HSBC BANK BERMUDA LIMITED

Capital and Risk Management
Pillar 3 Disclosures at 30 June 2018

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Cautionary statement regarding forward-looking statements

The *Capital and Risk Management Interim Pillar 3 Disclosures at 30 June 2018 ('Interim Pillar 3 Disclosures 2018')* contains certain forward-looking statements with respect to the Group's financial condition, results of operations and business.

Statements that are not historical facts, including statements about the Group'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. The Group 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 Bermuda Monetary Authority ('BMA'), financial statements of the Group, offering circulars and prospectuses, press releases and other written materials, and in oral statements made by the Bank's Directors, officers or employees to third parties, including financial analysts.

Forward-looking statements involve inherent risks and uncertainties. Readers are cautioned that a number of factors could cause actual results to differ, in some instances materially, from those anticipated or implied in any forward-looking statement. These factors include changes in general economic conditions in the markets in which we operate, changes in government policy and regulation and factors specific to the Group.

Certain defined terms

Unless the context requires otherwise, 'Bank' or 'HSBC Bermuda' means HSBC Bank Bermuda Limited, 'Group' means the Bank together with its subsidiaries, 'HSBC Holdings' means HSBC Holdings plc and 'HSBC' or 'HSBC Group' means HSBC Holdings together with its subsidiaries. Unless otherwise stated all figures are rounded to the nearest million and presented in US dollars.

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Tables

Introduction

Table 1: Key metrics

Ref*		a	b	c	d	e
		30-Jun-18	31-Mar-18	31-Dec-17	30-Sep-17	30-Jun-17
	Available capital (amounts)					
1	Common Equity Tier 1 (CET1)	825	818	772	902	831
1a	Fully loaded ECL accounting model	825	818	772	902	831
2	Tier 1	825	818	772	902	831
2a	Fully loaded accounting model Tier 1	825	818	772	902	831
3	Total capital	828	821	792	922	856
3a	Fully loaded ECL accounting model total capital	828	821	792	922	856
	Risk-weighted assets (amounts)					
4	Total risk-weighted assets (RWA)	3,546	3,292	3,557	3,543	3,489
	Risk-based capital ratios as a % of RWA					
5	Common Equity Tier 1 ratio (%)	23.3%	24.9%	21.7%	25.5%	23.8%
5a	Fully loaded ECL accounting model CET1 (%)	23.3%	24.9%	21.7%	25.5%	23.8%
6	Tier 1 ratio (%)	23.3%	24.9%	21.7%	25.5%	23.8%
6a	Fully loaded ECL accounting model Tier 1 ratio (%)	23.3%	24.9%	21.7%	25.5%	23.8%
7	Total capital ratio (%)	23.3%	24.9%	22.3%	26.0%	24.5%
7a	Fully loaded ECL accounting model total capital ratio (%)	23.3%	24.9%	22.3%	26.0%	24.5%
	Additional CET1 buffer requirements as a % of RWA					
8	Capital conservation buffer requirement (2.5% from 2019) (%)	1.9%	1.9%	1.3%	1.3%	1.3%
9	Countercyclical buffer requirement (%)	0.0%	0.0%	0.0%	0.0%	0.0%
10	Bank D-SIB additional requirements (%)	3.0%	3.0%	3.0%	3.0%	3.0%
11	Total of bank CET1 specific buffer requirements (%)	4.9%	4.9%	4.3%	4.3%	4.3%
12	CET1 available after meeting the bank's minimum capital requirements (%)	15.3%	16.9%	13.7%	17.5%	15.8%
	Basel III Leverage Ratio					
13	Total Basel III leverage ratio measure	9,162	8,620	9,370	9,040	9,625
14	Basel III leverage ratio (%) (row 2/row 13)	9.0%	9.5%	8.2%	10.0%	8.6%
14a	Fully loaded ECL accounting model Basel III leverage ratio (%) (row 2A/row 13)	9.0%	9.5%	8.2%	10.0%	8.6%
	Liquidity Coverage Ratio					
15	Total HQLA	3,527	3,326	3,332	3,434	3,415
16	Total net cash outflow	1,981	1,880	2,085	2,185	2,046
17	LCR ratio (%)	178.0%	176.9%	159.8%	157.2%	166.9%
	Net Stable Funding Ratio					
18	Total available stable funding	4,431	4,330	N/A	N/A	N/A
19	Total required stable funding	2,940	2,869	N/A	N/A	N/A
20	NSFR ratio (%)	150.7%	150.9%	N/A	N/A	N/A

** The references identify the lines prescribed in the Basel Committee on Banking Supervision ('BCBS') template. Lines represented in this table and subsequent tables are those lines which are applicable and where there is a value. Lines 18,19 and 20 in the table above are not applicable on or prior to 31 December 2017, as these funding measures were required to be calculated from 1 January 2018.*

Regulatory framework for disclosures

The BMA supervises HSBC Bermuda both on an unconsolidated and consolidated basis, and therefore receives information on the capital adequacy of, and sets individual capital guidance for, both the solo bank and the Group as a whole.

At consolidated Group level, capital for prudential regulatory reporting purposes is calculated throughout 2018 using the Basel III framework of the Basel Committee on Banking Supervision (‘Basel Committee’), as implemented by the BMA. The Basel framework is structured around three ‘pillars’. The Pillar 1 minimum capital requirements and Pillar 2 supervisory review process are complemented by Pillar 3: market discipline.

The BMA implemented Basel II in Bermuda from 1 January 2009 and its rules are set out in The Revised Framework for Regulatory Capital Assessment (‘BMA Framework’). Following extensive consultation with industry, the BMA published "Basel III for Bermuda Banks - Final Rule" which became effective on 1 January 2015, thus setting out in a single policy document, the final rules for the enhancement of Capital Adequacy and Liquidity in Bermuda's banking sector. Elements of Basel II and corresponding guidance will remain in force subject to future revisions from the Basel Committee. To the extent that provisions are not superseded by Basel III, the BMA Framework issued on 31st December 2008, will remain applicable.

The revised Basel III capital framework adopts Common Equity Tier 1 Capital (‘CET1’) as the main form of regulatory capital. Minimum Basel III capital ratios will be CET1 at least 4.5% of Risk Weighted Assets (‘RWAs’), Tier 1 Capital at least 6.0% of RWAs and Total Capital at least 8.0% of RWAs. Through Pillar 2 capital ratio add-ons, which form part of the Authority’s Prudential Supervision, the Authority has prescribed a total minimum capital ratio in excess of the minimum Basel III requirements. The Group has at all times maintained a capital ratio in excess of the minimum regulatory requirement and it is well placed to continue to exceed regulatory requirements in the future.

In addition to the minimum capital ratios and Pillar 2 related add-ons prescribed by the Authority the Basel III rules also provide for the following capital requirements:

- Capital Conservation Buffer (‘CCB’): Ultimately set at 2.5% of RWAs and is composed of CET1 eligible capital. The CCB is subject to a 5-year phase in period from 1 January 2015 to 1 January 2019. As of 1 January 2018 the CCB was 1.9% (2017: 1.3%).

- Countercyclical Buffer: To be composed of CET1 eligible capital. The Authority will assess the need for a buffer of up to 2.5% of RWAs during periods of excessive credit or periods exhibiting other macroeconomic pressures.

- Capital Surcharge for Domestic Systemically Important Banks (‘D-SIB’): Can range from 0.5% to 3.0% and is related to factors such as size, interconnectedness, substitutability and complexity. The D-SIB buffer has been determined by the Authority in conjunction with the CARP process in 2016.

