星 展 銀 行 （ 香 港 ） 有 限 公 司

DBS BANK (HONG KONG) LIMITED

(Incorporated in Hong Kong with limited liability)

REGULATORY DISCLOSURE STATEMENTS
For the year ended 31 December 2018

DBS BANK (HONG KONG) LIMITED AND ITS SUBSIDIARIES

REGULATORY DISCLOSURES

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DBS BANK (HONG KONG) LIMITED AND ITS SUBSIDIARIES

REGULATORY DISCLOSURES

1 INTRODUCTION

The information contained in this document is for DBS Bank (Hong Kong) Limited ("the Bank") and its subsidiaries ("the Group") is prepared in accordance with the Banking (Disclosure) Rules and disclosure templates issued by the Hong Kong Monetary Authority ("HKMA").

Basis of preparation
For regulatory reporting purposes, the Bank computes key regulatory ratios and disclosures on a combined basis including the Bank and its overseas branch, unless otherwise specified.

For the purposes of calculating the risk-weighted assets ("RWA"), the Bank uses the Internal Ratings-Based ("IRB") approach for the calculation of the RWA for the majority of its credit risk exposures and the Standardized approach for those exempted from the IRB approach. The Bank uses the Standardized approaches for the calculation of RWA for market risk and operational risk.

The numbers in this document are expressed in millions of Hong Kong dollars, unless otherwise stated.

2 SCOPE OF CONSOLIDATION

Except where indicated otherwise, the financial information contained in this document has been prepared on a consolidated basis. For regulatory reporting purposes, the Bank computes key regulatory ratios on a combined basis including the Bank and its overseas branch that is different from the basis of consolidation for accounting purposes.

The following entities are within the Group's accounting scope of consolidation but are excluded from its regulatory scope of consolidation.

Name of entity	Principal activities	Total Assets In HK$ millions	Total Equity In HK$ millions
Dao Heng Finance Limited	Inactive	60	60
Hang Lung Bank (Nominee) Limited	Provision of nominee services	–	–
DBS Kwong On (Nominees) Limited	Provision of nominee services	–	–
Overseas Trust Bank Nominees Limited	Provision of nominee services	–	–
Ting Hong Nominees Limited	Provision of nominee, trustee and agency services	–	–
DBS Trustee (Hong Kong) Limited	Inactive	5	5
DBS Trustee H.K. (New Zealand) Limited	Inactive	–	–
DBS COMPASS Limited	Inactive	8	8

3 RISK MANAGEMENT APPROACH

In executing our strategic priorities and business opportunities, the Group is faced with economic, financial and other types of risk. These risks are interdependent and require a holistic approach to risk management. Very broadly, these risks can be aligned around the following key risk categories:

i) Credit
ii) Market
iii) Liquidity
iv) Operational
v) Reputational
vi) Business and Strategic

These key risks are explained in further details in Sections 10-14.

The Board oversees the Group's affairs and provides sound leadership for the CEO and management. Authorised by the Board, various Board committees oversee specific responsibilities based on clearly defined terms of references.

Under our risk management approaches, the Board, through the Board Risk Management Committee ("BRMC"), sets our risk appetite, oversees the establishment of enterprise-wide risk management policies and processes, and sets risk limits to guide the Group's risk-taking. The BRMC also oversees the identification, monitoring, management and reporting of credit, market, liquidity, operational and reputational risks.

To facilitate the BRMC's risk oversight, the following risk management committees have been established:

Risk Management Committees

HK Risk Executive Committee ("Risk ExCo")	As the overall executive body regarding risk matters, the Risk ExCo oversees DBS' risk management as a whole.
HK Risk Culture and Conduct Committee ("RCCC")	RCCC provides oversight and direction relating to the management and implementation of risk culture and conduct agenda.
HK Product Oversight Committee ("POC")	POC reports to the Risk Exco and oversees the risks associated with new or changed products and services to ensure these are offered in line with the Bank's strategy and risk appetite, in the interest of protecting the bank's franchise.
HK Credit Risk Committee ("HK CRC") **HK Market and Liquidity Risk Committee ("HK MLRC")** **HK Operational Risk Committee ("HK ORC")**	Each of the committees reports to the Risk ExCo, and the committees as a whole serve as an executive forum to discuss and implement DBS' risk management. Key responsibilities: • Assess and approve risk-taking activities • Oversee the Group's risk management infrastructure, which includes frameworks, decision criteria, authorities, people, policies, standards, processes, information and systems • Approve risk policies, the evaluation and endorsement of risk models and stress testing programmes • Assess and monitor specific credit concentration • Recommend stress testing scenarios (including macroeconomic variable projections) and review the results The members in these committees comprise representatives from the Risk Management Group ("RMG") as well as key business and support units.

3 RISK MANAGEMENT APPROACH (continued)

Our risk appetite takes into account a spectrum of risk types, and it is implemented using thresholds, policies, processes and controls.

Threshold structures are essential in making the Group's Risk Appetite an intrinsic part of our businesses, because they help to keep all our risks within acceptable levels. Portfolio risk limits for the quantifiable risk types reach all parts of the Group from the top down, and these are implemented using formal frameworks. As for the non-quantifiable risk types, these are controlled under qualitative principles through established policies.

We manage these risks by diversifying our risk across industries and individual exposures. In addition, the Group relies on specialist knowledge of our regional markets and industry segments to effectively assess our risks.

The Group has three lines of defense when it comes to risk taking where each line of defense has a clear responsibility. Working closely with the support units, our business units are our first line of defense for risk management. Their responsibilities include identification and management of risks inherent in their businesses/countries and ensuring that our business operations remain within approved boundaries of our risk appetite and policies.

Corporate oversight and control functions such as RMG, Legal and Compliance and parts of Technology and Finance form the second line of defense. They are responsible for design and maintenance of the internal control frameworks covering financial, operational, compliance and information technology controls as well as risk management policies and systems. In addition, RMG is responsible for identifying individual and portfolio risk, approving transactions and trades and ensuring that they are within approved limits, and monitoring and reporting on the portfolio. These are carried out with a view of current and future potential developments, and evaluated through stress testing.

Group Audit forms the third line of defense. It provides an independent assessment and assurance on the reliability, adequacy and effectiveness of our system of internal controls, risk management procedures, governance framework and processes.

The Group believes that effective safeguards against undesired business conduct have to go beyond a "tick-the-box" mentality. Other than relying on published codes of conduct, the Group also advocates the following organisational safeguards to maintain a strong risk and governance culture:

- Tone from the top
- Aligning strategies and incentives via balanced scorecard. Performance is assessed against the scorecard to determine remuneration, providing a clear line of sight between employee goals and organisational imperatives.
- Respecting voice of control functions
- Risk ownership
- Having established escalation protocols
- Encouraging constructive challenges at all level
- Reinforcing cultural alignment

In addition to cultivating a strong risk and governance culture, robust internal control processes and systems have been designed and implemented to support the respective risk management approaches. These are reviewed regularly by the respective risk units to assess and ensure their effectiveness.

3 RISK MANAGEMENT APPROACH (continued)

Risk management reports including exposure and position information for all significant risk areas are provided to the BRMC and management on a regular basis, as deemed appropriate. The Group, through various committees, determines the risk reporting requirements that best suit the business.

This includes the following:

i. risk exposures and profile against risk limits and risk strategy

ii. large risk events and subsequent remedial action plans

iii. market developments such as macro-economic, credit, industry, country risks, emerging risk concentrations and stress tests related to these developments.

Stress testing is an integral part of our risk management process, and includes both sensitivity analysis and scenario analysis and is conducted regularly. In particular, the ICAAP (a group-wide exercise spanning risk types) is performed annually. On top of this, additional stress tests are carried out in response to macroeconomic conditions or portfolio developments. Every stress test is documented and the results are reviewed by the relevant senior management committee.

Stress testing alerts the management to our potential vulnerability to exceptional but plausible adverse events. As such, stress testing enables us to assess capital adequacy and identify potentially risky portfolio segments as well as inherent systematic risks. This then allows us to develop the right contingency plans, exit strategies and mitigating actions beforehand.

The ICAAP ensures our business plans are consistent with our risk appetite. This is done by comparing the projected demand for capital to the projected supply of capital under various scenarios, including severe macroeconomic stress of different severity.

4 KEY PRUDENTIAL RATIOS

The following table provides an overview of the Bank's key prudential ratios which were calculated in accordance with the following Rules, where relevant, issued by the HKMA.

- Banking (Capital) Rules ("BCR")
- Banking (Liquidity) Rules ("BLR")

In HK$ millions		As at 31 December 2018	As at 30 September 2018	As at 30 June 2018	As at 31 March 2018	As at 31 December 2017
	Regulatory Capital (amount)					
1	Common Equity Tier 1 (CET1)	35,414	35,914	36,914	35,689	35,479
2	Tier 1	36,814	37,314	38,314	37,089	36,817
3	Total Capital	41,348	41,857	42,868	41,634	41,312
	RWA (amount)					
4	Total RWA	233,890	232,706	227,512	220,447	219,935
	Risk-based regulatory capital ratios (as a percentage of RWA)					
5	CET1 ratio (%)	15.1	15.4	16.2	16.2	16.1
6	Tier 1 ratio (%)	15.7	16.0	16.8	16.8	16.7
7	Total Capital ratio (%)	17.7	18.0	18.8	18.9	18.8
	Additional CET1 buffer requirements (as a percentage of RWA)					
8	Capital conservation buffer requirement (%)	1.875	1.875	1.875	1.875	1.250
9	Countercyclical capital buffer requirement (%)	1.647	1.636	1.663	1.698	1.144
10	Higher loss absorbency requirements (%) (applicable only to G-SIBs or D-SIBs)	0.0	0.0	0.0	0.0	0.0
11	Total AI-specific CET1 buffer requirements (%)	3.522	3.511	3.538	3.573	2.394
12	CET1 available after meeting the AI's minimum capital requirements (%)	9.7	10.0	10.8	10.8	10.7
	Basel III Leverage ratio					
13	Total Leverage ratio (LR) exposure measure	467,500	457,327	452,385	436,827	412,783
14	LR (%)	7.9	8.2	8.5	8.5	8.9
	Liquidity Coverage Ratio (LCR) / Liquidity Maintenance Ratio (LMR)					
	Applicable to category 1 institution only:					
15	Total high quality liquid assets (HQLA)	36,290	34,893	29,984	30,442	28,693
16	Total net cash outflows	23,425	24,501	22,308	22,928	22,630
17	LCR (%)	155.0	142.3	134.6	132.8	126.8
	Applicable to category 2 institution only:					
17a	LMR (%)	NA	NA	NA	NA	NA
	Net Stable Funding Ratio (NSFR) / Core Funding Ratio (CFR)					
	Applicable to category 1 institution only:					
18	Total available stable funding	297,606	294,054	284,039	276,179	NA
19	Total required Stable funding	250,568	244,932	235,112	207,568	NA
20	NSFR (%)	118.8	120.1	120.8	133.1	NA
	Applicable to category 2A institution only:					
20a	CFR (%)	NA	NA	NA	NA	NA

Commentaries for the quarter explaining significant changes in the above ratios, if any, have been included in subsequent sections of this document.

5 OVERVIEW OF RISK-WEIGHTED ASSETS

The following table sets out the Bank's risk-weighted assets ("RWA") and the corresponding minimum capital requirements by risk types.

		RWA		Minimum capital requirements[1/]
In HK$ millions		As at 31 December 2018	As at 30 September 2018	As at 31 December 2018
1	Credit risk for non-securitization exposures	203,473	202,971	17,132
2	*Of which STC approach*	25,606	25,245	2,049
2a	*Of which BSC approach*	–	–	–
3	*Of which foundation IRB approach*	169,810	169,626	14,400
4	*Of which supervisory slotting criteria approach*	8,057	8,100	683
5	*Of which advanced IRB approach*	–	–	–
6	Counterparty default risk and default fund contributions	840	847	69
7	*Of which SA-CCR*	NA	NA	NA
7a	*Of which CEM*	839	846	69
8	*Of which IMM(CCR) approach*	–	–	–
9	*Of which others*	1	1	–
10	CVA Risk	585	597	47
11	Equity positions in banking book under the simple risk-weight method and internal models method	–	–	–
12	Collective investment scheme ("CIS") exposures – LTA	NA	NA	NA
13	CIS exposures – MBA	NA	NA	NA
14	CIS exposures – FBA	NA	NA	NA
14a	CIS exposures – combination of approaches	NA	NA	NA
15	Settlement Risk	–	–	–
16	Securitization exposures in banking book	–	–	–
17	*Of which SEC – IRBA*	–	–	–
18	*Of which SEC – ERBA*	–	–	–
19	*Of which SEC – SA*	–	–	–
19a	*Of which SEC – FBA*	–	–	–
20	Market risk	1,320	1,260	105
21	*Of which STM approach*	1,320	1,260	105
22	*Of which IMM approach*	–	–	–
23	Capital charge for switch between exposures in trading book and banking book (not applicable before the revised market risk framework takes effect)	NA	NA	NA

5 OVERVIEW OF RISK-WEIGHTED ASSETS (continued)

		RWA		Minimum capital requirements[1/]
In HK$ millions		As at 31 December 2018	As at 30 September 2018	As at 31 December 2018
24	Operational risk	16,859	16,237	1,349
25	Amounts below the thresholds for deduction (subject to 250% RW)	113	114	9
26	Capital floor adjustment	–	–	–
26a	Deduction to RWA	–	13	–
26b	*Of which portion of regulatory reserve for general banking risks and collective provisions which is not included in Tier 2 Capital*	–	–	–
26c	*Of which portion of cumulative fair value gains arising from the revaluation of land and buildings which is not included in Tier 2 Capital*	–	13	–
27	Total	223,190	222,013	18,711

1/ Minimum capital requirements correspond to 8% of the RWA, after applicable scaling factor of 1.06 for exposures measured under the IRB approach.

6 LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES

6.1 Differences between Accounting and Regulatory Scopes of Consolidation and Mapping of Financial Statement Categories with Regulatory Risk Categories

The following table shows the differences between the carrying values as reported in the Group's financial statements following the scope of accounting consolidation and the carrying values under the scope of regulatory consolidation, with a breakdown into regulatory risk categories of every items of assets and liabilities reported in financial statements based on the scope of accounting consolidation. The amounts disclosed under column (c) to (g) below can be more than amounts disclosed in column (b) as derivatives can be subject to regulatory capital charges for credit risk, counterparty credit risk and market risk.

	As at 31 December 2018						
	a	b	c	d	e	f	g
			Carrying values of items:				
In HK$ millions	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 securitization framework	subject to the market risk framework	not subject to capital requirements or subject to deduction from capital
Assets							
Cash and balances with central banks	3,028	3,028	3,028	–	–	–	–
Government securities and treasury bills	38,289	38,289	27,220	–	–	11,069	–
Due from banks	222,057	222,057	222,057	–	–	–	–
Derivatives	471	471	–	459	–	341	12
Bank and corporate securities	9,418	9,418	9,415	–	–	3	–
Loans and advances to customers	162,171	162,171	162,171	–	–	–	–
Other assets	7,893	7,893	5,747	–	–	–	2,146
Subsidiaries	–	53	53	–	–	–	–
Properties and other fixed assets	2,166	2,166	2,166	–	–	–	–
Goodwill	168	–	–	–	–	–	–
Total assets	**445,661**	**445,546**	**431,857**	**459**	**–**	**11,413**	**2,158**
Liabilities							
Due to banks	9,880	9,880	–	–	–	–	9,880
Deposits and balances from customers	363,658	363,672	–	–	–	–	363,672
Derivatives	840	840	–	288	–	361	552
Certificates of deposit issued	5,558	5,558	–	–	–	–	5,558
Other liabilities	23,544	23,544	–	–	–	2,793	20,751
Amounts due to subsidiaries	–	68	–	–	–	–	68
Subordinated liability	4,229	4,229	–	–	–	–	4,229
Total liabilities	**407,709**	**407,791**	**–**	**288**	**–**	**3,154**	**404,710**

6 LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES (continued)

6.2 Main Sources of Differences between Regulatory Exposure Amounts and Carrying Values in Financial Statements

The following table provides information on the main sources of differences between regulatory exposure amounts and carrying amounts in the financial statement.

In HK$ millions		As at 31 December 2018				
			Items subject to:			
		Total	credit risk framework	securitization framework	counterparty credit risk framework	market risk framework
1	**Assets carrying value amount under scope of regulatory consolidation**	443,388	431,857	–	459	11,413
2	Liabilities carrying value amount under regulatory scope of consolidation	3,081	–	–	288	3,154
3	Total net amount under regulatory scope of consolidation	440,307	431,857	–	171	8,259
4	Off-balance sheet amounts	174,821	62,165	–	–	–
5	Differences due to netting and potential future exposures for derivatives	1,784	–	–	1,784	–
6	Differences due to general and specific allowances	2,383	2,383	–	–	–
7	Other differences	(6,291)	(6,291)	–	–	–
8	**Exposure amounts considered for regulatory purposes**	**613,004**	**490,114**	**–**	**1,955**	**8,259**

Explanations of differences between accounting and regulatory exposure amounts

The key differences between regulatory exposure amounts and accounting carrying values under the regulatory scope of consolidation are:

(i) Off-balance sheet amounts: Off-balance sheet amounts include contingent liabilities and undrawn portions of committed facilities after application of credit conversion factors;
(ii) Differences due to netting and potential future exposures for derivatives: Derivative regulatory exposures are netted (where an enforceable master netting agreement is in place) and also include potential future exposures;
(iii) Differences due to general and specific allowances: The carrying values of assets in the financial statement are net of allowances. The regulatory exposures under IRB approach are gross of all allowances while those under STC approach are net of specific allowances; and
(iv) Other differences: These mainly include differences arising from the recognition of credit risk mitigation.

