HSBC HOLDINGS PLC
Form 6-K
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FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Report of Foreign Private Issuer

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

the Securities Exchange Act of 1934

For the month of February
HSBC Holdings plc

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

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

Form 20-F X 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 X

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

Market risk

Overview and objectives

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

Exposure to market risk
Exposure to market risk is separated into two portfolios:

· Trading portfolios comprise positions arising from market-making and the warehousing of customer-derived positions.

· Non-trading portfolios comprise positions that primarily arise from the interest rate management of our retail and commercial banking assets and liabilities, financial investments designated as AFS and held to maturity, and exposures arising from our insurance operations.

Where appropriate, we apply similar risk management policies and measurement techniques to both trading and non-trading portfolios. Our objective is to manage and control market risk exposures in order to optimise return on risk while maintaining a market profile consistent with our status as one of the world's largest banking and financial services organisations.

The nature of the hedging and risk mitigation strategies performed across the Group corresponds to the market risk management instruments available within each operating jurisdiction. These strategies range from the use of traditional market instruments, such as interest rate swaps, to more sophisticated hedging strategies to address a combination of risk factors arising at portfolio level.

Overview of market risk in global businesses
The diagram below summarises the main business areas where trading and non-trading market risks reside and the market risk measures used to monitor and limit exposures.

Click on the attached PDF to view the chart

http://www.rns-pdf.londonstockexchange.com/rns/6692P_-2016-2-21.pdf

1 The interest rate risk on the fixed-rate securities issued by HSBC Holdings is not included in the Group VaR.

Market risk governance

Market risk is managed and controlled through limits approved by the RMM for HSBC Holdings and our various global businesses. These limits are allocated across business lines and to the Group's legal entities.

The management of market risk is principally undertaken in GB&M, where 94% of the total VaR of HSBC (excluding insurance) and almost all trading VaR resides, using risk limits approved by the GMB. VaR limits are set for portfolios, products and risk types, with market liquidity being a primary factor in determining the level of limits set.

Global Risk is responsible for setting market risk management policies and measurement techniques. Each major operating entity has an independent market risk management and control function which is responsible for measuring market risk exposures in accordance with policies defined by Global Risk, and monitoring and reporting these exposures against the prescribed limits on a daily basis. The market risk limits are governed according to the framework illustrated to the right.

Each operating entity is required to assess the market risks arising on each product in its business and to transfer them to either its local GB&M unit for management, or to separate books managed under the supervision of the local ALCO.

Our aim is to ensure that all market risks are consolidated within operations that have the necessary skills, tools, management and governance to manage them. In certain cases where the market risks cannot be fully transferred, we identify the effect of varying scenarios on valuations or on net interest income resulting from any residual risk positions.

Model risk is governed through MOCs at the regional and global wholesale credit and market risk levels. They have direct oversight and approval responsibility for all traded risk models utilised for risk measurement and management and stress testing. The MOCs prioritise the development of models, methodologies and practices used for trading risk management within the Group and ensure that they remain within our risk appetite and business plans. The Markets MOC reports into the Group MOC, which oversees all model risk types at Group level. Group MOC informs the Group RMM about material issues at least on a bi-annual basis. The RMM is the Group's 'Designated Committee' according to the regulatory rules and it has delegated day-to-day governance of all trading risk models to the Markets MOC.

Our control of market risk in the trading and non-trading portfolios is based on a policy of restricting individual operations to trading within a list of permissible instruments authorised for each site by Global Risk, of enforcing new product approval procedures, and of restricting trading in the more complex derivative products only to offices with appropriate levels of product expertise and robust control systems.

Table 58: Market risk - RWAs and capital required

| | 2015 | | 2014 | |
|---|---|---|---|---|
| | Capital required $bn | RWAs $bn | Capital required $bn | RWAs $bn |
| Internal model based1 | 2.8 | 34.9 | 3.6 | 44.6 |
| - VaR | 0.6 | 7.7 | 0.6 | 7.3 |
| - stressed VaR | 0.8 | 9.8 | 0.8 | 10.4 |
| - incremental risk charge | 0.9 | 11.4 | 1.6 | 20.1 |
| - other VaR and stressed VaR2 | 0.5 | 6.0 | 0.6 | 6.8 |
| | 0.5 | 6.0 | | |
| Standardised approach3 | 0.6 | 7.6 | 0.9 | 11.4 |
| - interest rate position risk | 0.3 | 3.0 | 0.4 | 4.8 |
| - foreign exchange position risk | - | 0.6 | 0.1 | 0.7 |
| - equity position risk | 0.1 | 1.3 | - | 0.3 |
| - commodity position risk | - | - | - | 0.1 |
| - securitisations | 0.2 | 2.6 | 0.4 | 5.5 |
| - options | - | 0.1 | - | - |
| At 31 December | 3.4 | 42.5 | 4.5 | 56.0 |

1 Internal model based RWAs include $6.6bn of RWAs arising from RNIV (December 2014 $6.5bn).
2 These are results from countries which cannot be included in the consolidated VaR permission because regulatory permission to do so has not been received, and which must therefore be aggregated rather than consolidated.

3 Products and sites that are not in the scope of the approved model permissions from the regulator are calculated using the Standardised approach specified in CRD IV.

Key points

· Internal model based RWAs reduced year on year by $9.7bn. Reductions were driven by changes in the incremental risk charge, due to a combination of changes to the model applied following approval by the regulator and position reductions of government debt positions in Europe and Asia Pacific as part of RWA reduction initiatives.
· RWAs for Standardised approach reduced by $3.7bn. The majority of the reduction came as legacy securitisation positions were sold. Further reductions came in interest rate positions where specific risk was reduced across a number of Latin American countries.

Market risk measures

Monitoring and limiting market risk exposures

Our objective is to manage and control market risk exposures while maintaining a market profile consistent with our risk appetite.

We use a range of tools to monitor and limit market risk exposures including sensitivity analysis, VaR and stress testing.

Sensitivity analysis

Sensitivity analysis measures the impact of individual market factor movements on specific instruments or portfolios including interest rates, foreign exchange rates and equity prices, such as the effect of a one basis point change in yield. We use sensitivity measures to monitor the market risk positions within each risk type. Sensitivity limits are set for portfolios, products and risk types, with the depth of the market being one of the principal factors in determining the level of limits set.

Value at risk

VaR is a technique that estimates the potential losses on risk positions in the trading portfolio as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence. The use of VaR is integrated into market risk management and is calculated for all trading positions regardless of how we capitalise those exposures. Where there is not an approved internal model, we use the appropriate local rules to capitalise exposures locally.

In addition, we calculate VaR for non-trading portfolios to have a complete picture of risk. Our models are predominantly based on historical simulation. VaR is calculated at a 99% confidence level for a one-day holding period. Where we do not calculate VaR explicitly, we use alternative tools as summarised in the Market Risk Stress Testing table below.

Our VaR models derive plausible future scenarios from past series of recorded market rates and prices, taking into account inter-relationships between different markets and rates such as interest rates and foreign exchange rates. The models also incorporate the effect of option features on the underlying exposures.

The historical simulation models used incorporate the following features:

· historical market rates and prices are calculated with reference to foreign exchange rates and commodity prices, interest rates, equity prices and the associated volatilities;

· potential market movements utilised for VaR are calculated with reference to data from the past two years; and

· VaR measures are calculated to a 99% confidence level and use a one-day holding period.

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

VaR model limitations

Although a valuable guide to risk, VaR should always be viewed in the context of its limitations, for example:

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

Risk-not-in-VaR framework

Our VaR model is designed to capture significant basis risk such as CDS versus bond, asset swap spreads and cross-currency basis. Other basis risks which are not completely covered in VaR, such as the Libor tenor basis, are complemented by our RNIV calculations and are integrated into our capital framework.

The RNIV framework therefore aims to capture and capitalise material market risks that are not adequately covered in the VaR model. An example of this is Libor-overnight index swap basis risk for minor currencies. In such instances the RNIV framework uses stress tests to quantify the capital requirement. In 2015, the capital requirement derived from these stress tests represented, on average, 2.3% of the total internal model-based market risk requirement.

Risks covered by RNIV represent 19% of market risk RWAs for models with regulatory approval and include those resulting from underlying risk factors which are not observable on a daily basis across asset classes and products, such as dividend risk and implied correlation risks.

Risk factors are reviewed on a regular basis and either incorporated directly in the VaR models, where possible, or quantified through the VaR-based RNIV approach or a stress test approach within the RNIV framework. The severity of the scenarios is calibrated to be in line with the capital adequacy requirements. The outcome of the VaR-based RNIV is included in the VaR calculation and back-testing; a stressed VaR RNIV is also computed for the risk factors considered in the VaR-based RNIV approach.

Level 3 assets

The fair values of Level 3 assets and liabilities in trading portfolios are disclosed on page 380 of the Annual Report and Accounts 2015, and represent only a small proportion of the overall trading portfolio. Market risk arising from Level 3 instruments is managed by various market risk techniques such as stress testing and notional limits.

Back-testing

We routinely validate the accuracy of our VaR models by back-testing them against both actual, which replaced clean profit and loss from 1 August 2015, and hypothetical profit and loss against the corresponding VaR numbers. Hypothetical profit and loss excludes non-modelled items such as fees, commissions and revenues of intra-day transactions.

We would expect on average to see two or three profits, and two or three losses, in excess of VaR at the 99% confidence level over a one-year period. The actual number of profits or losses in excess of VaR over this period can therefore be used to gauge how well the models are performing.

We back-test our Group VaR at various levels which reflect a full legal entity scope of HSBC, including entities that do not have local permission to use VaR for regulatory purposes.

Back-testing using the regulatory hierarchy includes entities which have approval to use VaR in the calculation of market risk regulatory capital requirement. For example, all Latin American sites are excluded from this hierarchy as they are not approved by the PRA. In this case the

regulatory capital is calculated using Standardised approach, rather than VaR.

In 2015, the PRA VaR approved entities experienced one profit exception and no loss exceptions against both actual and hypothetical profit and loss.

The profit exception was due primarily to profits from increased volatility in foreign exchange currencies, arising from the sharp fall in the Chinese stock market and its effect on the global markets. There is no evidence of model errors or control failures.

HSBC submits separate back-testing results to regulators, including the PRA and the European Central Bank, based on applicable frequencies ranging from two business days after an exception occurs, to quarterly submissions.

Stress testing

Stress testing is an important procedure that is integrated into our market risk management tool to evaluate the potential impact on portfolio values of more extreme, although plausible, events or movements in a set of financial variables. In such scenarios, losses can be much greater than those predicted by VaR modelling.

Stress testing is implemented at legal entity, regional and overall Group levels. A standard set of scenarios is utilised consistently across all regions within the Group. Scenarios are tailored to capture the relevant events or market movements at each level. The risk appetite around potential stress losses for the Group is set and monitored against referral limits.

Market Risk Stress Testing

| Sensitivities | Technical | Hypothetical | Historical | |
|---|---|---|---|---|
| Impact of a single risk factor, e.g. break of a currency peg | Impact of the largest move in each risk factor without consideration of any underlying market correlation | Impact of potential macroeconomic events, e.g. slowdown in mainland China | Scenarios that incorporate historical observations of market movements, e.g. Black Monday 1987 for equities | Reverse Stress Testing |

Market risk reverse stress tests are undertaken on the premise that there is a fixed loss. The stress testing process identifies which scenarios lead to this loss. The rationale behind the reverse stress test is to understand scenarios which are beyond normal business settings that could have contagion and systemic implications.

Stressed VaR and stress testing, together with reverse stress testing and the management of gap risk, provide management with insights regarding the 'tail risk' beyond VaR for which HSBC's appetite is limited.

Market risk capital models

There are a number of measures which HSBC has permission to use in calculating regulatory capital which are listed in table 59.

For regulatory purposes, the trading book comprises all positions in CRD financial instruments and commodities which are held with trading intent, which are taken with the intention of benefiting from short-term gains or positions where it can be demonstrated that they hedge positions in the trading book. Trading book positions must either be free of any restrictive covenants on their tradability or be capable of being hedged.

A CRD financial instrument is defined as any contract that gives rise to both a financial asset to one party and a financial liability or equity instrument to another party.

HSBC maintains a Trading Book Policy which defines the minimum requirements for trading book positions and the process for classifying positions as trading or banking book. Positions in the trading book are subject to market risk based rules, i.e. market risk capital, computed using

regulatory approved models. Otherwise the market risk capital is calculated using the Standardised approach.

If any of the policy criteria are not met, then the position is categorised as a banking book exposure.

Capital add-ons also exist to capture event risk including foreign exchange risk on pegged currencies and concentration risk associated with large equity holdings.

