

HSBC Bank Bermuda Limited

Pillar 3 Disclosures at 31 December 2019

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Cautionary statement regarding forward-looking statements

The *Capital and Risk Management Pillar 3 Disclosures at 31 December 2019* ('Pillar 3 Disclosures 2019') 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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Introduction

Table 1: Key metrics

		At				
		31 Dec	30 Sep	30 Jun	31 Mar	31 Dec
		2019	2019	2019	2019	2018
Available capital (\$m)						
1	Common equity tier 1 ('CET1') capital	764	821	823	816	818
1a	Fully loaded ECL accounting model	764	821	823	816	818
2	Tier 1 capital	764	821	823	816	818
2a	Fully loaded accounting model Tier 1	764	821	823	816	818
3	Total capital	767	823	825	819	820
3a	Fully loaded ECL accounting model total capital	767	823	825	819	820
Risk-weighted assets ('RWAs') (\$m)						
4	Total RWAs	3,207	2,965	3,147	3,157	3,117
Risk-based capital ratios of RWA (%)						
5	CET1	23.8	27.7	26.2	25.8	26.2
5a	Fully loaded ECL accounting model CET1	23.8	27.7	26.2	25.8	26.2
6	Tier 1 ratio	23.8	27.7	26.2	25.8	26.2
6a	Fully loaded ECL accounting model Tier 1 ratio	23.8	27.7	26.2	25.8	26.2
7	Total capital ratio	23.9	27.8	26.2	25.9	26.3
7a	Fully loaded ECL accounting model total capital ratio	23.9	27.8	26.2	25.9	26.3
Additional CET1 buffer requirements as a percentage of RWA (%)						
8	Capital conservation buffer requirement (2.5% from 2019)	2.5	2.5	2.5	2.5	1.9
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	5.5	5.5	5.5	5.5	4.9
12	CET1 available after meeting the bank's minimum capital requirements	15.8	19.7	18.2	17.8	18.2
Basel III leverage ratio						
13	Total leverage ratio exposure measure (\$m)	8,718	8,043	8,266	8,127	8,271
14	Basel III Leverage ratio (%)	8.8	10.2	10.0	10.0	9.9
14a	Fully loaded ECL accounting model Basel III leverage ratio (%)	8.8	10.2	10.0	10.0	9.9
Liquidity Coverage Ratio ('LCR')						
15	Total high-quality liquid assets (\$bn)	3,871	3,816	3,721	3,602	3,567
16	Total net cash outflow (\$bn)	2,409	2,356	2,219	2,046	2,107
17	LCR ratio (%)	160.7	162.0	167.7	176.1	169.3
Net Stable Funding Ratio						
18	Total high-quality liquid assets (\$bn)	4,134	4,041	4,085	4,091	4,155
19	Total net cash outflow (\$bn)	2,921	2,763	2,848	2,884	2,829
20	NSFR ratio (%)	141.5	146.3	143.4	141.9	146.9

See page 17 of Basel's Pillar 3 disclosure requirements – consolidated and enhanced framework – March 2017. 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.

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 2019 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 31 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 was subject to a five-year phase in period from 1 January 2015 to 1 January 2019. As of 1 January 2019 the CCB was 2.5%.

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- 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 2018.

The Basel III rules also address the areas of Leverage and Liquidity. The Authority has adopted a 5% 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 was 60% starting on 1 January 2015 rising in equal annual incremental steps of 10% to reach 100% 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.

Pillar 3 disclosures 2019

The *Pillar 3 disclosures 2019* 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 31 December 2019.

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 2019 ('Consolidated Financial Statements 2019').

Frequency

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

Media and location

The *Pillar 3 Disclosures 2019* and other information on the Group are available on the Bank's website:

www.about.hsbc.bm/hsbc-in-bermuda

Verification

Whilst the *Pillar 3 Disclosures 2019* are not required to be externally audited, the document has been verified internally in accordance with the Group's policies on disclosure and its 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 the 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 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.

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 CRO, 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 risks, 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'), Retail Risk Analytics ('RRA'), Model Governance and Independent Model Validation ('IMV') functions for risk analytics and model development management, governance and review including rating, grading, economic capital and stress testing models for differing risk types and business segments.

The GRA and RRA functions formulate 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, retail credit risk, traded risk, Retail Banking and Wealth Management ('RBWM'), Wholesale Finance, Regulatory Compliance, operational risk, fraud risk and financial intelligence, pensions risk, regulatory risk and financial crime risk, and the RMM provides additional governance to these models.

In addition, the IMV 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 Group business, function, and HSBC Operations, Services and Technology ('HOST') Functional Instructional Manuals ('FIM') which communicate HSBC's standards and provides 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.

Each business, function and HOST departments are 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 37 to 45 of the Consolidated Financial Statements 2019.

Organisation and responsibilities

An established framework of risk ownership and documented standards, policy and procedures, supports effective risk management and internal control systems.

The Board of Directors ('Board')

The role of the Board is to provide entrepreneurial leadership of the Group within a framework of prudent and effective controls which enables risks to be assessed and managed. The Board as a whole is collectively responsible for the long-term success of the Group and delivery of sustainable value to shareholders. It sets the strategy and risk appetite for the Group and approves the capital and operating plans presented by management for the achievement of the strategic objectives it has set. Implementation of the strategy set by the Board is delegated to the Bank's Executive Management Committee which is led by the Bank's Chief Executive Officer ('CEO').