6 LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES (continued)

6.3 Prudent Valuation Adjustments

The following table provides a breakdown of the elements of prudent valuation adjustments.

		As at 31 December 2018							
In HK$ millions		Equity	Interest rates	FX	Credit	Commodities	Total	Of which: In the trading book	Of which: In the banking book
1	Close-out uncertainty, of which:	–	1	–	–	–	1	–	1
2	Mid-market value	–	–	–	–	–	–	–	–
3	Close out costs	–	–	–	–	–	–	–	–
4	Concentration	–	1	–	–	–	1	–	1
5	Early termination	–	–	–	–	–	–	–	–
6	Model risk	–	–	–	–	–	–	–	–
7	Operational risks	–	–	–	–	–	–	–	–
8	Investing and funding costs						–	–	–
9	Unearned credit spreads						–	–	–
10	Future administrative costs	–	–	–	–	–	–	–	–
11	Other adjustments	–	–	–	–	–	–	–	–
12	**Total adjustments**	**–**	**1**	**–**	**–**	**–**	**1**	**–**	**1**

Section 4A of the Banking (Capital) Rules sets out the requirements for valuing financial instruments that are accounted for at fair value, regardless of whether these are booked in the trading or banking book, for the purpose of determining capital requirements. Banks are required to apply prudence and make appropriate adjustments, taking into account valuation uncertainties. Valuation adjustments taken in addition to that which has been incorporated into the financial statements are known as prudent valuation adjustments (“PVA”). PVA is deducted from CET1 capital.

The Group maintains policies, systems and controls for the calculation of valuation adjustments, including PVA. The Group’s PVA methodology addresses fair value uncertainties arising from the following factors (where relevant): concentrated positions, unearned credit spreads, close out costs, operational risks, early termination costs, investing and funding costs, future administrative costs and model risk.

Please refer to note 30 Fair Value of Financial Instruments of the financial statements for details of valuation process of the Group.

7 COMPOSITION OF REGULATORY CAPITAL

7.1 Composition of Regulatory Capital

As at 31 December 2018

In HK$ millions		Amount	Source based on reference numbers of the balance sheet under the regulatory scope of consolidation
	CET1 capital: instruments and reserves		
1	Directly issued qualifying CET1 capital instruments plus any related share premium	7,595	(5)
2	Retained earnings	26,431	(7)
3	Disclosed reserves	2,329	(8)
4	*Directly issued capital subject to phase-out arrangements from CET1 (only applicable to non-joint stock companies)*	NA	NA
5	Minority interests arising from CET1 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in CET1 capital of the consolidation group)	–	
6	**CET1 capital before regulatory adjustments**	36,355	
	CET1 capital: regulatory deductions		
7	Valuation adjustments	1	
8	Goodwill (net of associated deferred tax liabilities)	–	
9	Other intangible assets (net of associated deferred tax liabilities)	–	
10	Deferred tax assets (net of associated deferred tax liabilities)	153	(3)
11	Cash flow hedge reserve	29	(11)
12	Excess of total EL amount over total eligible provisions under the IRB approach	224	(2)
13	Credit-enhancing interest-only strip, and any gain-on-sale and other increase in the CET1 capital arising from securitization transactions	–	
14	Gains and losses due to changes in own credit risk on fair valued liabilities	–	
15	Defined benefit pension fund net assets (net of associated deferred tax liabilities)	–	
16	Investments in own CET1 capital instruments (if not already netted off paid-in capital on reported balance sheet)	–	
17	Reciprocal cross-holdings in CET1 capital instruments	–	
18	Insignificant capital investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	–	

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.1 Composition of Regulatory Capital (continued)

As at 31 December 2018

In HK$ millions		Amount	Source based on reference numbers of the balance sheet under the regulatory scope of consolidation
19	Significant capital investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	–	
20	Mortgage servicing rights (net of associated deferred tax liabilities)	NA	NA
21	Deferred tax assets arising from temporary differences (net of associated deferred tax liabilities)	NA	NA
22	Amount exceeding the 15% threshold	NA	NA
23	of which: significant investments in the ordinary share of financial sector entities	NA	NA
24	of which: mortgage servicing rights	NA	NA
25	of which: deferred tax assets arising from temporary differences	NA	NA
26	National specific regulatory adjustments applied to CET1 capital		
26a	Cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties)	–	
26b	Regulatory reserve for general banking risks	534	(9)
26c	Securitization exposures specified in a notice given by the MA	–	
26d	Cumulative losses below depreciated cost arising from the institution's holdings of land and buildings	–	
26e	Capital shortfall of regulated non-bank subsidiaries	–	
26f	Capital investment in a connected company which is a commercial entity (amount above 15% of the reporting institution's capital base)	–	
27	Regulatory deductions applied to CET1 capital due to insufficient AT1 capital and Tier 2 capital to cover deductions	–	
28	**Total regulatory deductions to CET1 capital**	941	
29	**CET1 capital**	35,414	
	AT1 capital: instruments		
30	Qualifying AT1 capital instruments plus any related share premium	1,400	
31	of which: classified as equity under applicable accounting standards	1,400	(6)

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.1 Composition of Regulatory Capital (continued)

As at 31 December 2018

In HK$ millions		Amount	Source based on reference numbers of the balance sheet under the regulatory scope of consolidation
32	of which: classified as liabilities under applicable accounting standards	–	
33	*Capital instruments subject to phase-out arrangements from AT1 capital*	–	
34	AT1 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in AT1 capital of the consolidation group)	–	
35	of which: AT1 capital instruments issued by subsidiaries subject to phase-out arrangements	–	
36	**AT1 capital before regulatory deductions**	1,400	
	AT1 capital: regulatory deductions		
37	Investments in own AT1 capital instruments	–	
38	Reciprocal cross-holdings in AT1 capital instruments	–	
39	Insignificant capital investments in AT1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	–	
40	Significant capital investments in AT1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation	–	
41	National specific regulatory adjustments applied to AT1 capital	–	
42	Regulatory deductions applied to AT1 capital due to insufficient Tier 2 capital to cover deductions	–	
43	**Total regulatory deductions to AT1 capital**	–	
44	**AT1 capital**	1,400	
45	**Tier 1 capital (T1 = CET1 + AT1)**	36,814	
	Tier 2 capital: instruments and provisions		
46	Qualifying Tier 2 capital instruments plus any related share premium	4,229	(4)
47	*Capital instruments subject to phase-out arrangements from Tier 2 capital*	–	
48	Tier 2 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in Tier 2 capital of the consolidation group)	–	
49	*of which: capital instruments issued by subsidiaries subject to phase-out arrangements*	–	

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.1 Composition of Regulatory Capital (continued)

As at 31 December 2018

In HK$ millions		Amount	Source based on reference numbers of the balance sheet under the regulatory scope of consolidation
50	Collective provisions and regulatory reserve for general banking risks eligible for inclusion in Tier 2 capital	305	(10)-(1)
51	**Tier 2 capital before regulatory deductions**	4,534	
	Tier 2 capital: regulatory deductions		
52	Investments in own Tier 2 capital instruments	–	
53	Reciprocal cross-holdings in Tier 2 capital instruments	–	
54	Insignificant capital investments in Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	–	
55	Significant capital investments in Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (net of eligible short positions)	–	
56	National specific regulatory adjustments applied to Tier 2 capital	–	
56a	Add back of cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties) eligible for inclusion in Tier 2 capital	–	
57	**Total regulatory adjustments to Tier 2 capital**	–	
58	**Tier 2 capital (T2)**	4,534	
59	**Total regulatory capital (TC = T1 + T2)**	41,348	
60	**Total RWA**	233,890	
	Capital ratios (as a percentage of RWA)		
61	**CET1 capital ratio**	15.1%	
62	**Tier 1 capital ratio**	15.7%	
63	**Total capital ratio**	17.7%	
64	**Institution-specific buffer requirement (capital conservation buffer plus countercyclical capital buffer plus higher loss absorbency requirements)**	3.522%	
65	of which: capital conservation buffer requirement	1.875%	
66	of which: bank specific countercyclical capital buffer requirement	1.647%	
67	of which: higher loss absorbency requirement	0.0%	
68	CET1 (as a percentage of RWA) available after meeting minimum capital requirements	9.7%	

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.1 Composition of Regulatory Capital (continued)

As at 31 December 2018

In HK$ millions		Amount	Source based on reference numbers of the balance sheet under the regulatory scope of consolidation
	National minima (if different from Basel 3 minimum)		
69	National CET1 minimum ratio	NA	NA
70	National Tier 1 minimum ratio	NA	NA
71	National Total capital minimum ratio	NA	NA
	Amounts below the thresholds for deduction (before risk weighting)		
72	Insignificant capital investments in CET1, AT1 and Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation	1,607	
73	Significant capital investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation	45	
74	Mortgage servicing rights (net of associated deferred tax liabilities)	NA	NA
75	Deferred tax assets arising from temporary differences (net of associated deferred tax liabilities)	NA	NA
	Applicable caps on the inclusion of provisions in Tier 2 capital		
76	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to the BSC approach, or the STC approach and SEC-ERBA, SEC-SA and SEC-FBA (prior to application of cap)	305	
77	Cap on inclusion of provisions in Tier 2 under the BSC approach, or the STC approach, and SEC-ERBA, SEC-SA and SEC-FBA	326	
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to the IRB approach and SEC-IRBA (prior to application of cap)	–	
79	Cap for inclusion of provisions in Tier 2 under the IRB approach and SEC-IRBA	1,134	
	Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2018 and 1 Jan 2022)		
80	*Current cap on CET1 capital instruments subject to phase-out arrangements*	NA	NA
81	*Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)*	NA	NA

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.1 Composition of Regulatory Capital (continued)

As at 31 December 2018

In HK$ millions		Amount	Source based on reference numbers of the balance sheet under the regulatory scope of consolidation
82	*Current cap on AT1 capital instruments subject to phase-out arrangements*	–	
83	*Amount excluded from AT1 capital due to cap (excess over cap after redemptions and maturities)*	–	
84	*Current cap on Tier 2 capital instruments subject to phase-out arrangements*	–	
85	*Amount excluded from Tier 2 capital due to cap (excess over cap after redemptions and maturities)*	–	

Note to the template

Elements where a more conservative definition has been applied in the BCR relative to that set out in Basel III capital standards are disclosed below:

Row No.	Description	Hong Kong basis HK$M	Basel III basis HK$M
10	**Deferred tax assets (net of associated deferred tax liabilities)**	153	–
	Explanation As set out in paragraphs 69 and 87 of the Basel III text issued by the Basel Committee (December 2010), DTAs of the bank to be realized are to be deducted, whereas DTAs which relate to temporary differences may be given limited recognition in CET1 capital (and hence be excluded from deduction from CET1 capital up to the specified threshold). In Hong Kong, an AI is required to deduct all DTAs in full, irrespective of their origin, from CET1 capital. Therefore, the amount to be deducted as reported in row 10 may be greater than that required under Basel III. The amount reported under the column “Basel III basis” in this box represents the amount reported in row 10 (i.e. the amount reported under the “Hong Kong basis”) adjusted by reducing the amount of DTAs to be deducted which relate to temporary differences to the extent not in excess of the 10% threshold set for DTAs arising from temporary differences and the aggregate 15% threshold set for MSRs, DTAs arising from temporary differences and significant investments in CET1 capital instruments issued by financial sector entities (excluding those that are loans, facilities or other credit exposures to connected companies) under Basel III.		

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.2 Reconciliation of Regulatory Capital to Balance Sheet

In HK$ millions	Balance sheet as in published financial statements	Under regulatory scope of consolidation	Reference numbers
	As at 31 December 2018	As at 31 December 2018	
Assets			
Cash and balances with central banks	3,028	3,028	
Government securities and treasury bills	38,289	38,289	
Due from banks	222,057	222,057	
Derivatives	471	471	
Bank and corporate securities	9,418	9,418	
Loans and advances to customers	162,171	162,171	
of which: Allowances eligible for inclusion in Tier 2 capital		*(240)*	(1)
Excess of total expected loss amount over total eligible provision under the IRB approach		*224*	(2)
Other assets	7,893	7,893	
of which: Deferred tax assets		*153*	(3)
Subsidiaries	–	53	
Properties and other fixed assets	2,166	2,166	
Goodwill	168	–	
Total assets	**445,661**	**445,546**	
Liabilities			
Due to banks	9,880	9,880	
Deposits and balances from customers	363,658	363,672	
Derivatives	840	840	
Certificates of deposit issued	5,558	5,558	
Other liabilities	23,544	23,544	
Amount due to subsidiaries	–	68	
Subordinated liability	4,229	4,229	(4)
Total liabilities	**407,709**	**407,791**	
Equity			
Ordinary shares		*7,595*	(5)
Preference shares		*1,400*	(6)
Share capital	8,995	8,995	
Retained earnings		*26,431*	(7)
Other reserves		*2,329*	(8)
Reserves	28,957	28,760	
of which: Retained earnings earmarked as regulatory reserve		*534*	(9)
which includes regulatory reserve eligible for inclusion in Tier 2 Capital		*65*	(10)
of which: Cash flow hedge reserves		*29*	(11)
Total equity	**37,952**	**37,755**	
Total liabilities and equity	**445,661**	**445,546**	

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.3 Main Features of Regulatory Capital Instruments

		CET 1 Capital Ordinary Shares	Additional Tier 1 Capital HK$1.4b Preference Shares issued in October 2016	Tier 2 Capital US$540m Subordinated Loan issued in December 2017
1	Issuer	DBS Bank (Hong Kong) Limited	DBS Bank (Hong Kong) Limited	DBS Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	NA	NA	NA
3	Governing law(s) of the instrument	Hong Kong law	Hong Kong Law	Hong Kong law
	Regulatory treatment			
4	Transitional Basel III rules	Common Equity Tier 1	Additional Tier 1	Tier 2
5	Post-transitional Basel III rules	Common Equity Tier 1	Additional Tier 1	Tier 2
6	Eligible at solo/ group/ group & solo	Solo	Solo	Solo
7	Instrument type	Ordinary Shares	Preference Shares	Subordinated loan
8	Amount recognized in regulatory capital (currency in millions, as of most recent reporting date)	HK$7,595 million	HK$1,400 million	HK$4,229 million
9	Par value of instrument	NA	HK$1,400 million	US$540 million
10	Accounting classification	Shareholders' equity	Shareholders' equity	Liability – amortized cost
11	Original date of issuance	Since incorporation	13 October 2016	13 December 2017
12	Perpetual or dated	Perpetual	Perpetual	Dated
13	Original maturity date	No maturity	No maturity	13 December 2027
14	Issuer call subject to prior supervisory approval	No	Yes	Yes
15	Optional call date, contingent call dates and redemption amount	NA	First optional call date: 13 October 2021 Contingent call dates: Change of Qualification Event, or Tax event Redemption amount: Liquidation Preference together with, subject to certain limitations and qualifications, accrued but unpaid Dividends	First optional call date: 13 December 2022 Contingent call dates: Change of Qualification Event or Tax Event Redemption amount: Principal amount together with accrued and unpaid interest

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.3 Main Features of Regulatory Capital Instruments (continued)

		CET 1 Capital Ordinary Shares	Additional Tier 1 Capital HK$1.4b Preference Shares issued in October 2016	Tier 2 Capital US$540m Subordinated Loan issued in December 2017
16	Subsequent call dates, if applicable	NA	Optional call dates – any date after 13 October 2021	Optional call dates – any date after 13 December 2022
	Coupons / dividends			
17	Fixed or floating dividend/coupon	Discretionary dividend amount	Fixed	Floating
18	Coupon rate and any related index	The Ordinary Shares receive distributable profits that have been declared as dividend	3.9% per annum	USD 3-month LIBOR plus 1.62% per annum
19	Existence of a dividend stopper	NA	No	No
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary	Fully discretionary	Mandatory
21	Existence of step-up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Convertible	Non-convertible

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.3 Main Features of Regulatory Capital Instruments (continued)

		CET 1 Capital Ordinary Shares	Additional Tier 1 Capital HK$1.4b Preference Shares issued in October 2016	Tier 2 Capital US$540m Subordinated Loan issued in December 2017
24	If convertible, conversion trigger(s)	NA	The Preference shares would be converted into ordinary shares of the Bank upon the occurrence of the trigger event. Trigger event is the earlier of: (i) The HKMA notifying the Bank in writing that it is of the opinion that a conversion is necessary, without which the Bank would become non-viable, or (ii) The HKMA notifying the Bank in writing that a decision has been made by the government body, a government officer or other relevant regulatory body with the authority to make such a decision, that a public sector injection of capital or equivalent support is necessary, without which the Bank would become non-viable.	NA
25	If convertible, fully or partially	NA	Fully or partially	NA
26	If convertible, conversion rate	NA	Conversion price is the net tangible assets per ordinary share at the latest month end prior to conversion, floored at HK$1 per ordinary share	NA
27	If convertible, mandatory or optional conversion	NA	Mandatory	NA
28	If convertible, specify instrument type convertible into	NA	Common Equity Tier 1	NA

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.3 Main Features of Regulatory Capital Instruments (continued)

		CET 1 Capital Ordinary Shares	Additional Tier 1 Capital HK$1.4b Preference Shares issued in October 2016	Tier 2 Capital US$540m Subordinated Loan issued in December 2017
29	If convertible, specify issuer of instrument it converts into	NA	DBS Bank (Hong Kong) Limited	NA
30	Write-down feature	No	No	Yes
31	If write-down, write-down trigger(s)	NA	NA	Trigger event is the earlier of: (i) The HKMA notifying the Bank in writing that it is of the opinion that a write-off is necessary, without which the Bank would become non-viable, or (ii) The HKMA notifying the Bank in writing that a decision has been made by the government body, a government officer or other relevant regulatory body with the authority to make such a decision, that a public sector injection of capital or equivalent support is necessary, without which the Bank would become non-viable.
32	If write-down, full or partial	NA	NA	Fully or Partially
33	If write-down, permanent or temporary	NA	NA	Permanent
34	If temporary write-down, description of write-up mechanism	NA	NA	NA

7 COMPOSITION OF REGULATORY CAPITAL (continued)

7.3 Main Features of Regulatory Capital Instruments (continued)

		CET 1 Capital Ordinary Shares	Additional Tier 1 Capital HK$1.4b Preference Shares issued in October 2016	Tier 2 Capital US$540m Subordinated Loan issued in December 2017
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned)	Immediately subordinated to Additional Tier 1 capital instruments	Immediately subordinated to Tier 2 capital instruments	Immediately subordinated to senior creditors
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	NA	NA	NA

	Terms and conditions – Ordinary Shares	Terms and conditions – Preference Shares	Terms and conditions – Subordinated Loan
	https://www.dbs.com/iwov-resources/pdf/hongkong/tnc-ordinary-shares.pdf	*https://www.dbs.com/iwov-resources/pdf/hongkong/tnc-preference-shares.pdf*	*https://www.dbs.com/iwov-resources/pdf/hongkong/tnc-subordinated-loan-agreement.pdf*

8 COUNTERCYCLICAL CAPITAL BUFFER

8.1 Geographical Distribution of Credit Exposures used in Countercyclical Capital Buffer

The following table provides an overview of the geographical distribution of the RWA of private sector credit exposures relevant for the calculation of the Bank's Countercyclical Capital Buffer ("CCyB") ratio.