The Basel III rules also address the areas of Leverage and Liquidity. The Authority has adopted a 5.0% leverage ratio calculated as the ratio of Tier 1 Capital to Total Exposure. The Group is currently in excess of this requirement. The Authority has adopted a Liquidity Coverage Ratio (‘LCR’) with an implementation timetable consistent with that published by the Basel Committee. The minimum requirement is 60.0% starting on 1 January 2015 rising in equal annual incremental steps of 10.0% to reach 100.0% on 1 January 2019. The LCR is designed to ensure that banks have a sufficient stock of unencumbered high-quality liquid assets (‘HQLA’) to survive a significant liquidity stress scenario lasting 30 days. The LCR is calculated as HQLA divided by total net cash outflows over the period of the next 30 days. Total net cash outflows are calculated in accordance with rules prescribed by the regulator. The Group is compliant with LCR requirements and is well positioned to continue to be compliant during the ramp up to a 100.0% ratio.

Pillar 3 disclosures

The Interim Pillar 3 disclosures are in accordance with the Basel Committee on Banking Supervision (‘BCBS’) ‘Revised Pillar 3 disclosure requirements’ issued in January 2015 and ‘Consolidated and Enhanced framework’ issued in March 2017. The aim of Pillar 3 is to develop disclosures by banks which allow market participants to assess the scope of application of Basel III, capital, particular risk exposures and risk assessment processes, and hence the capital adequacy of the institution. Under the Pillar 3 framework all material risks must be disclosed, enabling a comprehensive view of the institution’s risk profile. Disclosures consist of both quantitative and qualitative information and are provided at the consolidated level. Where disclosure has been withheld as proprietary or non-material, as the rules permit, we comment as appropriate. Unless otherwise stated, all figures are as at 30 June 2018.

The BMA permits certain Pillar 3 requirements to be satisfied by inclusion within the financial statements.

Where we adopt this approach, references are provided to the relevant pages of the audited *Consolidated Financial Statements of HSBC Bank Bermuda Limited and its subsidiaries for the financial year ended 31 December 2017. ('Consolidated Financial Statements 2017').*

Frequency

In accordance with BMA requirements, the Group publishes comprehensive Pillar 3 Disclosures semi-annually.

Media and location

The *Interim Pillar 3 Disclosures 2018* and other information on the Group are available on the Bank's website: www.about.hsbc.bm/hsbc-in-bermuda

Verification

Whilst the *Interim Pillar 3 Disclosures 2018* are not required to be externally audited, the document has been verified internally in accordance with the Group's policies on disclosure and its financial reporting and governance processes.

Regulatory developments

In December 2017, the Basel Committee ('Basel') published the revisions to the Basel III framework (sometimes referred to as 'Basel IV'). The final package includes:

- widespread changes to the risk weights under the standardised approach to credit risk;
- a change in the scope of application of the internal ratings based ('IRB') approach to credit risk, together with changes to the IRB methodology;
- the replacement of the operational risk approaches with a single methodology;
- an amended set of rules for the credit valuation adjustment ('CVA') capital framework;
- an aggregate output capital floor that ensures that banks' total risk-weighted assets are no lower than 72.5% of those generated by the standardised approaches; and
- changes to the exposure measure for the leverage ratio, together with the imposition of a leverage ratio buffer for global systemically important institutions ('G-SIB'). This will take the form of a tier 1 capital buffer set at 50.0% of the G-SIB's RWAs capital buffer.

Basel has announced that the package will be implemented on 1 January 2022.

The impact on HSBC Bermuda will depend on the BMA's implementation of these revisions.

Risk management

Our risk management framework

HSBC Bermuda leverages the Group's Enterprise-wide Risk Management Framework ("ERMF") for the management of risks. The ERMF provides an effective and efficient approach to govern and oversee the organisation and monitor and mitigate risks to the delivery of our strategy. It applies to all categories of risk, covering core governance, standards and principles that bring together all of the Bank's risk management practices into an integrated structure.

The objectives of the ERMF are to ensure a consistent risk management approach, to support a strong risk culture throughout the Group, to promote risk awareness, and sound operational and strategic decision-making, and to ensure that we only take risks of a type, and level, that Bank has agreed are acceptable.

The ERMF is underpinned by our risk culture and is reinforced by the HSBC Values and our Global Standards programme.

Risk culture

Our values of being open, connected and dependable are the foundations of our risk culture. HSBC has long recognised the importance of a strong risk culture, the fostering of which is a key responsibility of senior executives. Our risk culture engenders effective risk management, promotes sound risk taking, and ensures that emerging risks or risk-taking activities beyond our risk appetite are recognised, assessed, escalated and addressed in a timely manner.

Our risk culture is further reinforced by our approach to remuneration. Individual awards, including those for senior executives, are based on compliance with the HSBC Values and the achievement of financial and non-financial objectives that are aligned to our risk appetite and strategy.

Risk governance

The Board has ultimate responsibility for the effective management of risk and approves the Bank's risk appetite. The Board is advised on risk-related matters by the Audit and Risk Committee ('ARC') on items escalated by the Risk Management Meeting ('RMM').

Executive accountability for the ongoing monitoring, assessment and management of the risk environment and the effectiveness of the risk management framework resides with the Chief Risk Officer ('CRO'). This is demonstrated and governed through the RMM.

The management of financial crime risk resides with the Head of Financial Crime Compliance ('FCC'). The Head of FCC is supported by the Financial Crime Risk Management Meeting ('FCRMC') which is delegated by the Bank's Executive Committee ('EXCO') but where there is a reporting line to the RMM.

Day-to-day responsibility for risk management is delegated to senior managers with individual accountability for decision making. These senior managers are supported by global risk functions in the capacity of risk stewards and by global business and functions in relation to risk ownership. All employees have a role to play in risk management. These roles are defined using the three lines of defence model. Our executive risk governance structures ensure appropriate oversight and accountability for risk, which facilitates the reporting and escalation to the RMM.

Risk appetite

Risk appetite is a key component of our management of risk. It describes the aggregate level/quantum and risk types that we are willing to accept in achieving our medium to long-term business objectives. HSBC Bermuda leverages the Group's risk appetite framework to manage risk appetite. This is articulated in a risk appetite statement ('RAS'), which is approved annually by the Board on the advice of the RMM.

Our risk appetite informs our strategic and financial planning process, defining the desired forward-looking risk profile of the Bank. It is also integrated within other risk management tools, such as the top and emerging risks report and stress testing, to ensure consistency in risk management.

Stress testing

HSBC Bermuda operates a comprehensive stress testing programme that supports our risk management and capital planning. It includes execution of stress tests mandated by our local regulator. Our testing programme assesses regulatory capital adequacy, projected capital adequacy and enhances our resilience to external shocks. It also helps us understand and mitigate risks, and informs our decision about capital levels. As well as taking part in regulatory driven stress tests, we conduct our own internal stress tests.

The Bank's stress testing programme is overseen by Finance and Risk, and results are reported to the Asset and Liability Committee ('ALCO'), RMM, ARC and the Board prior to submission to the local regulator.

Risk function

We have a dedicated Risk function, headed by the Chief Risk Officer, which is responsible for the Bank's risk management framework. This includes establishing policy, monitoring risk profiles, and forward-looking risk identification and management. The Risk function is made up of sub-functions covering all risks to our operations. It is independent from the businesses, helping to ensure there is balance in risk/return decisions.