Audit and Risk Committee

The Audit and Risk Committee is accountable to the Board and has non-executive responsibility for oversight of and advice to the Board on matters relating to financial reporting and high-level risk-related matters and risk governance. The responsibilities of the Audit and Risk Committee are clearly set out in its terms of reference, which are approved by the Board and are aligned to the HSBC Group's core terms of reference for subsidiary audit and risk committees.

Executive Management Committee ('ExCo')

The CEO, through ExCo, has accountability for the day to day management of the Bank. The responsibilities of ExCo are clearly set out in its Terms of Reference, which are approved by the Board and include its primary responsibility for developing and implementing the Bank's operating and strategic plans.

In addition, the following are the principal management committees discharging duties and responsibilities for the risk management framework of the Bank:

Risk Management Meeting ('RMM')

The RMM is the formal governance committee established to provide recommendations and advice requested to the Bank's CRO on enterprise-wide management of all risks and the policies and guidelines for the management of risk within the Group as set out in the Group's Risk Strategy FIM.

The RMM will serve as the governance body for enterprise-wide risk management with particular focus on risk culture, risk appetite, risk profile and integration of risk management into the Bank's strategic objectives. There are a variety of RMM subcommittees to ensure effective enterprise wide engagement for a number of risk taxonomy areas to support the effectiveness of the RMM and for the discharge of the CRO's duties.

Financial Crime Risk Management Committee ('FCRMC')

The FCRMC is established to ensure effective enterprise-wide management of financial crime risk within the Bank and its subsidiaries and to support the discharge of the CEO's financial crime risk responsibilities.

Asset Liability Management Committee ('ALCO')

One of the specific responsibilities of ALCO is to review all balance sheet risks on a systematic basis to ensure that adequate controls exist and that the related returns fully reflect these risks and that adequate capital is allocated to support these risks. ALCO is responsible for ensuring prudent management of the following balance sheet risks; interest rate risk, liquidity risk, funding risk, and foreign exchange risk. ALCO is also responsible for evaluating and communicating the impact of new capital and liquidity regulatory requirements.

Linkage to the Consolidated Financial Statements 2019

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 pages 8, 9 and 33 of the Consolidated Financial Statements 2019.

Basis of measurement/comparison with the consolidated financial statements 2019

The Pillar 3 Disclosures 2019 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 Pillar 3 Disclosures 2019 is not directly comparable with the financial information in the Consolidated Financial Statements 2019. 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 2019, which is mainly reported as at the balance sheet date and therefore does not reflect the likelihood of future drawings of committed credit lines.

Explanation of differences between accounting fair value and regulatory prudent valuation

Fair value is defined as the best estimate of the price that would be received to sell an assets or be paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Some fair value adjustments already reflect valuation uncertainty to some degree. These are market data uncertainty, model uncertainty and concentration adjustments.

However, it is recognised that a variety of valuation techniques using stressed assumptions and combined with the range of plausible market parameters at a given point in time may still generate unexpected uncertainty beyond fair value.

A series of additional valuation adjustments are therefore required to reach a specified degree of confidence. These adjustments consider at the minimum: market price uncertainty, bid/offer (close out) uncertainty, model risk, concentration, administrative cost, unearned credit spreads and investing and funding costs.

Based on review of the additional valuation adjustments as at 31 December 2019 we have determined the adjustment amount to be immaterial for further consideration.

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

	<i>Ref t</i>	Accounting balance sheet \$m	Under regulatory scope of consolidation \$m
Assets			
Cash and balances at central banks		27	27
Derivatives		15	15
Loans and advances to banks		2,139	2,139
Loans and advances to customers		2,174	2,177
Financial investments		3,847	3,832
Prepayments and accrued income		50	50
Other assets		11	11
Interest in associate		2	–
Property and equipment		113	113
Total assets at 31 Dec 2019		8,378	8,364
Liabilities			
Deposits by banks		32	32
Customer accounts		7,473	7,473
Items in the course of transmission to other banks		1	1
Derivatives		31	31
Accruals and deferred income		32	32
Provisions		1	1
Other liabilities		32	15
Retirement benefit liabilities		9	9
Total liabilities at 31 Dec 2019		7,611	7,594
Equity			
Called up share capital	<i>a</i>	30	30
Share premium	<i>a</i>	389	389
Other reserves	<i>b</i>	6	9
Retained earnings	<i>c</i>	342	342
Total shareholders' equity at 31 Dec 2019		767	770
Total liabilities and equity at 31 Dec 2019		8,378	8,364

See page 36 of Basel's Pillar 3 disclosure requirements – consolidated and enhanced framework – March 2017.

t The references (a) – (b) identify balance sheet components that are used in the calculation of regulatory capital on page 10.

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Table 3: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories

	Carrying values of items:						
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to credit risk framework	Subject to counterparty credit risk framework	Subject to the securitisation framework	Subject to market risk framework	Not subject to capital requirements or subject to deduction from capital
	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Assets							
Cash and balances at central banks	27	27	27	–	–	–	–
Derivatives	15	15	–	15	–	15	–
Loans and advances to banks	2,139	2,139	2,139	–	–	–	–
Loans and advances to customers	2,174	2,177	2,177	–	–	–	–
Financial investments	3,847	3,832	3,832	–	–	–	–
Prepayments and accrued income	50	50	50	–	–	–	–
Other assets	11	11	11	–	–	–	–
Interest in associate	2	–	–	–	–	–	–
Property and equipment	113	113	113	–	–	–	–
Total assets at 31 Dec 2019	8,378	8,364	8,349	15	–	15	–
Liabilities							
Deposits from banks	32	32	–	–	–	–	–
Customer accounts	7,473	7,473	–	–	–	–	–
Items in the course of transmission to other banks	1	1	–	–	–	–	–
Derivatives	31	31	–	–	–	–	–
Accruals and deferred income	32	32	–	–	–	–	–
Provisions	1	1	–	–	–	–	–
Other liabilities	32	15	–	–	–	–	–
Total assets at Retirement benefit liabilities	9	9	–	–	–	–	–
Total liabilities at 31 Dec 2019	7,611	7,594	–	–	–	–	–

See page 13 of Basel's Revised Pillar disclosure requirements – January 2015.