In HK$ millions		**As at 31 December 2018**			
	Geographical breakdown by Jurisdiction (J)	**Applicable JCCyB ratio in effect (%)**	**RWA used in computation of CCyB ratio**	**AI-specific CCyB ratio (%)**	**CCyB amount**
1	Hong Kong SAR	1.875	125,201		
2	United Kingdom	1.0	970		
	Sum		126,171		
	Total		**143,101**	**1.647%**	**3,852**

9 LEVERAGE RATIO

9.1 Summary Comparison of Accounting Assets Against Leverage Ratio Exposure Measure

In HK$ millions

	Item	Value under the LR framework As at 31 December 2018
1	Total consolidated assets as per published financial statements	445,661
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	45
3	Adjustment for fiduciary assets recognized on the balance sheet pursuant to the applicable accounting standard but excluded from the LR exposure measure	–
4	Adjustments for derivative contracts	1,483
5	Adjustment for SFTs (i.e. repos and similar secured lending)	–
6	Adjustment for off-balance sheet (“OBS”) items (i.e. conversion to credit equivalent amounts of OBS exposures)	23,506
6a	Adjustment for specific and collective provisions that are allowed to be excluded from exposure measure	(102)
7	Other adjustments	(3,093)
8	**Leverage ratio exposure measure**	467,500

9 LEVERAGE RATIO (continued)

9.2 Leverage Ratio

In HK$ millions		As at 31 December 2018	As at 30 September 2018
On-balance sheet exposures			
1	On-balance sheet exposures (excluding those arising from derivative contracts and SFTs, but including collateral)	445,511	437,735
2	Less: Asset amounts deducted in determining Tier 1 capital	(941)	(1,109)
3	**Total on-balance sheet exposures (excluding derivative contracts and SFTs)**	**444,570**	**436,626**
Exposures arising from derivative contracts			
4	Replacement cost associated with all derivative contracts (whether applicable net of eligible cash variation margin and/or with bilateral netting)	171	224
5	Add-on amounts for PFE associated with all derivative contracts	1,784	1,614
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	–	–
7	Less: Deductions of receivables assets for cash variation margin provided under derivative contracts	–	–
8	Less: Exempted CCP leg of client-cleared trade exposures	–	–
9	Adjusted effective notional amount of written credit derivative contracts	–	–
10	Less: Adjusted effective notional offsets and add-on deductions for written credit derivative contracts	–	–
11	**Total exposures arising from derivative contracts**	**1,955**	**1,838**
Exposures arising from SFTs			
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	–	–
13	Less: Netted amounts of cash payables and cash receivables of gross SFT assets	–	–
14	CCR exposure for SFT assets	–	–
15	Agent transaction exposures	–	–
16	**Total exposures arising from SFTs**	**–**	**–**
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	174,821	171,977
18	Less: Adjustments for conversion to credit equivalent amounts	(151,315)	(150,745)
19	**Off-balance sheet items**	**23,506**	**21,232**
Capital and total exposures			
20	**Tier 1 capital**	**36,814**	**37,314**
20a	Total exposures before adjustments for specific and collective provisions	470,031	459,696
20b	Adjustments for specific and collective provisions	(2,531)	(2,369)
21	**Total exposures after adjustments for specific and collective provisions**	**467,500**	**457,327**
Leverage ratio			
22	**Leverage ratio (%)**	**7.9**	**8.2**

10 CREDIT RISK

10.1 Qualitative Disclosures

10.1.1 General Qualitative Disclosures

Credit risk arises from borrowers or counterparties failing to meet their debt or contractual obligations. It includes both the risk of lending as well as the pre-settlement and settlement risk of foreign exchange, derivatives and debt securities.

RMG-Credit Risk unit, as part of the RMG, is the second line of defence responsible for the development and maintenance of credit risk management and internal control frameworks. It provides independent review and challenge to the first line of defence (e.g. Business Units) who are ultimately responsible for the identification, assessment and management of risk on an end-to-end basis and in conformity with approved risk appetite and policies.

Various functions under RMG-Credit Risk unit reports to the Hong Kong Senior Risk Executive:

- Credit risk managers approve and control credit risk and portfolio quality and ensure compliance with all applicable credit policies, and procedures

- Credit control units monitor compliance with credit risk policies and standards of the Group and perform independent checks on completeness of documentation and compliance of credit conditions

RMG-Credit Risk unit also partners the Legal and Compliance unit to ensure all risk-taking activities abide by all regulations, while Internal Audit unit serves as a third line of defence to provide an independent assessment and assurance on the reliability, adequacy and effectiveness of our system of internal controls, risk management procedures, governance framework and processes.

The Group's credit risk management is supported by policies which cover credit risk management process and establish a consistent Group-wide approach for managing credit risk in a structured, systematic and consistent manner.

These policies, supplemented by a number of operational policies and standards, ensure consistency in identifying, assessing, underwriting, measuring, reporting and controlling credit risk across the Group, and provide guidance in the formulation of business-specific and/or location-specific credit risk policies and standards.

Day-to-day monitoring of credit exposures, portfolio performance and external environmental factors potentially affecting credit risk profiles is key to the Group's philosophy of effective credit risk management. Credit trends, which may include industry analysis, early warning alerts and significant weak credits are submitted to the various risk committees. Please refer to Section 3 on the risk management committees established to discuss the various risk types.

In managing its portfolio risk profile, the Group has put in place the Target Market and Risk Acceptance Criteria ("TMRAC") that support the Group's portfolio strategy planning and ensure well-defined and consistent customer onboarding standards across the Group.

The Delegation of Authority ("DOA") Standard sets out the level of credit authority required for approval of credit extension to a DOA group, taking into consideration the risk rating and total credit facility limits extended on a groupwide basis. The Group's ultimate credit authority is vested with the Group's Board of Directors.

The Group engages in various types of credit stress testing, and these are driven either by regulators or internal requirements and management. Independent risk management functions that report to the Senior Risk Executive are jointly responsible for developing and maintaining a robust credit stress testing programme. These units oversee the implementation of credit stress tests as well as the analysis of the results, of which the management, various risk committees and regulators are informed.

10 CREDIT RISK (continued)

10.1 Qualitative Disclosures (continued)

10.1.2 Qualitative Disclosures related to CRM techniques

The Group's policies provide detailed policy requirements and references on:

- Eligible collaterals
- Collateral valuation and valuation method
- Appointment of valuers / appraisers
- Loan-to-valuation / margin calls

Core processes for collateral evaluation include:

- Frequency of valuation for the various asset classes
- In the case of classified credits, the minimum discount to be applied to the Net Book Value / Fair Market Value
- Ownership and approving authority
- Deviations

Where possible, the Group takes collateral as a secondary recourse to the borrower. This includes, but not limited to, cash, marketable securities, real estate, trade receivables, inventory and equipment, and other physical and/or financial collateral. The Group may also take fixed and floating charges on the assets of borrowers.

The Group's collateral is generally diversified and periodic valuations of collateral are required. Real estate constitutes the bulk of the Group's collateral, while marketable securities and cash are immaterial.

For derivatives, repurchase agreements (repo) and other repo-style transactions with financial market counterparties, collateral arrangements are typically covered under market-standard documentation, such as International Swaps & Derivatives Association (ISDA) Agreements and Master Repurchase Agreements. The collateral received is marked-to-market on a frequency the Group and the counterparties mutually agreed upon, governed by internal guidelines with respect to the collateral eligibility. In the event of a default, the credit risk exposure is reduced by master-netting arrangements where the Group is allowed to offset what the Group owes a counterparty against what is due from that counterparty in a netting-eligible jurisdiction.

In times of difficulty, the Group will review the customer's specific situation and circumstances to assist them in restructuring their financial obligations. However, should the need arise, disposal and recovery processes are in place to dispose of collateral held. The Group maintains a panel of agents and solicitors to assist in the disposal of non-liquid assets and specialized equipment quickly.

The Group also accepts guarantees as credit risk mitigants. Internal thresholds for considering the eligibility of guarantors for credit risk mitigation are in place.

10.1.3 Qualitative Disclosures for IRBA Models

Structure and control mechanisms for internal rating systems

The Bank adopts various rating systems for the different asset classes under Internal Ratings Based Approach ("IRB"). There is a robust governance process for the development and approval of a credit risk model. Credit risk models developed are validated by an independent risk unit in the DBSH to ensure they are fit for purpose. The roles and responsibilities between various stakeholders in the model development and management process are articulated in the Model Risk Policy. This policy applies to the Group, including its banking subsidiaries on a Group basis. The models are placed through a rigorous review process prior to endorsement by Hong Kong Credit Risk Committee of the Bank and Group Credit Risk Model Committee of DBSH. The models have also been approved by Risk Executive Committee and Board Risk Management Committee of the Bank and Risk Executive Committee and Board Risk Management Committee of DBSH before use.

10 CREDIT RISK (continued)

10.1 Qualitative Disclosures (continued)

10.1.3 Qualitative Disclosures for IRBA Models (continued)

To ensure the adequacy and robustness of these rating systems on a continual basis, the Bank conducts regular performance monitoring on these rating systems and reports the results to the relevant Group Risk Committees; the main findings of the monitoring outcome is also reported to the Board Risk Management Committee of the Bank. In addition, an independent risk unit, i.e., Model Validation, conducts formal validation annually for each of the rating systems. The validation processes are also subject to an independent review by Internal Audit. This process ensures that any material deterioration in the rating system performance is highlighted for management's attention.

Use of internal estimates

The internal credit risk ratings produced by credit rating models are used to calculate the IRB approach capital requirements. In addition, the ratings from the credit models are used as the basis to support the underwriting of credit, monitoring the performance of the portfolios, reporting, stress testing, risk rating migration and to facilitate the calculation for risk based pricing.

For portfolios under the Foundation Internal Rating Based Approach ("F-IRB"), internal estimates of Probability of Default ("PD") are used while the supervisory Loss Given Default ("LGD") and Exposure at Default ("EAD") estimates are applied. For retail portfolios under the Retail-IRB approach, internal estimates of PD, LGD and EAD are used. Relevant regulatory floors are applied in regulatory capital calculation and reporting.

Nature of exposures within IRB approach

Retail exposures

Retail exposures comprise residential mortgages, qualifying revolving retail exposures, small business retail exposures and other retail exposures to individuals. These exposures are categorised into asset classes under the Retail IRB approach.

Retail portfolios are categorised into asset classes under the Retail IRB approach, namely residential mortgages, qualifying revolving retail exposures, small business retail exposures and other retail exposures to individuals.

Portfolios on Retail-IRB approach constitute 18% of the Bank's Credit EAD and 15% of the Bank's Credit RWA.

Within each asset class, exposures are managed on a portfolio basis. Each account is assigned to a risk pool, taking into consideration factors such as borrower characteristics and account behaviour and collateral type. Loss estimates are based on historical default, utilisation and realised losses within a defined period. Default is identified at facility level. Business-specific credit risk policies and procedures including underwriting criteria, scoring models, approving authorities, frequency of asset quality and business strategy reviews; as well as systems, processes and techniques to monitor portfolio performance against benchmarks are in place. Credit risk models for secured and unsecured portfolios are being used for associated retail exposures to update risk level of each loan on a monthly basis, reflecting the broad usage of risk models in portfolio quality reviews in accordance with Basel Capital Accord principles.

10 CREDIT RISK (continued)

10.1 Qualitative Disclosures (continued)

10.1.3 Qualitative Disclosures for IRBA Models (continued)

Wholesale exposures

Wholesale exposures comprise sovereign, bank, corporate, corporate small business (which are assessed under Foundation IRB approach for capital computation) and specialised lending (which is assessed under the supervisory slotting criteria approach for capital computation).

Portfolios on wholesale Foundation-IRB approach (excluding Specialized Lending) constitute 72% of the Bank's Credit EAD and 67% of the Bank's Credit RWA.

Sovereign exposures are risk rated using internal risk rating models and guidelines in line with Foundation IRB portfolios. The models are built through statistical methods using external data (e.g., macroeconomic information and external ratings). Factors related to country-specific macroeconomics risk, political risk, social risk and liquidity risk are included in the sovereign rating models to assess the sovereign credit risk in an objective and systematic manner.

Bank exposures are assessed using a bank rating model, a statistical model that considers both external information (financial statements, external ratings) and internal information (qualitative factors), covering various quantitative and qualitative credit risk factors such as capital levels and liquidity, asset quality, earnings, management and market sensitivity. The risk ratings derived are benchmarked against external credit risk ratings to ensure that the internal rating systems are well aligned and appropriately calibrated.

Corporate credits are assessed using approved internal rating models and reviewed by credit risk managers taking into consideration of relevant credit risk factors. It is a statistical model built based on internal data and calibrated to the long-run internal default experience. Credit factors considered in the rating process include the obligor's financial standing and non-financial factors such as management quality, access to funding, industry outlook and market position. The Counterparty Risk Rating assigned to smaller business borrowers is primarily based on the borrower's financial position and strength, which are assessed via the use of validated quantitative tool. This is supplemented by account behaviour factors such as facility utilisation as appropriate.

Credit ratings under the Foundation IRB portfolios are reviewed on an annual basis at a minimum unless credit conditions require more frequent assessment. The Counterparty Risk Rating process is reinforced by the Facility Risk Rating Framework which considers other exposure risk mitigations, such as collateral, third party guarantees and transfer risks.

A default is considered to have occurred with regard to a particular obligor when either or both of the two following events have taken place

– Subjective default: Obligor is unlikely to pay its credit obligations in full, without recourse by the Bank to actions such as realising security (if held).

– Technical default: Obligor is past due more than 90 days on any credit obligation to the Bank.

Other exposures mainly comprise premises, equipment and other fixed assets and notes and coins, which are assessed under specific risk-weight approach.

In Other Portfolios, portfolios on Standardized approach account for 6% of the Bank's Credit EAD and 12% of the Bank's Credit RWA. The remaining portions are mainly Specialized Lending under Supervisory Slotting Criteria Approach and other exposures under Specific Risk Weight Approach.

10 CREDIT RISK (continued)

10.1 Qualitative Disclosures (continued)

10.1.3 Qualitative Disclosures for IRBA Models (continued)

Definitions of variables

The group-wide credit risk rating framework incorporates Probability of Default ("PD") of a counterparty and loss severity expressed in terms of Exposure-at-Default ("EAD") and Loss Given Default ("LGD").

PD expressed as a percentage, measures the probability that a borrower will default within one year.

LGD expressed as a percentage, is an estimate of the severity of the loss that the Bank will experience per unit of exposure in the event that the borrower defaults.

EAD is the expected amount of the exposure upon the default of the borrower, which is the sum of the on-balance sheet amounts and/or credit equivalent of the off-balance sheet amounts multiplied by a credit conversion factor determined in accordance with the Banking (Capital) Rules.

Methods and data for estimation and validation of the PD, LGD and EAD

For retail exposures, facilities / borrowers with homogenous nature of facility utilisation, payment history, delinquency trend and other transaction characteristics are segmented into homogenous risk pools. PD is estimated by each risk pool based on long run average of historical internal default experience with appropriate adjustment to reflect adverse economic condition to ensure conservatism for capital calculation. The LGD is estimated by dividing the loss by EAD. Loss represents the written-off or specific provision amounts plus collection costs at the end of LGD workout period after netting off recoveries. The LGD is calibrated to reflect adverse economic condition to ensure conservatism for capital calculation. For retail non-revolving exposures, EAD estimation is based on the sum of current outstanding. For retail revolving exposures, EAD estimation is referring to projected further draw down prior to defaults based on historical experience.

For wholesale exposures (including corporate, corporate small business, bank and sovereign exposures), PD generated by models and/or rating templates for individual counterparty is reviewed by credit risk managers. An Adjusted Counterparty Risk Rating ("ACRR") is assigned by taking the counterparty's PD and mapping it to the Bank's internal ACRR scale. The Bank applies the LGD determined by reference to the supervisory LGD estimates provided by the HKMA based on the nature of the collateral for its Foundation IRB portfolios and subordination. These supervisory LGD estimates are used in the computation of risk-weights and regulatory capital calculations for the portfolios. EAD estimation is subject to parameters set by the HKMA.