Risk management and internal control systems

The Bank's Directors are responsible for maintaining and reviewing the effectiveness of risk management and internal control systems, and for determining the aggregate level and risk types they are willing to accept in achieving the Group's business objectives. On behalf of the Board, the RMM has responsibility for oversight of all risk management including internal controls over financial reporting, non-financial reporting and thematic risk, and where required the RMM escalates issues of note to the ARC who escalated to the Board accordingly.

Risk measurement and reporting systems

Our risk measurement and reporting systems are designed to help ensure that risks are comprehensively captured with all the attributes necessary to support well-founded decisions, to ensure that those attributes are accurately assessed, and that information is delivered in a timely manner for those risks to be successfully managed and mitigated.

Risk measurement and reporting systems are also subject to a governance framework designed to ensure that their build and implementation are fit for purpose and functioning appropriately. The development and operation of risk rating and management systems and processes are ultimately subject to the oversight of the Board.

Risk measurement and reporting structures deployed at Group level are applied throughout global businesses and major operating subsidiaries through a common operating model for integrated risk management and control. This model sets out the respective responsibilities of Group, global business, region and country level risk functions in respect of such matters as risk governance and oversight, compliance risks, approval authorities and lending guidelines, global and local scorecards, management information and reporting, and relations with third parties, including regulators, rating agencies and auditors.

Risk analytics and model governance

HSBC Bermuda leverages the Global Risk Analytics ('GRA'), Model Governance and Independent Model Review ('IMR') functions for risk analytics and model development management, governance and review including rating, scoring, economic capital and stress testing models for different risk types and business segments.

The GRA function formulates technical responses to industry developments and regulatory policy in the field of risk analytics, develops HSBC's global risk models, and oversees local model development.

Model governance is under the general oversight of the Global Model Oversight Committee ('MOC'). The Global MOC is supported by specific global functional MOCs for wholesale credit risk, market risk, Retail Banking and Wealth Management ('RBWM'), Finance, Regulatory Compliance, operational risk, fraud risk and financial intelligence, pensions risk and financial crime risk, and the RMM provides additional governance to these models.

In addition the IMR function is responsible for independent reviews of all material risk models and strategic risk mitigation tools to ensure that they are fit for purpose and compliant with regulatory expectations and best practice.

HSBC policy

HSBC's risk management policies are encapsulated in the Global Standards Manuals ('GSM') and cascaded in a hierarchy of policy manuals throughout HSBC to communicate standards, instructions and guidance to employees. They support the formation of risk appetite and establish procedures for monitoring and controlling risks, with timely and reliable reporting to management. HSBC regularly reviews and updates its risk management policies, systems and methodologies to reflect changes in law, regulation, markets, products and emerging best practice. Functional Instruction Manuals ('FIM') are the vehicles by which HSBC policies on risk and capital governance are articulated and indeed are the operating platforms for HSBC. All employees are required to have read and adhere to GSMs and relevant FIMs.

Each business area is responsible for creating and maintaining its own business-specific procedures. Staff are trained using the procedures which are reviewed on a regular basis. In addition, HSBC Group Audit conducts periodic audits of functions and businesses.

Further details on risk management may be found on pages 50 to 61 of the *Consolidated Financial Statements 2017*.

Linkage to the Consolidated Financial Statements 2017

Basis of consolidation

The basis of consolidation for financial accounting purposes and a list of entities within the Group that are fully consolidated are described on page 8, 9, 42 and 43 of the *Consolidated Financial Statements 2017*.

Basis of measurement / Comparison with the Consolidated Financial Statements 2017

The Interim Pillar 3 Disclosures 2018 have been prepared in accordance with regulatory capital adequacy concepts and rules, rather than in accordance with International Financial Reporting Standards ('IFRSs'). Therefore, some information in the Interim Pillar 3 Disclosures 2018 is not directly comparable with the financial information in the Consolidated Financial Statements 2017. This is most pronounced for the credit risk disclosures, where credit exposure is defined as the amount at risk that is estimated by the Group under specified Basel III parameters. This differs from similar information in the Consolidated Financial Statements 2017, which is mainly reported as at the balance sheet date and therefore does not reflect the likelihood of future drawings of committed credit lines.

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

	a	b	c
	Balance sheet[1] **30-Jun-18**	**Under regulatory scope of consolidation** **30-Jun-18**	**Reference**
Assets			
Cash and balances at central banks	30	30	
Derivatives	42	42	
Loans and advances to banks	2,644	1,994	
Loans and advances to customers	2,168	2,816	
Financial investments	3,780	3,830	
Prepayments and accrued income	50	50	
Other assets	25	26	
Interest in associate	2	2	
Property and equipment	112	112	
Total assets	**8,853**	**8,902**	
Liabilities			
Deposits from banks	32	32	
Customer accounts	7,882	7,882	
Items in the course of collection due to other banks	2	2	
Derivatives	27	27	
Accruals and deferred income	29	29	
Other liabilities	79	128	
Retirement benefit liabilities	12	12	
Total liabilities	**8,063**	**8,112**	
Shareholders' equity			
Paid-in share capital	419	419	
Of which: amount eligible for CET1	419	419	(a)
Retained earnings	406	406	(b)
Other Reserves	(35)	(35)	
Total shareholders' equity	**790**	**790**	
Total liabilities and equity	**8,853**	**8,902**	

[1]Group does not publish financial statements for interim periods.
**The reference (a) and (b) identify balance sheet components that are used in the calculation of regulatory capital on page 11.*

Capital and RWAs

Capital management

Approach and policy

Our approach to capital management is driven by our strategic and organisational requirements, taking into account the regulatory, economic and commercial environment. We aim to maintain a strong capital base to support the risks inherent in our business and invest in accordance with our strategy, exceeding current regulatory capital requirements and are well placed to meet expected future requirements. The objectives of the Bank's internal capital management policies are to maintain creditor and market confidence, to sustain future development of the business, and to meet regulatory capital requirements at all times. In addition, these objectives are designed to:

- maximise the financial resources of the Bank so that it can be a source of strength to all its subsidiaries;
- ensure that the Bank generates sufficient income to pay dividends; and
- minimise any structural impediments to the free flow of capital resources, so that capital can be deployed in those businesses offering the best returns to the Bank.

In order to meet these objectives, the Bank develops capital plans which identify future capital requirements and/or surpluses. Capital plans are part of the Annual Operating Plan ('AOP') process and are used to ensure that the Group and the Bank continue to be adequately capitalised in the future. The capital plan contains actual data plus forecasts by quarter. In addition, supporting commentary is included to describe or include:

- projected timing and nature of future dividend payments;
- any known (or possible) requests for capital in addition to previously submitted capital plans;
- explanation for any material changes in current or projected risk-weighted assets;
- any other information or assumptions considered relevant from an HSBC Group perspective.

The Bank submits a capital plan annually for the following year to the Audit and Risk Committee and the Board of Directors.

The responsibility for global capital allocation principles and decisions rests with the HSBC Group Management Board ('GMB'). Through its structured internal governance processes, HSBC maintains discipline over its investment and capital allocation decisions, seeking to ensure that returns on investment are adequate after taking account of capital costs.