Table 59: Market risk models1

| Model component | RWAs for associated asset class $bn | Confidence level | Liquidity horizon | Model description and methodology |
|---|---|---|---|---|
| VaR | 7.7 | 99% | 10 day | Uses most recent two years' history of daily returns to determine a loss distribution. The result is scaled, using the square root of 10, from one day to provide an equivalent 10-day loss. |
| Stressed VaR | 9.8 | 99% | 10 day | Stressed VaR is calibrated to a one-year period of stress observed in history. |
| IRC | 11.4 | 99.9% | 1 year | Uses a multi-factor Gaussian Monte-Carlo simulation which includes product basis, concentration, hedge mismatch, recovery rate and liquidity as part of the simulation process. A minimum liquidity horizon of three months is applied and is based on a combination of factors including issuer type, currency and size of exposure. |
| Options | 0.1 | n/a | n/a | Uses a standard charge scenario approach based on a spot volatility grid where, for each point on the grid, there is a full revaluation of the portfolio. The regulators prescribe the ranges therefore there is no equivalence with confidence level and liquidity horizon. |

1 Non-proprietary details are available in the Financial Services Register on the PRA website.

VaR

VaR used for regulatory purposes differs from VaR used for management purpose with key differences listed below.

| VaR Scope | Regulatory Regulatory approval (PRA) | Management Broader population of trading and banking book positions |
|---|---|---|
| Confidence interval | 99% | 99% |
| Liquidity horizon | 10 day | 1 day |

| Data set | Past 2 years | Past 2 years |
|---|---|---|

The trading books which received approval from the regulator to be covered via an internal model are used to calculate VaR for regulatory purposes. Regulatory VaR levels contribute to the calculation of market risk RWAs (see Market risk table on page 91).

Table 60: VaR used for regulatory purposes (one-day equivalent)

| | 2015<br>$m | 2014<br>$m |
|---|---|---|
| At 31 December | 69 | 71 |
| Maximum | 91 | 99 |
| Minimum | 55 | 50 |
| Average | 67 | 83 |

The regulatory VaR table is based on the regulatory permissions received, plus aggregated sites. This differs from the daily VaR reported in the Annual Report and Accounts which shows a fully diversified view used for internal risk management.

Stressed VaR

Stressed VaR is primarily used for regulatory capital purposes and is integrated into the risk management process to ensure prudent capital management. Stressed VaR complements other risk measures by providing the potential losses under stressed market conditions. Calculations are based on a continuous one-year period of stress for the trading portfolio, based on the assessment at the Group level.

Stress VaR modelling follows the same approach as our VaR risk measure except for the following:

· potential market movements employed for stressed VaR calculations are based on a continuous one-year period of stress for the trading portfolio;

· the choice of period changed from (November 2007 to November 2008) to (January 2008 to December 2008) in the last quarter of 2015 and is based on the assessment at the Group level of the most volatile period in recent history; and

· it is calculated to a 99% confidence using a 10-day holding period.

Table 61: Stressed value at risk (one-day equivalent)

| | 2015<br>$m | 2014<br>$m |
|---|---|---|
| At 31 December | 116 | 125 |
| Maximum | 172 | 191 |
| Minimum | 105 | 87 |
| Average | 115 | 134 |

The stressed VaR table is based on the regulatory permissions received, plus aggregated sites. The 2014 comparatives have been restated to reflect this formulation.

Stressed VaR exposures contribute to regulatory capital requirements. Stressed VaR fluctuated throughout 2015, reflecting the changing positions held.

Incremental Risk Charge

The IRC measures the default and migration risk of issuers of traded instruments.

IRC risk factors include credit migration, default, product basis, concentration, hedge mismatch, recovery rate and liquidity. The PDs are floored to reflect the lack of historical data on defaults and a period of stress is used to calibrate the spread changes for the relevant ratings. The IRC model is validated quarterly by stressing key model parameters and reviewing the response of the model.

The IRC is a standalone charge generating no diversification benefit with other charges. We do not use weighted averages for calculating the liquidity horizon for the IRC measure. IRC relies on a range of liquidity horizons from 3 months, corresponding to the regulatory floor, to 1 year. A wide range of criteria can indicate the liquidity of a position. The liquidity horizon for the IRC measure depends on a set of factors such as issuer features, including rating, sector, geography, and size of positions, including product, maturity and concentration.

Table 62: Incremental risk charge

| | 2015<br>$m | 2014<br>$m |
|---|---|---|
| At 31 December | 920 | 1,508 |
| Maximum | 2,372 | 2,193 |
| Minimum | 896 | 1,462 |
| Average | 972 | 1,690 |

The IRC table is based on the regulatory permissions received, plus aggregated sites. The 2014 comparatives have been restated to reflect this formulation.

The decrease in IRC during the year was due to enhancing the granularity of the calibration of the IRC model. This involved more accurate sector-based transition matrices and credit spread mappings which reduced loss severity and increased diversification effects.

Trading portfolios

Volcker Rule

In 2013, US regulators finalised the Volcker Rule. Section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act and its final implementing rules (collectively referred to as the 'Volcker Rule') impose broad restrictions on HSBC's ability to engage in 'proprietary trading' or to own, sponsor, or have certain relationships with hedge funds, private equity funds, and certain other collective investment vehicles (broadly defined as 'covered funds'). These restrictions are subject to a number of exemptions or exclusions, including market making, underwriting and risk-mitigating hedging, organising covered funds for

customers and issuers of asset-backed securities, and underwriting or market making in covered fund interests.

The Volcker Rule broadly went into effect on 22 July 2015, with the exception of certain legacy fund activities that are able to rely on an extension of the conformance date.

HSBC has implemented a programme to comply with the Volcker Rule, including policies and procedures, internal controls, corporate governance, independent testing, training, record keeping and, eventually, calculation and reporting of quantitative metrics for certain trading activities.

HSBC has completed training for all affected front office and control personnel, has conformance plans for those covered funds to which the extension applies, and believes that it is compliant in all material respects with the Volcker Rule.

Gap risk

Certain products, such as non-recourse margin loans, are not exposed to small day-to-day moves in market rates or prices, but are exposed to large discontinuous moves. Such movements may occur, for example, when, in reaction to an adverse event or unexpected news announcement, some parts of the market move far beyond their normal volatility range and become temporarily illiquid. Products which exhibit exposure only to large discontinuous moves (gap risk) are not well captured by VaR measures or traditional market risk sensitivity measures. HSBC has implemented additional stress measurement and controls over such products.

In 2015 gap risk exposure was primarily due to non-recourse loan transactions, mostly for corporate clients, where the collateral against the loan is limited to the posted assets. Upon occurrence of a gap event, the value of the collateral could fall below the outstanding loan amount.

We did not incur any notable gap losses in 2015.

De-peg risk

For certain currencies (pegged or managed) the spot exchange rate is pegged at a fixed rate (typically to US dollars or euros), or managed within a pre-defined band around a pegged rate. De-peg risk is the risk of the peg or managed band changing or being abolished, and moving to a floating regime.

HSBC has extensive experience in managing fixed and managed currency regimes. Using stressed scenarios on spot rates, we are able to analyse how de-peg events would impact the positions held by HSBC. We monitor such scenarios to pegged or managed currencies, such as the Hong Kong dollar, renminbi and Middle Eastern currencies, and limit any potential losses that would occur. This historical VaR measure may not fully capture the risk involved in holding positions in pegged or managed currencies because such currencies may not have experienced a de-peg event during the historical timeframe being considered.

ABS/MBS exposures

The ABS/MBS exposures within the trading portfolios are managed within sensitivity and VaR limits, used for management purposes, as described on page 167 of the Annual Report and Accounts 2015, and are included within the stress testing scenarios described above.

Non-trading portfolios

Most of the Group's non-trading VaR relates to BSM or local treasury management functions. Contributions to Group non-trading VaR are driven by interest rates and credit spread risks arising from all global businesses. There is no commodity market risk in the non-trading portfolios.

Non-trading VaR also includes the interest rate risk of non-trading financial instruments held by the global businesses and transferred into portfolios managed by BSM or local treasury functions. In measuring, monitoring and managing risk in our non-trading portfolios, VaR is just one of the tools used. The management of interest rate risk in the banking book is described further in 'Non-trading interest rate risk' below, including the role of BSM.

Non-trading VaR excludes equity risk on AFS securities, structural foreign exchange risk, and interest rate risk on fixed rate securities issued by HSBC Holdings, the scope and management of which are described in the relevant sections below.

Our control of market risk in the non-trading portfolios is based on transferring the assessed market risk of non-trading assets and liabilities created outside BSM or Markets, to the books managed by BSM, provided the market risk can be neutralised. The net exposure is typically managed by BSM through the use of fixed rate government bonds (liquid assets held in AFS books) and interest rate swaps. The interest rate risk arising from fixed rate government bonds held within AFS portfolios is reflected within the Group's non-traded VaR. Interest rate swaps used by BSM are typically classified as either a fair value hedge or a cash flow hedge and are included within the Group's non-traded VaR. Any market risk that cannot be neutralised in the market is managed by local ALCO in segregated ALCO books.

Equity securities classified as available-for-sale

Potential new commitments are subject to risk appraisal to ensure that industry and geographical concentrations remain within acceptable levels for the portfolio. Regular reviews are performed to substantiate the valuation of the investments within the portfolio and investments held to facilitate ongoing business, such as holdings in government-sponsored enterprises and local stock exchanges.

See 'Other risks - Non-trading book exposures in equities' on page 101 for additional information.

Prudent valuation adjustment

HSBC has documented policies and maintains systems and controls for the calculation of PVA. Prudent value is the estimated lowest price that would be received to sell an asset or highest price paid to transfer a liability in 90% of orderly transactions occurring between market participants at the balance sheet date. HSBC's methodology addresses fair value uncertainties arising from a number of sources; market price uncertainty, bid offer ('close out') uncertainty, model risk, concentration, administrative cost, CVA ('unearned credit spread') and funding fair value adjustment.

Structural foreign exchange exposures

Structural foreign exchange exposures represent net investments in subsidiaries, branches and associates, the functional currencies of which are currencies other than the US dollar. An entity's functional currency is that of the primary economic environment in which the entity operates.

Exchange differences on structural exposures are recognised in 'Other comprehensive income'. We use the US dollar as our presentation currency in our consolidated financial statements because the US dollar and currencies linked to it form the major currency bloc in which we transact and fund our business. Our consolidated balance sheet is, therefore, affected by exchange differences between the US dollar and all the non-US dollar functional currencies

of underlying subsidiaries.

We hedge structural foreign exchange exposures only in limited circumstances. Our structural foreign exchange exposures are managed with the primary objective of ensuring, where practical, that our consolidated capital ratios and the capital ratios of individual banking subsidiaries are largely protected from the effect of changes in exchange rates. Our policy is to stabilise capital ratios by maintaining, so far as practicable, a suitable amount of regulatory capital denominated in each currency in which it has RWAs. This is usually achieved by ensuring that, for each subsidiary bank, the ratio of structural exposures in a given currency to RWAs denominated in that currency is broadly equal to the capital ratio of the subsidiary in question.

We may also transact hedges where a currency in which we have structural exposures is considered likely to revalue adversely, and it is possible in practice to transact a hedge. Any hedging is undertaken using forward foreign exchange contracts which are accounted for under IFRSs as hedges of a net investment in a foreign operation, or by financing with borrowings in the same currencies as the functional currencies involved. We evaluate residual structural foreign exchange exposures using an expected shortfall method.

The structural foreign exchange risk is modelled for capital purposes using an internally developed de-peg risk model. The model uses the expected shortfall method to calculate a quantity of capital 'at risk' due to the structural foreign exchange exposures. The method translates the capital surplus/deficit based on capital ratios and then measures a US dollar variance in that capital position based on an average of the worst case scenarios arrived at using a Monte Carlo simulation of potential foreign exchange moves. The model also incorporates mean reversion for floating currencies and non-linear movements for pegged and managed currencies. The model is considered to be conservative, as it has fat tails and simulates extreme events.

Details of our structural foreign exchange exposures are provided in Note 33 of the Annual Report and Accounts 2015.

Non-trading interest rate risk

Non-trading book interest rate risk arises principally from mismatches between the future yield on assets and their funding cost, as a result of interest rate changes. Analysis of this risk is complicated by having to make assumptions on embedded optionality within certain product areas such as the incidence of mortgage prepayments, and from behavioural assumptions regarding the economic duration of liabilities which are contractually repayable on demand such as current accounts, and the re-pricing behaviour of managed rate products. These assumptions around behavioural features are captured in our interest rate risk behaviouralisation framework, which is described below.

We aim, through our management of market risk in non-trading portfolios, to mitigate the effect of prospective interest rate movements which could reduce future net interest income, while balancing the cost of such hedging activities on the current net revenue stream.

Our funds transfer pricing policies give rise to a two stage funds transfer pricing approach. For details see page 207 of the Annual Report and Accounts 2015.

The economic capital requirement for non-trading interest rate risk is measured using a two-step approach.

The economic capital requirement generated by our banking book is measured by our EVE sensitivity. EVE sensitivity considers all re-pricing mismatches assuming a run-off of the current balance sheet, and quantifies the larger loss in economic value of the Group's net asset position (including off balance sheet positions) under a +/-200bps shock to interest rates. We hold capital only to the extent that our EVE sensitivity metric is projecting a loss in our banking book (that is, the EVE sensitivity brings the economic value of our banking book below the book value of Tier 1).

We hold a management buffer which is informed by the potential downside risk to the CET1 ratio due to interest rate and credit spread risk in the AFS portfolio is measured by the portfolio's stressed VaR, using a 99% confidence level and an assumed holding period of a quarter. We hold a management buffer equivalent to our stressed VaR limit.

ALCM is responsible for measuring and controlling non-trading interest rate risk under the supervision of the RMM. Its primary responsibilities are:

· to define the rules governing the transfer of interest rate risk from the commercial bank to BSM;

· to ensure that all market interest rate risk that can be hedged is effectively transferred from the global businesses to BSM; and

· to define the rules and metrics for monitoring the residual interest rate risk in the global businesses.