ACRR is estimated using a 11-grade scale expanded into 19 risk ratings to provide greater rating granularity that corresponds more closely to the Standard & Poor's ("S&P") rating scale. 14 of which are non-default ratings representing varying degrees of strength of financial condition, and 5 are default ratings. These scales are used group-wide for all distinct borrowers.

For specialised lending exposure, rating is assigned based on the borrower and transaction characteristics. Specialised lending is a type of exposure typically towards an entity specifically created to finance or operate physical assets where the primary source of income and repayment of the obligation lies directly with the assets being financed. The Bank uses supervisory slotting criteria approach in rating its regulatory specialised lending exposure by adopting the specialised lending rating templates. For example, for income-producing real estate specialised lending exposure, the Bank adopts a credit scoring framework to enable a granular assessment of credit risk for the real estate financing activities aligning with the context of Hong Kong real estate market and the DBSH's real estate lending policies.

Model validation process enables the Bank to reaffirm the continuing appropriateness of the models. The model validation process involves quantitative and qualitative assessment of the model that includes assessment of a model's discriminatory power, calibration, ratings stability and model design. To ensure the models are reliable, an independent validation is conducted by Risk Management Group and an independent review on the validation process is carried out by Internal Audit.

10 CREDIT RISK (continued)

10.1 Qualitative Disclosures (continued)

10.1.3 Qualitative Disclosures for IRBA Models (continued)

Methods and data for estimation and validation of the PD, LGD and EAD (continued)

The credit risk ratings for the wholesale exposures have been mapped to likely corresponding external rating equivalents. A description of the risk rating is provided in the following table to give a qualitative explanation of the risk benchmark.

DBS PD Grade (ACRR)	Description of Risk Ratings	Internal Classification	S&P's Likely Ratings
1	Taking into account the impact of relevant economic, social or geopolitical conditions, capacity to meet its financial commitment is exceptional	Exceptional	AAA
2	Taking into account the impact of the relevant economic, social or geopolitical conditions, capacity to meet its financial commitment is excellent	Excellent	AA+, AA, AA-
3	More susceptible to adverse economic, social, geopolitical conditions and other circumstances, capacity to meet its financial commitment is strong	Strong	A+, A, A-
4A/4B	Adequate protection against adverse economic, social or geopolitical conditions or changing circumstances. More likely to lead to a weakened capacity of the obligor to meet its financial commitment	Good	BBB+/BBB
5	Relatively worse off than an obligor rated "4B" but exhibits adequate protection parameters	Satisfactory	BBB-
6A/6B	Satisfactory capacity to meet its financial commitment but capacity may become inadequate due to adverse business, financial, economic, social or geopolitical conditions and changing circumstances	Acceptable	BB+/BB
7A/7B	Marginal capacity to meet its financial commitment but capacity may become inadequate or uncertain due to adverse business, financial, economic, social or geopolitical conditions and changing circumstances	Marginal	BB-
8A	Sub-marginal capacity to meet its financial commitment. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment	Sub-Marginal	B+
8B/8C	Low capacity to meet its financial commitment. Adverse business, financial, or economic condition will likely impair the obligor's capacity or willingness to meet its financial commitment	Special Caution	B/B-
9	Vulnerable to non-payment and is dependent upon favourable business, financial, and economic conditions for the obligor to meet its financial commitment. Likely to have little capacity to meet its financial commitment under adverse conditions	Sub-Performing	CCC – C
10 and Above	An obligor rated "10" and above is in default (as defined under Basel Capital Accord)	Default	D

10 CREDIT RISK (continued)

10.1 Qualitative Disclosures (continued)

10.1.4 Additional Disclosures related to the Credit Quality of Assets

HKMA's Loan Classification System requires credit portfolios to be categorised into one of the following five categories, according to the Group's assessment of a borrower's ability to repay a credit facility from its normal sources of income and/or the repayment behavior of the borrower. Categories of Pass and Special Mention are classified as Performing assets, while Substandard, Doubtful, and Loss are classified as Non-Performing Assets (NPA).

Pass: This refers to loans where borrowers are current in meeting commitments and full repayment of interest and principal is not in doubt.

Special Mention: This refers to loans where borrowers are experiencing difficulties which may threaten the lender's position. Ultimate loss is not expected at this stage but could occur if adverse conditions persist.

Substandard: This refers to loans where borrowers are displaying a definable weakness that is likely to jeopardise repayment. The Group is relying heavily on available security. This would include loans where some loss of principal or interest is possible after taking account of the net realisable value of the security, and rescheduled loans where concessions have been made to a borrower on interest or principal such as to render the loan "non-commercial" to the Group.

Doubtful: This refers to loans where collection in full is improbable and the Group expects to sustain a loss of principal and/or interest after taking account of the net realisable value of the security.

Loss: This refers to loans which are considered uncollectible after exhausting all collection efforts such as realisation of collateral, institution of legal proceedings, etc.

For retail borrower, the categorisation into NPA is consistent with the above except that the NPA is managed and reported at credit facility level.

Credit facilities are classified as restructured assets when the Group grant non-commercial concessions to a borrower because it is in a worse financial position or is unable to meet the original repayment schedule. A restructured credit facility is classified into the appropriate non-performing grade based on the assessment of the borrower's financial condition and its ability to repay according to the restructured terms.

Such credit facilities are not returned to the performing status until there are reasonable grounds to conclude that the borrower will be able to service all future principal and interest payments on the credit facility in accordance with the restructured terms.

International Harmonisation of Credit Quality Categorisation – Supervisory vs Regulatory vs Accounting

Currently, different terminology and criteria exists for the categorisation of quality of credit exposures under different regime and for various purpose:

1. Supervisory classification mainly for reporting / monitoring purpose – "Non-Performing"

There are variations in how individual regulators classify exposures / obligors as Non-Performing, mainly in terms of criteria, terminology (e.g. classified, criticized etc.) and granularity (e.g., sub-category for Performing and further classification of Non-Performing based on recovery prospect etc.).

10 CREDIT RISK (continued)

10.1 Qualitative Disclosures (continued)

10.1.4 Additional Disclosures related to the Credit Quality of Assets (continued)

International Harmonisation of Credit Quality Categorisation – Supervisory vs Regulatory vs Accounting (continued)

2. Prudential / Regulatory definition for capital adequacy purpose – "Default"

Under Basel, a default is considered to have occurred when an obligor is considered Unlikely to Pay (UTP) (with list of such indicators specified in the Basel Accord) its credit obligations in full without recourse to actions such as realizing collateral (if held), or the obligor is more than 90 Days Past Due (90DPD) on any material obligation. It should be noted that the Basel UTP and 90DPD criteria are aligned to the DBSH's definition of Subjective and Technical Default respectively.

3. Accounting definition for valuation / provisioning purpose – "Credit-Impaired"

Under IFRS 9, a financial asset is considered credit-impaired when one or more events (with list of such events specified in the IFRS 9 standard) that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. All such financial instruments are classified as Stage 3 and requires individual assessment of provisions under the principle of IFRS 9. This is aligned to DBSH's definition. In other words exposures which are classified as Default under Basel purpose are considered to be Credit-Impaired for IFRS 9 purpose.

10.2 Quantitative Disclosures

10.2.1 Credit Quality of Assets

As at 31 December 2018	**Gross carrying amount of**			
In HK$ millions	**Defaulted exposures**	**Non-defaulted exposures**	**Allowances / Impairments**	**Net values**
Loans	**2,510**	**388,065**	**(2,300)**	**388,275**
Debt securities	**–**	**35,482**	**(1)**	**35,481**
Off-balance sheet exposures	**–**	**13,284**	**(10)**	**13,275**
Total	**2,510**	**436,831**	**(2,311)**	**437,031**

A default is considered to have occurred with regard to a particular borrower when either or both of the following events have taken place:

a) Subjective default: Borrower is considered to be unlikely to pay its credit obligations in full, without DBS taking action such as realising security (if held).

b) Technical default: Borrower is more than 90 days past due on any credit obligation to DBS.

Loans included balances with banks, loans and advances to customers, balances with central banks, and related accrued interest receivables.

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.1 Credit Quality of Assets (continued)

Debt securities included non-trading government securities and treasury bills, banks and corporate securities, and related accrued interest receivables.

Off-balance sheet exposures included direct credit substitutes, transaction-related contingencies, trade-related contingencies and irrevocable loans commitment.

10.2.2 Changes in Stock of Defaulted Loans and Debt Securities

In HK$ millions	
As at 30 June 2018	**2,344**
Loans and debt securities that have defaulted since the last reporting period	**812**
Returned to non-defaulted status	**(10)**
Amounts written off	**(253)**
Other changes (note)	**(383)**
As at 31 December 2018	**2,510**

Note: Other changes mainly related to settlement and repayments from customers.

10.2.3 Additional Quantitative Disclosures related to Credit Quality of Assets

10.2.3.1 Credit risk exposure by geographical areas, industry and residual maturity

Geographical area HK$ millions	As at 31 December 2018
– Hong Kong	**168,850**
– Singapore	**216,371**
– Others	**55,212**
Total	**440,433**

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.3 Additional Quantitative Disclosures related to Credit Quality of Assets (continued)

10.2.3.1 Credit risk exposure by geographical areas, industry and residual maturity (continued)

Industry HK$ millions	As at 31 December 2018
– Banks	**234,197**
– Official sector	**27,220**
– Non-bank private sector	
o Property development	**6,106**
o Property investment	**20,393**
o Financial concerns	**4,054**
o Stockbrokers	**790**
o Wholesale and retail trade	**15,790**
o Manufacturing	**13,548**
o Transport & transport equipment	**9,925**
o Recreational activities	**330**
o Information technology	**1,793**
o Trade finance	**47,232**
o Individuals	**48,587**
o Others	**10,468**
Total	**440,433**

Residual maturity HK$ millions	As at 31 December 2018
– Up to and including one year	**236,366**
– Over one year and up to including two years	**125,552**
– Over two years	**78,515**
Total	**440,433**

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.3 Additional Quantitative Disclosures related to Credit Quality of Assets (continued)

10.2.3.2 Impaired exposures and related allowances and write-offs by geographical area and industries

Geographical area HK$ millions	31 December 2018				
	Hong Kong	**China**	**Singapore**	**Others**	**Total**
Gross outstanding	**1,836**	**439**	**164**	**71**	**2,510**
Of which:					
Exposures subject to individual impairment allowance	***(652)***	***(334)***	***(62)***	***(59)***	***(1,107)***
Less: Impairment	**(652)**	**(334)**	**(62)**	**(59)**	**(1,107)**
	1,184	**105**	**102**	**12**	**1,403**

Impaired exposures subject to collective impairment allowance are mainly related to information technology and individuals. Please refer to note 37 Financial Risk Management of DBS Bank (Hong Kong) Limited's financial statements for breakdown by industries subject to individual impairment allowance.

10.2.3.3 Aging analysis of accounting past due exposures

Please refer to section 17 overdue and rescheduled assets for details.

10.2.3.4 Breakdown of restructured exposures

Restructured exposures HK$ millions	As at 31 December 2018
– Impaired	**624**
– Not impaired	**–**
Total	**624**

10.2.4 Overview of Recognized Credit Risk Mitigation

		As at 31 December 2018				
In HK$ millions		Exposures unsecured: carrying amount	Exposures to be secured	Exposures secured by recognized collateral	Exposures secured by recognized guarantees	Exposures secured by recognized credit derivative contracts
1	Loans	313,528	74,747	64,716	2,600	–
2	Debt securities	35,481	–	–	–	–
3	**Total**	349,009	74,747	64,716	2,600	–
4	Of which defaulted	631	772	536	160	–

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.5 Credit Risk Exposures and Effects of Recognized Credit Risk Mitigation – STC approach

In HK$ millions		As at 31 December 2018					
		Exposures pre-CCF and pre-CRM		Exposures post-CCF and post-CRM		RWA and RWA density	
	Exposure classes	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density (%)
1	Sovereign exposures	–	–	–	–	–	–
2	PSE exposures	–	–	116	–	23	20
2a	Of which: domestic PSEs	–	–	116	–	23	20
2b	Of which: foreign PSEs	–	–	–	–	–	–
3	Multilateral development bank exposures	1,011	–	1,011	–	–	–
4	Bank exposures	245	–	281	3	182	64
5	Securities firm exposures	797	596	797	–	398	50
6	Corporate exposures	14,950	11,999	13,403	770	14,119	100
7	CIS exposures	–	–	–	–	–	–
8	Cash items	–	–	–	–	–	–
9	Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis	–	–	–	–	–	–
10	Regulatory retail exposures	3,086	3,965	2,294	7	1,726	75
11	Residential mortgage loans	917	–	917	–	321	35
12	Other exposures which are not past due exposures	12,877	14,804	8,368	29	8,396	100
13	Past due exposures	303	1	303	–	441	145
14	Significant exposures to commercial entities	–	–	–	–	–	–
15	**Total**	34,186	31,365	27,490	809	25,606	90

The Bank adopts external ratings for credit exposures under the Standardized approach where relevant and only accepts ratings from Standard & Poor's Rating Services, Moody's Investors Services and Fitch Ratings. The Bank follows the processes prescribed in the BCR to map the ratings to the relevant risk weights across various asset classes under the Standardized approach.

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.6 Credit Risk Exposures by Asset Classes and by Risk Weights – STC approach

In HK$ millions		As at 31 December 2018										
	Risk Weight / Exposure class	0%	10%	20%	35%	50%	75%	100%	150%	250%	Others	Total credit risk exposures amount (post CCF and post CRM)
1	Sovereign exposures	–	–	–	–	–	–	–	–	–	–	–
2	PSE exposures	–	–	116	–	–	–	–	–	–	–	116
2a	Of which: domestic PSEs	–	–	116	–	–	–	–	–	–	–	116
2b	Of which: foreign PSEs	–	–	–	–	–	–	–	–	–	–	–
3	Multilateral development bank exposures	1,011	–	–	–	–	–	–	–	–	–	1,011
4	Bank exposures	–	–	64	–	102	–	118	–	–	–	284
5	Securities firm exposures	–	–	–	–	797	–	–	–	–	–	797
6	Corporate exposures	–	–	13	–	87	–	14,073	–	–	–	14,173
7	CIS exposures	–	–	–	–	–	–	–	–	–	–	–
8	Cash items	–	–	–	–	–	–	–	–	–	–	–
9	Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis	–	–	–	–	–	–	–	–	–	–	–
10	Regulatory retail exposures	–	–	–	–	–	2,301	–	–	–	–	2,301
11	Residential mortgage loans	–	–	–	917	–	–	–	–	–	–	917
12	Other exposures which are not past due exposures	–	–	–	–	–	–	8,397	–	–	–	8,397
13	Past due exposures	–	–	1	–	–	–	25	277	–	–	303
14	Significant exposures to commercial entities	–	–	–	–	–	–	–	–	–	–	–
15	**Total**	1,011	–	194	917	986	2,301	22,613	277	–	–	28,299

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.7 Credit Risk Exposures by Portfolio and PD ranges – for IRB approach

10.2.7.1 Foundation IRB Approach

	As at 31 December 2018											
	a	b	c	d	e	f	g	h	i	j	k	l
PD scale (%)	Original on-balance sheet gross exposure HK$'M	Off-balance sheet exposures pre-CCF HK$'M	Average CCF (%)	EAD post-CRM and post-CCF HK$'M	Average PD (%)	Number of obligors	Average LGD (%)	Average maturity (Years)	RWA HK$'M	RWA density (%)	EL HK$'M	Provisions HK$'M
Sovereign exposures												
0.00 to <0.15	30,035	–	–	31,304	0.01	8	45	2.5	2,367	8	41	
0.15 to <0.25	–	–	–	–	–	–	–	–	–	–	–	
0.25 to <0.50	–	–	–	–	–	–	–	–	–	–	–	
0.50 to <0.75	–	–	–	–	–	–	–	–	–	–	–	
0.75 to <2.50	–	–	–	–	–	–	–	–	–	–	–	
2.50 to <10.00	–	–	–	–	–	–	–	–	–	–	–	
10.00 to <100.00	–	–	–	–	–	–	–	–	–	–	–	
100.00 (Default)	–	–	–	–	–	–	–	–	–	–	–	
Sub-total	**30,035**	**–**	**–**	**31,304**	**0.01**	**8**	**45**	**2.5**	**2,367**	**8**	**41**	**22**
Bank exposures												
0.00 to <0.15	239,653	11,601	80	249,121	0.04	69	45	2.5	61,480	25	50	
0.15 to <0.25	807	–	–	811	0.24	9	45	2.5	515	63	1	
0.25 to <0.50	184	–	–	184	0.38	13	45	2.5	138	75	–	
0.50 to <0.75	248	–	–	248	0.61	5	45	2.5	245	99	1	
0.75 to <2.50	418	–	–	418	1.13	9	45	2.5	490	117	2	
2.50 to <10.00	–	–	–	–	–	–	–	–	–	–	–	
10.00 to <100.00	–	–	–	–	–	–	–	–	–	–	–	
100.00 (Default)	–	–	–	–	–	–	–	–	–	–	–	
Sub-total	**241,310**	**11,601**	**80**	**250,782**	**0.05**	**105**	**45**	**2.5**	**62,868**	**25**	**54**	**581**
Corporate exposures – small-and-medium sized corporates												
0.00 to <0.15	–	–	–	–	–	–	–	–	–	–	–	
0.15 to <0.25	–	–	–	–	–	–	–	–	–	–	–	
0.25 to <0.50	–	–	–	–	–	–	–	–	–	–	–	
0.50 to <0.75	6	1	–	6	0.56	1	35	2.5	2	45	–	
0.75 to <2.50	12	17	–	10	2.19	5	39	2.5	8	78	–	
2.50 to <10.00	59	9	11	58	5.13	6	37	2.5	55	94	1	
10.00 to <100.00	–	–	–	–	–	–	–	–	–	–	–	
100.00 (Default)	–	–	–	–	–	–	–	–	–	–	–	
Sub-total	**77**	**27**	**4**	**74**	**4.39**	**12**	**37**	**2.5**	**65**	**88**	**1**	**1**
Corporate exposures – other												
0.00 to <0.15	499	189	–	499	0.03	3	45	2.5	72	15	–	
0.15 to <0.25	3,797	5,978	13	4,550	0.22	16	41	2.5	1,927	42	4	
0.25 to <0.50	4,787	4,233	2	4,868	0.31	49	41	2.5	2,434	50	6	
0.50 to <0.75	5,308	5,007	4	5,498	0.56	322	43	2.5	3,874	70	13	
0.75 to <2.50	26,443	31,664	4	27,379	1.74	2,384	38	2.5	25,175	92	181	
2.50 to <10.00	25,458	13,200	3	24,984	4.45	2,331	38	2.5	29,882	120	419	
10.00 to <100.00	2,269	277	3	2,162	12.15	222	38	2.5	3,794	176	100	
100.00 (Default)	2,257	3	20	2,098	100.00	249	43	2.5	3,529	168	1,019	
Sub-total	**70,818**	**60,551**	**4**	**72,038**	**5.56**	**5,576**	**39**	**2.5**	**70,687**	**98**	**1,742**	**1,713**
Total (all portfolios)	**342,240**	**72,179**	**17**	**354,198**	**1.17**	**5,701**	**44**	**2.5**	**135,987**	**38**	**1,838**	**2,317**