Transferability of capital within the Group

Each subsidiary manages its own capital required to support its planned business growth and meet its local regulatory requirements within the context of the approved annual Group capital plan. In accordance with HSBC's Capital Management Framework, capital generated by subsidiaries in excess of planned requirements is returned to HSBC, normally by way of dividends. However, capital cannot be transferred from a subsidiary if the transfer was to cause the subsidiary to no longer have capital to cover its minimum capital requirement. Own funds in excess of the minimum capital requirement are potentially transferable as long as there is no current or foreseeable material practical or legal impediment to the prompt transfer of funds.

The Bank holds investments in subsidiaries primarily in Bermuda and Cayman. Currently the Group holds levels of capital well in excess of regulatory requirements. There are no legal constraints on the transfer of profits, royalties, fees, or on the repatriation of invested capital, from any regions the Group operates in.

In addition, the Bank does not hold assets that are normally subject to restrictions such as:

- funds that are dedicated to policyholders;
- funds subject to local exchange controls or other national restrictions;
- subordinated debt or other hybrid instruments that legally constitute liabilities of the issuing entity hence not fully transferable; and
- minority interests.

As a consequence of this, there is no material practical or legal impediment to the transfer of capital. Nevertheless, the Bank's assessment of its levels of surplus capital includes, but is not limited to, the following factors:

- capital adequacy standards of local and external regulatory authority/authorities;
- capital needs for approved planned business expansion;
- capital effects of any approved acquisition /divestment or other exceptional corporate action;
- the level of distributable reserves; and
- tax efficiency of dividend distributions.

Finally, transferability of capital under stressed conditions is assessed as part of the stress testing process.

Internal capital adequacy assessment

The Group assesses the adequacy of capital by considering the resources necessary to cover unexpected losses arising from discretionary risks, such as credit risk and market risk, or non-discretionary risks, such as operational risk and reputational risk. The framework, together with related policies, define the Capital Assessment and Risk Profile ('CARP') process by which the Group examines the risk profile from both regulatory and economic capital viewpoints and ensures that the level of capital:

- remains sufficient to support the Group's risk profile and outstanding commitments;
- exceeds the formal minimum regulatory capital requirements by an internally determined margin;
- allows the bank to remain adequately capitalised in the event of a severe economic downturn stress scenario; and
- remains consistent with our strategic and operational goals.

The minimum regulatory capital that the Group is required to hold is determined by the rules established by the BMA.

The Group has reviewed and determined via the annual capital plan a minimum internal capital target in excess of the minimum regulatory capital requirement agreed between the Group and the BMA at the completion of the Pillar 2 supervisory assessment process annually.

Own funds

Table 3: Composition of regulatory capital

Ref		a	b
		Amounts	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
	Common Equity Tier 1 capital: instruments and reserves		
1	Directly issued qualifying common share capital plus related stock surplus	419	(a)
2	Retained earnings	406	(b)
29	Common Equity Tier 1 capital (CET1)	825	
44	Additional Tier 1 capital (AT1)	-	
45	**Tier 1 capital (T1= CET1 + AT1)**	**825**	
50	Provisions	3	
58	Tier 2 capital (T2)	3	
59	**Total regulatory capital (TC = T1 + T2)**	828	
60	**Total risk-weighted assets**	3,546	
	Capital ratios and buffers		
61	Common Equity Tier 1 (as a percentage of risk-weighted assets)	23.3%	
62	Tier 1 (as a percentage of risk-weighted assets)	23.3%	
63	Total capital (as a percentage of risk-weighted assets)	23.3%	
64	Institution specific buffer requirement (capital conservation buffer plus countercyclical buffer requirements plus higher loss absorbency requirement, expressed as a percentage of risk-weighted assets)	4.9%	
65	Of which: capital conservation buffer requirement	1.9%	
66	Of which: bank-specific countercyclical buffer requirement	0.0%	
67	Of which: higher loss absorbency requirement	3.0%	
68	Common Equity Tier 1 (as a percentage of risk-weighted assets) available after meeting the bank's minimum capital requirement.	15.3%	
	Applicable caps on the inclusion of provisions in Tier 2		
76	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	3	
77	Cap on inclusion of provisions in Tier 2 under standardised approach	38	

† *The references (a) and (b) identify balance sheet components on page 8 which are used in the calculation of regulatory capital.*

Leverage ratio

The Basel Committee requires a minimum leverage ratio of 3.0%, calculated as the ratio of Tier 1 (T1) Capital to Total Exposure in accordance with Basel III rules. The BMA has adopted a more conservative minimum leverage ratio of 5.0% to reflect an appropriate capital back stop given Bermuda does not have a Central Bank. Total Exposure includes both on-balance sheet exposures and off-balance sheet exposures, as defined under Basel III rules and subject to the credit conversion factors used in the Basel Standardised Approach for credit risk. The Group's leverage ratio was 9.0% at 30 June 2018, compared to 8.2% at 31 December 2017.

Table 4: Summary comparison of accounting assets vs leverage ratio exposure

		a
Ref		30-Jun-18
1	Total consolidated assets	8,853
4	Adjustments for derivative financial instruments	59
6	Adjustments for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	198
7	Other adjustments	52
8	**Leverage ratio exposure measure**	**9,162**

Table 5: Leverage ratio common disclosure

		a	b
Ref		30-Jun-18	31-Dec-17
On-balance sheet exposures			
1	On-balance sheet exposures	8,905	9,111
3	**Total on-balance sheet exposures**	**8,905**	**9,111**
Derivative exposures			
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	42	16
5	Add-on amounts for PFE associated with *all* derivatives transactions	17	20
11	**Total derivative exposures**	**59**	**36**
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	568	592
18	Adjustments for conversion to credit equivalent amounts	(370)	(369)
19	**Off-balance sheet items**	**198**	**223**
Capital and total exposures			
20	**Tier 1 capital**	825	772
21	**Total exposures**	**9,162**	**9,370**
Leverage ratio			
22	**Basel III leverage ratio**	**9.0%**	**8.2%**

Pillar 1 minimum capital requirements

Pillar 1 covers the minimum capital resource requirements for credit risk, counterparty credit risk ('CCR'), market risk and operational risk. These requirements are expressed in terms of RWAs. The scope of permissible Basel approaches, and those that the Group has adopted, are described below.

Risk category	Scope of permissible approaches	Approach adopted by the Group
Credit risk	The Basel framework applies three approaches of increasing sophistication to the calculation of Pillar 1 credit risk capital requirements. The most basic level, the standardised approach, requires banks to use external credit ratings to determine the risk weightings applied to rated counterparties. Other counterparties are grouped into broad categories and standardised risk weightings are applied to these categories. The next level, the IRB foundation approach, allows banks to calculate their credit risk capital requirements on the basis of their internal assessment of a counterparty's probability of default ('PD'), but subjects their quantified estimates of EAD and LGD to standard supervisory parameters. Finally, the IRB advanced approach allows banks to use their own internal assessment in both determining PD and quantifying EAD and LGD.	For consolidated Group reporting, we have adopted the standardised approach and have no immediate plans to transition from the standardised approach to the advanced approach.
Counterparty credit risk	Four approaches to calculating CCR and determining exposure values are defined by the Basel Committee: mark-to-market, original exposure, standardised and Internal Model Method ('IMM'). These exposure values are used to determine capital requirements under one of the three approaches to credit risk: standardised, foundation IRB or advanced IRB.	We have adopted the mark-to-market approach, also known as the current exposure method, for CCR.
Market risk	Market risk capital requirements can be determined under either the standard rules or the internal models approach. The latter involves the use of internal VAR models to measure market risks and determine the appropriate capital requirement.	We are not required to report under market risk methodologies as our trading book does not exceed the de minimis threshold, resulting in an exemption as defined in the BMA Framework.
Operational risk	The Basel framework includes capital requirements for operational risk, again utilising three levels of sophistication. The capital required under the basic indicator approach is a simple percentage of gross revenues, whereas under the standardised approach, it is one of three different percentages of gross revenues allocated to each of eight defined business lines. Both these approaches use an average of the last three financial years' revenues. Finally, the advanced measurement approach uses the banks' own statistical analysis and modelling of operational risk data to determine capital requirements.	We have adopted the standardised approach in determining the consolidated operational risk capital requirement and have no immediate plans to transition from the standardised approach to the advanced approach.

