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Standard Chartered Bank (Hong Kong) Limited

Supplementary Notes to Consolidated Financial Statements (unaudited)

For period ended
31 December 2019

Standard Chartered Bank (Hong Kong) Limited
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Supplementary Notes to Consolidated Financial Statement (unaudited)

These notes are supplementary to and should be read in conjunction with the 2019 Consolidated Financial Statement ("consolidated financial statement"). The consolidated financial statement and this supplementary notes to consolidated financial statement (unaudited) taken together comply with the Banking (Disclosure) Rules ("Rules") under section 60A of the Banking Ordinance and the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements - Banking Sector) Rules ("LAC Rules") under section 19(1) of the Financial Institutions (Resolution) Ordinance ("FIRO").

References to "the Group" within this document means Standard Chartered Bank (Hong Kong) Limited ("the Bank") and its subsidiaries.

These banking disclosures are governed by the Group's disclosure policy, which has been approved by the Board of Directors. The disclosure policy sets out the approach to determine the content, appropriateness and frequency of the disclosures, the approach to ensure the relevance and adequacy of the disclosures, and the internal control over the process for making the disclosures. The disclosures have been subject to independent review in accordance to the disclosure policy.

According to the Rules and the LAC Rules, disclosure of comparative information is not required unless otherwise specified in the standard disclosure templates. Prior period disclosures and additional disclosures as required by the Banking (Disclosure) Rules will be available on our website: www.sc.com/hk on or before 29 April 2020.

1 Basis of consolidation and preparation

The consolidated capital ratios were calculated in accordance with the Banking (Capital) Rules of the Hong Kong Banking Ordinance.

The basis of consolidation for accounting purposes is in accordance with Hong Kong Financial Reporting Standards. The principal subsidiaries of the Bank for accounting purposes are Standard Chartered Bank (China) Limited ("SCB China"), Standard Chartered NEA Limited ("SC NEA"), Standard Chartered Bank Korea Limited ("SCB Korea") and Standard Chartered Bank (Taiwan) Limited ("SCB Taiwan") (SC NEA, SCB Korea and SCB Taiwan collectively referred to as "SC NEA Group").

The basis and scope of consolidation for regulatory purposes is different from the basis and scope of consolidation for accounting purposes.

Subsidiaries included in the consolidation for regulatory purposes are specified in a notice from the HKMA in accordance with section 3C(1) of the Banking (Capital) rules. Subsidiaries not included in consolidation for regulatory purposes are non-financial companies and the securities companies that are authorized and supervised by a regulator and are subject to supervisory arrangements regarding the maintenance of adequate capital to support business activities comparable to those prescribed for authorized institutions under the Banking (Capital) Rules and the Banking Ordinance.

The Bank's shareholdings in these subsidiaries are deducted from its capital base subject to the thresholds and transitional arrangements as determined in accordance with Part 3 and Schedule 4H of the Banking (Capital) Rules.

The Group operates subsidiaries in a number of countries and territories where capital is governed by local rules and there may be restrictions on the transfer of regulatory capital and funds between members of the banking group.

1 Basis of consolidation and preparation (continued)

Subsidiaries not included in the consolidation for regulatory purposes are set out below:

Name of company	Principal Activity	At 31 December 2019 Total assets HK$'M	At 31 December 2019 Total equity HK$'M
Prunelli Asset Purchaser HK Limited	Asset-backed securitization	2,731	–
Standard Chartered Securities Korea Limited	Provision of security trading, underwriting and brokerage transactions	2,010	1,958
Standard Chartered Securities (Hong Kong) Limited	Equity capital markets, corporate finance and institutional brokerage	134	133
Standard Chartered Trust (HK) Limited	Trustee services	15	14
SC Learning Limited	Provision of learning solutions in the banking and finance industry	–	–
Standard Chartered Nominees (Western Samoa) Limited	Nominees services	–	–
Horsford Nominees Limited	Nominees services	–	–
Standard Chartered Global Trading Investment Limited	Nominees services	–	–
		4,890	2,105

The Bank's shareholdings in the above subsidiaries are deducted from CET1 capital in accordance with the Banking (Capital) Rules. There is no relevant capital shortfall in any of the Bank's subsidiaries which are not included as part of the consolidation group for regulatory purposes.

The Group uses the advanced internal ratings based ("IRB") approach for both the measurement of credit risk capital requirements and the management of credit risk for the majority of its portfolios. The Group also uses the standardized (credit risk) approach for certain insignificant portfolios exempted from IRB. The Group adopts the securitization-external rating based approach ("SEC-ERBA") to calculate its credit risk for securitization exposures.

For market risk, the Group uses a stochastic asset-liability model approach for two guaranteed retirement funds and the standardized (market risk) approach for other exposures. In addition, the Group adopts the standardized (operational risk) approach for operational risk.

The Group applies the Internal Capital Adequacy Assessment Process ("ICAAP") to assess its capital demand on a current, planned and stressed basis. The assessment covers the major risks faced by the Group, in addition to credit, market and operational risks that are covered under the minimum capital requirements. The 2019 ICAAP (pre-acquisition of SCB China and SC NEA Group) has been approved by the Asset and Liability Committee ("ALCO") and the Board of Directors ("the Board"). The 2020 ICAAP (post-acquisition of SCB China and SC NEA Group) will be approved by the Regional Asset and Liability Committee ("RALCO") and the Board.

Loss-absorbing Capacity Disclosures

Hong Kong LAC Rules came into operation on 14 December 2018. Following classification by the HKMA (as resolution authority), in scope entities are required under these rules to issue LAC instruments that can be written down or converted in the event of failure, and maintain minimum LAC resources.

1 Basis of consolidation and preparation (continued)

Loss-absorbing Capacity Disclosures (continued)

The Group was notified by HKMA of its classification as a material subsidiary under the LAC rules with effect from 1 April 2019, with Standard Chartered PLC ("SC PLC") as the non-HK resolution entity. Following this classification, the Group has met its minimum LAC requirements since 1 July 2019, and is now publishing LAC disclosures for the period ended 31 December 2019. The basis of calculating the Group's LAC and RWAs is in accordance with the LAC Rules, with disclosures made using standard templates issued by the HKMA on 31 October 2019.

The Group's LAC disclosures are included as part of this regulatory disclosure, while SC PLC's LAC disclosures are included as part of its disclosures which can be found in the Investors section of SC PLC's website, https://www.sc.com.

2. Key prudential ratios and metrics

a. Key prudential ratios (KM1)

The following table sets out an overview of the Group's key prudential ratios.

		(a) At December 2019 HK$'M	(b) At September 2019 HK$'M	(c) At June 2019 HK$'M	(d) At March 2019 HK$'M	(e) At December 2018 HK$'M
	Regulatory capital (amount)					
1	Common Equity Tier 1 (CET1)[1]	125,235	88,089	86,639	60,510	57,449
2	Tier 1[1]	138,097	100,951	99,500	66,340	63,279
3	Total capital[1]	154,048	116,161	114,616	77,087	74,520
	RWA (amount)					
4	Total RWA[2]	836,118	626,174	607,156	430,341	414,896
	Risk-based regulatory capital ratios (as a percentage of RWA)					
5	CET1 ratio (%)[3]	15.0%	14.1%	14.3%	14.1%	13.8%
6	Tier 1 ratio (%)[3]	16.5%	16.1%	16.4%	15.4%	15.3%
7	Total capital ratio (%)[3]	18.4%	18.6%	18.9%	17.9%	18.0%
	Additional CET1 buffer requirements (as a percentage of RWA)					
8	Capital conservation buffer requirement (%)	2.5%	2.5%	2.5%	2.5%	1.9%
9	Countercyclical capital buffer requirement (%)[4]	0.9%	1.5%	1.5%	1.8%	1.4%
10	Higher loss absorbency requirements (%) (applicable only to G-SIBs or D-SIBs)	1.0%	1.0%	1.0%	1.0%	0.8%
11	Total AI-specific CET1 buffer requirements (%)	4.4%	5.0%	5.0%	5.3%	4.1%
12	CET1 available after meeting the AI's minimum capital requirements (%)	10.4%	9.6%	9.8%	9.4%	9.3%
	Basel III leverage ratio					
13	Total leverage ratio (LR) exposure measure[2]	2,258,835	1,555,488	1,613,710	1,189,263	1,184,360
14	LR (%)[3]	6.1%	6.5%	6.2%	5.6%	5.3%
	Liquidity Coverage Ratio (LCR) / Liquidity Maintenance Ratio (LMR)					
	Applicable to category 1 institution only:					
15	Total high quality liquid assets (HQLA)[5]	345,541	248,016	211,887	208,005	212,300

2. Key prudential ratios and metrics (continued)

a. Key prudential ratios (KM1) (continued)

		(a) At December 2019 HK$'M	(b) At September 2019 HK$'M	(c) At June 2019 HK$'M	(d) At March 2019 HK$'M	(e) At December 2018 HK$'M
16	Total net cash outflows[5]	238,247	161,842	143,618	133,412	137,500
17	LCR (%)[5]	146%	155%	148%	157%	155%
	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[5]	1,241,767	886,068	876,210	714,342	725,282
19	Total required stable funding[5]	964,450	687,728	642,648	542,561	536,758
20	NSFR (%)[5]	129%	129%	136%	132%	135%
	Applicable to category 2A institution only:					
20a	CFR (%)	NA	NA	NA	NA	NA

[1] Increase in CET1, Tier 1 and Total capital was mainly due to the issuance of Class D ordinary shares capital for the acquisition of SC NEA Group, partially offset by the dividend payment.

[2] Increase in Total RWA, Total LR exposure measure were mainly due to the acquisition of SC NEA Group.

[3] Movement in CET1 ratio, Tier 1 ratio, Total capital ratio and leverage ratio were mainly due to the acquisition of SC NEA Group and the dividend payment during the year.

[4] Decrease in countercyclical capital buffer requirement was mainly due to the increase in proportion of RWA under jurisdiction with 0% JCCyB after acquisition of SC NEA Group and the decrease in Hong Kong JCCyB ratio from 2.5% to 2% during the period.

[5] Please refer to note 8 for the key drivers of LCR and NSFR changes.