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.7 Credit Risk Exposures by Portfolio and PD ranges – for IRB approach (continued)

10.2.7.2 Retail IRB Approach

	As at 31 December 2018											
	a	b	c	d	e	f	g	h	i	j	k	l
PD scale (%)	Original on-balance sheet gross exposure HK$'M	Off-balance sheet exposures pre-CCF HK$'M	Average CCF (%)	EAD post-CRM and post-CCF HK$'M	Average PD (%)	Number of obligors	Average LGD (%)	Average maturity (Years)	RWA HK$'M	RWA density (%)	EL HK$'M	Provisions HK$'M
Residential mortgages exposures												
0.00 to <0.15	7,423	–	–	7,423	0.12	1,236	13		1,856	25	1	
0.15 to <0.25	13,325	–	–	13,325	0.22	7,622	13		2,006	15	4	
0.25 to <0.50	–	–	–	–	–	–	–		–	–	–	
0.50 to <0.75	2,677	–	–	2,677	0.63	594	13		408	15	2	
0.75 to <2.50	3	–	–	3	1.80	1	32		2	58	–	
2.50 to <10.00	423	–	–	423	9.84	231	13		256	61	6	
10.00 to <100.00	31	–	–	31	33.97	15	13		23	77	2	
100.00 (Default)	17	–	–	17	100.00	13	32		66	395	–	
Sub-total	**23,899**	**–**	**–**	**23,899**	**0.52**	**9,712**	**13**		**4,617**	**19**	**15**	**43**
Qualifying revolving retail exposures												
0.00 to <0.15	1,565	34,865	69	25,606	0.14	298,330	99		2,017	8	36	
0.15 to <0.25	2,157	11,744	68	10,191	0.21	138,882	96		1,069	10	20	
0.25 to <0.50	–	–	–	–	–	–	–		–	–	–	
0.50 to <0.75	53	300	285	907	0.59	1,580	98		229	25	5	
0.75 to <2.50	4,315	20,691	67	18,157	1.66	239,362	98		9,907	55	293	
2.50 to <10.00	642	1,171	93	1,732	5.02	20,705	103		2,126	123	88	
10.00 to <100.00	1,672	393	58	1,899	14.95	18,175	97		4,140	218	274	
100.00 (Default)	36	–	–	36	100.00	1,361	107		176	483	25	
Sub-total	**10,440**	**69,164**	**70**	**58,528**	**1.32**	**718,395**	**98**		**19,664**	**34**	**741**	**208**
Small business retail exposures												
0.00 to <0.15	–	–	–	–	–	–	–		–	–	–	
0.15 to <0.25	–	–	–	–	–	–	–		–	–	–	
0.25 to <0.50	5	–	–	5	0.29	5	6		–	3	–	
0.50 to <0.75	–	–	–	–	–	–	–		–	–	–	
0.75 to <2.50	–	–	–	–	–	–	–		–	–	–	
2.50 to <10.00	–	–	–	–	–	–	–		–	–	–	
10.00 to <100.00	–	–	–	–	–	–	–		–	–	–	
100.00 (Default)	–	–	–	–	–	–	–		–	–	–	
Sub-total	**5**	**–**	**–**	**5**	**0.29**	**5**	**6**	**–**	**–**	**3**	**–**	**–**
Other retail exposures to individuals												
0.00 to <0.15	–	–	–	–	–	–	–		–	–	–	
0.15 to <0.25	–	–	–	–	–	–	–		–	–	–	
0.25 to <0.50	2,058	–	–	2,058	0.29	2,628	13		141	7	1	
0.50 to <0.75	–	–	–	–	–	–	–		–	–	–	
0.75 to <2.50	1,881	–	–	1,881	1.62	8,255	66		1,565	83	23	
2.50 to <10.00	3,116	–	–	3,116	5.19	7,548	50		2,376	76	94	
10.00 to <100.00	1,087	–	–	1,087	24.66	2,277	56		1,358	125	142	
100.00 (Default)	29	–	–	29	100.00	175	94		173	602	15	
Sub-total	**8,171**	**–**	**–**	**8,171**	**6.06**	**20,883**	**45**		**5,613**	**69**	**275**	**66**
Total (all portfolios)	**42,515**	**69,164**	**70**	**90,603**	**1.53**	**748,995**	**71**		**29,894**	**33**	**1,031**	**317**

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.8 Effects on RWA of Recognized Credit Derivative Contracts used as Recognized Credit Risk Mitigation – for IRB approach

The Bank does not have credit derivative contracts used as recognized credit risk mitigation.

		As at 31 December 2018	
In HK$ millions		Pre-credit derivatives RWA	Actual RWA
1	Corporate – Specialized lending under supervisory slotting criteria approach (project finance) ("PF")	442	442
2	Corporate – Specialized lending under supervisory slotting criteria approach (object finance) ("OF")	–	–
3	Corporate – Specialized lending under supervisory slotting criteria approach (commodities finance) ("CF")	–	–
4	Corporate – Specialized lending under supervisory slotting criteria approach (income-producing real estate) ("IPRE")	7,615	7,615
5	Corporate – Specialized lending (high-volatility commercial real estate) ("HVCRE")	–	–
6	Corporate – Small-and-medium sized corporates	65	65
7	Corporate – Other corporates	70,687	70,687
8	Sovereigns	2,347	2,347
9	Sovereign foreign public sector entities	20	20
10	Multilateral development banks	–	–
11	Bank exposures – Banks	62,868	62,868
12	Bank exposures – Securities firms	–	–
13	Bank exposures – Public sector entities (excluding sovereign foreign public sector entities)	–	–
14	Retail – Small business retail exposures	–	–
15	Retail – Residential mortgages to individuals	4,144	4,144
16	Retail – Residential mortgages to property-holding shell companies	473	473
17	Retail – Qualifying revolving retail exposures (QRRE)	19,664	19,664
18	Retail – Other retail exposures to individuals	5,613	5,613
19	Equity – Equity exposures under market-based approach (simple risk-weight method)	–	–
20	Equity – Equity exposures under market-based approach (internal models method)	–	–
21	Equity – Equity exposures under PD/LGD approach (publicly traded equity exposures held for long-term investment)	–	–
22	Equity – Equity exposures under PD/LGD approach (privately owned equity exposures held for long-term investment)	–	–
23	Equity – Equity exposures under PD/LGD approach (other publicly traded equity exposures)	–	–
24	Equity – Equity exposures under PD/LGD approach (other equity exposures)	–	–
25	Equity – Equity exposures associated with equity investments in funds (CIS exposures)	–	–
26	Other – Cash items	–	–
27	Other – Other items	3,929	3,929
28	**Total (under the IRB calculation approaches)**	177,867	177,867

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.9 RWA Flow Statements of Credit Risk Exposures under IRB Approach

The following table explains the change in credit RWA under IRB approach for the quarter.

In HK$ millions	RWA
As at 30 September 2018	177,726
Asset size	1,958
Asset quality	20
Model updates	(1,897)
Methodology and policy	–
Acquisitions and disposals	–
Foreign exchange movements	60
Others	–
As at 31 December 2018	177,867

Credit RWA increased by HK$141 million during the last quarter of 2018, in which RWA increased by HK$2.0 billion due to asset growth and RWA reduced by HK$1.9 billion due to enhanced Hong Kong Personal Instalment Loans probability of default ("PD") and loss given default ("LGD") models.

10.2.10 Specialized Lending Under Supervisory Slotting Criteria Approach – for IRB approach

Specialized lending under supervisory slotting criteria approach – other than HVCRE

In HK$ millions		As at 31 December 2018									
					EAD amount						
Supervisory Rating Grade	Remaining Maturity	On-balance sheet exposure amount	Off-balance sheet exposure amount	SRW (%)	PF	OF	CF	IPRE	Total	RWA	Expected loss amount
Strong^	Less than 2.5 years	236	–	50	–	–	–	236	236	118	–
Strong	Equal to or more than 2.5 years	782	687	70	631	–	–	666	1,297	908	5
Good^	Less than 2.5 years	3,854	836	70	–	–	–	4,481	4,481	3,136	18
Good	Equal to or more than 2.5 years	3,670	530	90	–	–	–	3,837	3,837	3,453	31
Satisfactory		330	60	115	–	–	–	330	330	379	9
Weak		25	–	250	–	–	–	25	25	63	2
Default		–	–	0	–	–	–	–	–	–	–
Total		8,897	2,113		631	–	–	9,575	10,206	8,057	65

^ Use of preferential risk-weights.

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.11 Back-Testing of PD per portfolio – for IRB approach

The back-testing result covers 100% of RWA under IRB rating models. The actual default rate is measured by using the number of obligors or number of accounts defaulted, depending on the exposure class of the annual reporting period.

Please refer to Note 10.1.3 "Qualitative Disclosures for IRBA Models" for key rating models used for exposures reported under IRB Approach.

10.2.11.1 Foundation IRB Approach

As at 31 December 2018								
a	b	c	d	e	f	g	h	i
					Number of obligors			
Foundation IRB	PD scale (%)	External rating equivalent (S&P likely ratings)	Weighted average PD (%)	Arithmetic average PD by obligors (%)	Beginning of the year	End of the year	Defaulted obligors in the year	Of which: New defaulted obligors in the year	Average historical annual default rate (%)
Sovereign exposures									
	0.00 to <0.15	AAA to BBB+	0.01	0.02	8	8	–	–	–
	0.15 to <0.25	BBB+ to BBB	–	–	–	–	–	–	–
	0.25 to <0.50	BBB to BBB-	–	–	–	–	–	–	–
	0.50 to <0.75	BB+	–	–	–	–	–	–	–
	0.75 to <2.50	BB to BB-	–	–	–	–	–	–	–
	2.50 to <10.00	B+ to B	–	–	–	–	–	–	–
	10.00 to <100.00	B- to C	–	–	–	–	–	–	–
Bank exposures									
	0.00 to <0.15	AAA to BBB+	0.04	0.10	67	69	–	–	–
	0.15 to <0.25	BBB+ to BBB	0.24	0.24	9	9	–	–	–
	0.25 to <0.50	BBB to BBB-	0.38	0.38	9	13	–	–	–
	0.50 to <0.75	BB+	0.61	0.61	5	5	–	–	–
	0.75 to <2.50	BB to BB-	1.59	1.32	12	9	–	–	–
	2.50 to <10.00	B+ to B	–	–	–	–	–	–	–
	10.00 to <100.00	B- to C	–	–	–	–	–	–	–
Corporate exposures – small-and-medium sized corporates									
	0.00 to <0.15	AAA to BBB+	–	–	–	–	–	–	–
	0.15 to <0.25	BBB+ to BBB	–	–	–	–	–	–	–
	0.25 to <0.50	BBB to BBB-	–	–	–	–	–	–	–
	0.50 to <0.75	BB+	–	0.56	1	1	–	–	–
	0.75 to <2.50	BB to BB-	2.23	1.96	6	5	–	–	–
	2.50 to <10.00	B+ to B	6.55	5.97	9	6	2	–	7.46
	10.00 to <100.00	B- to C	–	–	–	–	–	–	–
Corporate exposures – other									
	0.00 to <0.15	AAA to BBB+	0.05	0.05	5	3	–	–	–
	0.15 to <0.25	BBB+ to BBB	0.22	0.22	21	16	–	–	–
	0.25 to <0.50	BBB to BBB-	0.35	0.36	69	49	–	–	–
	0.50 to <0.75	BB+	0.56	0.56	335	322	–	–	0.07
	0.75 to <2.50	BB to BB-	1.67	1.68	2,435	2,384	9	–	0.61
	2.50 to <10.00	B+ to B	4.75	4.88	2,477	2,331	28	1	2.48
	10.00 to <100.00	B- to C	12.15	12.15	247	248	15	–	6.50

10 CREDIT RISK (continued)

10.2 Quantitative Disclosures (continued)

10.2.11 Back-Testing of PD per portfolio – for IRB approach (continued)

10.2.11.2 Retail IRB Approach

As at 31 December 2018								
a	b	c	d	e	f		g	h	i
					Number of obligors				
Retail IRB	PD scale (%)	External rating equivalent (S&P likely ratings)	Weighted average PD (%)	Arithmetic average PD by obligors (%)	Beginning of the year	End of the year	Defaulted obligors in the year	Of which: New defaulted obligors in the year	Average historical annual default rate (%)
Residential mortgages exposures									
	0.00 to <0.15		0.12	0.12	1,078	1,454	–	–	0.15
	0.15 to <0.25		0.22	0.22	9,126	8,085	4	–	0.03
	0.25 to <0.50		–	–	–	–	–	–	–
	0.50 to <0.75		0.63	0.63	1,080	773	–	–	0.03
	0.75 to <2.50		1.80	1.80	7	1	–	–	–
	2.50 to <10.00		9.84	9.84	224	238	2	–	0.45
	10.00 to <100.00		33.97	33.97	8	16	1	–	21.48
Qualifying revolving retail exposures									
	0.00 to <0.15		0.14	0.14	288,357	298,330	187	3	0.10
	0.15 to <0.25		0.21	0.21	133,722	138,882	144	10	0.16
	0.25 to <0.50		0.49	0.49	1,143	–	2	–	0.20
	0.50 to <0.75		–	–	–	1,580	–	–	0.26
	0.75 to <2.50		1.63	1.68	221,738	239,362	649	2	0.46
	2.50 to <10.00		4.68	5.34	17,618	20,705	166	18	1.12
	10.00 to <100.00		15.03	15.45	16,784	18,175	895	–	7.22
Small business retail exposures									
	0.00 to <0.15		–	–	–	–	–	–	–
	0.15 to <0.25		–	–	–	–	–	–	–
	0.25 to <0.50		0.29	0.29	5	5	–	–	–
	0.50 to <0.75		–	–	–	–	–	–	–
	0.75 to <2.50		–	–	–	–	–	–	–
	2.50 to <10.00		–	–	–	–	–	–	–
	10.00 to <100.00		–	–	–	–	–	–	–
Other retail exposures to individuals									
	0.00 to <0.15		–	–	–	–	–	–	–
	0.15 to <0.25		–	–	–	–	–	–	–
	0.25 to <0.50		0.29	0.29	1,357	2,743	–	–	0.07
	0.50 to <0.75		–	–	–	–	–	–	0.19
	0.75 to <2.50		1.44	1.62	5,302	8,279	26	6	0.49
	2.50 to <10.00		4.79	4.76	7,960	7,621	103	6	1.96
	10.00 to <100.00		20.25	19.86	10,029	2,295	342	4	5.67

11 COUNTERPARTY CREDIT RISK

11.1 Qualitative Disclosures

Counterparty Credit Risk is defined as the risk that a counterparty could default before the final settlement of the cash flows of derivatives or securities financing transactions.

Pre-settlement credit risk for traded products arising from a counterparty potentially defaulting on its obligations is quantified by evaluation of the market price, plus potential future exposure. This is used to calculate the Bank's regulatory capital under the Current Exposure Method ("CEM") and is included under its overall credit limits to counterparties for internal risk management.

Issuer default risk that may also arise from derivatives, notes and securities are generally measured based on jump-to-default computations.

DBSH's CCRP and related standards set out the Group's overarching requirements for guarantees and Traded Products.

Credit limits and exposures to counterparties are subject to the Group's overarching credit risk management framework. Counterparties (including Central Clearing Counterparties ("CCPs")) are assessed individually using an internal rating model and assigned credit risk ratings. After the credit exposures are assessed, credit limits are proposed by the business unit, and are approved by the credit risk function after an independent credit assessment. The Group's assessment for CCPs takes into consideration additional parameters including but not limited to default waterfall protection, margining process, risk management capabilities, segregation of margins, member liability provisions, regulatory oversights etc.

The Group actively monitors and manages our exposure to counterparties in OTC derivative trades to protect our balance sheet in the event of a counterparty default. Counterparty risk exposures that may be adversely affected by market risk events are identified, reviewed and acted upon by management, and highlighted to the appropriate risk committees.

Furthermore, the Group enters into master netting/collateral arrangements with counterparties where it is appropriate and feasible to mitigate counterparty risk. The Group also clears OTC Derivatives trades through CCPs to manage overall counterparty credit risks.