The different types of non-trading interest rate risk and the controls which the Group uses to quantify and limit its exposure to these risks can be categorised as follows:

· risk which is transferred to BSM and managed by BSM within a defined risk mandate;

· risk which remains outside BSM because it cannot be hedged or which arises due to our behaviouralised transfer pricing assumptions. This risk will be captured by our net interest income EVE sensitivity, and corresponding limits are part of our global and regional risk appetite statement for non-trading interest rate risk. A typical example would be margin compression created by unusually low rates in key currencies;

· basis risk which is transferred to BSM when it can be hedged. Any residual basis risk remaining in the global businesses is reported to ALCO. A typical example would be a managed rate savings product transfer-priced using a Libor-based interest rate curve; and

· model risks which cannot be captured by net interest income or EVE sensitivity but are controlled by our stress testing framework. A typical example would be prepayment risk on residential mortgages or pipeline risk.

Details of the Group's monitoring of the sensitivity of projected net interest income under varying interest rate scenarios may be found on page 216 of the Annual Report and Accounts 2015.

Interest rate risk behaviouralisation

Unlike liquidity risk, which is assessed on the basis of a very severe stress scenario, non-trading interest rate risk is assessed and managed according to 'business-as-usual' conditions. In many cases the contractual profile of non-trading assets/liabilities arising from assets/liabilities created outside Markets or BSM does not reflect the behaviour observed. Behaviouralisation is therefore used to assess the market interest rate risk of non-trading assets/liabilities and this assessed market risk is transferred to BSM, in accordance with the rules governing the transfer of interest rate risk from the global businesses to BSM.

Behaviouralisation is applied in three key areas:

· the assessed re-pricing frequency of managed rate balances;

· the assessed duration of non-interest bearing balances, typically capital and current accounts; and

· the base case expected prepayment behaviour or pipeline take-up rate for fixed rate balances with embedded optionality.

Interest rate behaviouralisation policies have to be formulated in line with the Group's behaviouralisation policies and approved at least annually by local ALCOs, regional ALCMs and Group ALCM, in conjunction with local, regional and Group market risk monitoring teams.

The extent to which balances can be behaviouralised is driven by:

· the amount of the current balance that can be assessed as 'stable' under business-as-usual conditions; and

· for managed rate balances the historic market interest rate re-pricing behaviour observed; or

· for non-interest bearing balances the duration for which the balance is expected to remain under business-as-usual conditions. This assessment is often driven by the re-investment tenors available to BSM to neutralise the risk through the use of fixed rate government bonds or interest rate derivatives, and for derivatives the availability of cash flow hedging capacity.

Balance Sheet Management

Effective governance across BSM is supported by the dual reporting lines it has to the Chief Executive Officer of GB&M and to the Group Treasurer. In each operating entity, BSM is responsible for managing liquidity and funding under the supervision of the local ALCO (which usually meets on a monthly basis). It also manages the non-trading interest rate positions transferred to it within a Global Markets limit structure.

In executing the management of the liquidity risk on behalf of ALCO, and managing the non-trading interest rate positions transferred to it, BSM invests in highly-rated liquid assets in line with the Group's liquid asset policy. The majority of the liquidity is invested in central bank deposits and government, supranational and agency securities with most of the remainder held in short-term interbank and central bank loans.

Withdrawable central bank deposits are accounted for as cash balances. Interbank loans, statutory central bank reserves and loans to central banks are accounted for as loans and advances to banks. BSM's holdings of securities are accounted for as AFS or, to a lesser extent, held-to-maturity assets.

Statutory central bank reserves are not recognised as liquid assets. The statutory reserves that would be released in line with the Group's stressed customer deposit outflow assumptions are reflected as stressed inflows.

BSM is permitted to use derivatives as part of its mandate to manage interest rate risk. Derivative activity is predominantly through the use of vanilla interest rate swaps which are part of cash flow hedging and fair value hedging relationships.

Credit risk in BSM is predominantly limited to short-term bank exposure created by interbank lending, exposure to central banks and high quality sovereigns, supranationals or agencies which constitute the majority of BSM's liquidity portfolio. BSM does not manage the structural credit risk of any Group entity balance sheets.

BSM is permitted to enter into single name and index credit derivatives activity, but it does so to manage credit risk on the exposure specific to its securities portfolio in limited circumstances only. The risk limits are extremely limited and closely monitored. At 31 December 2015, BSM had no open credit derivative index risk.

VaR is calculated on both trading and non-trading positions held in BSM. It is calculated by applying the same methodology used for the Markets business and utilised as a tool for market risk control purposes.

BSM holds trading portfolio instruments in only very limited circumstances. Positions and the associated VaR were not significant during 2015.

Sensitivity of net interest income

A principal part of our management of market risk in non-trading portfolios is to monitor the sensitivity of projected net interest income under varying interest rate scenarios (simulation modelling). This monitoring is undertaken at an entity level by local ALCOs.

Entities apply a combination of scenarios and assumptions relevant to their local businesses, and standard scenarios which are required throughout HSBC. The latter are consolidated to illustrate the combined pro forma effect on our consolidated net interest income.

Projected net interest income sensitivity figures represent the effect of the pro forma movements in net interest income based on the projected yield curve scenarios and the Group's current interest rate risk profile. This effect, however, does not incorporate actions which would probably be taken by BSM or in the business units to mitigate the effect of interest rate risk. In reality, BSM seeks proactively to change the interest rate risk profile to minimise losses and optimise net revenues. The net interest income sensitivity calculations assume that interest rates of all maturities move by the same amount in the 'up-shock' scenario. Rates are not assumed to become negative in the 'down-shock' scenario which may, in certain currencies, effectively result in non-parallel shock. In addition, the net interest income sensitivity calculations take account of the effect on net interest income of anticipated differences in changes between interbank interest rates and interest rates over which the entity has discretion in terms of the timing and extent of rate changes.

Defined benefit pension schemes

Market risk arises within our defined benefit pension schemes to the extent that the obligations of the schemes are not fully matched by assets with determinable cash flows.

See 'Other risks - Pension Risk' on page 101 for additional information.

Operational risk

Overview and objectives

Operational risk is defined as the risk to achieving our strategy or objectives as a result of inadequate or failed internal processes, people and systems or from external events.

Requirements under CRD IV include a capital requirement for operational risk, utilising three levels of sophistication as stated on page 18. We have historically adopted, and currently use, the standardised approach in determining our operational risk capital requirements. We are in the process of implementing an Operational Risk model which we will use for economic capital calculation purposes. The table below sets out our operational risk capital requirement by region and global business.

Operational risk is relevant to every aspect of our business. It covers a wide spectrum of issues, in particular legal,

compliance, security and fraud. Losses arising from breaches of regulation and law, unauthorised activities, error, omission, inefficiency, fraud, systems failure or external events all fall within the definition of operational risk.

We have historically experienced operational risk losses in the following major categories:

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

Table 63: Operational risk RWAs

| | 2015 | | 2014 | |
|---|---|---|---|---|
| | Capital required $bn | RWAs $bn | Capital required $bn | RWAs $bn |
| By geographical region | | | | |
| Europe | 2.8 | 34.9 | 2.8 | 35.5 |
| Asia | 3.8 | 47.1 | 3.7 | 45.8 |
| Middle East and North Africa | 0.5 | 6.2 | 0.5 | 6.2 |
| North America | 1.1 | 14.1 | 1.2 | 15.2 |
| Latin America | 1.0 | 13.1 | 1.2 | 15.1 |
| At 31 December | 9.2 | 115.4 | 9.4 | 117.8 |
| By global business | | | | |
| Retail Banking and Wealth Management1 | 2.9 | 35.9 | 2.9 | 37.7 |
| Commercial Banking1 | 2.5 | 31.0 | 2.6 | 32.2 |
| Global Banking and Markets | 3.5 | 45.2 | 3.6 | 44.5 |
| Global Private Banking | 0.3 | 3.3 | 0.3 | 3.6 |
| Other | - | - | - | (0.2) |
| At 31 December | 9.2 | 115.4 | 9.4 | 117.8 |

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

During 2015, our operational risk profile continued to be dominated by compliance risks as referred to in the 'Top and emerging risks' section on page 110 and in the appendix to Risk Section on page 217 of the Annual Report and Accounts 2015. The most material losses experienced in 2015 related largely to events that occurred in previous years. These events included the possible historical mis-selling of payment protection insurance products in the UK (see Note 29 of the Annual Report and Accounts 2015). A number of mitigating actions continue to be taken to prevent future mis-selling incidents.

The regulatory environment in which we operate is increasing the cost of doing business and could reduce our future profitability. The implementation of Global Standards remains one of the key strategic priorities for the Group and is ongoing.

For further details on compliance risk, refer to page 178 of the Annual Report and Accounts 2015.

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

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

Organisation and responsibilities

Responsibility for minimising operational risk losses lies primarily with HSBC's management and staff. Each regional, global business, country, business unit and functional head is required to maintain oversight over operational risk and internal control, covering all businesses and operational activities for which they are responsible.

The Group Operational Risk function and the ORMF assist business management in discharging their responsibilities.

The ORMF defines minimum standards and processes, and the governance structure for operational risk and internal control across the Group. To implement the ORMF, HSBC has implemented a 'Three lines of defence' model (an industry best practice approach) to underpin our approach to managing operational risk. It makes clear who does what within HSBC to manage operational risks on a daily basis.

The First Line of Defence owns the risk and is responsible for identifying, recording, reporting, managing the risks and ensuring that the right controls and assessments are in place to mitigate these risks. The Second Line of Defence sets the policy and guidelines for managing the risks and provides advice, guidance and challenge to the First Line of Defence on effective risk management. The Third Line of Defence is Internal Audit which independently ensures we are managing risk effectively.

More details on our ORMF may be found on page 176 of the Annual Report and Accounts 2015.

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

Operational risk is organised as a specific risk discipline within Global Risk. The Group Operational Risk function supports the Group Chief Risk Officer and the Global Operational Risk Committee and is responsible for establishing and maintaining the ORMF, monitoring the level of operational losses and the effectiveness of the control environment. It is also responsible for operational risk reporting at Group level, including preparation of reports for consideration by RMM and GRC.

Measurement and monitoring

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

In 2015, we continued to enhance our ORMF policies and procedures, and undertook various activities, such as a global training programme, to further embed the use of the framework in the management of the business.

Articulation of risk appetite for material operational risks helps the business to understand the level of risk our organisation is willing to take. Monitoring operational risk exposure against risk appetite on a regular basis, and setting out our risk acceptance process, drives risk awareness in a more forward-looking manner. It assists management in determining whether further action is required.

In addition, an enhanced Risk Scenario Analysis process has been implemented across material legal entities to improve the quantification and management of material risks. This provides a top down, forward-looking view of risks to help determine whether they are being effectively managed within our risk appetite or whether further management action is required.

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

Operational risk and control assessment approach

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

Appropriate means of mitigation and controls are considered. These include:

· making specific changes to strengthen the internal control environment; and

· investigating whether cost-effective insurance cover is available to mitigate the risk.

Recording

We use a centralised database to record the results of our operational risk management process. Operational risk and control assessments, as described above, are input and maintained by business units. Business management and Business Risk and Control Managers monitor and follow up the progress of documented action plans.

Operational risk loss reporting

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

Other risks

Pension risk

We operate a number of pension plans throughout the world. Some of them are defined benefit plans. Sponsoring Group companies (and in some instances, employees) make regular contributions in accordance with advice from actuaries and in consultation with the plans' trustees (where relevant). In situations where a funding deficit emerges, sponsoring Group companies agree to make additional contributions to the plans, to address the deficit over an appropriate repayment period.

The defined benefit plans invest these contributions in a range of investments designed to meet their long-term liabilities.

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

· investments delivering a return below that required to provide the projected plan benefits. This could arise, for example, when there is a fall in the market value of equities, or when increases in long-term interest rates cause a fall in the value of fixed income securities held;
· the prevailing economic environment leading to corporate failures, thus triggering write-downs in asset values (both equity and debt);
· a change in either interest rates or inflation expectations, causing an increase in the value of the plan liabilities; and
· plan members living longer than expected (known as longevity risk).

Pension risk is assessed by way of an economic capital model that takes into account potential variations in these factors. The impact of the variation on both pension assets and pension liabilities is modelled using VaR methodology, with a 99.5% confidence interval and a one-year time horizon.

Non-trading book exposures in equities

Our non-trading equities exposures are reviewed by RMM at least annually. At 31 December 2015, we had equity investments in the non-trading book of $6.1bn (2014: $10.9bn). These consist of investments held for the purposes shown in table 64.

Table 64: Non-trading book equity investments

| | 2015 | | | 2014 | | |
|---|---|---|---|---|---|---|
| | Available-for-sale | Designated at fair value | Total | Available-for-sale | Designated at fair value | Total |
| | $bn | $bn | $bn | $bn | $bn | $bn |
| Strategic investments | 2.1 | 0.1 | 2.2 | 7.5 | 0.1 | 7.6 |
| Private equity investments | 1.9 | 0.1 | 2.0 | 2.0 | 0.1 | 2.1 |
| | 1.9 | - | 1.9 | 1.2 | - | 1.2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Business facilitation1 | | | | | | |
| At 31 December | 5.9 | 0.2 | 6.1 | 10.7 | 0.2 | 10.9 |

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

We make investments in private equity primarily through managed funds that are subject to limits on the amount of investment. We risk-assess these commitments to ensure that industry and geographical concentrations remain within acceptable levels for the portfolio as a whole, and perform regular reviews to substantiate the valuation of the investments within the portfolio.