2. Key prudential ratios and metrics (continued)

b. Key metrics - LAC requirements for the Group (at LAC consolidation group level) (KM2(A))

The following table sets out a summary information on internal loss-absorbing capacity available, at LAC consolidation group level, of the Group.

		(a) At December 2019 HK$'M	(b) At September 2019 HK$'M	(c) At June 2019[1] HK$'M	(d) At March 2019[1] HK$'M	(e) At December 2018[1] HK$'M
	Of the material entity at LAC consolidation group level					
1	Internal loss-absorbing capacity available[3]	167,541	129,786	NA	NA	NA
2	Risk-weighted amount under the LAC Rules[4]	836,118	626,174	NA	NA	NA
3	Internal LAC risk-weighted ratio[5]	20.0%	20.7%	NA	NA	NA
4	Exposure measure under the LAC Rules[4]	2,258,835	1,555,488	NA	NA	NA
5	Internal LAC leverage ratio[5]	7.4%	8.3%	NA	NA	NA
6a	Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply? [2]	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
6b	Does the subordination exemption in the penultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply? [2]	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
6c	If the capped subordination exemption applies, the amount of funding issued that ranks pari passu with excluded liabilities and that is recognised as external loss-absorbing capacity, divided by funding issued that ranks pari passu with excluded liabilities and that would be recognised as external loss-absorbing capacity if no cap was applied [2]	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

1 The LAC disclosures for the Group commences on 30 September 2019 in accordance with the LAC Rules, accordingly the prior periods' ratio are not applicable.

2 The subordination exemptions in the antepenultimate and penultimate paragraphs of Section 11 of the FSB TLAC Term Sheet does not apply in Hong Kong under the LAC Rules.

3 Increase in internal loss-absorbing capacity available was mainly due to the issuance of Class D ordinary share capital for the acquisition of SC NEA Group.

4 Please refer to note 2(a) for the driver of increase in risk-weighted amount and exposure measure.

5 Decrease in Internal LAC risk-weighted ratio and Internal LAC leverage ratio was mainly due to the acquisition of SC NEA Group.

c. Key metrics – LAC requirements for non-HK resolution entity (at resolution group level) (KM2(B))

Please refer to the SC PLC Pillar 3 Disclosures "Key metrics - TLAC requirements (KM2)" in the website www.sc.com.

3 Overview of risk management and RWA

a. Overview of risk management (OVA)

Note 34 on pages 95 to 102 of the 2019 consolidated financial statements sets out a description of risk management objectives and policies and how the Board of Directors and senior management assess and manage risks, enabling users to gain a clear understanding of the risk tolerance and appetite in relation to the main activities and all significant risks.

3 Overview of risk management and RWA (continued)

b. Overview of risk-weighted amount ("RWA") (OV1)

The following table sets out an overview of capital requirements in terms of a detailed breakdowns of RWAs for various risks.

		(a) Consolidated RWA[1] At December 2019 HK$'M	(b) Consolidated RWA[1] At September 2019 HK$'M	(c) Minimum capital requirements[2] At December 2019 HK$'M
1	**Credit risk for non-securitization exposures[3]**	**558,919**	**440,675**	**47,170**
2	Of which STC approach	47,369	49,589	3,790
2a	Of which BSC approach	–	–	–
3	Of which foundation IRB approach	–	–	–
4	Of which supervisory slotting criteria approach	11,720	8,581	994
5	Of which advanced IRB approach	499,830	382,505	42,386
6	**Counterparty default risk and default fund contributions[3]**	**29,629**	**15,845**	**2,498**
7	Of which SA-CCR*	N/A	N/A	N/A
7a	Of which CEM	25,377	14,075	2,150
8	Of which IMM(CCR) approach	–	–	–
9	Of which others	4,252	1,770	348
10	**CVA risk[3]**	**27,672**	**11,408**	**2,214**
11	Equity positions in banking book under the simple risk-weight method and internal models method	–	–	–
12	Collective investment scheme ("CIS") exposures – LTA*	N/A	N/A	N/A
13	CIS exposures – MBA*	N/A	N/A	N/A
14	CIS exposures – FBA*	N/A	N/A	N/A
14a	CIS exposures – combination of approaches*	N/A	N/A	N/A
15	**Settlement risk**	**3**	**46**	**–**
16	**Securitization exposures in banking book**	**2,971**	**2,926**	**238**
17	Of which SEC-IRBA	–	–	–
18	Of which SEC-ERBA (including IAA)	2,971	2,926	238
19	Of which SEC-SA	–	–	–
19a	Of which SEC-FBA	–	–	–
20	**Market risk[3]**	**88,449**	**62,106**	**7,076**
21	Of which STM approach	88,449	62,106	7,076
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)*	N/A	N/A	N/A
24	**Operational risk[3]**	**83,160**	**60,800**	**6,653**
24a	Sovereign concentration risk	–	–	–
25	**Amounts below the thresholds for deduction (subject to 250% RW)[3]**	**13,216**	**8,165**	**1,057**
26	**Capital floor adjustment**	**–**	**–**	**–**
26a	**Deduction to RWA**	**194**	**140**	**15**
26b	Of which portion of regulatory reserve for general banking risks and collective provisions which is not included in Tier 2 Capital	76	–	6
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	118	140	9
27	**Total**	**803,825**	**601,831**	**66,891**

* Items marked with * will be applicable only after their respective policy frameworks takes effect. Until then, "Not applicable" should be reported in the rows.

1 RWAs in this table are before the application of the 1.06 scaling factor, where applicable.

2 Minimum capital requirement represents the Pillar 1 capital charge at 8% of the RWAs after application of the 1.06 scaling factor, where applicable.

3 Increase in RWA across various categories was mainly due to acquisition of SC NEA Group.

4 Linkages between financial statements and regulatory exposures

a. Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories (LI1)

The following table sets out an information on assets and liabilities to enable users to identify the differences between the scope of accounting consolidation and the scope of regulatory consolidation, with a breakdown into regulatory risk categories of every item of the assets and liabilities reported in financial statements based on the scope of accounting consolidation.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
			Carrying values of items:				
At 31 December 2019	*Carrying values as reported in published financial statements HK$'M*	*Carrying values under scope of regulatory consolidation HK$'M*	*subject to credit risk framework HK$'M*	*subject to counterparty credit risk framework HK$'M*	*subject to the securitization framework HK$'M*	*subject to market risk framework HK$'M*	*not subject to capital requirements or subject to deduction from capital HK$'M*
Assets							
Cash and balances with banks, central banks and other financial institutions	83,000	82,850	82,850	–	–	–	–
Placements with banks and other financial institutions	114,807	114,807	107,461	7,346	–	–	–
Hong Kong SAR Government certificate of indebtedness	53,821	53,821	53,821	–	–	–	–
Financial assets at fair value through profit or loss	127,347	127,347	30,727	27,968	–	96,620	–
Investment securities	424,178	424,178	411,857	–	12,321	–	–
Advances to customers	1,007,035	1,007,035	1,001,171	5,864	–	–	–
Amounts due from fellow subsidiaries	164,132	164,120	73,341	89,167	–	29,496	1,598
Amounts due from subsidiaries of the Bank	–	101	101	–	–	–	–
Investment in subsidiaries of the Bank	–	2,288	2,288	–	–	–	–
Interest in an associate	14,046	3,168	3,168	–	–	–	–
Property, plant and equipment	35,651	35,636	35,636	–	–	–	–
Goodwill and intangible assets	7,905	7,886	–	–	–	–	7,886
Current tax assets	53	53	53	–	–	–	–
Deferred tax assets	1,999	1,985	–	–	–	–	1,985
Other assets	84,674	84,754	82,493	2,144	–	–	117
Total assets	**2,118,648**	**2,110,029**	**1,884,967**	**132,489**	**12,321**	**126,116**	**11,586**

4 Linkages between financial statements and regulatory exposures (continued)

a. Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories (LI1) (continued)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
			Carrying values of items:				
At 31 December 2019	*Carrying values as reported in published financial statements HK$'M*	*Carrying values under scope of regulatory consolidation HK$'M*	*subject to credit risk framework HK$'M*	*subject to counterparty credit risk framework HK$'M*	*subject to the securitization framework HK$'M*	*subject to market risk framework HK$'M*	*not subject to capital requirements or subject to deduction from capital HK$'M*
Liabilities							
Hong Kong SAR currency notes in circulation	53,821	53,821	–	–	–	–	53,821
Deposits and balances of banks and other financial institutions	37,564	37,564	–	–	–	–	37,564
Deposits from customers	1,530,112	1,530,112	–	13,978	–	–	1,516,134
Financial liabilities at fair value through porfit of loss	96,549	96,549	–	33,623	–	49,437	43,502
Debt securities in issue	31,608	31,608	–	–	–	–	31,608
Amounts due to immediate holding company	30,655	30,655	–	127	–	127	30,528
Amounts due to fellow subsidiaries	76,962	76,942	–	32,868	–	31,237	44,074
Amount due to subsidiaries of the Bank	–	2,013	–	–	–	–	2,013
Current tax liabilities	2,073	2,071	–	–	–	–	2,071
Deferred tax liabilities	775	775	–	–	–	–	775
Other liabilities	86,649	86,737	–	–	–	–	86,737
Subordinated liabilities	5,876	5,876	–	–	–	–	5,876
Total Liabilities	**1,952,644**	**1,954,723**	**–**	**80,596**	**–**	**80,801**	**1,854,703**

4 Linkages between financial statements and regulatory exposures (continued)

b. Main sources of differences between regulatory exposure amounts and carrying values in financial statements (LI2)

The following table sets out information on the main sources of differences between the carrying values in financial statements and the exposure amounts used for the calculation of regulatory capital in respect of the assets and liabilities based on the scope of regulatory consolidation.