DBSH's CCRP and associated guide provide the definition and management of specific wrong-way risk (SWWR). SWWR arises when the credit exposure of a counterparty (from the traded product transaction) directly correlates with the probability of default of the counterparty. An example of SWWR is when a counterparty buys or sells its own equity share.

If there is a 3-notch downgrade in the Bank's credit ratings, the impact on the Bank's collateral obligations under derivative contracts is minimal.

11 COUNTERPARTY CREDIT RISK (continued)

11.2 Quantitative Disclosures

11.2.1 Analysis of Counterparty Default Risk Exposures (Other than those to CCPs) by Approaches

		As at 31 December 2018					
In HK$ millions		Replacement cost (RC)	PFE	Effective EPE	Alpha (α) used for computing default risk exposure	Default risk exposure after CRM	RWA
1	CEM (for derivative contracts)	160	1,782		NA	1,942	839
2	IMM (CCR) approach			–	–	–	–
3	Simple Approach (for SFTs)					–	–
4	Comprehensive Approach (for SFTs)					–	–
5	VaR (for SFTs)					–	–
6	**Total**						839

The current exposure method is used for calculating default risk exposures of derivative contracts.

11.2.2 CVA Capital Charge

		As at 31 December 2018	
In HK$ millions		EAD post CRM	RWA
	Netting sets for which CVA capital charge is calculated by the advanced CVA method	–	–
1	(i) VaR (after application of multiplication factor if applicable)		–
2	(ii) Stressed VaR (after application of multiplication factor if applicable)		–
3	Netting sets for which CVA capital charge is calculated by the standardized CVA method	1,743	585
4	Total	1,743	585

11 COUNTERPARTY CREDIT RISK (continued)

11.2 Quantitative Disclosures (continued)

11.2.3 Counterparty Default Risk Exposures (Other than those to CCPs) by Asset Classes and by Risk Weights – for STC approach

In HK$ millions		As at 31 December 2018										
	Risk Weight / Exposure class	0%	10%	20%	35%	50%	75%	100%	150%	250%	Others	Total default risk exposure after CRM
1	Sovereign exposures	–	–	–	–	–	–	–	–	–	–	–
2	PSE exposures	–	–	–	–	–	–	–	–	–	–	–
2a	Of which: domestic PSEs	–	–	–	–	–	–	–	–	–	–	–
2b	Of which: foreign PSEs	–	–	–	–	–	–	–	–	–	–	–
3	Multilateral development bank exposures	–	–	–	–	–	–	–	–	–	–	–
4	Bank exposures	–	–	–	–	–	–	–	–	–	–	–
5	Securities firm exposures	–	–	–	–	–	–	–	–	–	–	–
6	Corporate exposures	–	–	–	–	58	–	23	–	–	–	81
7	CIS exposures	–	–	–	–	–	–	–	–	–	–	–
8	Regulatory retail exposures	–	–	–	–	–	–	–	–	–	–	–
9	Residential mortgage loans	–	–	–	–	–	–	–	–	–	–	–
10	Other exposures which are not past due exposures	–	–	–	–	–	–	324	–	–	–	324
11	Significant exposures to commercial entities	–	–	–	–	–	–	–	–	–	–	–
12	**Total**	–	–	–	–	58	–	347	–	–	–	405

11 COUNTERPARTY CREDIT RISK (continued)

11.2 Quantitative Disclosures (continued)

11.2.4 Counterparty Default Risk Exposures (Other than those to CCPs) by portfolio and PD range – for IRB approach

11.2.4.1 Foundation IRB Approach

The following table sets out the parameters used for the calculation of the Bank's CCR capital requirements for IRB approach models. The Bank adopts IRB approach for all of its IRB exposures which are subject to CCR capital requirements.

	As at 31 December 2018						
	a	b	c	d	e	f	g
PD scale (%)	EAD post-CRM HK$'M	Average PD (%)	Number of obligors	Average LGD (%)	Average maturity (Years)	RWA HK$'M	RWA density (%)
Bank							
0.00 to <0.15	1,148	0.07	13	45	2.5	354	31
0.15 to <0.25	–	–	–	–	–	–	–
0.25 to <0.50	–	–	–	–	–	–	–
0.50 to <0.75	–	–	–	–	–	–	–
0.75 to <2.50	–	–	–	–	–	–	–
2.50 to <10.00	–	–	–	–	–	–	–
10.00 to <100.00	–	–	–	–	–	–	–
100.00 (Default)	–	–	–	–	–	–	–
Sub-total	**1,148**	**0.07**	**13**	**45**	**2.5**	**354**	**31**
Corporate exposures – small-and-medium sized corporates							
0.00 to <0.15	–	–	–	–	–	–	–
0.15 to <0.25	–	–	–	–	–	–	–
0.25 to <0.50	–	–	–	–	–	–	–
0.50 to <0.75	–	–	–	–	–	–	–
0.75 to <2.50	–	–	–	–	–	–	–
2.50 to <10.00	–	3.01	1	45	2.5	–	98
10.00 to <100.00	–	–	–	–	–	–	–
100.00 (Default)	–	–	–	–	–	–	–
Sub-total	**–**	**3.01**	**1**	**45**	**2.5**	**–**	**98**
Corporate exposures – other							
0.00 to <0.15	–	–	–	–	–	–	–
0.15 to <0.25	79	0.22	3	39	2.5	32	40
0.25 to <0.50	86	0.29	6	30	2.5	30	35
0.50 to <0.75	9	0.56	7	43	2.5	7	70
0.75 to <2.50	178	0.99	34	2	2.5	8	4
2.50 to <10.00	8	3.69	52	34	2.5	8	102
10.00 to <100.00	–	12.15	3	43	2.5	–	196
100.00 (Default)	–	100.00	3	36	2.5	–	455
Sub-total	**360**	**0.72**	**108**	**18**	**2.5**	**85**	**23**
Total (all portfolios)	**1,508**	**0.22**	**122**	**39**	**2.5**	**439**	**29**

11 COUNTERPARTY CREDIT RISK (continued)

11.2 Quantitative Disclosures (continued)

11.2.5 Composition of Collateral for Counterparty Default Risk Exposures (including those for Contracts or Transactions Cleared through CCPs)

	As at 31 December 2018					
	Derivative contracts				SFTs	
	Fair value of recognized collateral received		Fair value of posted collateral		Fair value of recognized collateral received	Fair value of posted collateral
In HK$ millions	Segregated	Unsegregated	Segregated	Unsegregated		
Cash – domestic currency	–	–	–	1	–	–
Cash – other currencies	–	34	–	110	–	–
Total	–	34	–	111	–	–

There is no outstanding securities financing transaction which creates exposures to counterparty credit risk as at 31 December 2018.

11.2.6 Credit-Related Derivatives Contracts

	As at 31 December 2018	
In HK$ millions	Protection bought	Protection sold
Notional amounts		
Total return swaps	3,250	3,253
Total notional amounts	3,250	3,253
Fair values		
Positive fair values (asset)	9	–
Negative fair values (liability)	–	(9)

11 COUNTERPARTY CREDIT RISK (continued)

11.2 Quantitative Disclosures (continued)

11.2.7 Exposures to CCPs

In HK$ millions		As at 31 December 2018	
		Exposure after CRM	RWA
1	**Exposures of the AI as clearing member or client to qualifying CCPs (total)**		1
2	Default risk exposures to qualifying CCPs (excluding items disclosed in rows 7 to 10), of which:	12	1
3	(i) OTC derivative transactions	12	1
4	(ii) Exchange-traded derivative contracts	–	–
5	(iii) Securities financing transactions	–	–
6	(iv) Netting sets subject to valid cross-product netting agreements	–	–
7	Segregated initial margin	–	–
8	Unsegregated initial margin	–	–
9	Funded default fund contributions	–	–
10	Unfunded default fund contributions	–	–
11	**Exposures of the AI as clearing member or client to non-qualifying CCPs (total)**		–
12	Default risk exposures to non-qualifying CCPs (excluding items disclosed in rows 17 to 20), of which:	–	–
13	(i) OTC derivative transactions	–	–
14	(ii) Exchange-traded derivative contracts	–	–
15	(iii) Securities financing transactions	–	–
16	(iv) Netting sets subject to valid cross-product netting agreements	–	–
17	Segregated initial margin	–	–
18	Unsegregated initial margin	–	–
19	Funded default fund contributions	–	–
20	Unfunded default fund contributions	–	–

12 MARKET RISK

12.1 Qualitative Disclosure

Please refer to note 37 Financial Risk Management of DBS Bank (Hong Kong) Limited's financial statements for details.

12.2 Quantitative Disclosure

12.2.1 Market Risk under Standardized Approach

In HK$ millions		As at 31 December 2018 RWA[1/]
	Outright product exposures	
1	Interest rate exposures (general and specific risk)	1,067
2	Equity exposures (general and specific risk)	–
3	Foreign exchange (including gold) exposures	252
4	Commodity exposures	–
	Option exposures	
5	Simplified approach	–
6	Delta-plus approach	1
7	Other approach	–
8	Securitization exposures	–
9	**Total**	1,320

1/ *The RWA is derived by multiplying the capital requirements by 12.5.*

13 OPERATIONAL RISK

Please refer to note 37 Financial Risk Management of DBS Bank (Hong Kong) Limited's financial statements for details.

14 INTEREST RATE RISK IN THE BANKING BOOK

Please refer to note 37 Financial Risk Management of DBS Bank (Hong Kong) Limited's financial statements for details.

REGULATORY DISCLOSURES

15 INTERNATIONAL CLAIMS

Analysis of the Bank's international claims by location and by type of counterparty is as follows:

In HK$ millions	Banks	Official sector	Non-bank private sector: Non-bank financial institutions	Non-bank private sector: Non-financial private sector	Total
As at 31 December 2018					
Developed countries	**13,243**	**13,197**	**392**	**2,215**	**29,047**
Offshore centres, of which	**215,817**	**15**	**807**	**37,868**	**254,507**
– Singapore	**215,290**	**4**	**235**	**821**	**216,350**
– Hong Kong	**520**	**11**	**572**	**33,780**	**34,883**
– Others	**7**	**–**	**–**	**3,267**	**3,274**
Developing Europe	**–**	**–**	**–**	**81**	**81**
Developing Latin America and Caribbean	**61**	**–**	**–**	**40**	**101**
Developing Africa and Middle East	**22**	**–**	**–**	**54**	**76**
Developing Asia-Pacific	**14,723**	**643**	**–**	**7,148**	**22,514**
International organisations	**–**	**1,011**	**–**	**–**	**1,011**
	243,866	**14,866**	**1,199**	**47,406**	**307,337**
As at 31 December 2017					
Developed countries	12,028	5,396	110	1,268	18,802
Offshore centres, of which	194,187	15	261	34,714	229,177
– Singapore	193,733	5	–	781	194,519
– Hong Kong	449	9	261	30,222	30,941
– Others	5	1	–	3,711	3,717
Developing Europe	–	–	–	82	82
Developing Latin America and Caribbean	17	–	–	49	66
Developing Africa and Middle East	70	–	–	47	117
Developing Asia-Pacific	10,024	312	–	7,369	17,705
International organisations	–	1,961	–	–	1,961
	216,326	7,684	371	43,529	267,910

The above analysis is disclosed on a net basis after taking into account the effect of any recognised risk transfer.

16 LOANS AND ADVANCES TO CUSTOMERS

The Group employs a range of policies and practices to mitigate credit risk, one of which is the taking of collateral. The collateral includes cash, marketable securities, properties, trade receivables, inventory, equipment and other physical and financial collateral.

16.1 Loans and advances to customers by loan usage

The analysis of the Bank's gross advances to customers by loan usage and the corresponding balances covered by collateral are as follows:

	As at 31 December 2018		As at 31 December 2017	
In HK$ millions	**Outstanding balance**	**Balance covered by collateral**	Outstanding balance	Balance covered by collateral
Gross loans and advances for use in Hong Kong				
Industrial, commercial and financial				
– Property development	**4,340**	**4,340**	3,953	3,621
– Property investment	**19,433**	**18,871**	19,740	18,716
– Financial concerns	**4,054**	**3,618**	5,425	5,060
– Stockbrokers	**790**	**–**	830	54
– Wholesale and retail trade	**15,335**	**11,791**	13,014	9,999
– Manufacturing	**9,930**	**7,566**	10,522	7,371
– Transport and transport equipment	**9,925**	**9,184**	10,580	9,854
– Recreational activities	**273**	**234**	214	189
– Information technology	**882**	**300**	663	240
– Others	**5,774**	**3,612**	5,487	3,969
Individuals				
– Loans for the purchase of flats in the Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme or their respective successor schemes	**122**	**122**	166	166
– Loans for the purchase of other residential properties	**22,244**	**22,244**	21,599	21,599
– Credit card advances	**8,691**	**–**	8,211	–
– Others	**17,117**	**10,668**	19,252	10,190
	118,910	**92,550**	119,656	91,028
Trade finance (including trade bills)	**36,723**	**10,929**	28,692	11,026
Gross loans and advances for use outside Hong Kong	**8,836**	**3,153**	7,493	2,496
	164,469	**106,632**	155,841	104,550

16 LOANS AND ADVANCES TO CUSTOMERS (continued)

16.1 Loans and advances to customers by loan usage (continued)

Analysis of impaired advances, specific and collective provisions for the individual loan usage category which accounted for 10% or more of the Bank's advances to customers:

In HK$ millions	Impaired advances to customers	Specific provision	Collective provision
As at 31 December 2018			
Property investment	**70**	**6**	**270**
Loans for the purchase of other residential properties	**15**	**–**	**4**
Trade finance	**832**	**389**	**162**
Individuals – for other private purposes	**686**	**354**	**87**
As at 31 December 2017			
Property investment	195	8	89
Loans for the purchase of other residential properties	8	–	–
Trade finance	760	197	149
Individuals – for other private purposes	654	393	88

16.2 Loans and advances to customers by geographical area

Please refer to note 37 Financial Risk Management of DBS Bank (Hong Kong) Limited's financial statements for details.

17 OVERDUE AND RESCHEDULED ASSSETS

17.1 Overdue loans and advances to customers

The overdue loans and advances of the Bank are analysed as follows:

In HK$ millions	**As at 31 December 2018**	**% of gross loans and advances to customers**	As at 31 December 2017	% of gross loans and advances to customers
Six months or less but over three months	**197**	**0.12**	202	0.13
One year or less but over six months	**186**	**0.11**	249	0.16
Over one year	**1,082**	**0.66**	1,387	0.90
	1,465	**0.89**	1,838	1.19
Individual impairment allowances made in respect of the above overdue loans and advances	**792**		743	
Current market value of collateral held against the covered portion of the above overdue loans and advances	**1,195**		1,379	
Covered portion of the above overdue loans and advances	**717**		925	
Uncovered portion of the above overdue loans and advances	**748**		913	

17 OVERDUE AND RESCHEDULED ASSSETS (continued)

17.2 Rescheduled advances

The rescheduled loans and advances of the Bank (net of those which have been overdue for over three months and reported in item (a) above) are analysed as follows:

In HK$ millions	**As at 31 December 2018**	**% of gross loans and advances to customers**	As at 31 December 2017	% of gross loans and advances to customers
Rescheduled loans and advances	**346**	**0.21**	451	0.29

17.3 Repossessed assets

As at 31 December 2018, repossessed assets of the Bank amounted to HK$119 million (31 December 2017: HK$146 million).

17.4 Overdue other assets

The overdue other assets of the Bank are analysed as follows:

In HK$ millions	**As at 31 December 2018**	As at 31 December 2017
Six months or less but over three months	**–**	–
One year or less but over six months	**–**	1
Over one year	**136**	242
	136	243

18 MAINLAND ACTIVITIES

The table below summarises the non-bank Mainland China exposure of the Bank (excluding its Macau Branch), categorised by types of counterparties:

As at 31 December 2018

In HK$ millions Types of Counterparties	On-balance sheet exposure	Off-balance sheet exposure	Total
(a) Central government, central government-owned entities and their subsidiaries and joint ventures ("JVs")	2,239	115	2,354
(b) Local governments, local government-owned entities and their subsidiaries and JVs	218	139	357
(c) PRC nationals residing in Mainland China or other entities incorporated in Mainland China and their subsidiaries and JVs	10,139	1,488	11,627
(d) Other entities of central government not reported in part (a) above	–	1	1
(e) Other entities of local governments not reported in part (b) above	91	56	147
(f) PRC nationals residing outside Mainland China or entities incorporated outside Mainland China where the credit is granted for use in Mainland China	8,071	1,818	9,889
(g) Other counterparties where the exposures are considered by the reporting institution to be non-bank Mainland China exposures	8,024	2,451	10,475
Total	28,782	6,068	34,850
Total assets after provision	443,410		
On-balance sheet exposures as percentage of total assets	6.49%		

18 MAINLAND ACTIVITIES (continued)

As at 31 December 2017

In HK$ millions Types of Counterparties	On-balance sheet exposure	Off-balance sheet exposure	Total
(a) Central government, central government-owned entities and their subsidiaries and joint ventures ("JVs")	1,165	445	1,610
(b) Local governments, local government-owned entities and their subsidiaries and JVs	580	45	625
(c) PRC nationals residing in Mainland China or other entities incorporated in Mainland China and their subsidiaries and JVs	4,876	1,313	6,189
(d) Other entities of central government not reported in part (a) above	–	1	1
(e) Other entities of local governments not reported in part (b) above	74	52	126
(f) PRC nationals residing outside Mainland China or entities incorporated outside Mainland China where the credit is granted for use in Mainland China	5,843	1,609	7,452
(g) Other counterparties where the exposures are considered by the reporting institution to be non-bank Mainland China exposures	6,403	3,243	9,646
Total	18,941	6,708	25,649
Total assets after provision	394,121		
On-balance sheet exposures as percentage of total assets	4.81%		

19 CURRENCY CONCENTRATIONS

The table below summarises the Group's assets and liabilities at carrying amounts, categorised by currency:

In HK$ millions	USD	CNY	CAD	AUD	JPY	GBP	MOP	Others	Total
As at 31 December 2018									
Hong Kong dollar equivalents									
Spot assets	**184,056**	**11,595**	**435**	**4,025**	**8,093**	**2,201**	**489**	**6,635**	**217,529**
Spot liabilities	**(150,209)**	**(11,094)**	**(2,824)**	**(12,917)**	**(2,435)**	**(3,556)**	**(437)**	**(12,884)**	**(196,356)**
Forward purchases	**72,027**	**9,098**	**2,632**	**10,444**	**1,172**	**2,140**	**–**	**7,929**	**105,442**
Forward sales	**(105,783)**	**(9,607)**	**(290)**	**(1,496)**	**(6,738)**	**(821)**	**–**	**(1,656)**	**(126,391)**
Net options position	**2**	**–**	**–**	**–**	**–**	**–**	**–**	**(2)**	**–**
Net long/(short) non-structural position	**93**	**(8)**	**(47)**	**56**	**92**	**(36)**	**52**	**22**	**224**
Net structural position	**–**	**85**	**–**	**–**	**–**	**–**	**(50)**	**–**	**35**
As at 31 December 2017									
Hong Kong dollar equivalents									
Spot assets	167,292	11,201	423	4,992	1,958	2,247	566	5,978	194,657
Spot liabilities	(131,611)	(10,682)	(2,471)	(12,140)	(2,097)	(2,680)	(534)	(10,277)	(172,492)
Forward purchases	38,028	7,316	2,799	7,629	736	1,377	–	8,423	66,308
Forward sales	(73,151)	(7,787)	(705)	(417)	(606)	(962)	–	(4,111)	(87,739)
Net options position	–	–	–	(1)	–	–	–	1	–
Net long/(short) non-structural position	558	48	46	63	(9)	(18)	32	14	734
Net structural position	–	29	–	–	–	–	(46)	–	(17)

Structural foreign exchange positions arising from capital investments outside Hong Kong, mainly in Chinese Renminbi and Macau Pataca.

