSBC's impairment test in respect of goodwill allocated to each cash-generating unit ('CGU') is performed as at 1 July each year. In line with the accounting policy described in Note 2(p), goodwill is also retested for impairment whenever there is an indication that it may be impaired. For the purpose of impairment testing, the Group's CGUs are based on geographical regions subdivided by global businesses. The CGUs represent the lowest level at which goodwill is monitored for internal management purposes. For the Global Private Banking - Europe CGU, reduced forecast cash flows in management's latest approved plan was an indicator of goodwill impairment leading to a retest at 31 December 2013. For other CGUs there was no indication of impairment in the period to 31 December 2013 and therefore goodwill has not been retested since 1 July 2013.

Basis of the recoverable amount - value in use or fair value less costs to sell

The recoverable amount of all CGUs to which goodwill has been allocated was equal to its value in use ('VIU') at each respective testing date for 2012 and 2013.

For each significant CGU, the VIU is calculated by discounting management's cash flow projections for the CGU. The discount rate used is based on the cost of capital HSBC allocates to investments in the countries within which the CGU operates. The long-term growth rate is used to extrapolate the cash flows in perpetuity because of the long-term perspective within the Group of the business units making up the CGUs. For the goodwill impairment test conducted at 1 July 2013, management's cash flow projections until the end of 2017 were used. For the retest of goodwill impairment for the Global Private Banking - Europe CGU at 31 December 2013, management's cash flow projections until the end of 2018 were used.

Key assumptions in VIU calculation and management's approach to determining the values assigned to each key assumption

	Goodwill at 1 July 2013 US\$m	Discount rate %	Nominal growth rate beyond initial cash flow projections %
--	---	-----------------------	---

2013

Cash-generating unit			
Retail Banking and Wealth Management - Europe	4,135	8.0	3.9
Commercial Banking - Europe	3,062	10.0	3.8
Global Private Banking - Europe	3,607	7.3	3.0
Global Banking and Markets - Europe	3,101	9.9	3.7
Retail Banking and Wealth Management - Latin America	1,812	11.2	8.6
	15,717		
		10.0	
2012			
Cash-generating unit			
Retail Banking and Wealth Management - Europe	4,054	10.0	3.9
Commercial Banking - Europe	2,968	10.2	3.7
Global Private Banking - Europe	4,139	9.1	3.2
Global Banking and Markets - Europe	3,016	10.2	3.5
Retail Banking and Wealth Management - Latin America	1,994	15.3	8.7
	16,171		

At 1 July 2013, aggregate goodwill of US\$4,550m (1 July 2012: US\$4,741m) had been allocated to CGUs that were not considered individually significant. The Group CGUs do not carry on their balance sheets any significant intangible assets with indefinite useful lives, other than goodwill.

Nominal long-term growth rate: this growth rate reflects GDP and inflation for the countries within which the CGU operates. The rates are based on IMF forecast growth rates as these rates are regarded as the most relevant estimate of likely future trends. The rates used for 2013 and 2012 do not exceed the long-term growth rate for the countries within which the CGU operates.

Discount rate: the discount rate used to discount the cash flows is based on the cost of capital assigned to each CGU, which is derived using a CAPM. The CAPM depends on inputs reflecting a number of financial and economic variables including the risk-free rate and a premium to reflect the inherent risk of the business being evaluated. These variables are based on the market's assessment of the economic variables and management's judgement. In addition, for the purposes of testing goodwill for impairment, management supplements this process by comparing the discount rates derived using the internally generated CAPM with cost of capital rates produced by external sources. HSBC uses externally-sourced cost of capital rates where, in management's judgement, those rates reflect more accurately the current market and economic conditions. For 2013 and 2012, internal costs of capital rates were consistent with externally-sourced rates.

Management's judgement in estimating the cash flows of a CGU: the cash flow projections for each CGU are based on plans approved by the Group Management Board. The key assumptions in addition to the discount rate and nominal

long-term growth rate for each significant CGU are discussed below.

Global Private Banking - Europe: the cash flow forecast for GBP - Europe primarily reflects the repositioning of the business that is underway to concentrate on clients aligned with the Group's priorities. Revenues in GPB - Europe are predominately generated through HSBC's client relationships and the key assumption in the cash flow forecast is the level of assets under management and profitability therein following the strategic repositioning. The cash flow forecast includes increased profitability in GPB - Europe which is dependent on management achieving the planned strategic repositioning.

At 1 July 2013, GPB - Europe had an excess of recoverable amount over carrying amount ('headroom') of US\$4.5bn. At 31 December 2013, headroom was US\$0.4bn based on goodwill at that point of US\$4.1bn. The change in goodwill carrying value between 1 July 2013 and 31 December 2013 arises from the partial reinstatement of goodwill classified as held for sale at 1 July 2013 as well as retranslating goodwill into the presentation currency of the group. For the test of goodwill impairment at 31 December 2013 for GPB - Europe, in addition to updated cash flow forecasts the nominal long-term growth rate was updated to 3.3% and the discount rate updated to 7.6%.