		(a)	*(b)*	*(c)*	*(d)*	*(e)*
			Items subject to:			
	At 31 December 2019	*Total HK$'M*	*credit risk framework HK$'M*	*counterparty credit risk framework HK$'M*	*securitization framework HK$'M*	*market risk framework HK$'M*
1	**Asset Carrying value amount under scope of regulatory consolidation (as per template LI1)**	**2,098,443**	**1,884,967**	**132,489**	**12,321**	**126,116**
2	Liabilities Carrying value amount under scope of regulatory consolidation (as per template LI1)	96,410	–	80,596	–	80,801
3	Total net amount under regulatory scope of consolidation	2,002,033	1,884,967	51,893	12,321	45,315
4	Off balance sheet amounts and potential future exposures for counterparty credit risk	830,768	208,773	154,762	–	–
5	Difference due to financial collateral on standardized approach	(38,083)	(38,083)	–	–	–
6	Difference due to impairments on IRB approach	4,468	4,468	–	–	–
7	Difference due to credit risk adjustments	2,445	2,445	–	–	–
8	**Exposure amounts considered for regulatory purposes**	2,801,631	2,062,570	206,655	12,321	45,315

4 Linkages between financial statements and regulatory exposures (continued)

c. Explanations of differences between accounting and regulatory exposure amounts (LIA)

Off-balance sheet amounts and potential future exposure for counterparty credit risk

Off-balance sheet amounts subject to credit risk include the undrawn portion of committed facilities, various trade finance commitments and guarantees, by applying credit conversion factors ('CCF') to these items and consideration of potential future exposures ('PFE') for counterparty credit risk ('CCR').

Difference due to financial collateral under standardized approach

The exposure value is calculated after deducting credit risk mitigation ('CRM'), whereas the accounting value is before such deductions.

Difference due to impairments on exposures under IRB approach

The carrying value of assets is net of credit risk adjustments. The regulatory exposure value under the IRB approach is before deducting credit risk adjustments.

Difference due to regulatory exposures adjustment

Regulatory exposures adjustments is the differences arise between accounting carrying values and regulatory Exposure at Default (EAD) on leasing transactions.

Explanation of differences between accounting fair value and regulatory prudent valuation

The Group has implemented various systems and controls to ensure that valuations are prudent and reliable.

Fair value is defined as the best estimate of the price that would be received to sell an asset or be paid to transfer a liability in an orderly transaction between market participants. All fair value positions are tested using independently sourced inputs. Where material price testing differences exist, the Group calculates respective adjustments through the Independent Price Testing process. Material price testing adjustments are charged to the Profit and Loss account.

The Group also calculates fair value adjustments in order to ensure the appropriate level of conservativeness. Additional fair value adjustments are made to reflect risks such as credit risk and funding risk of the portfolios for uncollateralised trades or exit costs due to bid-offer spreads.

Furthermore, the Group also calculates Prudent Valuation Adjustments ("PVA") which arise due to valuation uncertainties inherent in fair value positions such as market price uncertainty, close-out costs, model risk, unearned credit spreads, investing and funding costs, concentrated positions, early termination, operational risk and future administrative costs. The excesses of the Prudent Valuation Adjustments over the respective Fair Value Adjustments are referred to as Additional Valuation Adjustments (AVAs) and their aggregate is deducted from Common Equity Tier 1 capital.

All valuation adjustments are governed by internal methodology documents which are approved regularly by the relevant valuation governance committee.

4 Linkages between financial statements and regulatory exposures (continued)

d. Prudent valuation adjustments (PV1)

The following table sets out a detailed breakdown of the constituent elements of valuation adjustment.

		(a) Equity HK$'M	(b) Interest rates HK$'M	(c) FX HK$'M	(d) Credit HK$'M	(e) Commodities HK$'M	(f) Total HK$'M	(g) Of which: In the trading book HK$'M	(h) Of which: In the banking book HK$'M
1	Closeout uncertainty, of which	92	1,147	9	39	11	**1,298**	227	1,071
2	*Mid-market value* [1]	–	305	8	37	4	**354**	143	211
3	*Closeout cost*	1	66	1	2	2	**72**	72	–
4	*Concentration* [2]	91	776	–	–	5	**872**	12	860
5	Early termination	–	–	–	–	–	**–**	–	–
6	Model risk	–	–	–	–	–	**–**	–	–
7	Operational risk	1	40	4	5	1	**51**	29	22
8	Investing and funding costs	–	2	–	–	–	**2**	2	–
9	Unearned credit spreads	–	–	–	41	–	**41**	41	–
10	Future administrative costs [3]	7	12	–	5	1	**25**	7	18
11	Other adjustments [4]	–	339	–	–	–	**339**	339	–
12	**Total adjustment**	**100**	**1,540**	**13**	**90**	**13**	**1,756**	**645**	**1,111**

[1] The increase in market price uncertainty PVA was largely due to the additional positions from the acquisition of SCB China and SC NEA Group.

The increase was also caused by a revision of the PVA market price uncertainty methodology, in which the 95% confidence interval for proxy inputs replaced 90% confidence interval.

[2] The increase in concentrated positions PVA was driven by an increase of notional positions in debt securities, and an enhancement in the sourcing of the inputs which are used in the calculation of concentrated positions PVA.

[3] The decrease in future administrative costs PVA was caused by a change in the methodology for calculating future administrative costs PVA.

[4] Other adjustments amount represented PVA based on 'fallback approach' calculation which is defined in the Regulatory Technical Standards adopted by the European Commission under European Commission Delegated Regulation 2016/101 on 26th October 2015.

The largest contributions to the aggregate PVA came from debt securities.

5 Composition of regulatory capital

a. Composition of regulatory capital (CC1)

The following table sets out a breakdown of the constituent elements of Total regulatory capital.

	At 31 December 2019	*(a)* *HK$'M*	*(b)* *Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation in note 5b (CC2)*
	CET1 capital: instruments and reserves		
1	Directly issued qualifying CET1 capital instruments plus any related share premium	61,147	(12)
2	Retained earnings	79,881	(23)
3	Disclosed reserves	981	(15)+(16)+(17)+(18)+(19)+(20)+(21)+(22)
4	*Directly issued capital subject to phase-out arrangements from CET1 (only applicable to non-joint stock companies)*	Not applicable	Not applicable
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)	90	(26)
6	**CET1 capital before regulatory deductions**	**142,099**	
	CET1 capital: regulatory deductions		
7	Valuation adjustments	1,756	
8	Goodwill (net of associated deferred tax liabilities)	5,596	(4)
9	Other intangible assets (net of associated deferred tax liabilities)	1,912	(5)-(10)
10	Deferred tax assets (net of associated deferred tax liabilities)	2,363	(6)+(10)
11	Cash flow hedge reserve	(382)	(15)
12	Excess of total EL amount over total eligible provisions under the IRB approach	–	
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	(92)	(8)
15	Defined benefit pension fund net assets (net of associated deferred tax liabilities)	117	(7)
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 LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	–	
19	Significant LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	–	(2)+(3)-(29)
20	Mortgage servicing rights (net of associated deferred tax liabilities)	–	Not applicable

5 Composition of regulatory capital (continued)

a. Composition of regulatory capital (CC1) (continued)

	At 31 December 2019	(a) HK$'M	(b) Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation in note 5b (CC2)
21	Deferred tax assets arising from temporary differences (net of associated deferred tax liabilities)	–	Not applicable
22	Amount exceeding the 15% threshold	–	Not applicable
23	of which: significant investments in the ordinary share of financial sector entities	–	Not applicable
24	of which: mortgage servicing rights	–	Not applicable
25	of which: deferred tax assets arising from temporary differences	–	Not applicable
26	National specific regulatory adjustments applied to CET1 capital	5,594	–
26a	Cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties)	215	(24)
26b	Regulatory reserve for general banking risks	5,379	(25)
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**	**16,864**	
29	**CET1 capital**	**125,235**	
	AT1 capital: instruments		
30	Qualifying AT1 capital instruments plus any related share premium	12,861	(13)+(14)
31	of which: classified as equity under applicable accounting standards	12,861	–
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)	1	(27)
35	*of which: AT1 capital instruments issued by subsidiaries subject to phase-out arrangements*	–	
36	**AT1 capital before regulatory deductions**	**12,862**	
	AT1 capital: regulatory deductions		
37	Investments in own AT1 capital instruments	–	
38	Reciprocal cross-holdings in AT1 capital instruments	–	
39	Insignificant LAC investments in AT1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	–	

5 Composition of regulatory capital (continued)

a. Composition of regulatory capital (CC1) (continued)

	At 31 December 2019	*(a)* HK$'M	*(b)* *Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation in note 5b (CC2)*
40	Significant LAC 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**	**12,862**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**138,097**	
	Tier 2 capital: instruments and provisions		
46	Qualifying Tier 2 capital instruments plus any related share premium	11,677	(9)
47	*Capital instruments subject to phase-out arrangements from Tier 2 capital*	1,313	(11)
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)	2	(28)
49	*of which: capital instruments issued by subsidiaries subject to phase-out arrangements*	–	
50	Collective provisions and regulatory reserve for general banking risks eligible for inclusion in Tier 2 capital	2,862	(30)+(31)
51	**Tier 2 capital before regulatory deductions**	**15,854**	
	Tier 2 capital: regulatory deductions		
52	Investments in own Tier 2 capital instruments	–	–
53	Reciprocal cross-holdings in Tier 2 capital instruments and non-capital LAC liabilities	–	–
54	Insignificant LAC investments in Tier 2 capital instruments issued by, and non-capital LAC liabilities of, financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold and, where applicable, 5% threshold)	–	–
54a	Insignificant LAC investments in non-capital LAC liabilities of financial sector entities that are outside the scope of regulatory consolidation (amount formerly designated for the 5% threshold but no longer meets the conditions) (for institutions defined as "section 2 institution" under §2(1) of Schedule 4F to BCR only)	–	–
55	Significant LAC investments in Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (net of eligible short positions)	–	(1)
55a	Significant LAC investments in non-capital LAC liabilities of 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	(97)	(24)x45%

5 Composition of regulatory capital (continued)

a. Composition of regulatory capital (CC1) (continued)