Table 4: Main sources of differences between regulatory exposure amounts and carrying values in financial statements

	Items subject to:				
	Total	Credit risk framework	Securitisation framework	Counterparty credit risk framework	Market risk framework
Asset carrying value amount under scope of regulatory consolidation	8,364	8,349	–	15	15
Off-balance sheet amounts	321	321	–	–	–
Differences due to potential future credit exposure	18	–	–	18	18
Exposure amounts considered for regulatory purposes as at 31 Dec 2019	8,703	8,670	–	33	33

See page 15 of Basel's Revised Pillar disclosure requirements – January 2015.

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 Islands. 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 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 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.

Pillar 3 Disclosures at 31 December 2019

Own funds

Table 5: Composition of regulatory capital

Ref †	Ref †	31 Dec 2019 \$m
	Common equity tier 1 ('CET1') capital: instruments and reserves	
1	Directly issued qualifying common share capital plus related stock surplus	419
2	Retained earnings	342
3	Accumulated other comprehensive income (and other reserves)	6
6	Common Equity Tier 1 capital before regulatory deductions	767
26	National specific regulatory adjustments	(3)
28	Total regulatory adjustments to Common Equity Tier 1	(3)
29	Common equity tier 1 capital ('CET1')	764
44	Additional tier 1 capital	–
45	Tier 1 capital (T1 = CET1 + AT1)	764
50	Provisions	3
58	Tier 2 capital ('T2')	3
59	Total regulatory capital (TC = T1 + T2)	767
60	Total risk-weighted assets	3,207
	Capital ratios and buffers	
61	Common equity tier 1 (% of RWAs)	23.8%
62	Tier 1 (% of RWAs)	23.8%
63	Total capital (% of RWAs)	23.9%
64	Institution specific buffer requirement (capital conservation buffer plus countercyclical buffer requirements plus higher loss absorbency requirement) (% of RWAs)	5.5%
65	– capital conservation buffer requirement	2.5%
66	– bank specific countercyclical buffer requirement	0.0%
67	– higher loss absorbency requirement	3.0%
68	Common equity tier 1 available after meeting the bank's minimum capital requirement (% of RWAs)	15.8%
	Applicable caps on 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	33

See pages 29 to 35 of Basel's Pillar 3 disclosure requirements – consolidated and enhanced framework – March 2017.

† The references (a) – (c) identify balance sheet components on page 7 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 backstop 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 8.8% at 31 December 2019, compared to 9.9% at 31 December 2018.

Table 6: Summary comparison of accounting assets and leverage ratio exposures

Ref	31 Dec 2019 \$m	31 Dec 2018 \$m
1	Total consolidated assets	8,378
4	Adjustments for derivative financial instruments	33
6	Adjustments for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	321
7	Other adjustments	(14)
8	Leverage ratio exposure measure	8,718

See pages 51 & 52 of Basel's Pillar 3 disclosure requirements – consolidated and enhanced framework – March 2017.

Table 7: Leverage ratio common disclosure

Ref		31 Dec 2019 \$m	31 Dec 2018 \$m
	On-balance sheet exposures		
1	On-balance sheet exposures	8,364	8,108
3	Total on-balance sheet exposures	8,364	8,108
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	15	18
5	Add-on amounts for potential future exposure ('PFE') associated with all derivatives transactions	18	17
11	Total derivative exposures	33	35
	Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	649	427
18	(Adjustments for conversion to credit equivalent amounts)	(328)	(299)
19	Total off-balance sheet items	321	128
	Capital and total exposures		
20	Tier 1 capital	764	818
21	Total exposures	8,718	8271
	Leverage ratio		
22	Basel III leverage ratio (%)	8.8	9.9

See pages 53 to 55 of Basel's Pillar 3 disclosure requirements – consolidated and enhanced framework – March 2017.

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 HSBC
Credit risk	The Basel Committee's 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 foundation IRB ('FIRB') 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 exposure at default ('EAD') and loss given default ('LGD') to standard supervisory parameters. Finally, the advanced IRB ('AIRB') approach allows banks to use their own internal assessment in determining PD and in quantifying EAD and LGD.	For consolidated Group reporting, the Group has 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.	The Group has adopted the mark-to-market approach, also known as the current exposure method, for CCR and uses the standardised approach to determine capital requirements.
Market risk	Market risk capital requirements can be determined under either the standard rules or the Internal Models Approach ('IMA'). The latter involves the use of internal value at risk ('VaR') models to measure market risks and determine the appropriate capital requirement.	The Group is 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 Group's own statistical analysis and modelling of operational risk data to determine capital requirements.	The Group has adopted the standardised approach in determining the consolidated operational risk capital requirement and has no immediate plans to transition from the standardised approach to the advanced approach.

Pillar 3 Disclosures at 31 December 2019

Table 8: Overview of RWAs

		At		
		31 Dec 2019	31 Dec 2018	31 Dec 2019
		RWAs \$m	RWAs \$m	Minimum Capital required \$m
1	Credit risk (excluding counterparty credit risk)	2,674	2,591	214
2	– of which: standardised approach	2,674	2,591	214
6	Counterparty credit risk	11	14	1
7	– of which: standardised approach	11	14	1
24	Operational risk	522	512	42
27	Total	3,207	3,117	257

See pages 23 to 25 of Basel's Pillar 3 disclosure requirements – consolidated and enhanced framework – March 2017.
 Note that there has not been a significant change in RWAs from the comparative period of December 2018.