Table 6: Overview of RWA

		a	b	c
		RWA		Minimum capital requirements
Ref		30-Jun-18	31-Dec-17	30-Jun-18
1	Credit risk (excluding counterparty credit risk)	3,012	3,023	241
2	Of which: standardised approach (SA)	3,012	3,023	241
6	Counterparty credit risk (CCR)	23	13	2
7	Of which: standardised approach for counterparty credit risk	23	13	2
24	Operational risk	511	521	41
27	**Total**	**3,546**	**3,557**	**284**

Credit risk

Overview and responsibilities

Credit risk is the risk of financial loss if a customer or counterparty fails to meet a payment obligation under a contract. It arises principally from direct lending, trade finance and off-balance sheet products such as counterparty risk guarantees and credit derivatives, and from holdings of debt and other securities. Credit risk represents our largest regulatory capital requirement.

The principal objectives of our credit risk management function are:

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

Credit Risk Management

The Group is responsible for the formulation of high-level credit policies, based on HSBC policies. It also reviews the application of HSBC's universal credit risk rating system. HSBC's credit risk limits to counterparties in the financial and government sectors are managed centrally to optimise the use of credit availability and to avoid excessive risk concentration.

Cross-border risk is controlled through the imposition of country limits, which are determined by taking into account economic and political factors, and local business knowledge, with sub-limits by maturity and type of business. Transactions with counterparties in higher risk countries are considered on a case-by-case basis.

Within the overall framework of the HSBC policy, the Group has an established risk management process encompassing credit approvals, control of exposures (including those to borrowers in financial difficulty), credit policy direction to business units and the monitoring and reporting of exposures both on an individual and a portfolio basis.

Group management is responsible for the quality of its credit portfolios and follows a credit process involving delegated approval authorities and credit procedures, the objective of which is to build and maintain risk assets of high quality. Regular reviews are undertaken to assess and evaluate levels of risk concentration, including those to individual industry sectors and products. Special attention is paid to the management of problematic loans. Where deemed appropriate, specialist units are established to provide intensive management and control to maximise recoveries of assets, which show early signs of potential impairment.

Credit quality of assets

HSBC Bermuda is universal bank with a conservative approach to credit risk. This is reflected in the Bank's credit risk profile being diversified across a number of asset classes and geographies with a credit quality profile mainly concentrated in the higher quality bands.

Further details on credit quality of assets may be found on pages 58 to 59 of the *Consolidated Financial Statements 2017*.

Application of the standardised approach

The standardised approach requires banks to use risk assessments prepared by External Credit Assessment Institutions ('ECAIs') or Export Credit Agencies to determine the risk weightings applied to rated counterparties. ECAI risk assessments are used as part of the determination of the risk weightings for the following classes of exposure:

- Sovereigns and multilateral development banks;
- Public sector entities;
- Corporates; and
- Banks and securities firms.

All other exposure classes are assigned risk weightings according to rules prescribed in the BMA Framework.

For the purpose of Pillar 1 reporting to the regulator, the Group has nominated Standard & Poor's ('S&P') Rating Group as the primary ECAI. S&P ratings will be used in all cases where a rating exists for either the instrument or issuer. When no S&P rating exists, Moody's ratings will be used for either the instrument or issuer. If no rating exists for an instrument or issuer for S&P in the 1st instance or Moody's in the 2nd instance, then the Fitch rating will be used. If no S&P, Moody's or Fitch rating exists for an instrument or issuer then the security will be considered unrated. The Group has not nominated any Export Credit Agencies.

Data files of external ratings from the nominated ECAI are matched with customer records in the Group's centralised credit database. When calculating the risk-weighted value of any exposure under the standardised approach, the customer in question is identified and matched to a rating, according to the BMA's rating selection rules. The relevant risk rate is then derived using the BMA's prescribed credit quality step mapping.

Credit quality step	S&P's assessments	Moody's assessments	Fitch's assessments
1	AAA to AA–	Aaa to Aa3	AAA to AA–
2	A+ to A–	A1 to A3	A+ to A–
3	BBB+ to BBB–	Baa1 to Baa3	BBB+ to BBB–
4	BB+ to BB–	Ba1 to Ba3	BB+ to BB–
5	B+ to B–	B1 to B3	B+ to B–
6	CCC+ and below	Caa1 and below	CCC+ and below

Credit risk mitigation ('CRM')

Our approach when granting credit facilities is to do so on the basis of capacity to repay rather than placing primary reliance on credit risk mitigants. Depending on a customer's standing and the type of product, facilities may be provided unsecured. Mitigation of credit risk is nevertheless a key aspect of effective risk management and, in a diversified financial services organisation such as HSBC Group, takes many forms.

Our general policy is to promote the use of credit risk mitigation, justified by commercial prudence and good practice as well as capital efficiency. Specific, detailed policies cover the acceptability, structuring and terms of various types of business with regard to the availability of credit risk mitigation, for example in the form of collateral security. These policies, together with the setting of suitable valuation parameters, are subject to regular review to ensure that they are supported by empirical evidence and continue to fulfil their intended purpose.

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

CRM techniques that are currently applied by the Group reduce or transfer credit risk primarily by affecting the risk weightings through collateralisation or the use of guarantees.

The most common method of mitigating credit risk is to take collateral. Usually, in the residential and commercial real estate businesses, a mortgage over the property is taken to help secure claims. In the commercial and industrial sectors, charges are created over business assets such as premises, stock and debtors. Facilities to small and medium enterprises are commonly granted against guarantees given by their owners and/or directors. Guarantees from third parties can arise where the Group extends facilities without the benefit of any alternative form of security, e.g. where it issues a bid or performance bond in favour of a non-customer at the request of another bank.

The most commonly used collateral for off- balance sheet exposures include cash and fixed deposit accounts held with the Bank, investment in HSBC Corporate Money Fund or other investment portfolios and guarantees.

Recognition of risk mitigation under the standardised approach

Where credit risk mitigation is available in the form of an eligible guarantee, non-financial collateral, or credit derivatives, the exposure is divided into covered and uncovered portions. The covered portion, which is determined after applying an appropriate 'haircut' for currency and maturity mismatch (and for omission of restructuring clauses for credit derivatives, where appropriate) to the amount of the protection provided, attracts the risk weight of the protection provider. The uncovered portion attracts the risk weight of the obligor. For exposures fully or partially covered by eligible financial collateral, the value of the exposure is adjusted under the Financial Collateral Comprehensive Method ('FCCM') using supervisory volatility adjustments, including those arising from currency mismatch, which are determined by the specific type of collateral (and, in the case of eligible debt securities, their credit quality) and its liquidation period. The adjusted exposure value is subject to the risk weight of the obligor.