	At 31 December 2019	*(a)* HK$'M	*(b)* Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation in note 5b (CC2)
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	(97)	(24)x45%
57	**Total regulatory adjustments to Tier 2 capital**	**(97)**	
58	**Tier 2 capital (T2)**	**15,951**	
59	**Total regulatory capital (TC = T1 + T2)**	**154,048**	
60	**Total RWA**	**836,118**	
	Capital ratios (as a percentage of RWA)		
61	**CET1 capital ratio**	**14.98%**	
62	**Tier 1 capital ratio**	**16.52%**	
63	**Total capital ratio**	**18.42%**	
64	**Institution-specific buffer requirement (capital conservation buffer plus countercyclical capital buffer plus higher loss absorbency requirements)**	**4.41%**	
65	of which: capital conservation buffer requirement	2.50%	
66	of which: bank specific countercyclical capital buffer requirement	0.91%	
67	of which: G-SIB or D-SIB buffer requirement	1.00%	
68	CET1 (as a percentage of RWA) available after meeting minimum capital requirements	**10.42%**	
	National minima (if different from Basel 3 minimum)		
69	National CET1 minimum ratio	Not applicable	Not applicable
70	National Tier 1 minimum ratio	Not applicable	Not applicable
71	National Total capital minimum ratio	Not applicable	Not applicable
	Amounts below the thresholds for deduction (before risk weighting)		
72	Insignificant LAC investments in CET1, AT1 and Tier 2 capital instruments issued by, and non-capital LAC liabilities of, financial sector entities that are outside the scope of regulatory consolidation	182	–
73	Significant LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation	5,456	(29)
74	Mortgage servicing rights (net of associated deferred tax liabilities)	Not applicable	Not applicable
75	Deferred tax assets arising from temporary differences (net of associated deferred tax liabilities)	Not applicable	Not applicable
	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)	876	–
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	800	(30)

5 Composition of regulatory capital (continued)

a. Composition of regulatory capital (CC1) (continued)

	At 31 December 2019	*(a)* HK$'M	*(b)* Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation in note 5b (CC2)
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)	2,062	(31)
79	Cap for inclusion of provisions in Tier 2 under the IRB approach and SEC-IRBA	3,423	–
	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*	Not applicable	Not applicable
81	*Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)*	Not applicable	Not applicable
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*	1,313	(11)
85	*Amount excluded from Tier 2 capital due to cap (excess over cap after redemptions and maturities)*	4,563	–

Please refer to KM1 for the explanation of major movement in CET1, Tier 1 and Total capital and the capital ratios. The increase in reserves and deduction for goodwill and regulatory reserve was mainly due to the acquisition of SC NEA Group during the period.

5 Composition of regulatory capital (continued)

a. Composition of regulatory capital (CC1) (continued)

Notes to the Template:

(on elements where a more conservative definition has been applied in the BCR relative to that set out in the Basel III capital standards.)

	Description	At 31 December 2019 Hong Kong basis HK$'M	Basel III basis HK$'M
9	**Other intangible assets (net of associated deferred tax liabilities)**	1,912	1,912

Explanation
As set out in paragraph 87 of the Basel III text issued by the Basel Committee (December 2010), mortgage servicing rights ("MSRs") 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 follow the accounting treatment of including MSRs as part of intangible assets reported in the AI's financial statements and to deduct MSRs in full from CET1 capital. Therefore, the amount to be deducted as reported in row 9 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 9 (i.e. the amount reported under the "Hong Kong basis") adjusted by reducing the amount of MSRs to be deducted to the extent not in excess of the 10% threshold set for MSRs 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.

10	**Deferred tax assets (net of associated deferred tax liabilities)**	2,363	57

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.

5 Composition of regulatory capital (continued)

a. Composition of regulatory capital (CC1) (continued)

	Description	*At 31 December 2019* Hong Kong basis HK$'M	Basel III basis HK$'M
18	**Insignificant LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)**	–	–

Explanation
For the purpose of determining the total amount of insignificant LAC investments in CET1 capital instruments issued by financial sector entities, an AI is required to aggregate any amount of loans, facilities or other credit exposures provided by it to any of its connected companies, where the connected company is a financial sector entity, as if such loans, facilities or other credit exposures were direct holdings, indirect holdings or synthetic holdings of the AI in the capital instruments of the financial sector entity, except where the AI demonstrates to the satisfaction of the MA that any such loan was made, any such facility was granted, or any such other credit exposure was incurred, in the ordinary course of the AI's business. Therefore, the amount to be deducted as reported in row 18 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 18 (i.e. the amount reported under the "Hong Kong basis") adjusted by excluding the aggregate amount of loans, facilities or other credit exposures to the AI's connected companies which were subject to deduction under the Hong Kong approach.

19	**Significant LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)**	–	–

Explanation
For the purpose of determining the total amount of significant LAC investments in CET1 capital instruments issued by financial sector entities, an AI is required to aggregate any amount of loans, facilities or other credit exposures provided by it to any of its connected companies, where the connected company is a financial sector entity, as if such loans, facilities or other credit exposures were direct holdings, indirect holdings or synthetic holdings of the AI in the capital instruments of the financial sector entity, except where the AI demonstrates to the satisfaction of the MA that any such loan was made, any such facility was granted, or any such other credit exposure was incurred, in the ordinary course of the AI's business. Therefore, the amount to be deducted as reported in row 19 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 19 (i.e. the amount reported under the "Hong Kong basis") adjusted by excluding the aggregate amount of loans, facilities or other credit exposures to the AI's connected companies which were subject to deduction under the Hong Kong approach.

5 Composition of regulatory capital (continued)

a. Composition of regulatory capital (CC1) (continued)

	Description	At 31 December 2019 Hong Kong basis HK$'M	 Basel III basis HK$'M
39	**Insignificant LAC investments in AT1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)**	–	–

Explanation
The effect of treating loans, facilities or other credit exposures to connected companies which are financial sector entities as CET1 capital instruments for the purpose of considering deductions to be made in calculating the capital base (see note re row 18 to the template above) will mean the headroom within the threshold available for the exemption from capital deduction of other insignificant LAC investments in AT1 capital instruments may be smaller. Therefore, the amount to be deducted as reported in row 39 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 39 (i.e. the amount reported under the "Hong Kong basis") adjusted by excluding the aggregate amount of loans, facilities or other credit exposures to the AI's connected companies which were subject to deduction under the Hong Kong approach.

54	**Insignificant LAC investments in Tier 2 capital instruments issued by, and non-capital LAC liabilities of, financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold and, where applicable, 5% threshold)**	–	–

Explanation
The effect of treating loans, facilities or other credit exposures to connected companies which are financial sector entities as CET1 capital instruments for the purpose of considering deductions to be made in calculating the capital base (see note re row 18 to the template above) will mean the headroom within the threshold available for the exemption from capital deduction of other insignificant LAC investments in Tier 2 capital instruments and non-capital LAC liabilities may be smaller. Therefore, the amount to be deducted as reported in row 54 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 54 (i.e. the amount reported under the "Hong Kong basis") adjusted by excluding the aggregate amount of loans, facilities or other credit exposures to the AI's connected companies which were subject to deduction under the Hong Kong approach.

5 Composition of regulatory capital (continued)

a. Composition of regulatory capital (CC1) (continued)

Remarks:

The amount of the 10% threshold mentioned above is calculated based on the amount of CET1 capital determined in accordance with the deduction methods set out in BCR Schedule 4F. The 15% threshold is referring to paragraph 88 of the Basel III text issued by the Basel Committee (December 2010) and has no effect to the Hong Kong regime.

Abbreviations:
CET1: Common Equity Tier 1
AT1: Additional Tier 1

Note:
Cross-references (1) to (28) are referenced to 'Reconciliation of regulatory capital to balance sheet (CC2)'.
Cross-references (29) to (31) are referenced within the 'Composition of regulatory capital (CC1)'.

b. Reconciliation of regulatory capital to balance sheet (CC2)

	(a) Consolidated balance sheet as in published financial statements (At 31 December 2019) HK$'M	*(b)* Under regulatory scope of consolidation (At 31 December 2019) HK$'M	*(c)* Cross reference to note – 5a (CC1)
Assets			
Cash and balances with banks, central banks and other financial institutions	83,000	82,850	
Placements with banks and other financial institutions	114,807	114,807	
Hong Kong SAR Government certificates of indebtedness	53,821	53,821	
Financial assets at fair value through profit or loss	127,347	127,347	
Investment securities	424,178	424,178	
Advances to customers	1,007,035	1,007,035	
Amounts due from fellow subsidiaries	164,132	164,120	
Amounts due from subsidiaries of the Bank	–	101	
of which: significant capital investments in financial sector entities that are outside the scope of regulatory consolidation	–	–	(1)
Investment in subsidiaries of the Bank	–	2,288	
of which: significant capital investments in financial sector entities that are outside the scope of regulatory consolidation	–	2,288	(2)
Interest in an associate	14,046	3,168	
of which: significant capital investments in financial sector entities that are outside the scope of regulatory consolidation	–	3,168	(3)

5 Composition of regulatory capital (continued)

b. Reconciliation of regulatory capital to balance sheet (CC2) (continued)

	(a) Consolidated balance sheet as in published financial statements (At 31 December 2019) HK$'M	*(b) Under regulatory scope of consolidation (At 31 December 2019) HK$'M*	*(c) Cross reference to note – 5a (CC1)*
Property, plant and equipment	35,651	35,636	
Goodwill and intangible assets	7,905	7,886	
of which: goodwill	–	5,596	(4)
of which: other intangible assets	–	2,290	(5)
Current tax assets	53	53	
Deferred tax assets	1,999	1,985	(6)
Other assets	84,674	84,754	
of which: defined benefit pension fund net assets	–	117	(7)
Total assets	**2,118,648**	**2,110,029**	
Liabilities			
Hong Kong SAR currency notes in circulation	53,821	53,821	
Deposits and balances of banks and other financial institutions	37,564	37,564	
Deposit from customers	1,530,112	1,530,112	
Financial liabilities at fair value through profit or loss	96,549	96,549	
of which: gains or losses due to changes in own credit risk	–	92	(8)
Debt securities in issue	31,608	31,608	
Amount due to immediate holding company	30,655	30,655	
of which: subordinated liabilities eligible for inclusion in regulatory capital	–	11,677	(9)
Amounts due to fellow subsidiaries	76,962	76,942	
Amounts due to subsidiaries of the Bank	–	2,013	
Current tax liabilities	2,073	2,071	
Deferred tax liabilities	775	775	
of which: deferred tax liabilities relating to intangible assets	–	378	(10)
of which: other deferred tax liabilities	–	397	
Other liabilities	86,649	86,737	
Subordinated liabilities	5,876	5,876	
of which: subordinated liabilities eligible for inclusion in regulatory capital (subject to phase out arrangements)	–	1,313	(11)
Total liabilities	**1,952,644**	**1,954,723**	