The following changes to the key assumptions used in the value in use calculation would be necessary in order to reduce headroom to nil:

Key assumption	Change to key assumption to reduce headroom to nil
Discount rate	Increase by 23 basis points
Nominal growth rate beyond initial cash flow projection	Decrease by 27 basis points
Cash flow projection over the forecast period	Decrease by 5.2%

Retail Banking and Wealth Management - Europe and Commercial Banking - Europe: the assumptions included in the cash flow projections for RBWM - Europe and CMB - Europe reflect the economic environment and financial outlook of the European countries within these two CGUs. Key assumptions include the level of interest rates, nominal GDP growth, competitors' positions within the market and the level and change in unemployment rates. While current economic conditions in Europe continue to be challenging, management's cash flow projections are based primarily on these prevailing conditions. Risks include slower than expected growth and an uncertain regulatory environment. RBWM - Europe specifically, is sensitive to further customer remediation and regulatory actions. Based on the conditions at the balance sheet date, management determined that a reasonably possible change in any of the key assumptions described above would not cause an impairment to be recognised in respect of RBWM - Europe or CMB - Europe.

Global Banking and Markets - Europe: the key assumption included in the cash flow projection for GB&M - Europe is that European markets will continue to recover during 2014. Accordingly, recovery in European revenues is assumed to continue over the projection period to 2017. Interest rate fluctuations would put further pressure on European markets revenue recovery. Our ability to achieve the forecast cash flows for GB&M - Europe could be adversely impacted by regulatory change during the forecast period including but not limited to the extent that the recommendations set out in the Final Report by the Independent Commission on Banking are implemented. Based on the conditions at the balance sheet date, management determined that a reasonably possible change in any of the key assumptions described above would not cause an impairment to be recognised in respect of GB&M - Europe.

Retail Banking and Wealth Management - Latin America: the assumptions included in the cash flow projections for RBWM - Latin America reflect the economic environment and financial outlook of the countries within this CGU, with Brazil and Mexico being the two largest. Key assumptions include growth in lending and deposit volumes and the credit quality of the loan portfolios. Mexico in particular is sensitive to economic conditions in the US which

could constrain demand. Potential challenges include unfavourable economic conditions restricting client demand and competitor pricing constraining margins. Based on the conditions at the balance sheet date, management determined that a reasonably possible change in any of the key assumptions described above would not cause an impairment to be recognised in respect of RBWM - Latin America.

#### Present value of in-force long-term insurance business ('PVIF')

Our life insurance business is accounted for using the embedded value approach which, inter alia, provides a risk and valuation framework. The PVIF asset at 31 December 2013 was US\$5.3bn (2012: US\$4.8bn), representing the present value of the equity holders' interest in the issuing insurance companies' profits expected to emerge from long-term insurance business and the long-term investment contracts with DPF in force at the balance sheet date.

#### Movements in PVIF (Audited)

	2013 PVIF US\$m	2012 PVIF US\$m
At 1 January	4,847	4,092
.....		
Value of new business written during the year <sup>1</sup>	924	1,027
.....		
Movements arising from in-force business:		
- expected return	(505)	(420)
.....		
- experience variances <sup>2</sup>	(20)	12
.....		
- changes in operating assumptions	186	(3)
.....		
Investment return variances	42	(18)
.....		
Changes in investment assumptions	(120)	78
.....		
Other adjustments <sup>3</sup>	18	61
.....		
Change in PVIF of long-term insurance business	525	737
.....		
Exchange differences and other	(37)	18
.....		
At 31 December	5,335	4,847
.....		

1 Value of net new business during the year is the present value of the projected stream of profits from the business.

2 Experience variances include the effect of the difference between demographic, expense and persistency assumptions used in the previous PVIF calculation and actual experience observed during the year to the extent this affects profits on future business.

3 Other adjustments for 2012 included a one-off gain of US\$119m for a PVIF asset recognised on linked insurance business in Brazil.

In the PVIF calculation, expected cash flows are projected after adjusting for a variety of assumptions made by each insurance operation to reflect local market conditions and management's judgement of future trends, and after applying risk margins to reflect any uncertainty in the underlying assumptions. The main assumptions relate to economic and non-economic assumptions and policyholder behaviour. Variations in actual experience and changes to assumptions can contribute to volatility in the results of the insurance business.

The key drivers of the movement in the value of the PVIF asset are the expected cash flows from:

- new business adjusted for anticipated maturities and assumptions relating to policyholder behaviour ('Value of new business written during the year');
- unwind of the discount rate less the reversal of expected cash flows for the period ('Expected return');
- changes in non-economic operating assumptions such as mortality or lapse rates ('Change in operating assumptions');
- the effects of changes in projected future cash flows associated with operating assumption experience variances compared with those assumed at the start of the period ('Experience variances');
- changes related to future investment returns ('Changes in investment assumptions'); and
- the effect of actual investment experience on existing assets compared with the assumptions at the start of the period ('Investment return variances').