The valuation of credit risk mitigants seeks to monitor and ensure that they will continue to provide the secure repayment source anticipated at the time they were taken. Where collateral is subject to high volatility, valuation is frequent; where stable, less so. In the residential mortgage business, on the other hand, the Group policy prescribes valuation at intervals of up to three years, or more frequently as the need may arise, at the discretion of the business line, by a variety of methods ranging from use of market indices to individual professional inspection.

Table 7: Credit quality of assets

		a	b	c	d
		Carrying values of		Allowances/ impairments	Net values
Ref		Defaulted exposures *(1)*	Non-defaulted exposures		
1	Loans *(1)*	169	4,773	132	4,810
2	Debt securities	-	3,826	-	3,826
3	Off-balance sheet exposures *(2)*	-	294	-	294
4	**Total**	**169**	**8,893**	**132**	**8,930**

(1) Defaulted exposure reflects the gross carrying values of exposures that are past due for more than 90 days

(2) Off-balance sheet exposures excludes revocable loan commitments

Table 8: Credit risk mitigation techniques - overview

		a	b	c	d	e	f	g
			Exposures secured by collateral		Exposures secured by financial guarantees		Exposures secured by credit derivatives	
Ref		Exposures unsecured: carrying amount		of which: secured amount		of which: secured amount		of which: secured amount
1	Loans *(1)*	3,343	1,391	1,305	76	74	-	-
2	Debt securities	3,826	-	-	-	-	-	-
3	**Total**	**7,169**	**1,391**	**1,305**	**76**	**74**	**-**	**-**
4	Of which defaulted	15	68	83	-	-	-	-

(1) Exposures are net of allowances/impairments

Table 9: Standardised approach - credit risk exposure and Credit Risk Mitigation (CRM) effects

Ref		a	b	c	d	e	f
		Exposures before CCF and		**Exposures post-CCF and**		**RWA and RWA density**	
	Asset classes	**On-balance sheet amount**	**Off-balance sheet amount**	**On-balance sheet amount**	**Off-balance sheet amount**	**RWA**	**RWA density**
1	Sovereigns and their central banks	1,344	1	1,344	1	97	7.2%
2	Non-central government public sector entities	535	-	609	-	213	35.0%
3	Multilateral development banks	1,313	-	1,313	-	-	0.0%
4	Banks	3,429	24	3,429	24	1,159	33.6%
6	Corporates	363	371	289	162	379	84.0%
7	Regulatory retail portfolios	248	161	248	1	197	79.1%
8	Secured by residential property	1,102	6	1,102	6	422	38.1%
9	Secured by commercial real estate	222	-	222	-	222	100.0%
10	Equity	2	-	2	-	2	100.0%
11	Past-due loans	83	-	83	-	124	149.4%
12	Higher-risk categories	2	-	2	-	4	200.0%
13	Other assets	219	5	219	4	193	86.5%
14	**Total**	**8,862**	**568**	**8,862**	**198**	**3,012**	**33.2%**

Table 10: Standardised approach - exposures by asset classes and risk weights

Ref		a	b	c	d	e	f	g	h	i	j
	Risk weight / Asset classes	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount (post CCF and post-CRM)
1	Sovereigns and their central banks	858	-	487	-	-	-	-	-	-	1,345
2	Non-central government public sector entities	-	-	349	-	233	-	27	-	-	609
3	Multilateral development banks	1,313	-	-	-	-	-	-	-	-	1,313
4	Banks	-	-	2,266	-	963	-	224	-	-	3,453
6	Corporates	33	-	34	-	23	-	361	-	-	451
7	Regulatory retail portfolios	-	-	-	-	-	210	39	-	-	249
8	Secured by residential property	-	-	-	1,030	-	65	13	-	-	1,108
9	Secured by commercial real estate	-	-	-	-	-	-	222	-	-	222
10	Equity	-	-	-	-	-	-	2	-	-	2
11	Past-due loans	-	-	-	-	-	-	-	83	-	83
12	Higher-risk categories	-	-	-	-	-	-	-	2	-	2
13	Other assets	29	-	-	-	-	-	194	-	-	223
14	**Total**	**2,233**	**-**	**3,136**	**1,030**	**1,219**	**275**	**1,082**	**85**	**-**	**9,060**

Table 11: Changes in stock of defaulted loans and debt securities

Ref		a
1	**Defaulted loans and debt securities as at 31 Dec 2017**	179
2	Loans and debt securities that have defaulted since the last reporting period	17
3	Returned to non-default status	(8)
4	Amounts written off	(12)
5	Other changes	(7)
6	**Defaulted loans and debt securities at the end of the reporting period**	169

Counterparty credit risk

Counterparty Credit Risk (CCR) is the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. Four approaches may be used under Basel rules to calculate exposure values for CCR: mark-to-market, original exposure, standardised and IMM. Exposure values calculated under these approaches are used to determine RWAs. Across the Group, we use the mark-to-market or current exposure method. Under the mark-to-market approach, the EAD is calculated as current exposure plus regulatory add-ons.

Table 12: Analysis of counterparty credit risk (CCR) exposure by approach.

		a	b	c	d	e	f
Ref		Replacement cost	Potential future exposure	EEPE	Alpha used for computing regulatory EAD	EAD post-CRM	RWA
1	SA-CCR (for derivatives)	42	17	-	-	59	23
6	**Total**	**42**	**17**	**-**	**-**	**59**	**23**

Table 13: Standardised approach - CCR exposures by regulatory portfolio and risk weights

Ref	a	b	c	d	e	f	g	h	i
Risk weight** / **Regulatory portfolio***	**0%**	**10%**	**20%**	**50%**	**75%**	**100%**	**150%**	**Others**	**Total credit exposure**
Banks	-	-	45	-	-	-	-	-	45
Corporates	-	-	-	-	-	14	-	-	14
Total	**-**	**-**	**45**	**-**	**-**	**14**	**-**	**-**	**59**

Table 14: Composition of collateral for CCR exposure

	a	b	c	d	e	f
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
Ref	Segregated	Unsegregated	Segregated	Unsegregated		
Cash - other currencies	-	18	-	2	-	-
Total	-	**18**	**-**	**2**	-	-

Table 15: Exposures to central counterparties

		a	b
Ref		EAD (post-CRM)	RWA
11	**Exposures to non-QCCPs (total)**	**59**	**23**
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contribution); of which:	59	23
13	(i) OTC derivatives	59	23

Market risk

Overview and objectives

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

The Group is not required to report under market risk methodologies as its trading book does not exceed the de minimis threshold, resulting in an exemption as defined in the BMA Framework.

The objectives of the Group's market risk management are to manage and control market risk exposures in order to optimise return within the Group's risk appetite.

Organisation and responsibilities

The management of market risk is undertaken mainly in Global Markets using risk limits approved by the HSBC Group Management Board. Limits are set for portfolios, products and risk types. Market liquidity is an important factor taken into account when setting limits. Final approval of limits resides with local entity Boards.

Global Risk is responsible for our market risk management policies and measurement techniques. The Group has an independent market risk management and control function which is responsible for measuring market risk exposures in accordance with the policies defined by Global Risk, and for monitoring and reporting exposures against the prescribed limits on a daily basis in accordance with our risk appetite. Interest rate risk in the banking book ('IRRBB') is defined as the exposure of our non-trading products to interest rates. This risk arises in such portfolios principally from mismatches between the future yield on assets and their funding costs, as a result of interest rate changes. Analysis of this risk is complicated by behavioural assumptions regarding the economic duration of liabilities which are contractually repayable on demand such as current accounts.