The net options position is calculated based on the delta-weighted position as set out in the prudential return "Foreign Currency Position" issued by the HKMA.

20 LIQUIDITY

20.1 Liquidity Risk Management

20.1.1 Governance

The Bank's approach to liquidity risk management is based on the building blocks of governance by risk committees' oversight, policies that define overarching principles and specific risk methodologies, and standards that establish the detailed requirements.

The Group Liquidity Risk Management Policy sets out the Bank's overall approach towards liquidity risk management and describes the range of strategies employed by the Bank to manage its liquidity. These include maintaining an adequate counterbalancing capacity, which corresponds to liquid assets, the capacity to borrow from the money markets as well as forms of managerial interventions that improve liquidity, to address potential cash flow shortfalls and maintaining diversified sources of liquidity. The policy also sets out the structure and responsibilities of committees and functional units for liquidity risk management.

The Policy is supported by Standards and corresponding Hong Kong addendums which establish the detailed requirements for liquidity risk identification, measurement, reporting and control. All the policies, standards and addendums would be subjected to annual review and approval from various risk committees, including the Board Risk Management Committee ("BRMC").

The Hong Kong Market and Liquidity Risk Committee ("MLRC") serves as an executive forum to provide oversight on the effectiveness of liquidity risk management framework including policies, models, systems, processes, information and methodologies. The MLRC comprises representatives from risk management and other relevant business and support units. It sets standards and provides necessary guidance on the establishment and maintenance of bank-wide Liquidity Contingency Plan ("LCP").

The day-to-day liquidity risk monitoring, control, reporting and analysis are managed by the Risk Management Group, Market and Liquidity Risk unit – an independent risk management function that reports to the Senior Risk Executive.

20.1.2 Liquidity Stress Testing

The primary measure used to manage liquidity within the tolerance defined by the Board is the cash flow maturity mismatch analysis. The analysis is performed on a regular basis under normal and adverse scenarios. It assesses the adequacy of the counterbalancing capacity to fund or mitigate any cash flow shortfalls that may occur as forecasted in the cash flow movements across successive time bands. To ensure that liquidity is managed in line with the risk tolerance, core parameters underpinning the performance of the analysis, such as the types of scenarios, survival period and minimum level of liquid assets, are pre-specified for monitoring and control.

Stress testing is performed under the cash flow maturity mismatch analysis, and covers adverse scenarios involving shocks that are general market and/or bank-specific in nature. Stress tests assess the bank's vulnerability when liability run-offs increase, asset drawdown and rollovers increase and/or liquid asset buffer reduces. In addition, ad-hoc stress tests are performed in the formulation of the internal capital adequacy assessment process.

20 LIQUIDITY (continued)

20.1 Liquidity Risk Management (continued)

20.1.3 Funding Strategy

The Bank strives to develop a diversified funding base with access to funding sources across retail and wholesale channels. In particular, the Bank has continuously made inroads in growing, deepening and diversifying its deposit base, spanning retail, wealth management, corporate and institutional customers. Supplementing the deposit base, the Bank continues to maintain access to wholesale channels to increase flexibility and manage funding cost in capitalising on business opportunities. The Bank centrally manages its liquidity and funding positions at Hong Kong location level with the support from its Head Office.

The Assets and Liabilities Committee ("ALCO") regularly reviews the balance sheet composition, trends in loans and deposits, utilization of wholesale funding, momentum in business activities, market competition, economic outlooks, market conditions and other factors that may affect liquidity in the continual refinement of the Bank's funding strategy.

20.1.4 Contingency Funding Plan

In the event of a potential or actual crisis, the Group has in place a set of LCP and respective Hong Kong Addendum, which applies to Hong Kong location level, to facilitate and prepare the management to respond in a coordinated, coherent and organized way to tide the Bank over a crisis situation. The LCP establishes clear lines of responsibilities and preventive measures against and respond to a crisis situation. It also outlines the key management actions and options to be taken in managing a liquidity crisis. Stockpiling High Quality Liquid Assets, maintaining diversification of wholesale funding facilities, such as Money Market lines, Overdraft facilities, Repo facilities and access to Central Bank liquidity facilities could be served as contingent facilities while their availability depends on the types and/or severity of the crisis.

20.1.5 Liquidity Risk Mitigation

Strategies and plans are discussed at relevant committees such as BRMC, ALCO and MLRC to proactively manage liquidity risk of the Bank. To mitigate the risk, the Bank strives to maintain a diversified funding base and put in place a set of LCP to ensure adequate liquidity as mentioned in above paragraphs.

20.1.6 Cash Flow Maturity Mismatch Analysis*

In HK$ millions(i)	Less than 7 days	1 week to 1 month	1 to 3 months	3 to 12 months
2018				
Net liquidity mismatch	23,470	13,080	31,037	17,573
Cumulative mismatch	23,470	36,550	67,588	85,160
2017(ii)				
Net liquidity mismatch	28,555	21,181	25,975	23,759
Cumulative mismatch	28,555	49,736	75,711	99,471

(i) Positive indicates a position of liquidity surplus. Negative indicates a liquidity shortfall that has to be funded.

(ii) As the behavioural assumptions used to determine the maturity mismatch between assets and liabilities are updated from time to time, the information presented above may not be directly comparable across past balance sheet dates.

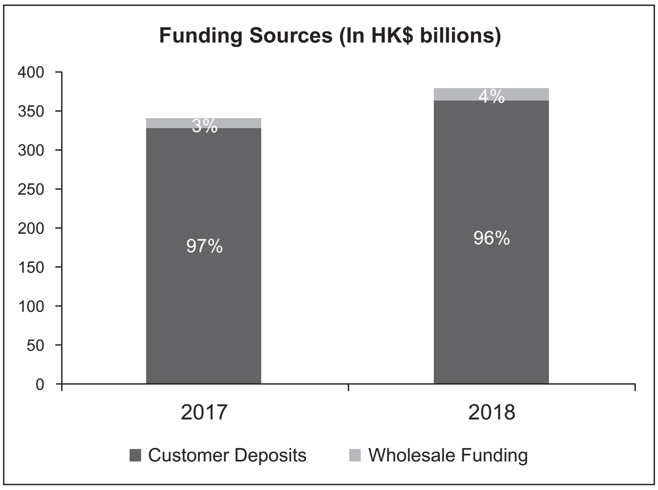
* *The cash flow maturity mismatch analysis has already taken into account limitations on the transferability of liquidity.*

20 LIQUIDITY (continued)

20.1 Liquidity Risk Management (continued)

20.1.7 Sources of Funding

The Bank's source of funding is mainly from customer deposits:



20.1.8 Liquidity Gap

The table below analyses the on- and off-balance sheet items, broken down into maturity buckets* of the Bank as at 31 December 2018.

In HK$ millions	Total amount	Next day	2 to 7 days	8 days to 1 month	> 1 month up to 3 months	> 3 months up to 6 months	> 6 months up to 1 year	> 1 year up to 2 years	> 2 years up to 3 years	> 3 years up to 5 years	Over 5 years	Balancing amount
Cash and balances with central bank	3,028	2,982	–	–	–	–	–	–	–	–	–	46
Due from banks	223,692	32,273	16,125	20,587	22,007	14,492	4,456	113,752	–	–	–	–
Debt securities	44,780	35,777	–	–	–	7,339	–	1,206	456	2	–	–
Loans and advances to customers	164,651	3,446	11,205	38,720	24,378	11,825	7,836	9,981	8,703	10,933	34,113	3,511
Other assets	25,692	3,731	405	1,299	1,639	1,156	1,067	2,454	1,888	2,619	6,153	3,281
Total on-balance sheet assets	**461,843**	**78,209**	**27,735**	**60,606**	**48,024**	**34,812**	**13,359**	**127,393**	**11,047**	**13,554**	**40,266**	**6,838**
Total off-balance sheet claims	**11,457**	**6**	**259**	**10,409**	**783**	**–**	**–**	**–**	**–**	**–**	**–**	**–**

In HK$ millions	Total amount	Next day	2 to 7 days	8 days to 1 month	> 1 month up to 3 months	> 3 months up to 6 months	> 6 months up to 1 year	> 1 year up to 2 years	> 2 years up to 3 years	> 3 years up to 5 years	Over 5 years	Balancing amount
Deposits and balances from customers	364,723	211,365	17,233	43,663	58,391	25,991	8,078	2	–	–	–	–
Due to banks	10,336	4,886	2,508	28	1,813	8	–	1,093	–	–	–	–
Certificates of deposit issued	9,808	–	–	735	1,728	1,999	–	900	217	4,229	–	–
Other liabilities	35,713	13,107	314	2,847	1,958	1,137	1,241	2,239	1,599	2,319	5,718	3,234
Total on-balance sheet liabilities	**420,580**	**229,358**	**20,055**	**47,273**	**63,890**	**29,135**	**9,319**	**4,234**	**1,816**	**6,548**	**5,718**	**3,234**
Total off-balance sheet obligations	**35,025**	**22,074**	**10,206**	**2,745**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**

* *The maturity buckets mainly follow information provided to the HKMA for MA(BS)23 – Liquidity Monitoring Tools return.*

20 LIQUIDITY (continued)

20.2 Liquidity Coverage Ratio

The Bank complies with the minimum requirement of Liquidity Coverage Ratio ("LCR") on a daily basis, in accordance with the Banking (Liquidity) Rules issued by the HKMA. In 2018, the Bank was required to maintain an LCR of not less than 90%. This was increased to 100% from January 2019 onwards.

LCR aims to ensure that a bank has an adequate stock of unencumbered High Quality Liquid Assets ("HQLA") to meet its liquidity needs for a 30-calendar day liquidity stress scenario. Banking (Liquidity) Rules stipulates the range of liquid assets that qualify as HQLA, as well as the applicable haircuts for each category. Net cash outflows are computed using the standardized 30-day cash flow rates defined in the same notice. The amounts after the application of haircuts or 30-day cash flow rates are reflected in the "Weighted value" column of the tables below.

The Bank seeks to ensure that its LCR remains above the specified regulatory minimum requirements. This is achieved by:

1. Establishing internal early warning triggers and thresholds based on observed movements in LCR over time;

2. Monitoring and managing the LCR closely to ensure it stays within established boundaries; and

3. Strategically managing the liquidity risk arising from the balance sheet structure.

20 LIQUIDITY (continued)

20.2 Liquidity Coverage Ratio (continued)

Table: Average LCR for the quarter ended 31 December 2018

Number of data points used in calculating the average value of the LCR and related components set out in this template for the quarter ending on 31 Dec 2018: (75)		Currency: (HK$ million)	
Basis of disclosure: unconsolidated		**Unweighted value (average)**	**Weighted value (average)**
A. HQLA			
1	Total HQLA		36,290
B. CASH OUTFLOWS			
2	Retail deposits and small business funding, of which:	206,691	16,149
3	*Stable retail deposits and stable small business funding*	13,352	401
4	*Less stable retail deposits and less stable small business funding*	121,629	12,163
4a	*Retail term deposits and small business term funding*	71,711	3,586
5	Unsecured wholesale funding (other than small business funding), debt securities and prescribed instruments issued by the AI, of which:	139,074	71,292
6	*Operational deposits*	12,410	2,589
7	*Unsecured wholesale funding (other than small business funding) not covered in row 6*	126,124	68,164
8	*Debt securities and prescribed instruments issued by the AI and redeemable within the LCR period*	539	539
9	Secured funding transactions (including securities swap transactions)		–
10	Additional requirements, of which:	14,438	3,554
11	*Cash outflows arising from derivative contracts and other transactions, and additional liquidity needs arising from related collateral requirements*	2,345	2,345
12	*Cash outflows arising from obligations under structured financing transactions and repayment of funding obtained from such transactions*	–	–
13	*Potential drawdown of undrawn committed facilities (including committed credit facilities and committed liquidity facilities)*	12,093	1,209
14	Contractual lending obligations (not otherwise covered in Section B) and other contractual cash outflows	1,928	1,928
15	Other contingent funding obligations (whether contractual or non-contractual)	148,065	402
16	**TOTAL CASH OUTFLOWS**		93,325
C. CASH INFLOWS			
17	Secured lending transactions (including securities swap transactions)	–	–
18	Secured and unsecured loans (other than secured lending transactions covered in Row 17) and operational deposits placed at other financial institutions	121,488	73,475
19	Other cash inflows	2,529	2,322
20	**Total Cash Inflows**	124,017	75,796
D. LIQUIDITY COVERAGE RATIO		**ADJUSTED VALUE**	
21	**Total HQLA**		36,290
22	**TOTAL NET CASH OUTFLOWS**		23,425
23	**LCR (%)**		155.0%

20 LIQUIDITY (continued)

20.2 Liquidity Coverage Ratio (continued)

The Bank has maintained a healthy liquidity position in the fourth quarter of 2018, with LCR being well above regulatory requirement. Quarter-on-quarter, more HQLA were warehoused and net outflows were decreased mainly attributed to less interbank borrowing, which had led to the increase of average LCR.

(i) Composition of High Quality Liquid Assets ("HQLA")

The Bank holds a pool of unencumbered HQLAs that is readily available to meet cash flow obligations under stress scenarios, as defined in the LCR rules. These liquid assets consist predominantly of Level 1 HQLA, including mainly Hong Kong exchange fund bills and notes, other government debt securities and balances with central banks. This is supplemented by covered bonds issued by reputable financial institutions.

(ii) Concentration of funding sources

The Bank strives to develop a diversified funding base with access to funding sources across retail and wholesale channels. Customer deposits form a sound funding base and serve as the main source of funding for the Bank. It is complemented by a well-diversified book of wholesale funding, including but not limited to interbank money market borrowing and the issuance of certificates of deposit. For more information on the Bank's funding strategy, please refer to section 20.1.3 above.

(iii) Derivatives exposures

The Bank actively manages its over-the-counter ("OTC") and exchange-traded derivative contracts, which comprise mainly of currency, interest rate and bond futures, foreign exchange forwards, interest rate and cross currency swaps, and foreign exchange options. Collaterals may be required to be posted to counterparties and/or the exchanges, depending on the daily mark-to-market of these derivative positions. The Bank's largest counterparty for OTC derivatives is the Bank's parent company.

(iv) Currency mismatch

Customer deposit in Hong Kong, largely denominated in HKD, is a major funding source for the Bank. The Bank swaps surplus HKD funding into United States Dollars ("USD") and other foreign currencies to meet customer demand for loans.

(v) Centralisation of liquidity management

The Bank seeks to manage its liquidity in a prudent manner to ensure that its liquidity obligations would always be honored under normal and adverse circumstances. The Bank centrally manages its liquidity position and provides funding support to its overseas branch for the lending growth.

20 LIQUIDITY (continued)

20.3 Net Stable Funding Ratio

The bank maintains a healthy liquidity position by keeping a stable balance sheet structure that is supported by a diversified funding base. The NSFR remains well above the regulatory minimum requirement of 100%.

The bank seeks to ensure that its NSFR remains above the specified regulatory minimum requirements, which is achieved by:

1. Monitoring the NSFR closely against an internal early warning trigger; and

2. Managing and developing strategies to build a diversified funding base with access to funding sources across retail and wholesale channels.