Credit risk

Overview and responsibilities

The role of an independent credit control unit is fulfilled by the Risk function. Credit approval authorities are delegated by the Board to the Chief Executive together with the authority to sub-delegate them. The Credit Risk sub-function in Risk is responsible for the key policies and processes for managing credit risk, which includes formulating Group credit policies and risk rating frameworks, guiding Group's appetite for credit risk exposures, undertaking independent reviews and objective assessment of credit risk, and monitoring performance and management of portfolios. Please refer to the organisation and responsibilities section on page 5 for further information on relationships between various departments along with the three lines of defence.

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.

The Group'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 a 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 the credit quality of assets may be found on pages 43 and 44 of the Consolidated Financial Statements 2019.

The Bank's definition of 'past due' exposures are facilities with contractual payments of either principal or interest that are past due for more than 90 days. Credit-impaired exposures for accounting purposes are determined by considering relevant objective evidence including delinquencies and other indications of unlikelihood to pay. Further details on credit-impaired exposures for are described on page 12 of the Consolidated Financial Statements 2019.

For regulatory purposes, credit-impaired exposures are equivalent to the definition of past due exposures. This results in a variance between credit-impaired exposures for accounting and regulatory purposes of \$204m. This difference is mainly a result of forborne exposures classified as credit-impaired for accounting purposes but less than 90 days past due.

Specific and general impairment allowance categories have been determined based on BMA guidance. Stage 1 expected credit losses are categorised as general provisions whereas Stage 2 and 3 expected credit losses are categorised as specific provisions.

Further details on forborne exposure treatment and applicable definitions may be found on pages 12 and 13 of the Consolidated Financial Statements 2019.

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, Fitch ratings will be used for either the instrument or issuer. If no rating exists for an instrument or issuer for S&P in the first instance or Fitch in the second instance, then the Moody's rating will be used. If no S&P, Fitch, or Moody's 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	Fitch's assessments	Moody's assessments
1	AAA to AA-	AAA to AA-	Aaa to Aa3
2	A+ to A-	A+ to A-	A1 to A3
3	BBB+ to BBB-	BBB+ to BBB-	Baa1 to Baa3
4	BB+ to BB-	BB+ to BB-	Ba1 to Ba3
5	B+ to B-	B+ to B-	B1 to B3
6	CCC+ and below	CCC+ and below	Caa1 and below

Credit risk mitigation ('CRM')

The Group's 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.

The Group's 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.

The Group has 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. For credit risk mitigants comprising immovable property, the key determinant of concentration is geographic. Use of immovable property mitigants for risk management purposes is focused on our local market. 61% of gross loans and advances to customers (as defined in the Consolidated Financial Statements 2019) are secured by a Bermuda mortgage interest. Property value changes are continually monitored and incorporated as part of the overall stress testing scenarios.

Further information on collateral for loans can be found on page 22 and 28 of the Consolidated Financial Statements 2019. 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. Further information on off-balance sheet collateral can be found on page 33 and 34 of the Consolidated Financial Statements 2019.

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 9: Credit quality of assets

		Gross carrying values of		Allowances / impairments	Of which: ECL accounting provisions for credit losses on SA exposures		Net carrying values
		Defaulted exposures ¹	Non-defaulted exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General	
		\$m	\$m		\$m	\$m	
1	Loans ¹	161	4,280	125	120	5	4,316
2	Debt securities	—	3,829	—	—	—	3,829
3	Off-balance sheet exposures ²	14	264	—	—	—	278
4	Total at 31 Dec 2019	175	8,373	125	120	5	8,423

See page 19 of Basel's Revised Pillar disclosure requirements – January 2015.

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 10: Credit risk mitigation techniques – overview

	Exposures unsecured: carrying amount	Exposures secured by collateral		Exposures secured by financial guarantees		Exposures secured by credit derivatives	
		– of which: secured amount		– of which: secured amount		– of which: secured amount	
		\$m	\$m	\$m	\$m	\$m	\$m
1	Loans ¹	2,930	1,336	1,286	50	–	–
2	Debt securities	3,829	–	–	–	–	–
3	Total at 31 Dec 2019	6,759	1,336	1,286	50	–	–
4	<i>Of which: defaulted</i>	<i>3</i>	<i>73</i>	<i>73</i>	<i>–</i>	<i>–</i>	<i>–</i>

See page 23 of Basel's Revised Pillar disclosure requirements – January 2015.

¹ Exposures are net of allowances/impairments.

Table 11: Standardised approach – credit conversion factor ('CCF') and credit risk mitigation ('CRM') effects

Asset classes	Exposures before CCF and CRM		Exposures post-CCF and CRM		RWAs and RWA density		
	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWAs	RWA density	
	\$m	\$m	\$m	\$m	\$m	%	
1	Sovereigns and their central banks	1,930	10	1,930	5	123	6.4%
2	Non-central government public sector entities	540	–	660	–	197	29.8%
3	Multilateral development banks	1,019	–	1,019	–	–	0.0%
4	Banks	2,719	9	2,719	9	816	29.9%
5	Corporates	385	344	265	175	344	78.2%
6	Regulatory retail portfolios	236	155	236	1	187	78.9%
7	Secured by residential property	1,045	6	1,045	6	394	37.5%
8	Secured by commercial real estate	194	–	194	–	194	100.0%
9	Equity	2	–	2	–	2	100.0%
10	Past-due loans	76	–	76	–	114	150.0%
11	Higher-risk categories	1	–	1	–	2	150.0%
12	Other assets	202	125	202	125	301	92.0%
13	Total at 31 Dec 2019	8,349	649	8,349	321	2,674	30.8%

See page 25 of Basel's Revised Pillar disclosure requirements – January 2015.