The Group assesses the structural interest rate risks which arise in the businesses and transfers these risks to the Group's balance sheet management team. 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. When the behavioural characteristics of a product differ from its contractual characteristics, the behavioural characteristics are assessed to determine the appropriate underlying interest rate risk. ALCO regularly monitors all such behavioural assumptions and interest rate risk positions to ensure they comply with established interest rate risk limits.

Measurement and monitoring

In the course of managing interest rate risk, quantitative techniques and simulation models are used where appropriate to identify the potential net interest income and market value effects of these interest rate positions under different scenarios. We use a range of tools to monitor and limit market risk exposures including sensitivity analysis, value at risk and stress testing. The primary objective of such interest rate risk management is to limit potential adverse effects of interest rate movements on net interest income whilst balancing the effect on the current net operating income stream and unrealised mark-to-market positions.

A principal part of the Group's management of market risk is to monitor the sensitivity of projected net interest income under varying interest rate scenarios (simulation modelling). The Group aims to mitigate the effect of prospective interest rate movements which could reduce future net interest income by utilising interest rate hedges, while balancing the cost of such hedging activities on the current net operating income stream.

The models measure the effect on net interest income due to parallel and ramp movements of plus or minus 100 basis points in all yield curves. The results represent the effect of the pro-forma movements in net interest income.

For model results see page 53 of the *Consolidated Financial Statements 2017.*

The Group's foreign exchange exposure comprises trading exposures and structural foreign currency translation exposure. Structural currency risk exists for the Group in holding subsidiary company investments whose functional currencies are not the US dollar or Bermuda dollar.

Operational risk

Overview and objectives

Operational risk is defined as 'the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including legal risk'.

Operational risk is relevant to every aspect of the Group's business and covers a wide spectrum of issues. Losses arising from unauthorised activities, error, omission, inefficiency, fraud, systems failure or from external events all fall within the definition of operational risk.

The objective of the Group's operational risk management is to manage and control operational risk in a cost-effective manner within targeted levels of operational risk consistent with the Group's risk appetite.

Organisation and responsibilities

The Operational Risk Management Framework ('ORMF') defines the minimum standards and governance structure for operational risk and internal control across the Group. Central to the ORMF is the concept of the 'Three lines of defence' model used to manage risk.

The First Line of Defence consists of 'Risk Owners' and 'Control Owners'. Our Global Businesses are the Risk Owners. They are accountable and responsible for managing risk in their day-to-day activities through processes and controls. Control Owners exist in Global Businesses, Global Functions and HSBC Operations, Services and Technology ('HOST'). They are required to monitor and provide an opinion on the effectiveness of the controls relied upon by the Risk Owners to manage their risks. The First Line of Defence must ensure all key risks are identified, mitigated and monitored through an appropriate control environment.

The Second Line of Defence consists of Risk Stewards and their teams. It is made up of leaders within Global Risk and other Global Functions. They set policy, give advice and provide independent challenge. In doing this, they oversee and assess the risk management activities carried out by the First Line. They support the Risk Owners in setting their risk appetite within the Group's overall risk appetite. The Second Line provides assurance over the effectiveness of the risk and control activities conducted by the First Line of Defence.

The Third Line of Defence, Global Internal Audit, provides independent assurance that our risk management, governance and internal controls are effective and fit for purpose. They are responsible for providing independent assurance to management and the Board over the design and operation of the Bank's risk management, governance and internal control processes.

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 action to be taken when weaknesses are identified.

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.

The ORMF defines a standard risk assessment methodology and provides guidance for the systematic reporting of operational loss data.

Risk and control assessment approach

Risk and control assessments are performed by individual business units and functions. The Risk and Control Assessment ('RCA') 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. RCAs are reviewed dynamically and updated on the occurrence of trigger events, which materially change the risk profile.

Once risks and controls have been identified and assessed, appropriate means of mitigation and controls are considered. These include:

- Strengthening and/or maintaining the integrity of the operational process and supporting controls;
- Transferring the risk using a third party or appropriate insurance cover;
- Accepting the risk using an appropriate governance processes.

Recording

HSBC Helios is the Group's system of record for capturing and reporting Operational Risk data. Risk and Control assessment data is inputted 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 HSBC Group level, the Bank is required to report individual losses when the net loss is expected to be equal to or greater than US$10,000 and to aggregate all other operational risk losses under US$10,000. Losses are entered into HSBC Helios and reported to various risk forums on a regular basis.

Liquidity and funding risk

Liquidity and funding risk is the risk that the Bank, at an entity level, does not have sufficient financial resources to meet its obligations as they fall due or will have to do so at excessive cost. Liquidity risk arises from mismatches in the timing of cash flows. Funding risk arises where the liquidity needed to fund illiquid asset positions cannot be obtained at the expected terms and when required.

Liquidity and funding risk is:

- **measured** using a range of different metrics including liquidity coverage ratio and net stable funding ratio;
- **monitored** against the Group's liquidity and funding risk framework; and
- **managed** on a stand-alone basis with no reliance on any HSBC Group entity (unless pre-committed) or central bank or government body unless this represents routine established business as usual market practice.

The objective of the Group's internal liquidity and funding framework ('LFRF') is to allow it to withstand very severe liquidity stresses. It is designed to be adaptable to changing business models, markets and regulations. All operating entities are required to managed liquidity and funding risk in accordance with the LFRF.

On 1 January 2016, the Group implemented a new LFRF. It uses the liquidity coverage ratio ('LCR') and net stable funding ratio ('NSFR') regulatory framework as a foundation, but adds extra metrics, limits and overlays to address the risks that we consider are not adequately reflected by the regulatory framework.

The LCR metric is designed to promote the short-term resilience of a bank's liquidity profile. It aims to ensure that a bank has sufficient unencumbered high-quality liquid assets ('HQLA') to meet its liquidity needs in a 30-calendar day liquidity stress scenario. HQLA consist of cash or assets that can be converted into cash at little or no loss of value in markets.

The NSFR requires institutions to maintain sufficient stable funding relative to required stable funding, and reflects a bank's long-term funding profile (funding with a term of more than a year). It is designed to complement the LCR.

The LCR and NSFR metrics assume a stressed outflow based on a portfolio of depositors within each deposit segment. The validity of these assumptions is challenged if the underlying depositors do not represent a large enough portfolio so that a depositor concentration exists. Operating entities are exposed to term re-financing concentration risk if the current maturity profile results in future maturities being overly concentrated in any defined period. Therefore additional risk tolerance levels have been established for deposit concentration and term funding maturity concentration.

For more information on Liquidity and funding risk management see page 54 and 55 of the *Consolidated Financial Statements 2017*.

Table 16: Liquidity Coverage Ratio (LCR)

Ref		a Total unweighted value (average)	b Total weighted value (average)
High-quality liquid assets			
1	Total HQLA		3,527
Cash outflows			
2	**Retail deposits and deposits from small business customers, of which:**	2,380	287
3	Stable deposits		
4	Less stable deposits	2,380	287
5	**Unsecured wholesale funding, of which:**	4,899	3,143
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	1,477	369
7	Non-operational deposits (all counterparties)	3,422	2,774
10	**Additional requirements, of which:**	740	551
11	Outflows related to derivative exposures and other collateral requirements	460	460
13	Credit and liquidity facilities	280	91
14	**Other contractual funding obligations**	12	12
16	**TOTAL CASH OUTFLOWS**		3,993
Cash inflows			
17	**Secured lending (eg reverse repo)**	140	21
18	**Inflows from fully performing exposures**	124	62
19	**Other cash inflows**	1,929	1,929
20	**TOTAL CASH INFLOWS**	2,193	2,012
			Total adjusted value
21	**Total HQLA**		3,527
22	**Total net cash outflows**		1,981
23	**Liquidity coverage ratio (%)**		178.0%

*Note that average value were calculated using month end spot values from 1 January 2018 to 30 June 2018.