Table 1: NSFR for the quarter ended 31 December 2018

In HK$ millions		(a)	(b)	(c)	(d)	(e)
Basis of disclosure: unconsolidated		**Unweighted value by residual maturity**				**Weighted amount**
		No specified term to maturity	< 6 months or repayable on demand	6 months to < 12 months	12 months or more	
A. Available stable funding (“ASF”) item						
1	Capital:	39,053	–	–	4,229	43,283
2	*Regulatory capital*	39,053	–	–	4,229	43,283
2a	*Minority interests not covered by row 2*	–	–	–	–	–
3	*Other capital instruments*	–	–	–	–	–
4	Retail deposits and small business funding:	–	200,434	4,924	24	185,570
5	*Stable deposits*		14,391	85	1	13,754
6	*Less stable deposits*		186,043	4,839	23	171,817
7	Wholesale funding:	–	164,619	2,887	1,102	67,635
8	*Operational deposits*		14,393	–	–	7,197
9	*Other wholesale funding*	–	150,226	2,887	1,102	60,438
10	Liabilities with matching interdependent assets	–	–	–	–	–
11	Other liabilities:	12,087	15,688	–	1,119	1,119
12	*Net derivative liabilities*	244				
13	*All other funding and liabilities not included in the above categories*	11,843	15,688	–	1,119	1,119
14	**Total ASF**					297,606
B. Required stable funding (“RSF”) item						
15	Total HQLA for NSFR purposes	636	32,666	2,360	16,235	2,355
16	Deposits held at other financial institutions for operational purposes	–	357	–	–	179
17	Performing loans and securities:	17,225	190,163	11,454	177,902	239,274
18	*Performing loans to financial institutions secured by Level 1 HQLA*	–	–	–	–	–

20 LIQUIDITY (continued)

20.3 Net Stable Funding Ratio (continued)

Table 1: NSFR for the quarter ended 31 December 2018 (continued)

In HK$ millions		(a)	(b)	(c)	(d)	(e)
Basis of disclosure: unconsolidated		**Unweighted value by residual maturity**				**Weighted amount**
		No specified term to maturity	< 6 months or repayable on demand	6 months to < 12 months	12 months or more	
19	*Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions*	104	127,190	4,511	114,059	135,497
20	*Performing loans, other than performing residential mortgage, to non-financial corporate clients, retail and small business customers, sovereigns, the Monetary Authority for the account of the Exchange Fund, central banks and PSEs, of which:*	17,121	61,611	5,915	34,889	77,972
21	*With a risk-weight of less than or equal to 35% under the STC approach*	–	–	–	–	–
22	*Performing residential mortgages, of which:*	–	1,362	1,028	28,952	25,804
23	*With a risk-weight of less than or equal to 35% under the STC approach*	–	–	–	–	–
24	*Securities that are not in default and do not qualify as HQLA, including exchange-traded equities*	–	–	–	2	2
25	Assets with matching interdependent liabilities	–	–	–	–	–
26	Other assets:	7,730	3,679	–	474	8,145
27	*Physical traded commodities, including gold*	–				–
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*	–				–
29	*Net derivative assets*	–				–
30	*Total derivative liabilities before deduction of variation margin posted*	818				N/A
31	*All other assets not included in the above categories*	6,912	3,679	–	474	8,145
32	Off-balance sheet items		161,375	–	–	616
33	**Total RSF**					250,568
34	**Net Stable Funding Ratio (%)**					118.8%

20 LIQUIDITY (continued)

20.3 Net Stable Funding Ratio (continued)

Table 2: NSFR for the quarter ended 30 September 2018

In HK$ millions		(a)	(b)	(c)	(d)	(e)
Basis of disclosure: unconsolidated		**Unweighted value by residual maturity**				**Weighted amount**
		No specified term to maturity	< 6 months or repayable on demand	6 months to < 12 months	12 months or more	
A. Available stable funding ("ASF") item						
1	Capital:	39,761	–	–	4,225	43,986
2	*Regulatory capital*	39,761	–	–	4,225	43,986
2a	*Minority interests not covered by row 2*	–	–	–	–	–
3	*Other capital instruments*	–	–	–	–	–
4	Retail deposits and small business funding:	–	197,336	6,899	24	184,580
5	*Stable deposits*		14,746	130	–	14,132
6	*Less stable deposits*		182,591	6,769	24	170,448
7	Wholesale funding:	–	161,317	1,787	1,112	64,369
8	*Operational deposits*		15,722	–	–	7,861
9	*Other wholesale funding*	–	145,595	1,787	1,112	56,508
10	Liabilities with matching interdependent assets	–	–	–	–	–
11	Other liabilities:	22,850	2,551	–	1,119	1,119
12	*Net derivative liabilities*	39				
13	*All other funding and liabilities not included in the above categories*	22,811	2,551	–	1,119	1,119
14	**Total ASF**					294,054
B. Required stable funding ("RSF") item						
15	Total HQLA for NSFR purposes	531	37,771	2,345	16,802	2,326
16	Deposits held at other financial institutions for operational purposes	–	1,370	–	–	685
17	Performing loans and securities:	17,199	175,846	15,158	172,971	233,946
18	*Performing loans to financial institutions secured by Level 1 HQLA*	–	–	–	–	–
19	*Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions*	107	112,651	7,120	108,075	128,639
20	*Performing loans, other than performing residential mortgage, to non-financial corporate clients, retail and small business customers, sovereigns, the Monetary Authority for the account of the Exchange Fund, central banks and PSEs, of which:*	17,093	61,671	6,973	36,395	79,786

20 LIQUIDITY (continued)

20.3 Net Stable Funding Ratio (continued)

Table 2: NSFR for the quarter ended 30 September 2018 (continued)

In HK$ millions		(a)	(b)	(c)	(d)	(e)
Basis of disclosure: unconsolidated		**Unweighted value by residual maturity**				**Weighted amount**
		No specified term to maturity	< 6 months or repayable on demand	6 months to < 12 months	12 months or more	
21	*With a risk-weight of less than or equal to 35% under the STC approach*	–	–	–	–	–
22	*Performing residential mortgages, of which:*	–	1,524	1,064	28,500	25,519
23	*With a risk-weight of less than or equal to 35% under the STC approach*	–	–	–	–	–
24	*Securities that are not in default and do not qualify as HQLA, including exchange-traded equities*	–	–	–	2	2
25	Assets with matching interdependent liabilities	–	–	–	–	–
26	Other assets:	6,728	3,084	–	–	7,350
27	*Physical traded commodities, including gold*	–				–
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*	–				–
29	*Net derivative assets*	–				–
30	*Total derivative liabilities before deduction of variation margin posted*	868				N/A
31	*All other assets not included in the above categories*	5,860	3,084	–	–	7,350
32	Off-balance sheet items		159,683	–	–	624
33	**Total RSF**					244,932
34	**Net Stable Funding Ratio (%)**					120.1%

The NSFR remained well above the regulatory requirement in the second half of 2018. Compared to previous quarter, the NSFR as of end 4Q 2018 decreased slightly mainly due to increase in interbank lending, partly offset by the growth in customer deposits and decrease in customer loans.

The NSFR is sensitive to (i) balance sheet movements resulting from commercial loan and deposit activities, and (ii) movements due to positions falling into the NSFR 1-year tenor, such as when the residual maturity of capital fall within the 1-year tenor.

There are no interdependent assets and liabilities as of end 3Q and 4Q 2018.

21 SEGMENTAL INFORMATION

(a) Segmental information by class of business

In HK$ millions 2018	**Commercial and consumer banking**	**Treasury**	**Others**	**Total**
Total income	**10,413**	**116**	**1,395**	**11,924**
Profit before allowances for credit losses	**5,424**	**(38)**	**1,223**	**6,609**
Profit before income tax	**4,859**	**(38)**	**1,221**	**6,042**
Operating assets	**165,474**	**47,658**	**232,529**	**445,661**
2017				
Total income	8,554	721	78	9,353
Profit before allowances for credit losses	4,070	577	10	4,657
Profit before income tax	4,088	577	26	4,691
Operating assets	153,367	234,251	10,206	397,824

Commercial and consumer banking business mainly comprises deposit account services, residential mortgage and other consumer lending, credit card services, corporate lending, trade finance and international banking.

Treasury activities are mainly the provision of foreign exchange services and centralised cash management for deposit taking and lending, trading activities and management of investment securities and the overall funding of the Group.

(b) Segmental information by booking location

Over 90% of the Group's total income, profit before income tax, total assets, total liabilities, contingent liabilities and commitments are booked in Hong Kong.

22 REMUNERATION

The Bank adopts the remuneration policy and practices formulated by DBSH.

The Board of DBSHK reviewed and approved DBSHK's remuneration policy. No change on remuneration policy after review by the Board. The Board Nomination and Remuneration Committee (BNRC) provided oversight of the remuneration of the CEO, senior executives and control functions in line with the Financial Stability Board's guidelines.

22.1 Objectives of DBS remuneration strategy

DBS' remuneration policy, which is applicable to DBS Bank and all our subsidiaries and overseas offices, seeks to ensure that we are able to attract, motivate and retain employees to deliver long-term shareholder returns taking into consideration risk management principles and standards set out by the Financial Stability Board (FSB) and the Code.

When formulating our remuneration strategy, consideration was given to aligning our remuneration approach with DBS PRIDE! values in order to drive desired behaviours and achieve the objectives set out in our balanced scorecard.

The following shows the three main thrusts of our remuneration strategy and how they are implemented within DBS:

Main thrusts	How
Pay for performance measured against the balanced scorecard	• Instill and drive a pay-for-performance culture • Ensure close linkage between total compensation and our annual and long-term business objectives as measured through the balanced scorecard • Calibrate mix of fixed and variable pay to drive sustainable performance and alignment to DBS PRIDE! values, taking into account both the "what" and "how" of achieving key performance indicators (KPIs)
Provide market competitive pay	• Benchmark our total compensation against other organisations of similar size and standing in the markets we operate in • Drive performance differentiation by benchmarking total compensation for top performing employees against the upper quartile or higher in each market
Guard against excessive risk-taking	• Focus on achieving risk-adjusted returns that are consistent with our prudent risk and capital management as well as emphasis on long-term sustainable outcomes • Design payout structure to align incentive payments with the long-term performance of the company through deferral and clawback arrangements • Design sales incentives plans to encourage the right sales behaviour

22.2 Summary of current total compensation elements

An employee's total compensation is made up of the following elements:

	Fixed pay	Variable pay	Variable pay
Total compensation	Salary	Cash bonus	Deferred shares/ cash

22 REMUNERATION (continued)

22.2 Summary of current total compensation elements (continued)

The table below provides a breakdown of total compensation elements, their purpose and link to our compensation strategy, and the policy governing their execution:

Elements	What	Why and linkages to strategy	How
Fixed pay	Salary	• Attract and retain talent by ensuring our fixed pay is competitive vis-a-vis comparable institutions	• Set at an appropriate level taking into account market dynamics, skills, experience, responsibilities, competencies and performance of the employee • Paid in cash monthly • Typically reviewed annually
Variable pay	Cash bonus and deferred shares/ cash	• Provide a portion of total compensation that is performance-linked • Focus employees on the achievement of objectives which are aligned to value creation for our shareholders and multiple stakeholders • Align to time horizon of risk	• Based on DBS, business or support unit and individual performance • Measured against a balanced scorecard which is agreed to at the start of the year • Awards in excess of a certain threshold are subject to a tiered deferral rate that ranges from 20% to 60% with a minimum deferred quantum. Country variations may apply to the threshold based on statutory requirements • Deferred remuneration is paid in restricted shares and/ or deferred cash and comprises two elements: the main award and the retention award (constituting 20% of the shares and/ or deferred cash given in the main award and designed to retain talent and compensate staff for the time value of deferral) • Deferred awards vest over four years, and will lapse immediately upon termination of employment (including resignation) except in the event of ill health, injury, disability, redundancy, retirement or death • Paid cash bonus, unvested and vested deferred shares/ cash awards are subject to clawback from employees whose bonus exceeds a certain threshold

22 REMUNERATION (continued)

22.3 Determination of variable pay pool

The variable pay pool is derived from a combination of a bottom-up and top-down approach. It is underpinned by our aim to drive a pay-for-performance culture which is aligned to our risk framework.

Determining total variable pool	A function of net profit before tax benchmarked against market and calibrated against the following prisms: • Risk adjustment through review of Returns on Risk-Adjusted Capital (RoRAC) • Distribution of earnings between employees and shareholders	• Our business model seeks to create value for stakeholders in a sustainable way • To this end, performance is measured using a balanced scorecard approach which assesses how successfully we are serving multiple stakeholders and executing on our long-term strategy • The balanced scorecard comprises financial and non-financial metrics encompassing employees, customers, shareholders, risks and compliance objectives • Taking into account the above, our performance in 2018 was better than in the previous year. This resulted in an increase in the total variable pool • The Compensation and Management Development Committee (CMDC) evaluated and approved the pool which was subsequently endorsed by the Board of Directors (Board)
Allocating pool to business units	Pool allocation takes into account the relative performance of each unit • Measured through each unit's balanced scorecard and evaluated by the CEO	Inputs from control functions such as Audit, Compliance and Risk are sought. Country heads are also consulted in the allocation process
Determining individual award	Unit heads cascade their allocated pool to their teams and individuals • Performance measurement through the balanced scorecard	Individual variable pay determined based on individual performance • Linked to achievement of quantitative as well as qualitative objectives as set out in individual's KPIs

The performance of control functions (Risk, Finance, Compliance and Audit) are measured independently from the business units they support to prevent any conflicts of interests. The remuneration of the Chief Risk Officer (CRO) and Group Head of Audit are endorsed by the Chairman of Board Risk Management Committee and Audit Committee respectively and subsequently approved by the Board.

Sales employees are incentivised to promote the development of mutually beneficial long-term relationships with their customers, rather than solely focus on short-term gains. Non-financial metrics such as customer satisfaction and compliance with fair dealing principles are incorporated into their KPIs. In 2018, we conducted a review of our Sales Incentives Framework where the target mix of fixed and variable pay was reviewed to encourage the right sales behaviour.

Determination of performance depends on the fulfilment of relevant scorecard and objectives, in accordance to which the variable pay will be adjusted.

22 REMUNERATION (continued)

22.4 Deferred share incentives

Plan objectives	Award types
• Foster a culture that aligns employees' interests with shareholders • Enable employees to share in DBS' performance • Talent retention	• Annual Deferred Remuneration – DBSH Share Plan (Share Plan) for Vice President and above – DBSH Employee Share Plan (ESP) for Assistant Vice President and below • Awards as part of talent retention (Special Award)

Award elements

- Deferred share incentives are delivered in the form of restricted share awards (Share Awards) which comprise two elements:

Deferred incentive	Main award	Retention award*

** Constitutes 20% of Main Award under the Annual Deferred Remuneration*

Vesting schedule	Malus of unvested awards and clawback of vested awards
Main Award • 33% vest two years after grant date • Another 33% vest three years after grant date • Remaining 34% vest four years after grant date **Retention Award** • 100% vest four years after grant date	**Malus and/ or clawback will be triggered by** • Material violation of risk limits • Material losses due to negligent risk-taking or inappropriate individual behaviour • Material restatement of DBS' financials due to inaccurate performance measures • Misconduct or fraud Awards may be clawed back within seven years from the date of grant.

22.5 Senior management and material risk takers

The balance between fixed and variable elements of total compensation changes according to performance, rank and function. This is in line with the FSB principle of ensuring that employee incentives remain focused on prudent risk-taking and effective control, depending on the employee's role.

It is aimed at incentivising employees whose decisions can have a material impact on DBS to adopt appropriate risk behaviours. These employees include senior management, key personnel at business units and senior control staff. We define this group of staff based on their roles and quantum of their variable remuneration.

In 2018, an external management consulting firm, Oliver Wyman, was engaged to provide an independent review of the Group's compensation system and processes to ensure compliance with the FSB Principles for Sound Compensation Practices. Oliver Wyman and its consultants are independent and not related to us or any of our Directors.

For more details on the remuneration policies, please refer to DBS Group Annual Report and Pillar 3 disclosure documents.

23 ABBREVIATIONS

Abbreviations	Brief Description
ASF	Available Stable Funding
AT1	Additional Tier 1
BSC	Basic Approach
CCF	Credit Conversion Factor
CCP	Central Counterparty
CCR	Counterparty Credit Risk
CCyB	Countercyclical Capital Buffer
CEM	Current Exposure Method
CET1	Common Equity Tier 1
CFR	Core Funding Ratio
CIS	Collective Investment Scheme
CRM	Credit Risk Mitigation
CVA	Credit Valuation Adjustment
D-SIB	Domestic Systemically Important Authorized Institution
DTAs	Deferred Tax Assets
EAD	Exposure At Default
EL	Expected Loss
EPE	Expected Positive Exposure
FBA	Fall-Back Approach
G-SIB	Global Systemically Important Authorized Institution
IMM	Internal Models
IMM (CCR)	Internal Models (Counterparty Credit Risk)
JCCyB	Jurisdictional Countercyclical Capital Buffer
IRB	Internal Ratings-Based
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
LMR	Liquidity Maintenance Ratio
LR	Leverage Ratio

23 ABBREVIATIONS (continued)

Abbreviations	Brief Description
LTA	Look Through Approach
MBA	Mandate-based Approach
MSRs	Mortgage Servicing Rights
NA	Not Applicable
NSFR	Net Stable Funding Ratio
OTC	Over-the-Counter
PD	Probability of Default
PFE	Potential Future Exposure
PSE	Public Sector Entity
PVA	Prudent Valuation Adjustments
RSF	Required Stable Funding
RWA	Risk Weighted Assets
SA-CCR	Standardized Approach (Counterparty Credit Risk)
SEC-IRBA	Securitization Internal Ratings-Based Approach
SEC-ERBA	Securitization External Ratings-Based Approach
SEC-SA	Securitization Standardized Approach
SEC-FBA	Securitization Fall-back Approach
SFT	Securities Financing Transaction
SRW	Supervisory Risk Weights
STC	Standardized (Credit Risk)
STM	Standardized (Market Risk)
VaR	Value-at-risk