Exchange traded investments amounted to $0.8bn (2014: $5.9bn), with the remainder being unlisted. These investments are held at fair value in line with market prices and are mainly strategic in nature. The decrease in strategic investments was largely due to the disposal of the Industrial Bank investment, partially offset by an increase in investments to facilitate ongoing business.

On a regulatory consolidation basis, the net gain from disposal of equity securities amounted to $1.8bn (2014: $1.0bn), while impairment of AFS equities amounted to $0.1bn (2014: $0.4bn). Unrealised gains on equities of $1.8bn at 31 December 2015 were fully recognised in CET1.

Details of our accounting policy for AFS equity investments and the valuation of financial instruments may be found on pages 398 and 378, respectively, of the Annual Report and Accounts 2015. A detailed description of the valuation techniques applied to private equity may be found on page 382 of the Annual Report and Accounts 2015.

Risk management of insurance operations

We operate an integrated bancassurance model which provides insurance products principally for customers with whom we have a banking relationship. Insurance products are sold through all global businesses, but predominantly by RBWM and CMB through our branches and direct channels worldwide.

The insurance contracts we sell relate to the underlying needs of our banking customers, which we can identify from our point-of-sale contacts and customer knowledge. The majority of sales are of savings and investment products and term and credit life contracts. By focusing largely on personal and SME lines of business we are able to optimise volumes and diversify individual insurance risks.

We choose to manufacture these insurance products in HSBC subsidiaries based on an assessment of operational scale and risk appetite. Manufacturing insurance allows us to retain the risks and rewards associated with writing insurance contracts by keeping part of the underwriting profit and investment income within the Group.

Where we do not have the risk appetite or operational scale to be an effective insurance manufacturer, we engage with a handful of leading external insurance companies in order to provide insurance products to our customers through our banking network and direct channels. These arrangements are generally structured with our exclusive strategic partners and earn the Group a combination of commissions, fees and a share of profits.

We distribute insurance products in all of our geographical regions. We have life insurance manufacturing subsidiaries in nine countries (Argentina, mainland China, France, Hong Kong, Malaysia, Malta, Mexico, Singapore and the UK). We also have life insurance manufacturing associate in Saudi Arabia and a joint venture in India.

We measure the risk profile of our insurance manufacturing businesses using an economic capital approach, where assets and liabilities are measured on a market value basis and a capital requirement is held to ensure that there is less than a 1 in 200 chance of insolvency over the next year, given the risks that the businesses are exposed to. The methodology for the economic capital calculation is largely aligned to the new pan-European Solvency II insurance capital regulations, which are applicable from 2016.

Subsidiaries engaged in insurance activities are excluded from the regulatory consolidation by excluding assets, liabilities and post-acquisition reserves, leaving the investment of these insurance subsidiaries to be recorded at cost and deducted from CET1 subject to thresholds (amounts below the thresholds are risk-weighted).

Further details of the management of financial risks and insurance risk arising from the insurance operations are provided from page 180 of the Annual Report and Accounts 2015.

Liquidity and funding risk

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

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

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

We do not manage liquidity through the explicit allocation of capital as, in common with standard industry practice, this is not considered to be an appropriate or adequate mechanism for managing these risks. However, we recognise that a strong capital base can help to mitigate liquidity risk.

Funding risk is a form of liquidity risk arising when the liquidity needed to fund illiquid asset positions cannot be obtained at the expected terms and when required. Our

primary sources of funding are customer current accounts and customer savings deposits payable on demand or at short notice. We issue wholesale securities (secured and unsecured) to supplement our customer deposits and change the currency mix, maturity profile or location of our liabilities. In the normal course of business we do not seek to utilise secured financing as a source of funding to finance customer assets, beyond the collateralised security financing activities within Global Markets. The table in Appendix II summarises the total on and off-balance sheet assets that are encumbered and unencumbered on liquidity and funding risk basis and unencumbered assets that could be used to support potential future funding and collateral needs.

Forward-looking framework

From 1 January 2016, the Group implemented a new internal Liquidity and Funding Risk Framework, using the external Liquidity Coverage Ratio and Net Stable Funding Requirement regulatory framework as a foundation, but adding extra metrics/limits and overlays to address the risks that we consider are not adequately reflected by the external regulatory framework.

The key aspects of the new internal Liquidity and Funding Risk Framework are:

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

· operating entity classification by inherent liquidity risk categorisation;

· minimum operating entity EC Liquidity Coverage Ratio requirement depending on inherent liquidity risk categorisation (EC Liquidity Coverage Ratio Delegated Regulation basis);

· minimum operating entity Net Stable Funding Requirement depending on inherent liquidity risk categorisation (on the basis of the Basel 295 publication, pending finalisation of the EC Net Stable Funding Requirement delegated regulation);

· legal entity depositor concentration limit;

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

· annual individual liquidity adequacy assessment by operating entity; and

· during 2016, we will also introduce a minimum operating entity Liquidity Coverage Ratio requirement by currency.

The new internal Liquidity and Funding Risk Framework and the risk tolerance (limits) were approved by the RMM and the Board on the basis of recommendations made by the GRC.

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

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

Details of our Liquidity and Funding Risk parameters are provided from page 154 of the Annual Report and Accounts 2015.

Reputational risk

Reputational risk is the risk of failure to meet stakeholder expectations as a result of any event, behaviour, action or inaction, either by HSBC itself, our employees or those with whom we are associated, that might cause stakeholders to form a negative view of the Group. This may have financial or non-financial effects, resulting in a loss of confidence, or have other consequences. Reputational risk relates to stakeholders' perceptions, whether based on fact or otherwise. Stakeholders' expectations are constantly changing and thus reputational risk is dynamic and varies between geographical regions, groups and individuals. As a global bank, HSBC has an unwavering commitment to operating to the high standards we have set for ourselves in every jurisdiction. Any lapse in standards of integrity, compliance, customer service or operating efficiency represents a potential reputational risk.

For further details, please refer to the Reputational Risk section on page 189 of the Annual Report and Accounts 2015.

Sustainability risk

Sustainability risk arises from the provision of financial services to companies or projects which indirectly result in unacceptable impacts on people or on the environment. Sustainability risk is:

· measured by assessing the potential sustainability effect of a customer's activities and assigning a Sustainability Risk Rating to all high-risk transactions;

· monitored quarterly by the RMM and monthly by Group Sustainability Risk; and

· managed using sustainability risk policies covering project finance lending and sector-based sustainability policies for sectors and themes with potentially high environmental or social impacts.

Business risk

The PRA specifies that banks, as part of their ICAAP, should review their exposure to business risk.

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

We manage and mitigate business risk through our risk appetite, business planning and stress testing processes, so that our business model and planned activities are monitored, resourced and capitalised consistent with the commercial, economic and risk environment in which the Group operates, and that any potential vulnerabilities of our business plans are identified at an early stage so that mitigating actions can be taken.

Dilution risk

Dilution risk is the risk that an amount receivable is reduced through cash or non-cash credit to the obligor, and arises mainly from factoring and invoice discounting transactions.

Where there is recourse to the seller, we treat these transactions as loans secured by the collateral of the debts purchased and do not report dilution risk for them. For our non-recourse portfolio, we do not report any dilution risk as we obtain an indemnity from the seller which indemnifies us against this risk. Moreover, factoring transactions involve lending at a discount to the face-value of the receivables which provides protection against dilution risk.

Details of our management of these risks may be found on the following pages of the Annual Report and Accounts 2015: liquidity and funding 204, reputational 224 and sustainability 226.

Remuneration

Details of the Group's remuneration policy, including details on the remuneration committee membership, activities, our remuneration strategy and tables showing the remuneration details of HSBC's Identified Staff and Material Risk Takers may be found under the Remuneration Policy on our website (www.hsbc.com/investor-relations/governance) and the Directors' Remuneration Report on page 285 of the Annual Report and Accounts 2015.

Appendix I

Simplified organisation chart for regulatory purposes1

Click on the attached PDF to view the chart

http://www.rns-pdf.londonstockexchange.com/rns/6692P_-2016-2-21.pdf

1 At 31 December 2015 showing entities in home and priority markets, wholly owned unless shown otherwise (part ownership rounded down to the nearest per cent), except 2, below.
2 Control of special purpose entities is not based on ownership.
3 Middle East and North Africa.

Appendix II

Asset encumbrance

The following is the disclosure of on-balance sheet encumbered and unencumbered assets and off-balance sheet collateral (represented by median values of monthly data points in 2015) based on the requirement in Part Eight of CRD IV. The related Guideline, issued by the EBA on 27 June 2014, was implemented by the PRA through Supervisory Statement SS11/14.

Table 65: Asset encumbrance
A - Assets

| | | Carrying amount of encumbered assets | Fair value of encumbered assets | Carrying amount of unencumbered assets | Fair value of unencumbered assets |
|---|---|---|---|---|---|
| | | 010 | 040 | 060 | 090 |
| | | $m | $m | $m | $m |
| 010 | Assets of the reporting institution | 130,079 | - | 2,545,834 | - |
| 030 | Equity instruments | 8,085 | 8,085 | 72,608 | 72,493 |
| 040 | Debt securities | 67,903 | 67,805 | 451,722 | 442,657 |
| 120 | Other assets | 2,723 | - | 471,168 | - |

B - Collateral received

| | | Fair value of encumbered collateral received or own debt securities issued | Fair value of collateral received or own debt securities issued available for encumbrance |
|---|---|---|---|
| | | 010 | 040 |
| | | $m | $m |
| 130 | Assets of the reporting institution | 143,295 | 118,790 |
| 150 | Equity instruments | 25,505 | 11,790 |
| 160 | Debt securities | 116,571 | 97,066 |
| 230 | Other collateral received | - | 4,771 |
| 240 | Own debt securities issued other than own | - | - |

covered bonds or ABSs

C - Encumbered assets/collateral received and associated liabilities

| | | Matching liabilities, contingent liabilities or securities lent | Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered |
|---|---|---|---|
| | | 010 | 030 |
| | | $m | $m |
| 010 | Carrying amount of selected financial liabilities | 180,483 | 258,910 |

Information on importance of encumbrance

We are a deposit-led bank and hence the majority of our funding is from customer current accounts and customer savings deposits payable on demand or at short notice. This is part of our Group framework, where we have defined the limit for the ratio of advances to deposits to be below 90% (2015: 72%). Given this structural unsecured funding position we have little requirement to fund ourselves in secured markets, and therefore our overall low level of encumbrance reflects this position. However, we do provide collateralised financing services to clients as part of our GB&M business model, providing cash financing or specific securities, and these result in off-balance sheet encumbrance. The other sources which contribute to encumbrance are securities pledged in derivative transactions, mostly for hedging purposes, issuance of asset-backed securities, and covered bond programmes in the UK, France and Australia. HSBC Holdings ALCO reviews the asset encumbrance of the institution as a whole quarterly and any events changing the asset encumbrance level are examined.
For details on-balance sheet encumbered and unencumbered assets, please refer to Annual Report and Accounts 2015, page 163.

Appendix III

Table 66: Transitional own funds disclosure

| Ref1 | Ref2 | At 31 December 2015 | CRD IV prescribed residual amount | Final CRD IV text |
|---|---|---|---|---|
| | | $m | $m | $m |
| | Common equity tier 1 (CET1) capital: instruments and reserves | | | |
| 1 | | 20,858 | - | 20,858 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Capital instruments and the related share premium accounts | | | | | |
| | of which: ordinary shares | a | 20,858 | - | 20,858 | |
| 2 | Retained earnings | a | 143,976 | - | 143,976 | |
| 3 | Accumulated other comprehensive income (and other reserves) | a | (453) | - | (453) | |
| 5 | Minority interests (amount allowed in consolidated CET1) | d | 3,519 | | 3,519 | |
| 5a | Independently reviewed interim net profits net of any foreseeable charge or dividend | | (3,717) | | (3,717) | |
| 6 | Common equity tier 1 capital before regulatory adjustments | | 164,183 | | 164,183 | |
| | Common equity tier 1 capital: regulatory adjustments | | | | | |
| 7 | Additional value adjustments | | (1,151) | | (1,151) | |
| 8 | Intangible assets (net of related deferred tax liability) | h | (20,650) | | (20,650) | |
| 10 | Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability) | n | (1,204) | | (1,204) | |
| 11 | Fair value reserves related to gains or losses on cash flow hedges | | (52) | | (52) | |
| 12 | Negative amounts resulting from the calculation of expected loss amounts | i | (4,920) | | (4,920) | |
| 14 | Gains or losses on liabilities valued at fair value resulting from changes in own credit standing | | (495) | | (495) | |
| 15 | Defined-benefit pension fund assets | g | (4,009) | | (4,009) | |
| 16 | Direct and indirect holdings of own CET1 instruments | | (839) | | (839) | |
| | Regulatory adjustments applied to common equity tier 1 in respect of amounts subject to pre-CRD IV treatment | | - | | - | |
| 28 | Total regulatory adjustments to Common equity tier 1 (CET1) | | (33,320) | - | (33,320) | |
| 29 | Common equity tier 1 (CET1) capital | | 130,863 | - | 130,863 | |
| | Additional Tier 1 (AT1) capital: instruments | | | | | |
| 30 | Capital instruments and the related share premium accounts | | 9,261 | - | 9,261 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 31 | of which: classified as equity under applicable accounting standards | c, j | 9,261 | - | 9,261 | |
| 33 | Amount of qualifying items and the related share premium accounts subject to phase out from AT1 | b, j | 8,972 | (8,972) | | - |
| 34 | Qualifying tier 1 capital included in consolidated AT1 capital (including minority interests not included in CET1) issued by subsidiaries and held by third parties | d, e, j | 4,388 | (4,219) | | 169 |
| 35 | of which: instruments issued by subsidiaries subject to phase out | e, j | 2,842 | (2,842) | - | |
| 36 | AT1 capital before regulatory adjustments | | 22,621 | (13,191) | | 9,430 |
| | Additional Tier 1 capital: regulatory adjustments | | | | | |
| 37 | Direct and indirect holdings of own AT1 instruments | | (60) | - | | (60) |
| 41b | Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Tier 2 capital during the transitional period | | (121) | 121 | | - |
| | of which: Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities | | (121) | 121 | - | |
| 43 | Total regulatory adjustments to Additional Tier 1 (AT1) capital | | (181) | 121 | | (60) |
| 44 | Additional Tier 1 (AT1) capital | | 22,440 | (13,070) | | 9,370 |
| 45 | Tier 1 capital (T1 = CET1 + AT1) | | 153,303 | (13,070) | | 140,233 |