5 Composition of regulatory capital (continued)

b. Reconciliation of regulatory capital to balance sheet (CC2) (continued)

	(a) Consolidated balance sheet as in published financial statements (At 31 December 2019) HK$'M	*(b)* Under regulatory scope of consolidation (At 31 December 2019) HK$'M	*(c)* Cross reference to note – 5a (CC1)
Equity			
Share capital	65,025	65,025	
of which: amount eligible for CET1	–	61,147	(12)
of which: amount eligible for AT1	–	3,878	(13)
Other equity instruments	8,983	8,983	
of which: amount eligible for AT1	–	8,983	(14)
Reserves	91,560	80,862	
of which: Cumulative cash flow hedge reserves that relate to the hedging of financial instruments that are not fair valued on the balance sheet	–	(382)	(15)
of which: Cumulative cash flow hedge reserves that relate to the hedging of financial instruments that are fair valued on the balance sheet	–	11	(16)
of which: FVOCI reserves – Equity	–	264	(17)
of which: FVOCI reserves – Debt	–	480	(18)
of which: Exchange reserve	–	(9,047)	(19)
of which: Share option equity reserve	–	455	(20)
of which: Own credit adjustments reserves	–	(92)	(21)
of which: Other reserve	–	9,292	(22)
of which: Retained earnings	–	79,881	(23)
of which: Cumulative fair value gains arising from the revaluation of land and buildings (audited)	–	215	(24)
of which: Regulatory reserve for general banking risks	–	5,379	(25)
Non-controlling interests	436	436	
of which: portion allowable in CET1 capital	–	90	(26)
of which: portion allowable in AT1 capital	–	1	(27)
of which: portion allowable in T2 capital	–	2	(28)
Total equity	**166,004**	**155,306**	
Total liabilities and equity	**2,118,648**	**2,110,029**	

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A))

The following is a summary of the Group's CET1 capital, Additional Tier 1 capital, Tier 2 capital and non-capital LAC debt instruments.

		At 31 December 2019		
		Total amount	*Amount recognised in regulatory capital HK$'M*	*Amount recognised in loss-absorbing capacity HK$'M*
(i)	**only regulatory capital (but not LAC) requirements**			
	Perpetual non-cumulative convertible preference shares	US$500m	3,878	–
	Subordinated loan due 2020	US$750m	1,313	–
(ii)	**both regulatory capital and LAC requirements**			
	CET1 capital instruments			
	Ordinary shares:			
	5,289 million issued and fully paid ordinary shares	HK$61,147m	61,147	61,147
	AT1 capital instruments			
	Perpetual non-cumulative capital securities	US$250m	1,952	1,952
	Floating rate Undated Additional Tier 1 Capital Securities	US$900m	7,031	7,031
	Tier 2 capital instruments			
	Fixed rate (4.30%) subordinated loan due 2026, callable from 2021	US$800m	6,228	6,228
	Floating rate Tier 2 Notes due 2029, callable from 2024	US$450m	3,503	3,503
	Floating rate Tier 2 Notes due 2031, callable from 2025	US$250m	1,946	1,946
(iii)	**only LAC (but not regulatory capital) requirements**			
	Non-capital LAC Debt Instruments			
	US$1,000 million Floating Rate Notes due 2022	US$1,000m	Nil	7,785
	US$600 million Floating Rate Notes due 2023	US$600m	Nil	4,671
	US$600 million Floating Rate Notes due 2022	US$600m	Nil	4,671
	US$200 million 3.15 per cent Notes due 2023	US$200m	Nil	1,557

The full terms and conditions of the Group's capital instruments can be found in the Regulatory Disclosures section of our website, www.sc.com/hk.

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(i) Only regulatory capital (but not LAC) requirements

Perpetual non-cumulative convertible preference shares

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Additional Tier 1
6	Eligible at solo[3]/group/group & solo	Group & solo
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	N/A
7	Instrument type (types to be specified by each jurisdiction)	Preference Shares
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	HKD 3,878 Million
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	Nil
9	Par value of instrument	10 perpetual non-cumulative convertible preference shares at aggregate issue price of USD500 Million and a Liquidation Preference of USD500 Million
10	Accounting classification	Shareholders' equity
11	Original date of issuance	30 December 2014
12	Perpetual or dated	Perpetual
13	Original maturity date	Undated
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	First Call Date: 31 December 2019 Included tax and regulatory redemption options Redemption at 100% of the prevailing Liquidation Preference together with uncancelled but unpaid dividends
16	Subsequent call dates, if applicable	Each dividend payment date after the First Call Date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed
18	Coupon rate and any related index	6.25 per cent per annum
19	Existence of a dividend stopper	Yes
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Non-cumulative
23	Convertible or non-convertible	Convertible

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(i) Only regulatory capital (but not LAC) requirements (continued)

Perpetual non-cumulative convertible preference shares (continued)

24	If convertible, conversion trigger (s)	If a Non-Viability Event occurs and is continuing, "Non-Viability Event" means the earlier of: (a) the Monetary Authority notifying the Bank in writing that the Monetary Authority is of the opinion that a write-off or conversion is necessary, without which the Bank would become non-viable; and (b) the Monetary Authority 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
25	If convertible, fully or partially	Fully
26	If convertible, conversion rate	Each Preference Share to 12,500,000 A Shares at the USD4.00 per A Share "A Shares" means Class A Ordinary Shares in the share capital of the Bank
27	If convertible, mandatory or optional conversion	Mandatory
28	If convertible, specify instrument type convertible into	Common Equity Tier 1
29	If convertible, specify issuer of instrument it converts into	Standard Chartered Bank (Hong Kong) Limited
30	Write-down feature	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	The Dated Subordinated Notes are immediately senior to Preference Shares
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(i) Only regulatory capital (but not LAC) requirements (continued)

Subordinated loan due 2020

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	XS0520042416 (ISIN Code)
3	Governing law(s) of the instrument	The Notes are governed by and construed in accordance with English Law, except for the provisions relating to the subordination of Subordinated Notes to be issued by the bank which will be governed by, and construed in accordance with, Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	Tier 2
5	Post-transitional Basel III rules[2]	Ineligible
6	Eligible at solo[3]/group/group & solo	Group & solo
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	N/A
7	Instrument type (types to be specified by each jurisdiction)	Other Tier 2 instruments
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	HKD 1,313 Million
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	Nil
9	Par value of instrument	Issue price at 99.485 per cent of the Aggregate Nominal Amount of USD750 Million
10	Accounting classification	Liability – amortised cost
11	Original date of issuance	24 June 2010
12	Perpetual or dated	Dated
13	Original maturity date	24 June 2020
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	The notes may, at any time, be redeemed at par for taxation reasons
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed
18	Coupon rate and any related index	5.875 per cent per annum
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(i) Only regulatory capital (but not LAC) requirements (continued)

Subordinated loan due 2020 (continued)

27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Loss Absorbing Non-Preferred Notes or any instrument ranking pari passu to Loss Absorbing Non-Preferred Notes are immediately senior to the Dated Subordinated Notes
36	Non-compliant transitioned features	Yes
37	If yes, specify non-compliant features	The terms and conditions do not have a provision that requires the instrument to fully absorb losses at the point of non-viability

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements

Ordinary Shares

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Common Equity Tier 1
6	Eligible at solo[3]/group/group & solo	Group & solo
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Ordinary Shares (Class A, B, C and D)
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	HKD61,147 Million
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD61,147 Million
9	Par value of instrument	N/A
10	Accounting classification	Shareholders' equity
11	Original date of issuance	28 June 2004 (706 Million Class A shares) 1 July 2004 (780 Million Class B shares) 29 June 2005 (451 Million Class B shares) 1 June 2019 (342 Million Class C shares) 1 October 2019 (3,010 Million Class D shares)
12	Perpetual or dated	Perpetual
13	Original maturity date	Undated
14	Issuer call subject to prior supervisory approval	No
15	Optional call date, contingent call dates and redemption amount	N/A
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Floating
18	Coupon rate and any related index	N/A
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A

Footnote:
[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules
[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules
[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Ordinary Shares (continued)

25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Preference Shares are immediately senior to Ordinary Shares (Class B, C and D) Ordinary Shares (Class B, C and D) are immediately senior to Ordinary Shares (Class A)
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Perpetual non-cumulative capital securities

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Additional Tier 1
6	Eligible at solo[3]/group/group & solo	Group & solo
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Perpetual debt instrument
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	HKD 1,952 Million
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD 1,952 Million
9	Par value of instrument	Issue price at 100 per cent of the Aggregate Nominal Amount of USD250 Million
10	Accounting classification	Shareholders' equity
11	Original date of issuance	13 December 2017
12	Perpetual or dated	Perpetual
13	Original maturity date	Undated
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	First Call Date: 13 December 2024 Included tax and regulatory redemption options Redemption at 100% of the Capital Securities at their outstanding principal amount together with the distribution accrued but unpaid to the date fixed for redemption
16	Subsequent call dates, if applicable	Each dividend payment date after the First Call Date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed
18	Coupon rate and any related index	5.00 per cent per annum
19	Existence of a dividend stopper	Yes
20	Fully discretionary, partially discretionary or mandatory	Full discretionary
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Perpetual non-cumulative capital securities (continued)

25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	Yes
31	If write-down, write-down trigger(s)	If a Non-Viability Event occurs and is continuing, "Non-Viability Event" means the earlier of: (a) the Monetary Authority notifying the Bank in writing that the Monetary Authority is of the opinion that a write-off or conversion is necessary, without which the Bank would become non-viable; and (b) the Monetary Authority 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	Full or Partial
33	If write-down, permanent or temporary	Permanent
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	The Dated Subordinated Notes are immediately senior to Capital Securities
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Floating rate undated Additional Tier 1 capital securities