Table 12: Standardised approach – exposures by asset class and risk weight

Risk weight ('RW%')	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposure amount (post-CCF and CRM)
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Asset classes										
1	Sovereigns and their central banks	1,324	–	609	–	2	–	–	–	1,935
2	Non-central government public sector entities	–	–	442	–	218	–	–	–	660
3	Multilateral development banks	1,019	–	–	–	–	–	–	–	1,019
4	Banks	–	–	1,842	–	877	–	9	–	2,728
5	Corporates	65	–	39	–	–	–	336	–	440
6	Regulatory retail portfolios	–	–	–	–	200	37	–	–	237
7	Secured by residential property	–	–	–	993	–	48	10	–	1,051
8	Secured by commercial real estate	–	–	–	–	–	194	–	–	194
9	Equity	–	–	–	–	–	–	2	–	2
10	Past-due loans	–	–	–	–	–	–	76	–	76
11	Higher-risk categories	–	–	–	–	–	–	1	–	1
12	Other assets	26	–	–	–	–	301	–	–	327
13	Total at 31 Dec 2019	2,434	–	2,932	993	1,097	248	889	77	8,670

See pages 27 & 28 of Basel's Revised Pillar disclosure requirements – January 2015.

Pillar 3 Disclosures at 31 December 2019

Table 13: Geographical breakdown of exposures

Asset classes	Net carrying values										Total credit exposure amount (before CCF and CRM) \$m
	Of which:										
	North America \$m	Bermuda \$m	Other countries \$m	Europe \$m	Asia \$m	MENA \$m	Latin America \$m	Supranational \$m	Other \$m		
1	Sovereigns and their central banks	1,274	121	1,153	20	496	150	–	–	–	1,940
2	Non-central government public sector entities	171	–	171	369	–	–	–	–	–	540
3	Multilateral development banks	–	–	–	–	–	–	–	1,019	–	1,019
4	Banks	1,003	11	992	802	283	550	–	–	90	2,728
5	Corporates	677	650	27	2	–	–	50	–	–	729
6	Regulatory retail portfolios	388	387	1	3	–	–	–	–	–	391
7	Secured by residential property	1,046	1,043	3	4	–	–	–	–	–	1,050
8	Secured by commercial real estate	194	184	10	–	–	–	–	–	–	194
9	Equity	2	2	–	–	–	–	–	–	–	2
10	Past-due loans	76	75	1	–	–	–	–	–	–	76
11	Higher-risk categories	1	–	1	–	–	–	–	–	–	1
12	Total at 31 Dec 2019	4,832	2,473	2,359	1,200	779	700	50	1,019	90	8,670

Non-credit obligation assets are not included in the table above.

Table 14: Maturity of on-balance sheet exposures

Asset classes	Net carrying values						Total \$m
	On demand \$m	Less than 1 year \$m	Between 1 and 5 years \$m	More than 5 years \$m	Undated \$m		
	1	Sovereigns and their central banks	–	516	1,394	20	
2	Non-central government public sector entities	–	25	515	–	–	540
3	Multilateral development banks	–	–	1,019	–	–	1,019
4	Banks	430	1,152	1,137	–	–	2,719
5	Corporates	–	–	305	80	–	385
6	Regulatory retail portfolios	–	–	174	62	–	236
7	Secured by residential property	–	–	97	948	–	1,045
8	Secured by commercial real estate	–	–	62	132	–	194
9	Equity	–	–	–	–	2	2
10	Past due loans	–	–	12	64	–	76
11	Higher-risk categories	–	–	–	–	1	1
12	Total at 31 Dec 2019	430	1,693	4,715	1,306	3	8,147

Non-credit obligation assets are not included in the table above.

Table 15: Credit quality of exposures by industry or counterparty types

Industry or counterparty types	Gross carrying values of					
	Defaulted exposures \$m	Non-defaulted exposures \$m	Specific credit risk adjustments \$m	Write-offs in the year \$m	Net carrying values \$m	
	1	Manufacturing	–	25	–	–
2	Utilities	–	128	–	–	128
3	Wholesale and retail trade	–	17	–	–	17
4	Transportation and storage	–	1	–	–	1
5	Accommodation and food services	–	3	2	–	1
6	Financial and insurance	14	6,201	16	1	6,199
7	Real estate	7	171	15	2	163
8	Administrative service	–	–	–	–	–
9	Public admin and defence	–	241	–	–	241
10	Education	–	–	–	–	–
11	Other services	1	163	2	–	162
12	Personal	96	1,204	90	7	1,210
13	Total at 31 Dec 2019	118	8,154	125	10	8,147

Non-credit obligation assets are not included in the table above.

Table 16: Credit quality of impaired exposures by geographical area

		Gross carrying values of impaired exposures	Specific credit risk adjustments	Write-offs in the year
		\$m	\$m	\$m
1	North America	374	118	10
2	– Bermuda	357	117	10
3	– Other countries	17	1	–
4	Europe	5	2	–
5	Total at 31 Dec 2019	379	120	10

Impaired exposures (Stage 3) and corresponding specific credit risk adjustments for accounting purposes are shown in the table above.