| Ref1 | | Ref2 | At 31 December 2015 | CRD IV prescribed residual amount | Final CRD IV text |
|---|---|---|---|---|---|
| | | | $m | $m | $m |
| | Tier 2 (T2) capital: instruments and provisions | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 46 | Capital instruments and the related share premium accounts | m | 15,863 | - | 15,863 |
| 47 | Amount of qualifying items and the related share premium accounts subject to phase out from T2 | m | 6,645 | (6,645) | - |
| 48 | Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in CET1 or AT1) issued by subsidiaries and held by third parties | d, l, m | 14,344 | (14,309) | 35 |
| 49 | of which: instruments issued by subsidiaries subject to phase out | l, m | 14,330 | (14,330) | - |
| 51 | Tier 2 (T2) capital before regulatory adjustments | | 36,852 | (20,954) | 15,898 |
| | Tier 2 (T2) capital: regulatory adjustments | | | | |
| 52 | Direct and indirect holdings of own T2 instruments | | (40) | - | (40) |
| 55 | Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) | | (282) | (121) | (403) |
| 57 | Total regulatory adjustments to Tier 2 (T2) capital | | (322) | (121) | (443) |
| 58 | Tier 2 (T2) capital | | 36,530 | (21,075) | 15,455 |
| 59 | Total capital (TC = T1 + T2) | | 189,833 | (34,145) | 155,688 |
| 60 | Total risk-weighted assets | | 1,102,995 | - | 1,102,995 |
| | Capital ratios and buffers | | | | |
| 61 | Common equity Tier 1 | | 11.9% | | 11.9% |
| 62 | Tier 1 | | 13.9% | | 12.7% |
| 63 | Total capital | | 17.2% | | 14.1% |
| 64 | Institution specific buffer requirement | | 0.002% | | |
| 65 | of which: capital conservation buffer requirement | | | | |
| 66 | of which: counter cyclical buffer requirement | | 0.002% | | |

7

| | | |
|---|---|---|
| 67 | of which: systemic risk buffer requirement | |
| 67a | of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer | |
| 68 | Common Equity Tier 1 available to meet buffers | 6.1% |
| | Amounts below the threshold for deduction (before risk weighting) | |
| 72 | Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions) | 3,518 |
| 73 | Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions) | 3,451 |
| 75 | Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability) | 7,780 |
| | Applicable caps on the inclusion of provisions in Tier 2 | |
| 76 | Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap) | - |
| 77 | Cap on inclusion of credit risk adjustments in T2 under standardised approach | 4,219 |
| 78 | Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap) | - |
| 79 | Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach | 3,297 |
| | Capital instruments subject to phase-out arrangements (only applicable between 1 January 2013 and 1 January 2022) | |
| 80 | Current cap on CET1 instruments subject to phase out arrangements | - |

| | | |
|---|---|---|
| 81 | Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities) | - |
| 82 | Current cap on AT1 instruments subject to phase out arrangements | 12,112 |
| 83 | Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities) | 776 |
| 84 | Current cap on T2 instruments subject to phase out arrangements | 20,975 |
| 85 | Amount excluded from T2 due to cap (excess over cap after redemptions and maturities) | 3,217 |

1 The references identify the lines prescribed in the EBA template. Lines represented in this table are those lines which are applicable and where there is a value.
2 The references (a) - (n) identify balance sheet components on page 8 which are used in the calculation of regulatory capital.

CRD IV own funds disclosure requirements determine that firms must provide a detailed disclosure of the nature and amounts of specific items on own funds following an EBA specified uniform template. During the transitional period, the relevant template is the one set out in annex VI of Commission Implementing Regulation 1423/2013, which became applicable from 31 March 2014.

The capital position is presented on a CRD IV transitional basis as implemented by the PRA in the Definition of Capital part of the PRA Rulebook. Where appropriate, additional line items have been included to accommodate certain amounts not captured by the template. We have also

provided additional information in the column, 'CRD IV prescribed residual amount', for completeness, to facilitate the reading of the end point capital resources position which results from adding the two columns together.

A list of the features of our capital instruments in accordance with annex III of Commission Implementing Regulation 1423/2013 is also being published on our website with reference to our balance sheet on 31 December 2015. This is in addition to the full terms and conditions of our securities, also available on our website.

Appendix IV

PD, LGD, RWA and exposure by country

The following tables set out the exposure-weighted average PD, exposure-weighted average LGD, RWAs and exposure by the location of the principal operations of the lending subsidiary or, in the case of operations of The Hongkong and Shanghai Banking Corporation, HSBC Bank, HSBC Bank Middle East and HSBC Bank USA, by the location of the lending branch.

Table 67a: PD, LGD, RWA and exposure by country - wholesale IRB advanced approach all asset classes1

| | Exposure-weighted | Exposure-weighted | RWAs | Exposure value |
|---|---|---|---|---|

| | average PD % | average LGD % | $bn | $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 2.31 | 30.5 | 87.5 | 209.4 |
| - France | 3.48 | 31.4 | 12.4 | 28.8 |
| - Germany | 0.41 | 41.9 | 0.3 | 1.3 |
| - Switzerland | 0.02 | 42.8 | 0.8 | 15.5 |
| - Turkey | 0.79 | 45.1 | 1.1 | 1.5 |
| Asia | | | | |
| - Hong Kong | 0.62 | 41.7 | 74.0 | 262.4 |
| - Australia | 1.05 | 42.7 | 7.1 | 19.2 |
| - India | 1.03 | 54.0 | 9.3 | 17.0 |
| - Indonesia | 7.98 | 54.5 | 5.5 | 6.6 |
| - Mainland China | 0.92 | 46.5 | 28.7 | 69.6 |
| - Malaysia | 0.98 | 47.1 | 6.4 | 14.6 |
| - Singapore | 0.64 | 42.7 | 8.7 | 34.5 |
| - Taiwan | 0.24 | 47.9 | 3.8 | 16.6 |
| Middle East and North Africa | | | | |
| - Egypt | 2.14 | 45.0 | 5.2 | 5.3 |
| - UAE | 0.12 | 39.0 | 1.9 | 10.7 |
| North America | | | | |
| - US | 0.78 | 39.2 | 52.6 | 139.6 |
| - Canada | 1.83 | 38.4 | 21.7 | 50.0 |
| Latin America | | | | |
| - Argentina | 7.11 | 45.5 | 2.8 | 1.7 |
| - Brazil | 0.48 | 45.0 | 6.0 | 9.5 |
| - Mexico | 1.44 | 44.5 | 2.8 | 7.5 |

Table 67b: PD, LGD, RWA and exposure by country - wholesale IRB advanced approach central governments and central banks

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 0.06 | 45.0 | 2.2 | 16.4 |
| - France | 0.05 | 45.1 | 0.3 | 2.3 |
| - Germany | 0.10 | 45.0 | 0.1 | 0.6 |
| - Switzerland | 0.01 | 45.0 | 0.6 | 13.9 |
| - Turkey | 0.68 | 45.0 | 0.9 | 1.3 |
| Asia | | | | |
| - Hong Kong | 0.02 | 45.0 | 6.4 | 105.8 |
| - Australia | 0.01 | 45.0 | 0.3 | 5.7 |
| - India | 0.13 | 45.0 | 2.2 | 6.3 |
| - Indonesia | 0.31 | 45.0 | 0.6 | 1.4 |
| - Mainland China | 0.04 | 45.0 | 2.7 | 21.4 |

| | | | | |
|---|---|---|---|---|
| - Malaysia | 0.05 | 45.0 | 0.8 | 5.4 |
| - Singapore | 0.01 | 45.0 | 0.5 | 13.0 |
| - Taiwan | 0.02 | 45.0 | 0.6 | 9.7 |
| Middle East and North Africa | | | | |
| - Egypt | 2.34 | 45.0 | 4.7 | 4.3 |
| - UAE | 0.05 | 45.0 | 0.6 | 5.8 |
| North America | | | | |
| - US | 0.01 | 45.1 | 5.5 | 45.6 |
| - Canada | 0.02 | 45.1 | 2.7 | 15.9 |
| Latin America | | | | |
| - Argentina | 7.09 | 45.0 | 2.7 | 1.7 |
| - Brazil | 0.37 | 45.0 | 4.3 | 7.8 |
| - Mexico | 0.10 | 45.0 | 2.5 | 6.8 |

Table 67c: PD, LGD, RWA and exposure by country - wholesale IRB advanced approach institutions

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 0.35 | 21.3 | 3.2 | 21.0 |
| - France | 0.25 | 41.9 | 0.7 | 1.6 |
| - Germany | 0.10 | 38.1 | 0.2 | 0.6 |
| - Switzerland | 0.05 | 23.2 | 0.2 | 1.6 |
| - Turkey | 2.25 | 45.0 | 0.1 | 0.1 |
| Asia | | | | |
| - Hong Kong | 0.06 | 42.7 | 4.3 | 29.6 |
| - Australia | 0.06 | 34.1 | 0.5 | 2.7 |
| - India | 0.18 | 45.2 | 0.2 | 0.6 |
| - Indonesia | - | - | - | - |
| - Mainland China | 0.12 | 45.6 | 1.9 | 8.6 |
| - Malaysia | 0.27 | 47.5 | 0.4 | 1.2 |
| - Singapore | 0.08 | 44.0 | 0.8 | 5.5 |
| - Taiwan | 0.08 | 45.0 | 0.1 | 0.5 |
| Middle East and North Africa | | | | |
| - Egypt | 0.08 | 45.0 | 0.1 | 0.5 |
| - UAE | 0.09 | 46.5 | 0.1 | 0.3 |
| North America | | | | |
| - US | 0.23 | 41.0 | 2.0 | 5.2 |
| - Canada | 0.06 | 28.2 | 0.3 | 2.3 |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | 0.97 | 45.1 | 1.7 | 1.7 |
| - Mexico | 0.26 | 45.0 | 0.2 | 0.3 |

Table 67d: PD, LGD, RWA and exposure by country - wholesale IRB advanced approach corporates1

| | Exposure-weighted | Exposure-weighted | RWAs | Exposure value |
|---|---|---|---|---|

| | average PD % | average LGD % | $bn | $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 2.77 | 30.2 | 82.1 | 172.0 |
| - France | 4.00 | 29.4 | 11.4 | 24.9 |
| - Germany | 0.77 | 47.7 | - | 0.1 |
| - Switzerland | - | - | - | - |
| - Turkey | 0.73 | 45.7 | 0.1 | 0.1 |
| Asia | | | | |
| - Hong Kong | 1.25 | 38.7 | 63.3 | 127.0 |
| - Australia | 1.85 | 43.7 | 6.3 | 10.8 |
| - India | 1.63 | 60.0 | 6.9 | 10.1 |
| - Indonesia | 10.04 | 57.0 | 4.9 | 5.2 |
| - Mainland China | 1.56 | 47.5 | 24.1 | 39.6 |
| - Malaysia | 1.72 | 48.4 | 5.2 | 8.0 |
| - Singapore | 1.34 | 40.3 | 7.4 | 16.0 |
| - Taiwan | 0.57 | 52.4 | 3.1 | 6.4 |
| Middle East and North Africa | | | | |
| - Egypt | 2.58 | 45.2 | 0.4 | 0.5 |
| - UAE | 0.20 | 30.8 | 1.2 | 4.6 |
| North America | | | | |
| - US | 1.21 | 36.1 | 45.1 | 88.8 |
| - Canada | 2.86 | 35.8 | 18.7 | 31.8 |
| Latin America | | | | |
| - Argentina | 8.84 | 80.8 | 0.1 | - |
| - Brazil | - | - | - | - |
| - Mexico | 22.57 | 37.0 | 0.1 | 0.4 |

Table 67e: PD, LGD, RWA and exposure by country - wholesale IRB foundation approach all asset classes

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 2.22 | 41.4 | 5.2 | 8.9 |
| - France | 5.36 | 45.0 | 0.2 | 0.2 |
| - Germany | 1.04 | 44.7 | 10.5 | 16.2 |
| - Switzerland | - | - | - | - |
| - Turkey | - | - | - | - |
| Asia | | | | |
| - Hong Kong | - | - | - | - |
| - Australia | - | - | - | - |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |

| | | | | |
|---|---|---|---|---|
| - Mainland China | - | - | - | - |
| - Malaysia | - | - | - | - |
| - Singapore | - | - | - | - |
| - Taiwan | - | - | - | - |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | 2.44 | 44.2 | 8.1 | 12.4 |
| North America | | | | |
| - US | - | - | - | - |
| - Canada | - | - | - | - |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