Table 17PP: Net Stable Funding Ratio (NSFR)

Ref		a	b	c	d	e
		Unweighted value by residual maturity				Weighted value
		No maturity*	<6 months	6 months to <1 year	≥1 year	
Available stable funding (ASF) item						
1	Capital:	825	-	-	3	828
2	*Regulatory capital*	825	-	-	-	825
3	*Other capital instruments*	-	-	-	3	3
4	Retail deposits and deposits from small business customers:	-	2,120	82	37	2,019
5	*Stable deposits*	-	-	-	-	-
6	*Less stable deposits*	-	2,120	82	37	2,019
7	Wholesale funding:	-	5,683	17	-	1,584
8	*Operational deposits*	-	1,790	-	-	895
9	*Other wholesale funding*	-	3,893	17	-	689
13	*All other liabilities and equity not included in the above categories*	-	136	-	-	-
14	**Total ASF**					4,431
Required stable funding (RSF) item						
15	Total NSFR high-quality liquid assets (HQLA)					292
16	Deposits held at other financial institutions for operational purposes	-	1,238	-	400	586
17	Performing loans and securities:	-	699	21	725	607
19	*Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions*	-	671	-	30	131
21	*With a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk*	-	27	21	-	24
22	*Performing residential mortgages, of which:*	-	1	-	695	452
23	*With a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk*	-	1	-	695	452
24	*Securities that are not in default and do not qualify as HQLA, including exchange-traded equities*	-	-	-	26	22
26	Other assets:	-	511	19	1,352	1,410
31	*All other assets not included in the above categories*	-	511	19	1,352	1,410
32	Off-balance sheet items		366	13	184	23
33	***Total RSF***					**2,940**
34	***Net Stable Funding Ratio (%)***					**150.7%**

**Items to be reported in the "no maturity" time bucket do not have a stated maturity. These may include, but are not limited to, items such as capital with perpetual maturity, non-maturity deposits, short positions, open maturity positions, non-HQLA equities and physical traded commodities.*

Glossary

Term	Definition
B	
Basel II	The capital adequacy framework issued by the Basel Committee on Banking Supervision in June 2006 in the form of the 'International Convergence of Capital Measurement and Capital Standards'.
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. The Basel III requirements will be phased in with full implementation by 1 January 2019.
BMA	Bermuda Monetary Authority ('BMA') is the regulator of financial institutions in Bermuda.
C	
CARP	Capital Assessment and Risk Profile ('CARP') is the Group's own annual assessment of the levels of capital that it needs to hold through an examination of its risk profile from a regulatory viewpoint.
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 that can be drawn down as losses are incurred.
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.
CET 1 ratio	A Basel III measure, of CET 1 capital expressed as percentage of total risk exposure amount.
Commercial real estate	Any real estate investment, comprising buildings or land, intended to generate a profit, either from capital gain or rental income.
Common equity tier 1 capital ('CET1')	The highest quality form of regulatory capital under Basel III that comprises common shares issued and related share premium, retained earnings and other reserves excluding the cash flow hedging reserve, less specified regulatory adjustments.
Credit quality step	A step in the BMA credit quality assessment scale which is based on the credit ratings of External Credit Assessment Institutions ('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 mitigation ('CRM')	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 valuation adjustment ('CVA")	An adjustment to the valuation of OTC derivative contracts to reflect the creditworthiness of OTC derivative counterparties.

Term	Definition
D	
de minimis threshold	Where an institution's exposure to market risk is judged de minimis, it is permitted exceptionally to report and calculate its aggregate capital charge on the basis of the standard banking book approach. This is the case where the trading book does not normally exceed 5.0% of its total business.
E	
ECAI	External Credit Assessment Institution, such as Moody's Investors Service, Standard & Poor's Ratings Group or Fitch Group.
Economic profit	The difference between the return on financial capital invested by shareholders ('return on invested capital') and the cost of that capital. Economic profit may be expressed as a whole number or as a percentage.
Exposure	A claim, contingent claim or position which carries a risk of financial loss.
Exposure at default ('EAD')	The amount expected to be outstanding after any credit risk mitigation, if and when the counterparty defaults. EAD reflects drawn balances as well as allowance for undrawn amounts of commitments and contingent exposures.
G	
GMB	HSBC Group Management Board.
H	
Haircut	With respect to credit risk mitigation, an 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.
I	
Impairment allowances	Management's best estimate of losses incurred in the loan portfolios at the balance sheet date.
Internal Model Method	One of three approaches defined in the Basel Framework to determine exposure value of 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.
Invested capital	Equity capital invested by the shareholder.
IRB advanced approach	A method of calculating credit risk capital requirements using internal probability of default ('PD'), loss given default ('LGD') and exposure at default ('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	
Liquidity coverage ratio ('LCR')	The ratio of the stock of high quality liquid assets to expected net cash outflows over the following 30 days. High quality liquid assets should be unencumbered, liquid in markets during a time of stress and, ideally, be central bank eligible.

Term	Definition
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.
N	
Net interest income	The amount of interest received or receivable on assets net of interest paid or payable on liabilities.
Net stable funding ratio ('NSFR')	The ratio of available stable funding to required stable funding over a one-year horizon, assuming a stressed scenario. Available stable funding would include items such as equity capital, preferred stock with a maturity of over one year and liabilities with an assessed maturity over one year.
O	
Operational risk	The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including legal risk.
Q	
QCCP	Qualifying central counterparty
R	
Regulatory capital	The capital which the Bank and/or the Group holds, determined in accordance with rules established by the BMA.
Residual maturity	The period outstanding from the reporting date to the maturity or end date of an exposure.
Risk appetite	An assessment of the types and quantum of risks to which the Bank and/or the Group wishes to be exposed.
Risk-weighted assets ('RWAs')	Calculated by assigning a degree of risk expressed as a percentage (risk weight) to an exposure in accordance with the applicable standardised approach rules.
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 US$0.1mil for presentation purposes.
S	
Standardised approach	In relation to credit risk, a method for calculating credit risk capital requirements using ECAI ratings 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.

Term	Definition
T	
Three lines of defence	First line of defence owns the risk and is responsible for identifying, recording, reporting, managing risks and ensuring that the right controls and assessments are in place to mitigate these risk. 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. Third line of defence is the Internal Audit function, which provides independent and objective assurance of the adequacy of the design and operational effectiveness of the group's risk management framework and control governance process.
Tier 1 capital	A component of regulatory capital, comprising common equity tier 1 ('CET1') and additional tier 1. Additional tier 1 includes eligible non-common equity capital securities and any related share premium.
Tier 2 capital	A component of regulatory capital, comprising qualifying subordinated loan capital, related non-controlling interests, allowable collective impairment allowances and unrealised gains arising on the fair valuation of equity instruments held as available-for-sale. Tier 2 capital also includes reserves arising from the revaluation of properties.
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.

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