Table 17: Credit quality of impaired exposures by industry

		Gross carrying values of impaired exposures	Specific credit risk adjustments	Write-offs in the year
		\$m	\$m	\$m
1	Manufacturing	1	–	–
2	Accommodation and food services	3	2	–
3	Financial and insurance	45	14	1
4	Real estate	22	14	2
5	Other services	4	2	–
6	Personal	304	88	7
7	Total at 31 Dec 2019	379	120	10

Impaired exposures (Stage 3) and corresponding specific credit risk adjustments for accounting purposes are shown in the table above.

Table 18: Ageing analysis of past-due exposures

		Gross carrying values		
		Between 90 and 180 days	Between 180 days and 1 year	Greater than 1 year
		\$m	\$m	\$m
1	Loans	14	26	121
2	Debt securities	–	–	–
3	Total at 31 Dec 2019	14	26	121

Table 19: Non-performing and forborne exposures

		Total forborne exposures	of which: unimpaired	of which: impaired
		\$m	\$m	\$m
1	Loans	362	245	117
2	Debt securities	–	–	–
3	Off-balance sheet exposures	–	–	–
4	At 31 Dec 2019	362	245	117

Table 20: Changes in stock of defaulted loans and debt securities

		Twelve months to 31 Dec
		2019 \$m
1	Opening balance at the beginning of the period	164
2	Loans and debt securities that have defaulted since the last reporting period	24
3	Total exposures that returned to non-default status	(6)
4	Amounts written off	(10)
5	Other changes	(11)
6	Closing balance at the end of the period	161

See page 20 of Basel's Revised Pillar disclosure requirements – January 2015.

Counterparty credit risk

Overview and objectives

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 Internal Model Methodology. 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.

Limits for CCR exposures are assigned within the overall credit process. The credit risk function assigns a limit against each counterparty to cover exposure which may arise as a result of a counterparty default. The magnitude of this limit will depend on the overall risk appetite and type of derivatives and Securities Financing Transactions ('SFT') trading undertaken with the counterparty.

Measurement and monitoring

Collateral arrangements

Our policy is to revalue all traded transactions and associated collateral positions on a daily basis. An independent collateral management function manages the collateral process, including pledging and receiving collateral and investigating disputes and non-receipts.

Eligible collateral types are controlled under a policy to ensure price transparency, price stability, liquidity, enforceability, independence, reusability and eligibility for regulatory purposes. A valuation 'haircut' policy reflects the fact that collateral may fall in value between the date the collateral was called and the date of liquidation or enforcement.

Credit rating downgrade

A credit rating downgrade clause in a Master Agreement or a credit rating downgrade threshold clause in a credit support annex ('CSA') is designed to trigger an action if the credit rating of the affected party falls below a specified level. These actions may include the requirement to pay or increase collateral, the termination of transactions by the non-affected party or the assignment of transactions by the affected party.

The Group has not entered an International Swaps and Derivatives Association CSA that will require additional collateral pertaining to downgrade thresholds that would need to be posted with counterparties in the event of a one-notch or two-notch downgrade.

Wrong-way risk

Wrong-way risk occurs when a counterparty's exposures are adversely correlated with its credit quality.

There are two types of wrong-way risk:

- General wrong-way risk occurs when the probability of counterparty default is positively correlated with general risk factors, for example, where a counterparty is resident and/or incorporated in a higher-risk country and seeks to sell a non-domestic currency in exchange for its home currency.
- Specific wrong-way risk occurs in self-referencing transactions. These are transactions in which exposure is driven by capital or financing instruments issued by the counterparty and occurs where exposure from HSBC's perspective materially increases as the value of the counterparty's capital or financing instruments referenced in the contract decreases. It is HSBC policy that specific wrong-way transactions are approved on a case-by-case basis.

The Group uses a range of tools to monitor and control wrong-way risk, including requiring the business to obtain prior approval before undertaking wrong-way risk transactions outside pre-agreed guidelines. The regional Traded Risk functions are responsible for the control and monitoring process within an overarching Group framework and limit framework.

Central counterparties

While exchange traded derivatives have been cleared through central counterparties ('CCPs') for many years, recent regulatory initiatives designed to reduce systemic risk in the banking system are directing increasing volumes of OTC derivatives to be cleared through CCPs.

A dedicated CCP risk team has been established to manage the interface with CCPs and undertake in-depth due diligence of the unique risks associated with these organisations. This is to address an implication of the regulations that the Group's risk will be transferred from being distributed among individual, bilateral counterparties to a significant level of risk concentration on CCPs. We have developed a risk appetite framework to manage risk accordingly, on an individual CCP and global basis.

Table 21: Analysis of counterparty credit risk (CCR) exposure by approach

Ref	Exposure value					RWA
	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	EAD post CRM		
	\$m	\$m	\$m	\$m	\$m	\$m
1	SA-CCR (for derivatives)	15	18	–	33	11
6	Total at 31 Dec 2019	15	18	–	33	11

See page 38 of Basel's Revised Pillar disclosure requirements – January 2015.

Table 22: Standardised approach – CCR exposures by regulatory portfolio and risk weights

Risk weight ('RW%')	0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Regulatory portfolio									
Banks	–	–	29	–	–	–	–	–	29
Corporates	–	–	–	–	–	4	–	–	4
Total at 31 Dec 2019	–	–	29	–	–	4	–	–	33

See page 40 of Basel's Revised Pillar disclosure requirements – January 2015.