Table 67f: PD, LGD, RWA and exposure by country - wholesale IRB foundation approach central governments and central banks

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | - | - | - | - |
| - France | - | - | - | - |
| - Germany | - | - | - | - |
| - Switzerland | - | - | - | - |
| - Turkey | - | - | - | - |
| Asia | | | | |
| - Hong Kong | - | - | - | - |
| - Australia | - | - | - | - |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |
| - Mainland China | - | - | - | - |
| - Malaysia | - | - | - | - |
| - Singapore | - | - | - | - |
| - Taiwan | - | - | - | - |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | 0.04 | 45.0 | - | 0.1 |
| North America | | | | |
| - US | - | - | - | - |
| - Canada | - | - | - | - |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

Table 67g: PD, LGD, RWA and exposure by country - wholesale IRB foundation approach institutions

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | - | - | - | - |
| - France | - | - | - | - |
| - Germany | - | - | - | - |
| - Switzerland | - | - | - | - |
| - Turkey | - | - | - | - |
| Asia | | | | |
| - Hong Kong | - | - | - | - |
| - Australia | - | - | - | - |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |
| - Mainland China | - | - | - | - |
| - Malaysia | - | - | - | - |
| - Singapore | - | - | - | - |
| - Taiwan | - | - | - | - |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | 0.29 | 45.0 | 0.1 | 0.3 |
| North America | | | | |
| - US | - | - | - | - |
| - Canada | - | - | - | - |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

Table 67h: PD, LGD, RWA and exposure by country - wholesale IRB foundation approach corporates

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 2.22 | 41.4 | 5.2 | 8.9 |
| - France | 5.36 | 45.0 | 0.2 | 0.2 |
| - Germany | 1.04 | 44.7 | 10.5 | 16.2 |
| - Switzerland | - | - | - | - |
| - Turkey | - | - | - | - |
| Asia | | | | |
| - Hong Kong | - | - | - | - |

| | | | | |
|---|---|---|---|---|
| - Australia | - | - | - | - |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |
| - Mainland China | - | - | - | - |
| - Malaysia | - | - | - | - |
| - Singapore | - | - | - | - |
| - Taiwan | - | - | - | - |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | 2.50 | 44.2 | 8.0 | 12.0 |
| North America | | | | |
| - US | - | - | - | - |
| - Canada | - | - | - | - |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

Table 67i: PD, LGD, RWA and exposure by country - retail IRB approach all asset classes

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 1.58 | 30.8 | 21.8 | 182.6 |
| - France | 5.61 | 15.1 | 3.1 | 23.7 |
| - Germany | - | - | - | - |
| - Switzerland | 0.80 | 2.7 | 0.3 | 10.1 |
| - Turkey | - | | | |
| Asia | | | | |
| - Hong Kong | 0.94 | 39.0 | 18.2 | 97.5 |
| - Australia | 0.84 | 10.9 | 0.6 | 10.7 |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |
| - Mainland China | - | - | - | - |
| - Malaysia | 3.57 | 12.3 | 1.0 | 4.7 |
| - Singapore | 0.69 | 21.2 | 1.4 | 8.2 |
| - Taiwan | 1.21 | 11.2 | 0.4 | 3.9 |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | - | - | - | - |
| North America | | | | |
| - US | 12.05 | 64.0 | 43.7 | 42.1 |
| - Canada | 1.04 | 19.8 | 2.4 | 18.0 |
| Latin America | | | | |
| - Argentina | - | - | - | - |

| | | | | |
|---|---|---|---|---|
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

Table 67j: PD, LGD, RWA and exposure by country - retail IRB approach - retail secured by mortgages on immovable property non-SME

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 1.32 | 12.5 | 7.1 | 134.2 |
| - France | 7.21 | 13.5 | 0.4 | 2.5 |
| - Germany | - | - | - | - |
| - Switzerland | - | - | - | - |
| - Turkey | - | - | - | - |
| Asia | | | | |
| - Hong Kong | 0.76 | 10.0 | 8.9 | 59.7 |
| - Australia | 0.84 | 10.9 | 0.6 | 10.7 |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |
| - Mainland China | - | - | - | - |
| - Malaysia | 3.57 | 12.3 | 1.0 | 4.7 |
| - Singapore | 0.69 | 21.2 | 1.4 | 8.2 |
| - Taiwan | 1.21 | 11.2 | 0.4 | 3.9 |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | - | - | - | - |
| North America | | | | |
| - US | 13.68 | 58.1 | 38.2 | 34.3 |
| - Canada | 0.93 | 17.5 | 1.8 | 15.8 |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

Table 67k: PD, LGD, RWA and exposure by country - retail IRB approach retail secured by mortgages on immovable property SME

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | - | - | - | - |

| | | | | |
|---|---|---|---|---|
| - France | 8.01 | 18.8 | 0.5 | 2.0 |
| - Germany | - | - | - | - |
| - Switzerland | - | - | - | - |
| - Turkey | - | - | - | - |
| Asia | | | | |
| - Hong Kong | 0.99 | 11.1 | - | 0.6 |
| - Australia | - | - | - | - |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |
| - Mainland China | - | - | - | - |
| - Malaysia | - | - | - | - |
| - Singapore | - | - | - | - |
| - Taiwan | - | - | - | - |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | - | - | - | - |
| North America | | | | |
| - US | - | - | - | - |
| - Canada | 2.21 | 30.7 | 0.1 | 0.3 |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

Table 67l: PD, LGD, RWA and exposure by country - retail IRB approach retail QRRE

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 1.17 | 85.2 | 6.1 | 33.2 |
| - France | - | - | - | - |
| - Germany | - | - | - | - |
| - Switzerland | - | - | - | - |
| - Turkey | - | - | - | - |
| Asia | | | | |
| - Hong Kong | 1.11 | 100.1 | 8.0 | 30.6 |
| - Australia | - | - | - | - |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |
| - Mainland China | - | - | - | - |
| - Malaysia | - | - | - | - |
| - Singapore | - | - | - | - |
| - Taiwan | - | - | - | - |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | - | - | - | - |
| North America | | | | |

| | | | | |
|---|---|---|---|---|
| - US | 1.49 | 93.7 | 1.0 | 3.6 |
| - Canada | 2.91 | 61.2 | 0.1 | 0.4 |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

Table 67m: PD, LGD, RWA and exposure by country - retail IRB approach other SME

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 7.07 | 66.0 | 4.7 | 8.1 |
| - France | 16.46 | 26.5 | 0.9 | 3.5 |
| - Germany | - | - | - | - |
| - Switzerland | - | - | - | - |
| - Turkey | - | - | - | - |
| Asia | | | | |
| - Hong Kong | 0.13 | 10.8 | - | 0.1 |
| - Australia | - | - | - | - |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |
| - Mainland China | - | - | - | - |
| - Malaysia | - | - | - | - |
| - Singapore | - | - | - | - |
| - Taiwan | - | - | - | - |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | - | - | - | - |
| North America | | | | |
| - US | 1.82 | 95.7 | 0.1 | 0.1 |
| - Canada | 4.31 | 47.3 | 0.1 | 0.2 |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

Table 67n: PD, LGD, RWA and exposure by country - retail IRB approach other non-SME

| | Exposure-weighted average PD % | Exposure-weighted average LGD % | RWAs $bn | Exposure value $bn |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Europe | | | | |
| - UK | 2.18 | 83.2 | 3.9 | 7.1 |
| - France | 2.63 | 12.4 | 1.3 | 15.7 |
| - Germany | - | - | - | - |
| - Switzerland | 0.80 | 2.7 | 0.3 | 10.1 |
| - Turkey | - | - | - | - |
| Asia | | | | |
| - Hong Kong | 1.85 | 21.1 | 1.3 | 6.5 |
| - Australia | - | - | - | - |
| - India | - | - | - | - |
| - Indonesia | - | - | - | - |
| - Mainland China | - | - | - | - |
| - Malaysia | - | - | - | - |
| - Singapore | - | - | - | - |
| - Taiwan | - | - | - | - |
| Middle East and North Africa | | | | |
| - Egypt | - | - | - | - |
| - UAE | - | - | - | - |
| North America | | | | |
| - US | 8.11 | 85.7 | 4.4 | 4.1 |
| - Canada | 0.99 | 28.1 | 0.3 | 1.3 |
| Latin America | | | | |
| - Argentina | - | - | - | - |
| - Brazil | - | - | - | - |
| - Mexico | - | - | - | - |

1 Excludes specialised lending exposures subject to supervisory slotting approach.

Appendix V

Summary of disclosures withheld due to their immateriality, confidentiality or proprietary nature

| CRD IV reference | Description | Rationale |
|---|---|---|
| 438(e) and 445 | Capital requirements - Own funds requirements for settlement risk. | Materiality<br>Settlement risk arises where certain transactions are unsettled after their due delivery date and is required to be separately disclosed. However, as settlement risk RWAs are not material and included within counterparty credit risk, they have not been separately disclosed. |
| 442(c) | Credit Risk Adjustments - In relation to exposure to credit risk and dilution risk, the total amount of exposures after accounting offsets and without taking into account the effects of credit risk mitigation. | Materiality<br>The disclosure has been made after taking into account the effects of credit risk mitigation; there are no significant differences between exposures pre and post credit risk mitigation at exposure class level. |

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| 448(a) | Key assumptions (including assumptions regarding loan prepayments and behaviour of non-maturity deposits) on their exposure to interest rate risk on positions not included in the trading book. | Proprietary<br>Assumptions regarding fixed term loan repayments and term behaviouralisation of non-maturity deposits and capital drive HSBC's structural interest rates positioning and market hedging requirements.<br>Disclosure could give key business strategy information to our competitors. |

Appendix VI

Glossary

| Term | Definition |
|---|---|
| A | |
| Additional valuation adjustment | See 'Prudent valuation adjustment'. |
| Arrears | Customers are said to be in arrears (or in a state of delinquency) when they are behind in fulfilling their obligations, with the result that an outstanding loan is unpaid or overdue. When a customer is in arrears, the total outstanding loans on which payments are overdue are described as delinquent. |
| Asset-backed securities ('ABS's) | Securities that represent an interest in an underlying pool of referenced assets. The referenced pool can comprise any assets which attract a set of associated cash flows but are commonly pools of residential or commercial mortgages. |
| Available-for-sale ('AFS') | Those non-derivative financial assets that are designated as available for sale or are not classified as a) loans and receivables b) held-to-maturity investments or c) financial assets at fair value through profit or loss. |
| B | |
| Back-testing | A statistical technique used to monitor and assess the accuracy of a model, and how that model would have performed had it been applied in the past. |
| Bail-in | Bail-in refers to the imposition of losses at the point of non-viability (but before insolvency) on bank liabilities (bail-inable debt) that are not exposed to losses while the institution remains a viable, going concern. Whether by way of write-down or conversion into equity, this has the effect of recapitalising the bank (although it does not provide any new funding). |
| Bank Recovery and Resolution Directive | A European legislative package issued by the European Commission and adopted by EU Member States. This directive was finalised in July 2014 and the majority of provisions came into effect on 1 January 2015. This introduces a common EU framework for how authorities should intervene to address banks which are failing or are likely to fail. The framework |

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| | includes early intervention and measures designed to prevent failure and in the event of bank failure for authorities to ensure an orderly resolution. |
| Basel II | The capital adequacy framework issued by the Basel Committee in June 2006 in the form of the 'International Convergence of Capital Measurement and Capital Standards', amended by subsequent changes to the capital requirements for market risk and re-securitisations, commonly known as Basel 2.5, which took effect from 31 December 2011. |
| Basel III | In December 2010, the Basel Committee issued 'Basel III rules: a global regulatory framework for more resilient banks and banking systems' and 'International framework for liquidity risk measurement, standards and monitoring'. Together these documents present the Basel Committee's reforms to strengthen global capital and liquidity rules with the goal of promoting a more resilient banking sector. In June 2011, the Basel Committee issued a revision to the former document setting out the finalised capital treatment for counterparty credit risk in bilateral trades. |
| Basis risk | The risk that prices of offsetting financial instruments in a hedging strategy will not move in entirely opposite directions from each other. There is therefore a risk that the imperfect correlation between the instruments used for the hedging strategy produces an overall gain or loss. |
| C | |
| Capital conservation buffer ('CCB') | A capital buffer prescribed by regulators under Basel III and designed to ensure banks build up capital buffers outside periods of stress which can be drawn down as losses are incurred. Should a bank's CET1 capital fall within the capital conservation buffer range, capital distributions will be constrained by the regulators. |
| Capital required | Capital required represents the Pillar 1 capital charge calculated at 8% of RWAs. |
| Capital Requirements Directive ('CRD') | A capital adequacy legislative package adopted by EU member states. The CRD IV package comprises a recast Capital Requirements Directive and a new Capital Requirements Regulation. The package implements the Basel III capital proposals together with transitional arrangements for some of its requirements. CRD IV came into force on 1 January 2014. |
| Capital resources | Capital held on balance sheet that is eligible to satisfy capital requirements. |
| CET 1 ratio | A Basel III measure of CET 1 capital expressed as percentage of total risk exposure amount. |

| Term | Definition |
|---|---|
| Commercial paper | An unsecured, short-term debt instrument issued by a corporation, typically for the financing of accounts receivable, inventories and meeting short-term liabilities. The |