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Additional Tier 1
6	Eligible at solo[3]/group/group & solo	Group & solo
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Perpetual debt instrument
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	HKD 7,031 Million
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD 7,031 Million
9	Par value of instrument	Issue price at 100 per cent of the Aggregate Nominal Amount of USD900 Million
10	Accounting classification	Shareholders' equity
11	Original date of issuance	24 June 2019
12	Perpetual or dated	Perpetual
13	Original maturity date	Undated
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Optional Call Date: 12 April 2026 Early redemption for taxation reasons, due to Regulatory Capital Event or due to Loss Absorption Disqualification Event or on event of default US$ 1,000 per Calculation amount
16	Subsequent call dates, if applicable	Each dividend payment date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Floating
18	Coupon rate and any related index	3-month USD LIBOR + 4.48 per cent per annum
19	Existence of a dividend stopper	Yes
20	Fully discretionary, partially discretionary or mandatory	Full discretionary
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Floating rate undated Additional Tier 1 capital securities (continued)

29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	Yes
31	If write-down, write-down trigger(s)	Upon a Loss Absorption Event or Non-Viability Event “Loss Absorption Event” means: (i) the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that the Relevant Hong Kong Resolution Authority is satisfied that the Issuer has ceased, or is likely to cease, to be viable and there is no reasonable prospect that private sector action (outside of resolution) would result in it again becoming viable within a reasonable period (in both cases, without taking into account the write-down or conversion into ordinary shares on any LAC debt instruments); and (ii) for Securities issued directly to a group company in a non-Hong Kong jurisdiction, as specified in the applicable Final Terms, the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that: (A) the Relevant Hong Kong Resolution Authority has notified the Home Authority of the Relevant Hong Kong Resolution Authority’s intention to notify the issuer under paragraph (i) above; and (B) the Home Authority (x) has consented to the write-down or conversion of the relevant Securities issued by the Issuer or (y) has not, within 24 hours after receiving notice under subparagraph (ii)(A) above, objected to the write-down or conversion of the relevant Securities issued by the Issuer; “Non-Viability Event” means the earlier of: (a) the Monetary Authority notifying the Bank in writing that the Monetary Authority is of the opinion that a write-off or conversion is necessary, without which the Bank would become non-viable; and (b) the Monetary Authority notifying the Issuer 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 Issuer would become non-viable

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Floating rate undated Additional Tier 1 capital securities (continued)

32	If write-down, full or partial	Full or Partial
33	If write-down, permanent or temporary	Permanent
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	The Dated Subordinated Notes are immediately senior to Capital Securities
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Fixed rate (4.30%) subordinated loan due 2026, callable from 2021

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Tier 2
6	Eligible at solo[3]/group/group & solo	Group & solo
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Other Tier 2 instruments
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	HKD 6,228 Million
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD 6,228 Million
9	Par value of instrument	Issue price at 100 per cent of the Aggregate Nominal Amount of USD800 Million
10	Accounting classification	Liability – amortised cost
11	Original date of issuance	19 December 2016
12	Perpetual or dated	Dated
13	Original maturity date	19 December 2026
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	First Call Date: 20 December 2021 Included tax and regulatory redemption options Redemption at 100% of the Subordinated Notes at their outstanding principal amount together with interest accrued but unpaid to the date fixed for redemption
16	Subsequent call dates, if applicable	Each interest payment date after the First Call Date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed
18	Coupon rate and any related index	4.30 per cent per annum
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Fixed rate (4.30%) subordinated loan due 2026, callable from 2021 (continued)

28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	Yes
31	If write-down, write-down trigger(s)	If a Non-Viability Event occurs and is continuing, "Non-Viability Event" means the earlier of: (a) the Monetary Authority notifying the Bank in writing that the Monetary Authority is of the opinion that a write-off or conversion is necessary, without which the Bank would become non-viable; and (b) the Monetary Authority 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	Full or Partial
33	If write-down, permanent or temporary	Permanent
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Loss Absorbing Non-Preferred Notes or any instrument ranking pari passu to Loss Absorbing Non-Preferred Notes are immediately senior to the Dated Subordinated Notes
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Floating rate Tier 2 notes due 2029, callable from 2024

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Tier 2
6	Eligible at solo[3]/group/group & solo	Group & solo
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Other Tier 2 instruments
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	HKD 3,503 Million
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD 3,503 Million
9	Par value of instrument	Issue price at 100 per cent of the Aggregate Nominal Amount of USD450 Million
10	Accounting classification	Liability – amortised cost
11	Original date of issuance	24 June 2019
12	Perpetual or dated	Dated
13	Original maturity date	19 November 2029
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Optional call date: 19 November 2024 Early redemption for taxation reasons, due to Regulatory Capital Event or due to Loss Absorption Disqualification Event or on event of default US$ 1,000 per Calculation amount
16	Subsequent call dates, if applicable	Each interest payment date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Floating
18	Coupon rate and any related index	3-month USD LIBOR + 2.08 per cent per annum
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Floating rate Tier 2 notes due 2029, callable from 2024 (continued)

29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	Yes
31	If write-down, write-down trigger(s)	Upon a Loss Absorption Event or Non-Viability Event "Loss Absorption Event" means: (i) the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that the Relevant Hong Kong Resolution Authority is satisfied that the Issuer has ceased, or is likely to cease, to be viable and there is no reasonable prospect that private sector action (outside of resolution) would result in it again becoming viable within a reasonable period (in both cases, without taking into account the write-down or conversion into ordinary shares on any LAC debt instruments); and (ii) for Notes issued directly to a group company in a non-Hong Kong jurisdiction, as specified in the applicable Final Terms, the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that: (A) the Relevant Hong Kong Resolution Authority has notified the Home Authority of the Relevant Hong Kong Resolution Authority's intention to notify the issuer under paragraph (i) above; and (B) the Home Authority (x) has consented to the write-down or conversion of the relevant Securities issued by the Issuer or (y) has not, within 24 hours after receiving notice under subparagraph (ii)(A) above, objected to the write-down or conversion of the relevant Securities issued by the Issuer; "Non-Viability Event" means the earlier of: (a) the Monetary Authority notifying the Bank in writing that the Monetary Authority is of the opinion that a write-off or conversion is necessary, without which the Bank would become non-viable; and (b) the Monetary Authority notifying the Issuer 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 Issuer would become non-viable

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Floating rate Tier 2 notes due 2029, callable from 2024 (continued)

32	If write-down, full or partial	Full or Partial
33	If write-down, permanent or temporary	Permanent
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Loss Absorbing Non-Preferred Notes or any instrument ranking pari passu to Loss Absorbing Non-Preferred Notes are immediately senior to the Dated Subordinated Notes
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Floating rate Tier 2 notes due 2031, callable from 2025

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Tier 2
6	Eligible at solo[3]/group/group & solo	Group & solo
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Other Tier 2 instruments
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	HKD 1,946 Million
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD 1,946 Million
9	Par value of instrument	Issue price at 100 per cent of the Aggregate Nominal Amount of USD250 Million
10	Accounting classification	Liability – amortised cost
11	Original date of issuance	24 June 2019
12	Perpetual or dated	Dated
13	Original maturity date	17 April 2031
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Optional call date: 17 April 2025 Early redemption for taxation reasons, due to Regulatory Capital Event or due to Loss Absorption Disqualification Event or on event of default US$ 1,000 per Calculation amount
16	Subsequent call dates, if applicable	Each interest payment date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Floating
18	Coupon rate and any related index	3-month USD LIBOR + 2.12 per cent per annum
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A

Footnote:
[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules
[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules
[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Floating rate Tier 2 notes due 2031, callable from 2025 (continued)

29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	Yes
31	If write-down, write-down trigger(s)	Upon a Loss Absorption Event or Non-Viability Event "Loss Absorption Event" means: (i) the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that the Relevant Hong Kong Resolution Authority is satisfied that the Issuer has ceased, or is likely to cease, to be viable and there is no reasonable prospect that private sector action (outside of resolution) would result in it again becoming viable within a reasonable period (in both cases, without taking into account the write-down or conversion into ordinary shares on any LAC debt instruments); and (ii) for Notes issued directly to a group company in a non-Hong Kong jurisdiction, as specified in the applicable Final Terms, the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that: (A) the Relevant Hong Kong Resolution Authority has notified the Home Authority of the Relevant Hong Kong Resolution Authority's intention to notify the issuer under paragraph (i) above; and (B) the Home Authority (x) has consented to the write-down or conversion of the relevant Securities issued by the Issuer or (y) has not, within 24 hours after receiving notice under subparagraph (ii)(A) above, objected to the write-down or conversion of the relevant Securities issued by the Issuer; "Non-Viability Event" means the earlier of: (a) the Monetary Authority notifying the Bank in writing that the Monetary Authority is of the opinion that a write-off or conversion is necessary, without which the Bank would become non-viable; and (b) the Monetary Authority notifying the Issuer 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 Issuer would become non-viable

Footnote:
[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules
[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules
[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(ii) Both regulatory capital and LAC requirements (continued)

Floating rate Tier 2 notes due 2031, callable from 2025 (continued)

32	If write-down, full or partial	Full or Partial
33	If write-down, permanent or temporary	Permanent
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Loss Absorbing Non-Preferred Notes or any instrument ranking pari passu to Loss Absorbing Non-Preferred Notes are immediately senior to the Dated Subordinated Notes
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(iii) Only LAC (but not regulatory capital) requirements

US$1,000 million Floating Rate Notes due 2022

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Ineligible
6	Eligible at solo[3]/group/group & solo	Ineligible
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Non-capital LAC debt instrument
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	N/A
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD 7,785 Million
9	Par value of instrument	Issue price at 100 per cent of the Aggregate Nominal Amount of USD1,000 Million
10	Accounting classification	Liability – amortised cost
11	Original date of issuance	24 June 2019
12	Perpetual or dated	Dated
13	Original maturity date	15 January 2022
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Optional call date: 15 January 2021 Early redemption amount(s) per calculation amount payable on redemption for taxation reasons, due to Regulatory Capital Event or due to Loss Absorption Disqualification Event or on event of default US$ 1,000 per Calculation amount
16	Subsequent call dates, if applicable	Each interest payment date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Floating
18	Coupon rate and any related index	3-month USD LIBOR + 0.87 per cent per annum
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(iii) Only LAC (but not regulatory capital) requirements (continued)