Table 23: Composition of collateral for CCR exposure

	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
	Segregated	Unsegregated	Segregated	Unsegregated		
	\$m	\$m	\$m	\$m	\$m	\$m
Cash – other currencies	–	2	–	31	–	–
Total at 31 Dec 2019	–	2	–	31	–	–

See page 43 of Basel's Revised Pillar disclosure requirements – January 2015.

Table 24: Exposures to central counterparties

Ref		At 31 Dec 2019	
		EAD post CRM	RWA
		\$m	\$m
11	Exposures to non-QCCPs	33	11
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contribution)	33	11
13	– of which: OTC derivatives	33	11

See page 46 of Basel's Revised Pillar disclosure requirements – January 2015.

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 Balance Sheet Management ('BSM') 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 the Group's market risk management policies and measurement techniques. The Group has an independent market risk management and control function that 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 the Group's risk appetite. Interest Rate Risk in the Banking Book ('IRRB') refers to the risk to the Bank's capital and earnings arising from adverse movements in interest rates that affect the Bank's banking book positions. It is generated by the Bank's non-traded assets and liabilities, specifically loans, deposits and financial instruments that are not held for trading intent.

The Group assesses the structural interest rate risks that arise in the businesses and transfers these risks to the BSM team. The Group's 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.

Asset Liability and Capital Management ('ALCM') are responsible for maintaining and updating the transfer pricing framework, informing ALCO of the Group's overall banking book interest rate risk exposure and managing the balance sheet in conjunction with BSM.

The internal transfer pricing framework is constructed to ensure that structural interest rate risk, arising due to differences in the repricing timing of assets and liabilities, is transferred to BSM and business lines are correctly allocated income and expense based on the products they write, inclusive of activities to mitigate this risk. Contractual principal repayments, payment schedules, expected prepayments, contractual rate indices used for repricing and interest rate reset dates are examples of elements transferred for risk management by BSM.

The internal transfer pricing framework is governed by ALCO. ALCO defines the Bank's transfer pricing curve, reviews and approves the transfer pricing policy, including behavioural assumptions used for products where there is either no defined maturity or customer optionality exists. This includes prepayment risk which is assessed based on historical portfolio observations. ALCO is also responsible for behaviour monitoring and reviewing

the overall structural interest rate risk position. Interest rate behavioural policies are formulated in line with the HSBC Group's behavioural policies and approved at least annually by ALCO.

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 under different interest rate scenarios. The Group uses 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 while 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 monitoring 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.

For model results see pages 39 to 40 of the Consolidated Financial Statements 2019 and table 25 on page 20.

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.

Interest Rate Risk in the Banking Book Analysis

The bank's IRRBB risk management framework monitors and controls the potential volatility in future net interest income, the potential variability in economic value, and any potential impacts on capital. This is achieved through the use of a number of risk management tools, including:

- net interest income sensitivity analysis; and
- economic value of equity sensitivity analysis and limits.

Models, input data, and behavioural assumptions have been reviewed by HSBC Independent Model Review.

Non-traded assets and liabilities are transferred to BSM based on their repricing and maturity characteristics. For assets and liabilities with no defined maturity or repricing characteristics, behavioural assumptions are used to assess the interest rate risk profile. The maximum average duration to which a portfolio of non-maturity defined customer balances or equity can be behaviouralised is five years. The average behaviouralised term assumption applied to non-maturity defined customer balances is eight months and for equity is 28 months as at 31 December 2019. The maximum percentage of any portfolio that can be behaviouralised is 90%, with the residual treated as overnight exposure. BSM manages the banking book interest rate positions within the market risk limits approved by RMM. Hedging is generally executed through vanilla interest rate derivatives or fixed rate government bonds.

Economic Value of Equity

Economic value of equity ('EVE') represents the present value of the future banking book cash flows that could be distributed to equity providers under a managed run-off scenario. This equates to the current book value of equity plus the present value of future net interest income. EVE can be used to assess the economic capital required to support interest rate risk in the banking book. EVE sensitivity is the extent to which the EVE value will change due to a pre-specified movement in interest rates, where all other economic variables are held constant. EVE sensitivity is monitored as a percentage of CET1.

EVE sensitivity analyses are performed quarterly on a currency level using six different interest rate shock scenarios:

- Parallel shock up and parallel shock down: represents an immediate shock to the current market-implied path of interest rates;
- Steepener: represents a downward shock on the short end and upward shock on the long end of the market-implied path of interest rates;
- Flattener: represents an upward shock on the short end and downward shock on the long end of the market-implied path of interest rates;
- Short rates up: represents an upward shock on the short end of the market-implied path of interest rates; and
- Short rates down: represents a downward shock on the short end of the market-implied path of interest rates.

Commercial margins are excluded from the calculation of EVE.

Net Interest Income sensitivity

The bank is subject to interest rate risks due to fluctuations in market interest rates, changes in the mix and size of balance sheet positions, and customer behaviours. Net interest income ('NII') sensitivity analysis consists of an initial balance sheet projected

forward under a given rate scenario. The projections of NII consider historical performance and relationships, current revenue and business strategy, varying circumstances and operating environments.

The NII sensitivity analyses represents an immediate shock to the current market-implied path of interest rates (parallel shock).

The extent of NII and EVE interest rate shock in basis points applied for material currencies as at 31 December 2019 are as follows:

	USD/BMD	EUR	GBP
Parallel	200	200	250
Short	300	250	300
Long	150	100	150

The interest rate shock is performed separately for each currency as part of each applicable shock scenario with the results aggregated and reported in the reporting currency using period end exchange rates. For more information on the interest rate analysis of financial instruments see page 39 and 40 of the Consolidated Financial Statements 2019.