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| | debt is usually issued at a discount, reflecting prevailing market interest rates. |
| Commercial real estate ('CRE') | Any real estate, comprising buildings or land, intended to generate a profit, either from capital gain or rental income. |
| Comprehensive risk measure | The comprehensive risk measure model covers all positions that are part of the correlation trading portfolio. Comprehensive risk measure covers all price risks including spread, default and migration. Like incremental risk charge, it is calibrated to a 99.9 percentile loss and a one-year capital horizon to generate a capital add-on to VAR. |
| Conduits | HSBC sponsors and manages multi-seller conduits and SICs. The multi-seller conduits hold interests in diversified pools of third-party assets such as vehicle loans, trade receivables and credit card receivables funded through the issuance of short-dated commercial paper and supported by a liquidity facility. The SICs hold predominantly asset-backed securities referencing such items as commercial and residential mortgages, vehicle loans and credit card receivables funded through the issuance of both long-term and short-term debt. |
| Consumer and Mortgage Lending ('CML') | In the US, the CML portfolio consists of our Consumer Lending and Mortgage Services businesses, which are in run-off.<br>The Consumer Lending business offered secured and unsecured loan products, such as first and second lien mortgage loans, open-ended home equity loans and personal non-credit card loans through branch locations and direct mail. The majority of the mortgage lending products were for refinancing and debt consolidation rather than home purchases. In the first quarter of 2009, we discontinued all originations by our Consumer Lending business.<br>Prior to the first quarter of 2007, when we ceased loan purchase activity, the Mortgage Services business purchased non-conforming first and second lien real estate secured loans from unaffiliated third parties. The business also included the operations of Decision One Mortgage Company ('Decision One'), which historically originated mortgage loans sourced by independent mortgage brokers and sold these to secondary market purchasers. Decision One ceased originations in September 2007. |
| Countercyclical capital buffer ('CCyB') | A capital buffer prescribed by regulators under Basel III which aims to ensure that capital requirements take account of the macro-financial environment in which banks operate. This will provide the banking sector with additional capital to protect it against potential future losses, when excess credit growth in the financial system as a whole is associated with an increase in system-wide risk. |
| Counterparty credit risk ('CCR') | Counterparty credit risk, in both the trading and non-trading books, is the risk that the counterparty to a transaction may default before completing the satisfactory settlement of the transaction. |

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| Credit Conversion Factor ('CCF') | CCFs are used in determining the EAD in relation to credit risk exposures. The CCF is an estimate of the proportion of undrawn commitments expected to have been drawn down at the point of default. |
| Credit default swap ('CDS') | A derivative contract whereby a buyer pays a fee to a seller in return for receiving a payment in the event of a defined credit event (e.g. bankruptcy, payment default on a reference asset or assets, or downgrades by a rating agency) on an underlying obligation (which may or may not be held by the buyer). |
| Credit enhancements | Facilities used to enhance the creditworthiness of financial obligations and cover losses due to asset default. |
| Credit quality step | A step in the CRD IV credit quality assessment scale which is based on the credit ratings of ECAIs. It is used to assign risk weights under the standardised approach. |
| Credit risk | Risk of financial loss if a customer or counterparty fails to meet an obligation under a contract. It arises mainly from direct lending, trade finance and leasing business but also from products such as guarantees, derivatives and debt securities. |
| Credit risk adjustment ('CRA') | Credit risk adjustments are all amounts by which CET1 has been reduced in order to reflect losses exclusively related to credit risk under IFRSs, resulting from impairments, value adjustments or provisions for off-balance sheet items that are recognised in the profit or loss account. |
| Credit risk mitigation | A technique to reduce the credit risk associated with an exposure by application of credit risk mitigants such as collateral, guarantees and credit protection. |
| Credit spread risk | The risk that movements in credit spreads will affect the value of financial instruments. |
| Credit Support Annex ('CSA') | A legal document that regulates credit support (collateral) for OTC derivative transactions between two parties. |

| Term | Definition |
|---|---|
| Credit valuation adjustment ('CVA') | An adjustment to the valuation of derivative contracts to reflect the creditworthiness of derivative counterparties. |
| Customer risk rating ('CRR') | An internal scale of 23 grades measuring obligor PD. |
| CVA risk capital charge | A capital charge under CRD IV to cover the risk of mark-to-market losses on expected counterparty risk to derivatives. |
| D | |
| Debit valuation adjustment | An adjustment made by an entity to the valuation of OTC derivative liabilities to reflect within fair value the entity's own credit risk. |
| Debt securities | Financial assets on the Group's balance sheet representing certificates of indebtedness of credit institutions, public bodies or other undertakings, excluding those issued by central banks. |
| Delinquency | See 'Arrears'. |
| E | |
| Economic capital | The internally calculated capital requirement which is deemed necessary by HSBC to support the risks to which it is exposed. |

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| Economic Value of Equity ('EVE') sensitivity | Considers all re-pricing mismatches in the current balance sheet and calculates the change in market value that would result from a set of defined interest rate shocks. |
| Equity risk | The risk arising from positions, either long or short, in equities or equity-based instruments, which create exposure to a change in the market price of the equities or equity instruments. |
| Expected loss ('EL') | A regulatory calculation of the amount expected to be lost on an exposure using a 12-month time horizon and downturn loss estimates. EL is calculated by multiplying the PD (a percentage) by the EAD (an amount) and LGD (a percentage). |
| Exposure | A claim, contingent claim or position which carries a risk of financial loss. |
| Exposure at default ('EAD') | Under the standardised approach, the amount expected to be outstanding after any credit risk mitigation, if and when the counterparty defaults. Under IRB, the amount outstanding if and when the counterparty defaults. EAD reflects drawn balances as well as allowance for undrawn amounts of commitments and contingent exposures. |
| Exposures in default | 'Exposures in default' is an exposure class under the standardised approach to credit risk. A financial asset falls into this exposure class if it is more than 90/180 days past due or the obligor is deemed unlikely to pay his credit obligations. A financial asset such as a loan is past due when the counterparty has failed to make a payment when contractually due. |
| Exposure value | Exposure at default. |
| External Credit Assessment Institutions ('ECAI') | ECAIs include external credit rating agencies such as Standard & Poor's, Moody's and Fitch. |
| F | |
| Fair value | 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. |
| Financial collateral comprehensive method | This method applies a volatility adjustment (or 'haircut') to the value of the collateral to allow for the fact that the collateral taken may fall in value when it comes to taking control of the collateral and selling it. This adjusted collateral value is then subtracted from the exposure to create an 'adjusted exposure'. Firms on the standardised approach will then apply the risk weight of the borrower to the adjusted exposure value, while firms using foundation IRB make a formulaic adjustment to the LGD number which has a similar effect. To calculate these 'haircuts', the firm can use either a table of supervisory numbers or its own numbers if it meets certain requirements. |
| Financial Conduct Authority | The Financial Conduct Authority regulates the conduct of financial firms and, for certain firms, prudential standards in the UK. It has a strategic objective to ensure that the relevant markets function well. |
| Financial Policy Committee ('FPC') | The Financial Policy Committee, at the Bank of England, is charged with a primary objective of identifying, monitoring and taking action to remove or reduce systemic risks with a view to protecting and enhancing the resilience of the UK financial system. The FPC has a secondary objective to support the economic policy of the UK Government. |

| Term | Definition |
|---|---|
| G | |
| Global Systemically Important Bank ('G-SIB') | The FSB established in November 2011 a methodology to identify G-SIBs based on 12 principal indicators. Designation will result in the application of a CET1 buffer between 1% and 3.5%, to be phased in by 1 January 2019.<br>The list of G-SIBs is re-assessed through annual re-scoring of banks and a triennial review of the methodology. National regulators have discretion to introduce higher charges than the minima. In CRD IV this is implemented via the Global Systemically Important Institutions (G-SII) Buffer.<br>The requirements, initially for those banks identified in November 2014 as G-SIBs, are being phased in from 1 January 2016, becoming fully effective on 1 January 2019. National regulators have discretion to introduce higher thresholds than the minima. |
| H | |
| Haircut | A discount applied by management when determining the amount at which an asset can be realised. The discount takes into account the method of realisation including the extent to which an active market for the asset exists. With respect to credit risk mitigation, a downward adjustment to collateral value to reflect any currency or maturity mismatches between the credit risk mitigant and the underlying exposure to which it is being applied. Also a valuation adjustment to reflect any fall in value between the date the collateral was called and the date of liquidation or enforcement. |
| Held-to-maturity | An accounting classification for investments acquired with the intention and ability of being held until they mature. |
| I | |
| Impaired loans | Loans where the Group does not expect to collect all the contractual cash flows or expects to collect them later than they are contractually due. |
| Impairment allowances | Management's best estimate of losses incurred in the loan portfolios at the balance sheet date. |
| Impairment charge | Impairment charges represent a movement in the impairment allowance balance during the year, reflecting loss events which occurred during the financial year and changes in estimates of losses arising on events which occurred prior to the current year. |
| Incremental risk charge ('IRC') | The IRC model captures the potential distribution of profit and loss due to default and migration for a portfolio of credit positions. For credit positions held on the trading book, and subject to specific interest rate risk VAR for regulatory capital, an IRC based on the 99.9th percentile of the IRC distribution, over a one-year capital horizon, is used as a capital add-on to VAR. |
| Institutions | Under the standardised approach, Institutions comprise credit institutions or investment firms. Under the IRB approach, Institutions also include regional governments and local authorities, public sector entities and multilateral development banks. |
| Insurance risk | A risk, other than financial risk, transferred from the holder of a contract to the insurance provider. The principal insurance risk is that, over time, the combined cost of claims, administration and acquisition of the contract may exceed the aggregate amount of premiums received and investment income. |

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| Interest rate risk | Exposure to adverse movements in interest rates. Accepting this risk is a normal part of banking and can be an important source of profitability and shareholder value. |
| Internal Assessment Approach ('IAA') | One of three calculation methods defined under the IRB approach for securitisations. |
| Internal Capital Adequacy Assessment Process ('ICAAP') | The Group's own assessment of the levels of capital that it needs to hold through an examination of its risk profile from regulatory and economic capital viewpoints. |
| Internal Model Method ('IMM') | One of three approaches defined in the Basel framework to determine exposure values for counterparty credit risk. |
| Internal ratings-based approach ('IRB') | A method of calculating credit risk capital requirements using internal, rather than supervisory, estimates of risk parameters. |
| IRB advanced approach | A method of calculating credit risk capital requirements using internal PD, LGD and EAD models. |
| IRB foundation approach | A method of calculating credit risk capital requirements using internal PD models but with supervisory estimates of LGD and conversion factors for the calculation of EAD. |
| L | |
| Leverage ratio | A measure which is the ratio of tier 1 capital to total exposures. Total exposures include on-balance sheet items, off-balance sheet items and derivatives, and should generally follow the accounting measure of exposure. This supplementary measure to the risk-based capital requirements is intended to constrain the build-up of excess leverage in the banking sector. |

| Term | Definition |
|---|---|
| Liquidity risk | The risk that HSBC does not have sufficient financial resources to meet its obligations as they fall due, or will have to do so at an excessive cost. This risk arises from mismatches in the timing of cash flows. |
| Loss given default ('LGD') | The estimated ratio (percentage) of the loss on an exposure to the amount outstanding at default ('EAD') upon default of a counterparty. |
| M | |
| Market risk | The risk that movements in market risk factors, including foreign exchange rates and commodity prices, interest rates, credit spreads and equity prices will reduce income or portfolio values. |
| Mark-to-market approach | One of three approaches to determine exposure values for counterparty credit risk. |
| Minimum capital requirement | The minimum amount of regulatory capital that a financial institution must hold to meet the Pillar 1 requirements for credit, market and operational risk. Also see 'capital required'. |
| Model validation | The process of assessing how well a credit risk model performs using a predefined set of criteria including the |

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|---|---|
| | discriminatory power of the model, model accuracy, the appropriateness of the inputs and expert opinion. |
| Multilateral Development Bank ('MDB') | An institution created by a group of countries to provide financing for the purpose of development. Under the standardised approach to credit risk, eligible multilateral development banks attract a zero per cent risk weight. |
| N | |
| Net interest income | The amount of interest received or receivable on assets net of interest paid or payable on liabilities. |
| O | |
| Obligor grade | Obligor grades, summarising a more granular underlying counterparty risk rating scale for estimates of PD, are defined as follows:<br>· 'Minimal Default Risk': The strongest credit risk, with a negligible PD.<br>· 'Low Default Risk': A strong credit risk, with a low PD.<br>· 'Satisfactory Default Risk': A good credit risk, with a satisfactory PD.<br>· 'Fair Default Risk': The risk of default remains fair, but identified weaknesses may warrant more regular monitoring.<br>· 'Moderate Default Risk': The overall position will not be causing any immediate concern, but more regular monitoring will be necessary as a result of sensitivities to external events that give rise to the possibility of risk of default increasing.<br>· 'Significant Default Risk': Performance may be limited by one or more troublesome aspects, known deterioration, or the prospect of worsening financial status. More regular monitoring required.<br>· 'High Default Risk': Continued deterioration in financial status, that requires frequent monitoring and ongoing assessment. The PD is of concern but the borrower currently has the capacity to meet its financial commitments.<br>· 'Special Management': The PD is of increasing concern and the borrower's capacity to fully meet its financial commitments is becoming increasingly less likely.<br>· 'Default': A default is considered to have occurred with regard to a particular obligor when either or both of the following events has taken place: the Group considers that the obligor is unlikely to pay its credit obligations in full, without recourse by the Group to actions such as realising security; or the obligor is past due more than 90 days, (90 days to 180 days for retail), on any material credit obligation to the Group. |
| Operational risk | The risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events, including legal risk. |
| Original exposure | Original exposure is the exposure value without taking into account value adjustments and provisions, credit conversion factors and the effect of credit risk mitigation techniques. |
| Over-the-counter ('OTC') | |