US$1,000 million Floating Rate Notes due 2022 (continued)

28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	Yes
31	If write-down, write-down trigger(s)	Upon a Loss Absorption Event "Loss Absorption Event" means: (i) the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that the Relevant Hong Kong Resolution Authority is satisfied that the Issuer has ceased, or is likely to cease, to be viable and there is no reasonable prospect that private sector action (outside of resolution) would result in it again becoming viable within a reasonable period (in both cases, without taking into account the write-down or conversion into ordinary shares on any LAC debt instruments); and (ii) for Notes issued directly to a group company in a non-Hong Kong jurisdiction, as specified in the applicable Final Terms, the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that: (A) the Relevant Hong Kong Resolution Authority has notified the Home Authority of the Relevant Hong Kong Resolution Authority's intention to notify the issuer under paragraph (i) above; and (B) the Home Authority (x) has consented to the write-down or conversion of the relevant Securities issued by the Issuer or (y) has not, within 24 hours after receiving notice under subparagraph (ii)(A) above, objected to the write-down or conversion of the relevant Securities issued by the Issuer
32	If write-down, full or partial	Full or Partial
33	If write-down, permanent or temporary	Permanent
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	All unsubordinated creditors of the Issuer (including its depositors) are immediately senior to the Loss Absorbing Non-preferred Notes
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(iii) Only LAC (but not regulatory capital) requirements (continued)

US$600 million Floating Rate Notes due 2022

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Ineligible
6	Eligible at solo[3]/group/group & solo	Ineligible
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Non-capital LAC debt instrument
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	N/A
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD 4,671 Million
9	Par value of instrument	Issue price at 100 per cent of the Aggregate Nominal Amount of USD600 Million
10	Accounting classification	Liability – amortised cost
11	Original date of issuance	24 June 2019
12	Perpetual or dated	Dated
13	Original maturity date	23 January 2022
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Optional call date: 23 January 2021 Early redemption amount(s) per calculation amount payable on redemption for taxation reasons, due to Regulatory Capital Event or due to Loss Absorption Disqualification Event or on event of default US$ 1,000 per Calculation amount
16	Subsequent call dates, if applicable	Each interest payment date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Floating
18	Coupon rate and any related index	3-month USD LIBOR + 0.87 per cent per annum
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(iii) Only LAC (but not regulatory capital) requirements (continued)

US$600 million Floating Rate Notes due 2022 (continued)

27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	Yes
31	If write-down, write-down trigger(s)	Upon a Loss Absorption Event "Loss Absorption Event" means: (i) the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that the Relevant Hong Kong Resolution Authority is satisfied that the Issuer has ceased, or is likely to cease, to be viable and there is no reasonable prospect that private sector action (outside of resolution) would result in it again becoming viable within a reasonable period (in both cases, without taking into account the write-down or conversion into ordinary shares on any LAC debt instruments); and (ii) for Notes issued directly to a group company in a non-Hong Kong jurisdiction, as specified in the applicable Final Terms, the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that: (A) the Relevant Hong Kong Resolution Authority has notified the Home Authority of the Relevant Hong Kong Resolution Authority's intention to notify the issuer under paragraph (i) above; and (B) the Home Authority (x) has consented to the write-down or conversion of the relevant Securities issued by the Issuer or (y) has not, within 24 hours after receiving notice under subparagraph (ii)(A) above, objected to the write-down or conversion of the relevant Securities issued by the Issuer
32	If write-down, full or partial	Full or Partial
33	If write-down, permanent or temporary	Permanent
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	All unsubordinated creditors of the Issuer (including its depositors) are immediately senior to the Loss Absorbing Non-preferred Notes
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(iii) Only LAC (but not regulatory capital) requirements (continued)

US$600 million Floating Rate Notes due 2023

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Ineligible
6	Eligible at solo[3]/group/group & solo	Ineligible
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Non-capital LAC debt instrument
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	N/A
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD 4,671 Million
9	Par value of instrument	Issue price at 100 per cent of the Aggregate Nominal Amount of USD600 Million
10	Accounting classification	Liability – amortised cost
11	Original date of issuance	24 June 2019
12	Perpetual or dated	Dated
13	Original maturity date	20 January 2023
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Optional call date: 20 January 2022 Early redemption amount(s) per calculation amount payable on redemption for taxation reasons, due to Regulatory Capital Event or due to Loss Absorption Disqualification Event or on event of default US$ 1,000 per Calculation amount
16	Subsequent call dates, if applicable	Each interest payment date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Floating
18	Coupon rate and any related index	3-month USD LIBOR + 1.26 per cent per annum
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(iii) Only LAC (but not regulatory capital) requirements (continued)

US$600 million Floating Rate Notes due 2023 (continued)

28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	Yes
31	If write-down, write-down trigger(s)	Upon a Loss Absorption Event "Loss Absorption Event" means: (i) the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that the Relevant Hong Kong Resolution Authority is satisfied that the Issuer has ceased, or is likely to cease, to be viable and there is no reasonable prospect that private sector action (outside of resolution) would result in it again becoming viable within a reasonable period (in both cases, without taking into account the write-down or conversion into ordinary shares on any LAC debt instruments); and (ii) for Notes issued directly to a group company in a non-Hong Kong jurisdiction, as specified in the applicable Final Terms, the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that: (A) the Relevant Hong Kong Resolution Authority has notified the Home Authority of the Relevant Hong Kong Resolution Authority's intention to notify the issuer under paragraph (i) above; and (B) the Home Authority (x) has consented to the write-down or conversion of the relevant Securities issued by the Issuer or (y) has not, within 24 hours after receiving notice under subparagraph (ii)(A) above, objected to the write-down or conversion of the relevant Securities issued by the Issuer
32	If write-down, full or partial	Full or Partial
33	If write-down, permanent or temporary	Permanent
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	All unsubordinated creditors of the Issuer (including its depositors) are immediately senior to the Loss Absorbing Non-preferred Notes
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(iii) Only LAC (but not regulatory capital) requirements (continued)

US$200 million 3.15 per cent Notes due 2023

1	Issuer	Standard Chartered Bank (Hong Kong) Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A
3	Governing law(s) of the instrument	Hong Kong Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	Ineligible
6	Eligible at solo[3]/group/group & solo	Ineligible
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Non-capital LAC debt instrument
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)	N/A
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HKD 1,557 Million
9	Par value of instrument	Issue price at 100 per cent of the Aggregate Nominal Amount of USD200 Million
10	Accounting classification	Liability – amortised cost
11	Original date of issuance	24 June 2019
12	Perpetual or dated	Dated
13	Original maturity date	25 January 2023
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Optional call date: 25 January 2022 Early redemption amount(s) per calculation amount payable on redemption for taxation reasons, due to Regulatory Capital Event or due to Loss Absorption Disqualification Event or on event of default US$ 1,000 per Calculation amount
16	Subsequent call dates, if applicable	Each interest payment date
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed
18	Coupon rate and any related index	3.15 per cent per annum
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

c. Main features of regulatory capital instruments (CCA) and non-capital LAC debt instruments (CCA(A)) (continued)

(iii) Only LAC (but not regulatory capital) requirements (continued)

US$200 million 3.15 per cent Notes due 2023 (continued)

28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	Yes
31	If write-down, write-down trigger(s)	Upon a Loss Absorption Event “Loss Absorption Event” means: (i) the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that the Relevant Hong Kong Resolution Authority is satisfied that the Issuer has ceased, or is likely to cease, to be viable and there is no reasonable prospect that private sector action (outside of resolution) would result in it again becoming viable within a reasonable period (in both cases, without taking into account the write-down or conversion into ordinary shares on any LAC debt instruments); and (ii) for Notes issued directly to a group company in a non-Hong Kong jurisdiction, as specified in the applicable Final Terms, the Relevant Hong Kong Resolution Authority notifying the Issuer in writing that: (A) the Relevant Hong Kong Resolution Authority has notified the Home Authority of the Relevant Hong Kong Resolution Authority’s intention to notify the issuer under paragraph (i) above; and (B) the Home Authority (x) has consented to the write-down or conversion of the relevant Securities issued by the Issuer or (y) has not, within 24 hours after receiving notice under subparagraph (ii)(A) above, objected to the write-down or conversion of the relevant Securities issued by the Issuer
32	If write-down, full or partial	Full or Partial
33	If write-down, permanent or temporary	Permanent
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	All unsubordinated creditors of the Issuer (including its depositors) are immediately senior to the Loss Absorbing Non-preferred Notes
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

Footnote:

[1] Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[2] Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

[3] Include solo-consolidated

5 Composition of regulatory capital (continued)

d. LAC composition of material subsidiary (at LAC consolidation group level) (TLAC1(A))

		(a) HK$'M
	Regulatory capital elements of internal loss-absorbing capacity and adjustments	
1	Common Equity Tier 1 ("CET1") capital	125,235
2	Additional Tier 1 ("AT1") capital before LAC adjustments	12,862
3	AT1 capital instruments ineligible as internal loss-absorbing capacity as not issued directly or indirectly to, and held directly or indirectly by, the resolution entity or non-HK resolution entity in the material subsidiary's resolution group	–
4	Other adjustments[1]	(3,878)
5	AT1 capital eligible under the LAC Rules	8,984
6	Tier 2 ("T2") capital before LAC adjustments	15,951
7	Amortized portion of T2 capital instruments that are internal LAC debt instruments issued directly or indirectly to, and held directly or indirectly by, the resolution entity or non-HK resolution entity in the material subsidiary's resolution group	–
8	T2 capital instruments ineligible as internal loss-absorbing capacity as not issued directly or indirectly to, and held directly or indirectly by, the resolution entity or non-HK resolution entity in the material subsidiary's resolution group	(1,313)
9	Other adjustments	–
10	T2 capital eligible under the LAC Rules	14,638
11	**Internal loss-absorbing capacity arising from regulatory capital**	148,857
	Non-regulatory capital elements of internal loss-absorbing capacity	
12	Internal non-capital LAC debt instruments issued directly or indirectly to, and held indirectly or indirectly by, the resolution entity or non-HK resolution entity in the material subsidiary's resolution group	18,684
17	**Internal loss-absorbing capacity arising from non-capital LAC debt instruments before adjustments**	18,684
	Non-regulatory capital elements of internal loss-absorbing capacity: adjustments	
18	**Internal loss-absorbing capacity before deductions**	167,541
19	Deductions of exposures between the material subsidiary's LAC consolidation group and group companies outside that group that correspond to non-capital items eligible for internal loss-absorbing capacity	–
20	Deduction of holdings of its own non-capital LAC liabilities	–
21	Other adjustments to internal loss-absorbing capacity	–
22	**Internal loss-absorbing capacity after deductions**	167,541