Table 25: Quantitative information on IRRBB

	ΔEVE \$m		ΔNII \$m	
	31 Dec 2019	31 Dec 2018	31 Dec 2019	31 Dec 2018
Parallel up	(105)	(24)	44	34
Parallel down	108	(105)	(40)	(56)
Steepener	12	(1)		
Flattener	(36)	(51)		
Short rate up	(75)	(35)		
Short rate down	74	(21)		
Maximum	108	(105)	44	(56)
Maximum as a % of Tier 1 capital	14.1%	(12.8)%	5.7%	(6.8)%
Tier 1 capital	764	818	764	818

See pages 53 to 55 of Basel's Pillar 3 disclosure requirements – consolidated and enhanced framework – March 2017.

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 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 on the whole 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 Operational Risk. It is made up of leaders within Global Risk and other Global Functions. The Second Line of Defence set policies, gives advice, reviews and challenges the activities of the First Line of Defence. 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 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

The Group has codified our ORMF in a high level standard, supplemented by detailed policies. These policies explain the Group's 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 the Group is willing to take. Monitoring operational risk exposure against risk appetite on a regular basis, and setting out the Group's 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; and
- 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 and functions. Business management and Business Risk Managers/ Chief Control Officers 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 manage 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.

On an annual basis the Bank prepares an Individual Liquidity Adequacy Assessment ('ILAA') and a Contingency Funding Plan ('CFP'). The ILAA process aims to identify risks that are not reflected in the LFRF, and, where required, to assess additional limits required locally, and to validate the risk tolerance at the operating entity level. The purpose of the CFP is to document procedures for:

- identifying when a liquidity stress is starting;
- managing liquidity during a liquidity stress; and
- remediation of the liquidity position once a liquidity stress has stabilised.

For more information on the maturity analysis of financial assets and financial liabilities see page 34 and 35 of the Consolidated Financial Statements 2019. For more information on Liquidity and funding risk management see page 40 and 41 of the Consolidated Financial Statements 2019.

Table 26: Liquidity Coverage Ratio (LCR)

Ref		Total unweighted value (average) ¹	Total weighted value (average) ¹
		\$m	\$m
	High quality liquid assets		
1	Total high quality liquid assets ('HQLA')		3,871
	Cash outflows		
2	Retail deposits and small business funding	2,107	298
4	– less stable deposits	2,107	298
5	Unsecured wholesale funding	4,158	2,835
6	– operational deposits (all counterparties) and deposits in networks of cooperative banks	1,373	343
7	– non-operational deposits (all counterparties)	2,785	2,492
10	Additional requirements	783	623
11	– outflows related to derivative exposures and other collateral requirements	566	566
13	– credit and liquidity facilities	217	57
16	Total cash outflows		3,756
	Cash inflows		
17	Secured lending transactions (including reverse repos)	188	28
18	Inflows from fully performing exposures	87	43
19	Other cash inflows	1,276	1,276
20	Total cash inflows	1,551	1,347
	Liquidity coverage ratio (Adjusted value)		
21	Total HQLA		3,871
22	Total net cash outflows		2,409
23	Liquidity coverage ratio (%)		160.7

See pages 57 to 60 of Basel's Pillar 3 disclosure requirements – consolidated and enhanced framework – March 2017.

¹ Note that average values were calculated using month end spot values from 1 July 2019 to 31 December 2019.

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Table 27: Net Stable Funding Ratio (NSFR)

Ref		Unweighted value by residual maturity				Weighted value \$m
		No maturity ¹ \$m	<6 months \$m	6months to <1 year \$m	≥1 year \$m	
Available stable funding (ASF) item						
1	Capital	767	–	–	4	771
2	– Regulatory capital	767	–	–	–	767
3	– Other capital instruments	–	–	–	4	4
4	Retail deposits and deposits from small business customers	–	2,368	129	39	2,286
6	– less stable deposits	–	2,368	129	39	2,286
7	Wholesale funding	–	4,897	12	5	1,077
8	– operational deposits	–	1,550	–	–	775
9	– other wholesale funding	–	3,347	12	5	302
13	All other liabilities and equity not included in the above categories	–	158	–	–	–
14	Total ASF					4,134
Required stable funding (RSF) item						
15	Total NSFR high-quality liquid assets (HQLA)					284
16	Deposits held at other financial institutions for operational purposes	–	614	–	550	642
17	Performing loans and securities	–	649	151	1,277	1,104
19	– performing loans to financial institutions secured by non-level 1 HQLA and unsecured performing loans to financial institutions	–	541	–	180	261
20	– performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs	–	101	151	117	202
21	– of which: with a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk	–	101	151	117	202
22	– performing residential mortgages	–	7	–	980	641
23	– of which: with a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk	–	7	–	980	641
24	Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	–	–	–	23	19
26	Other assets	–	261	–	701	857
29	NSFR derivative assets	–	–	10	–	10
31	– all other assets are not included in the above category	–	251	–	701	847
32	Off-balance sheet items	–	414	–	110	15
33	Total RSF					2,921
34	Net Stable Funding Ratio (%)					141.5

See pages 61 to 64 of Basel's Pillar 3 disclosure requirements – consolidated and enhanced framework – March 2017.

¹ 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.
CET1 ratio	A Basel III measure, of CET1 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 which 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.
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% 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 that 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.
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.

Pillar 3 Disclosures at 31 December 2019

Term	Definition
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.
MENA	Middle East and North Africa.
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.
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\$0.1m 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.
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 impairment allowances and unrealised gains arising on the fair valuation of equity instruments held as fair value through other comprehensive income. 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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