The valuation of the PVIF asset includes explicit risk margins for non-economic risks in the projection assumptions and explicit allowances for financial options and guarantees using stochastic methods. Risk discount rates are set on an active basis with reference to market risk-free yields.

Key assumptions used in the computation of PVIF for main life insurance operations

Economic assumptions are set in each country in a way that is consistent with observable market values where deep and liquid markets exist. When economic assumptions are set for a term that is beyond the observable range or the observable values are not appropriate with regard to the nature and term of liabilities, we use relevant historical data and research analyses performed by the Group's Economic Research team and internationally reputable consultants in deriving the assumptions.

	2013			2012		
	UK	Hong Kong	France	UK	Hong Kong	France
	%	%	%	%	%	%
Risk free rate	2.45	2.31	2.38	1.53	0.60	2.12
.....						
Risk discount rate	2.95	7.41	4.69	2.03	7.46	4.05
.....						
Expense inflation	3.39	3.00	2.00	2.84	3.00	2.00
.....						

## Sensitivity to changes in economic assumptions

The Group sets the risk discount rate applied to the PVIF calculation by starting from an observed risk-free rate curve and adding explicit allowances for risks not reflected in the best estimate cash flow modelling. Where shareholders provide guarantees and options to policyholders the cost of these options and guarantees is an explicit reduction to PVIF, unless it is already allowed for as an explicit addition to the technical provisions required by regulators. See page 254 for further details of these guarantees.

The following table shows the effect on the PVIF of reasonably possible changes in the main economic assumption, risk-free rates, across all insurance manufacturing subsidiaries. Due to certain characteristics of the contracts, the relationships are non-linear and the results of the sensitivity testing should not be extrapolated to higher levels of stress. The sensitivities shown are before actions that could be taken by management to mitigate effects and before resultant changes in policyholder behaviour.

	2013 US\$m	2012 US\$m
Effect on PVIF at 31 December of:		
+ 100 basis point shift in risk-free rate	184	137
.....		
- 100 basis point shift in risk-free rate	(289)	(191)
.....		

## Sensitivity to changes in non-economic assumptions

Policyholder liabilities and PVIF for life manufacturers are determined by reference to non-economic assumptions including mortality and/or morbidity, lapse rates and expense rates. The table below shows the sensitivity of PVIF to reasonably possible changes in these non-economic assumptions at that date across all our insurance manufacturing subsidiaries.

	2013 US\$m	2012 US\$m
Effect on PVIF at 31 December of:		
10% increase in mortality and/or morbidity rates	(84)	(115)
.....		
10% decrease in mortality and/or morbidity rates	84	111
.....		
10% increase in lapse rates	(154)	(156)
.....		
10% decrease in lapse rates	173	178
.....		
10% increase in expense rates	(109)	(114)
.....		
10% decrease in expense rates	110	114
.....		

## Other intangible assets

Movement of intangible assets excluding goodwill and the PVIF



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	Internally generated software US\$m	Other US\$m	Total US\$m
Cost			
At 1 January 2013	5,703	3,345	9,048
.....			
Additions	731	142	873
.....			
Disposals	(117)	(196)	(313)
.....			
Amount written off	(57)	(47)	(104)
.....			
Other changes	(261)	(269)	(530)
.....			
At 31 December 2013	5,999	2,975	8,974
.....			
Accumulated amortisation			
At 1 January 2013	(3,469)	(1,963)	(5,432)
.....			
Charge for the year1	(675)	(179)	(854)
.....			
Impairment	(39)	(4)	(43)
.....			
Disposals	111	167	278
.....			
Amount written off	57	47	104
.....			
Other changes	206	171	377
.....			
At 31 December 2013	(3,809)	(1,761)	(5,570)
.....			
Net carrying amount at 31 December 2013	2,190	1,214	3,404
.....			
Cost			
At 1 January 2012	5,598	3,315	8,913
.....			
Additions	765	277	1,042
.....			
Disposals	(32)	(189)	(221)
.....			
Amount written off	(680)	(60)	(740)
.....			
Other changes	52	2	54
.....			

At 31 December 2012	5,703	3,345	9,048
.....			
Accumulated amortisation			
At 1 January 2012	(3,437)	(1,872)	(5,309)
.....			
Charge for the year <sup>1</sup>	(645)	(334)	(979)
.....			
Impairment	(63)	(5)	(68)
.....			
Disposals	28	183	211
.....			
Amount written off	680	60	740
.....			
Other changes	(32)	5	(27)
.....			
At 31 December 2012	(3,469)	(1,963)	(5,432)
.....			
Net carrying amount at 31 December 2012			
.....	2,234	1,382	3,616

<sup>1</sup> The amortisation charge for the year is recognised within the income statement under 'Amortisation and impairment of intangible assets', with the exception of the amortisation of mortgage servicing rights which is recognised in 'Net fee income'. The revaluation net of amortisation charge for mortgage servicing rights was a credit of US\$34m in 2013 (2012: amortisation charge of US\$78m).

## SIGNATURE

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

HSBC Holdings plc

By:

Name: Ben J S Mathews

Title: Group Company Secretary