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|---|---|
| | A bilateral transaction (e.g. derivatives) that is not exchange traded and that is valued using valuation models. |
| P | |
| Pillar 1 | Minimum capital requirements - the calculation of regulatory capital for credit, market, and operational risk. |
| Pillar 2 | The supervisory review process - sets out the process by which a bank should review its overall capital adequacy and the processes under which the supervisors evaluate how well financial institutions are assessing their risks and take appropriate actions in response to the assessments. |

| Term | Definition |
|---|---|
| Pillar 3 | Market discipline - sets out the disclosure requirements for banks to publish certain details of their risks, capital and risk management, with the aim of strengthening market discipline. |
| Point-in-time ('PIT') | Estimates of PD (or other measures) generally covering a short time horizon (usually a 12-month period) and that are sensitive to changes in the economic cycle. This differs from a TTC basis which uses long run average economic and risk data to reduce such sensitivity. |
| Potential future exposure ('PFE') | The potential future credit exposure on derivatives contracts, calculated using the mark-to-market approach. |
| PRA Standard rules | The method prescribed by the PRA for calculating market risk capital requirements in the absence of VaR model approval. |
| Present value of in-force long-term insurance business | An asset representing the present value of the equity holders' interest in the issuing insurance companies' profits, expected to emerge from long-term insurance business or long-term investment contracts with discretionary participating features, written at the balance sheet date. |
| Private equity investments | Equity securities in operating companies not quoted on a public exchange, often involving the investment of capital in private companies or the acquisition of a public company that results in its delisting. |
| Probability of default ('PD') | The probability that an obligor will default within one year. |
| Prudential Regulation Authority ('PRA') | The Prudential Regulation Authority in the UK is responsible for prudential regulation and supervision of banks, building societies, credit unions, insurers and major investment firms. |
| Prudent Valuation Adjustment ('PVA') | A deduction from common equity tier 1 capital where the prudent value of trading assets or other financial assets measured at fair value is materially lower than the fair value recognised in the financial statements. |
| Q | |
| Qualifying revolving retail exposures | Retail IRB exposures that are revolving, unsecured, and, to the extent they are not drawn, immediately and unconditionally cancellable, such as credit cards. |
| R | |
| Ratings Based Method ('RBM') | One of three calculation methods defined under the IRB approach to securitisations. The approach uses risk weightings based on ECAI ratings, the granularity of the underlying pool and the seniority of the position and whether it is a |

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|---|---|
| | re-securitisation. |
| Reference PD | HSBC's master CRR scale has been constructed using a set of PD points, falling at regular intervals along an exponential PD curve and determining the boundaries of 23 CRR bands. Reference PDs have been determined, which for most bands fall mid-way between that band's boundary PD points. The determination of the bands and corresponding reference PDs takes into account the need to avoid concentration in any one band, and to ensure effective mapping to risk management portfolio quality scales. |
| Regulatory capital | The capital which HSBC holds, determined in accordance with CRD IV as implemented by the PRA for the consolidated Group and by local regulators for individual Group companies. |
| Repo/reverse repo (or sale and repurchase agreement) | A short-term funding agreement that allows a borrower to create a collateralised loan by selling a financial asset to a lender. As part of the agreement the borrower commits to repurchase the security at a date in the future repaying the proceeds of the loan. For the party on the other end of the transaction (buying the security and agreeing to sell in the future) it is a reverse repurchase agreement or a reverse repo. |
| Re-securitisation | A securitisation exposure, where the risk associated with an underlying pool of exposures is tranched and at least one of the underlying exposures is a securitisation exposure. |
| Residual maturity | The period outstanding from the reporting date to the maturity or end date of an exposure. |
| Retail Internal Ratings Based ('Retail IRB') approach | Retail exposures that are treated under the IRB approach. |
| Return on equity | Profit attributable to ordinary shareholders of the parent company divided by average ordinary shareholders' equity. |
| Risk appetite | The aggregate level and types of risk a firm is willing to assume within its risk capacity to achieve its strategic objectives and business plan. |
| Risk-weighted assets ('RWAs') | Calculated by assigning a degree of risk expressed as a percentage (risk weight) to an exposure value. |
| Run-off portfolios | Legacy credit in GB&M, the US CML portfolio and other US run-off portfolios, including the treasury services related to the US CML businesses and commercial operations in run-off. Origination of new business in the run-off portfolios has been discontinued and balances are being managed down through attrition and sale. |

| Term | Definition |
|---|---|
| RWA density | The average risk weight, expressed as a percentage of RWAs divided by exposure value, based on those RWA and exposure value numbers before they are rounded to the nearest $0.1bn for presentation purposes. |
| S | |
| Securities Financing Transactions ('SFT') | A repurchase or reverse repurchase transaction, a securities or commodities lending or borrowing transaction, or a margin lending transaction. |
| Securitisation | A transaction or scheme whereby the credit risk associated with an exposure, or pool of exposures, is tranched and where payments to investors in the transaction or scheme are dependent upon the performance of the exposure or pool of exposures. A traditional securitisation involves the transfer of the exposures being securitised to a SPE which issues securities. In a synthetic securitisation, the tranching is achieved by the use |

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| | of credit derivatives and the exposures are not removed from the balance sheet of the originator. |
| Securitisation position | Securitisation position means an exposure to a securitisation. |
| Six filters | An internal measure designed to improve capital deployment across the Group. Five of the filters examine the strategic relevance of each business in each country, in terms of connectivity and economic development, and the current returns, in terms of profitability, cost efficiency and liquidity. The sixth filter requires adherence to global risk standards. |
| Specialised lending exposure | Specialised lending exposures are defined as exposures to an entity which was created specifically to finance and/or operate physical assets, where the contractual arrangements give the lender a substantial degree of control over the assets and the income that they generate and the primary source of repayment of the obligation is the income generated by the assets being financed, rather than the independent capacity of a broader commercial enterprise. |
| Special Purpose Entity ('SPE') | A corporation, trust or other non-bank entity, established for a narrowly defined purpose, including for carrying on securitisation activities. The structure of the SPE and its activities are intended to isolate its obligations from those of the originator and the holders of the beneficial interests in the securitisation. |
| Standardised approach ('STD') | In relation to credit risk, a method for calculating credit risk capital requirements using rating agencies and supervisory risk weights. In relation to operational risk, a method of calculating the operational capital requirement by the application of a supervisory defined percentage charge to the gross income of eight specified business lines. |
| Stressed VaR | A market risk measure based on potential market movements for a continuous one-year period of stress for a trading portfolio. |
| Subordinated liabilities | Liabilities which rank after the claims of other creditors of the issuer in the event of insolvency or liquidation. |
| Supervisory Formula Method ('SFM') | An alternative Ratings Based Method to be used primarily on HSBC sponsored securitisations. It is used to calculate the capital requirements of exposures to a securitisation as a function of the collateral pool and contractual properties of the tranche or tranches retained. |
| Supervisory slotting approach | A method for calculating capital requirements for specialised lending exposures where the internal rating of the obligor is mapped to one of five supervisory categories, each associated with a specific supervisory risk weight. |
| Systemic Risk Buffer ('SRB') | A capital buffer prescribed in the EU under CRD IV, to address risks in the financial sector as a whole, or one or more sub-sectors, to be deployed as necessary by each EU member state with a view to mitigate structural macro-prudential risk. In the UK this was transposed in January 2015 and is intended to apply to ring-fenced banks and building societies over a certain threshold. |
| T | |
| Through-the-cycle ('TTC') | A rating methodology which seeks to take cyclical volatility out of the estimation of default risk by assessing a borrower's performance over the business cycle. |
| Tier 1 capital | A component of regulatory capital, as defined in CRD IV, comprising common equity tier 1 and additional tier 1. Additional tier 1 includes eligible non-common equity |

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|---|---|
| | capital securities and any related share premium. |
| Tier 2 capital | A component of regulatory capital, as defined in CRD IV, comprising eligible capital securities and any related share premium. |
| Total Loss Absorbing Capacity ('TLAC') | Requirements set out by the FSB for global systemically important banks to have a sufficient amount of specific types of liabilities which can be used to absorb losses and recapitalise a bank in resolution. These requirements were finalised in November 2015 and are intended to facilitate an orderly resolution that minimises any impact on financial stability, ensures the continuity of critical functions, and avoids exposing taxpayers to loss. |

| Term | Definition |
|---|---|
| Total return swap | A credit derivative transaction that swaps the total return on a financial instrument (cash flows and capital gains and losses), for a guaranteed interest rate, such as an inter-bank rate, plus a margin. |
| Trading book | Positions in financial instruments and commodities held either with intent to trade or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability or able to be hedged completely. |
| Trading risk | Market risk arising from trading portfolios. |
| V | |
| Value at risk ('VaR') | A measure of the loss that could occur on risk positions as a result of adverse movements in market risk factors (e.g. rates, prices, volatilities) over a specified time horizon and to a given level of confidence. |
| W | |
| Write-down/write-off | When a financial asset is written down or written off, a customer balance is partially or fully removed, respectively, from the balance sheet. Loans (and related impairment allowance accounts) are normally written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, this is generally after receipt of any proceeds from the realisation of security. In circumstances where the net realisable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier. |
| Wrong-way risk | An adverse correlation between the counterparty's PD and the mark-to-market value of the underlying transaction. |

Appendix VII

Cautionary statement regarding forward-looking statements

The Capital and Risk Management Pillar 3 Disclosures 2015 contains certain forward-looking statements with respect to HSBC's financial condition, results of operations, capital position and business.

Statements that are not historical facts, including statements about HSBC's beliefs and expectations, are forward-looking statements. Words such as 'expects', 'anticipates', 'intends', 'plans', 'believes', 'seeks', 'estimates', 'potential' and 'reasonably possible', variations of these words and similar expressions are intended to identify forward-looking statements. These statements are based on current plans, estimates and projections, and therefore

undue reliance should not be placed on them. Forward-looking statements speak only as of the date they are made. HSBC makes no commitment to revise or update any forward-looking statements to reflect events or circumstances occurring or existing after the date of any forward-looking statements.

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

Forward-looking statements involve inherent risks and uncertainties. Readers are cautioned that a number of factors could cause actual results to differ, in some instances materially, from those anticipated or implied in any forward-looking statement. These include, but are not limited to:

· changes in general economic conditions in the markets in which we operate, such as continuing or deepening recessions and fluctuations in employment beyond those factored into consensus forecasts; changes in foreign exchange rates and interest rates; volatility in equity markets; lack of liquidity in wholesale funding markets; illiquidity and downward price pressure in national real estate markets; adverse changes in central banks' policies with respect to the provision of liquidity support to financial markets; heightened market concerns over sovereign creditworthiness in over-indebted countries; adverse changes in the funding status of public or private defined benefit pensions; and consumer perception as to the continuing availability of credit and price competition in the market segments we serve;

· changes in government policy and regulation, including the monetary, interest rate and other policies of central banks and other regulatory authorities; initiatives to change the size, scope of activities and interconnectedness of financial institutions in connection with the implementation of stricter regulation of financial institutions in key markets worldwide; revised capital and liquidity benchmarks which could serve to deleverage bank balance sheets and lower returns available from the current business model and portfolio mix; imposition of levies or taxes designed to change business mix and risk appetite; the practices, pricing or responsibilities of financial institutions serving their consumer markets; expropriation, nationalisation, confiscation of assets and changes in legislation relating to foreign ownership; changes in bankruptcy legislation in the principal markets in which we operate and the consequences thereof; general changes in government policy that may significantly influence investor decisions; extraordinary government actions as a result of current market turmoil; other unfavourable political or diplomatic developments producing social instability or legal uncertainty which in turn may affect demand for our products and services; the costs, effects and outcomes of product regulatory reviews, actions or litigation, including any additional compliance requirements; and the effects of competition in the markets where we operate including increased competition from non-bank financial services companies, including securities firms; and

· factors specific to HSBC, including discretionary RWA growth and our success in adequately identifying the risks we face, such as the incidence of loan losses or delinquency, and managing those risks (through account management, hedging and other techniques). Effective risk management depends on, among other things, our ability through stress testing and other techniques to prepare for events that cannot be captured by the statistical models it uses; and our success in addressing operational, legal and regulatory, and litigation challenges, notably compliance with the DPA.

Appendix VIII

Contacts

Enquiries relating to HSBC's strategy or operations may be directed to:

Senior Manager Investor Relations Head of Investor Relations, Asia-Pacific

HSBC Holdings plc
8 Canada Square
London E14 5HQ
United Kingdom
Telephone: 44 (0) 20 7991 3643
Email: investorrelations@hsbc.com

The Hongkong and Shanghai Banking Corporation Limited
1 Queen's Road Central
Hong Kong

852 2822 4908
investorrelations@hsbc.com.hk

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

Date: 22 February 2016