1 The amount deducted in row 4 represents the US$500m perpetual non-cumulative convertible preference shares which had not obtained HKMA acknowledgement as qualifying for LAC at 31 December 2019

5 Composition of regulatory capital (continued)

d. LAC composition of material subsidiary (at LAC consolidation group level) (TLAC1(A)) (continued)

		(a) *HK$'M*
	Risk-weighted amount and exposure measure under the LAC Rules for internal loss-absorbing capacity purposes	
23	Risk-weighted amount under the LAC Rules	836,118
24	Exposure measure under the LAC Rules	2,258,835
	Internal LAC ratios and buffers	
25	**Internal LAC risk-weighted ratio**	20.0%
26	**Internal LAC leverage ratio**	7.4%
27	**CET1 capital (as a percentage of RWA under the Banking (Capital) Rules ("BCR")) available after meeting the LAC consolidation group's minimum capital and LAC requirements**	8.0%
28	Institution-specific buffer requirement (capital conservation buffer plus countercyclical capital buffer requirements plus higher loss absorbency requirement, expressed as a percentage of RWA under the BCR)	4.41%
29	Of which: capital conservation buffer requirement	2.5%
30	Of which: institution-specific countercyclical capital buffer requirement	0.9%
31	Of which: higher loss absorbency requirement	1.0%

5 Composition of regulatory capital (continued)

e. Material subsidiary – creditor ranking at legal entity level (TLAC2)

		Creditor ranking					
		1	*2*	*3*	*3*	*4*	*Total*
		(most junior)				*(most senior)*	
1	Is a resolution entity or a non-HK resolution entity the creditor/investor?	Yes	Yes[1]	No	Yes	Yes	
2	Description of creditor ranking	CET1 capital instruments[2]	AT1 capital instruments	Tier 2 capital instruments	Tier 2 capital instruments	Non capital LAC debt instruments	
3	Total capital and liabilities net of credit risk mitigation	61,147	12,861	5,876	11,677	18,684	110,245
4	Subset of row 3 that are excluded liabilities	–	–	–	–	–	–
5	Total capital and liabilities less excluded liabilities	61,147	12,861	5,876	11,677	18,684	110,245
6	Subset of row 5 that are eligible as internal loss-absorbing capacity	61,147	8,983	–	11,677	18,684	100,491
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	–	–	–	–	–	–
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	–	–	–	–	18,684	18,684
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	–	–	–	9,731	–	9,731
10	Subset of row 6 with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	–	1,946	–	1,946
11	Subset of row 6 that is perpetual securities	61,147	8,983	–	–	–	70,130

[1] Included the US$500m perpetual non-cumulative convertible preference shares qualifying as AT1 capital for which the Group had not obtained HKMA acknowledgement as LAC qualifying at 31 December 2019

[2] Issued and fully paid ordinary shares.

6 Macroprudential supervisory measures

Geographical distribution of credit exposures used in countercyclical capital buffer (CCyB1)

The following table sets out an overview of the geographical distribution of private sector credit exposures relevant for the calculation of the Group's CCyB ratio.

At 31 December 2019
In HKD million

	Jurisdiction (J)	*Applicable JCCyB ratio in effect*	*Total RWA used in computation of CCyB ratio of AI*	*CCyB ratio of AI*	*CCyB amount of AI HK$'M*
1	Hong Kong	2.000%	241,197		
2	France	0.250%	1,455		
3	Norway	2.500%	1		
4	Sweden	2.500%	386		
5	United Kingdom	1.000%	1,552		
6	Sum[1]		244,590		
7	**Total[2]**		**536,243**	**0.905%[3]**	**7,567**

1 This represents the sum of RWAs for the private sector credit exposures in jurisdictions with a non-zero countercyclical buffer rate.

2 The total RWAs used in the computation of the CCyB ratio in row (6) represents the total RWAs for the private sector credit exposures in all jurisdictions to which the group is exposed, including jurisdictions with no countercyclical buffer rate or with a countercyclical buffer rate set at zero.

3 Please refer to note 2(a) for the driver of decrease in the Group's CCyB ratio during the period.

7 Leverage Ratio

a. Summary comparison of accounting assets against leverage ratio exposure measure (LR1)

The following table reconciles the total assets in the published financial statements to the LR exposure measure.

	At 31 December 2019	*(a)* *Value under the LR framework* *HK$'M*
1	Total consolidated assets as per published financial statements	2,118,648
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(8,623)
3	Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting standard but excluded from the LR exposure measure	–
4	Adjustments for derivative contracts	46,825
5	Adjustment for SFTs (i.e. repos and similar secured lending)	13,756
6	Adjustment for off-balance sheet ("OBS") items (i.e. conversion to credit equivalent amounts of OBS exposures)	159,287
6a	Adjustment for specific and collective provisions that are allowed to be excluded from exposure measure	(4,948)
7	Other adjustments	(66,110)
8	**Leverage ratio exposure measure**	**2,258,835**

Other adjustments mainly represent the Hong Kong Government certificates of indebtedness and assets deducted in determining Tier 1 capital. These are excluded for deriving the leverage ratio exposure in accordance with the 'Leverage Ratio Framework' issued by the HKMA.

Please refer to note 2(a) for the explanation on the movement in leverage ratio exposure measure during the period.

7 Leverage Ratio (continued)

b. Leverage ratio (LR2)

The following table sets out a detailed breakdown of the components of the LR denominator.

		(a) At 31 December 2019 HK$'M	(b) At 30 September 2019 HK$'M
On-balance sheet exposures			
1	On-balance sheet items (excluding derivative contracts and SFTs, but including collateral)	1,910,758	1,342,395
2	Less: Asset amounts deducted in determining Basel III Tier 1 capital	(16,956)	(9,005)
3	**Total on-balance sheet exposures (excluding derivative and SFTs)[1]**	**1,893,802**	**1,333,390**
Exposures arising from derivative contracts			
4	Replacement cost associated with all derivative contracts (where applicable net of eligible cash variation margin and/or with bilateral netting)	32,957	16,455
5	Add-on amounts for PFE associated with all derivative contracts	72,166	39,259
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	2,085	1,898
10	Less: Adjusted effective notional offsets and add-on deductions for written credit derivative	(817)	(549)
11	**Total exposures arising from derivative contracts[2]**	**106,391**	**57,063**
Exposures arising from SFTs			
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	99,836	54,814
13	Less: Netted amounts of cash payables and cash receivables of gross SFT assets	–	–
14	CCR exposure for SFT assets	4,467	1,391
15	Agent transaction exposures	–	–
16	**Total exposures arising from SFTs[3]**	**104,303**	**56,205**
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	830,767	694,238
18	Less: Adjustments for conversion to credit equivalent amounts	(671,480)	(582,586)
19	**Off-balance sheet items[1]**	**159,287**	**111,652**
Capital and total exposures			
20	**Tier 1 capital**	138,097	100,951
20a	**Total exposures before adjustments for specific and collective provisions**	2,263,783	1,558,310
20b	**Adjustments for specific and collective provisions**	(4,948)	(2,822)
21	**Total exposures after adjustments for specific and collective provisions**	2,258,835	1,555,488
Leverage ratio			
22	**Leverage ratio[4]**	**6.11%**	**6.49%**

1 Increase in on-balance sheet and off-balance sheet exposures was mainly due to the acquisition of SC NEA Group. Increase in assets deducted in determining Basel III Tier 1 capital was mainly driven by the increase in goodwill and regulatory reserve.

2 Increase in exposures arising from derivative contracts was mainly due to the acquisition of SC NEA Group and increase in transaction volume.

3 Increase in total exposures arising from SFTs was mainly due to increase in reverse repo.

4 Please refer to note 2(a) for the driver of decrease in the Group's leverage ratio.

8 Liquidity

a. Liquidity Risk Management (LIQA)

The following Liquidity Risk Management related information, together with the disclosure in section 8b (LIQ1), provides the supplement to the Liquidity Risk Section from 2019 SCB (Hong Kong) Limited Directors' Report and Consolidated Financial Statements.

LCRs and NSFRs of Hong Kong Office and Consolidated basis	LCR	NSFR
As at 31 Dec 2019	**%**	**%**
Hong Kong Office	157	130
Consolidated	154	129

Following table is an extraction from Part 4 of Liquidity Monitoring Tools return, which sets out the details of the Group's maturity profile covering on-and off-balance sheet items, broken down into maturity buckets and the resultant liquidity gaps.

Basis of disclosure: consolidated Currency : (HK$ mil)	2019					
	Within 1 month	1 - 3 months	3 months - 1 year	1 - 5 years	Over 5 years	Balancing amount
On-balance sheet assets						
Currency notes and coins	5,072	–	–	–	–	–
Amount receivable arising from securities financing transactions	62,427	474	–	3,756	–	–
Amount receivable arising from derivative contracts	33,833	42,340	152,084	286,362	55,853	–
Due from MA for a/c of Exchange Fund	10,423	–	–	–	–	–
Due from overseas central banks	41,267	452	2,629	407	258	10,330
Due from banks	90,342	27,313	40,776	17,060	1,008	429
Debt securities, prescribed instruments and structured financial instruments held (net of short positions)	365,148	4,800	36,258	54,286	7,256	411
Acceptances and bills of exchange held	12,803	10,213	11,999	138	–	50
Loans and advances to non-bank customers	176,886	64,696	157,554	238,432	349,878	44,563
Other assets (including provisions)	61,632	16,598	392	100	2,045	110,492
Total	**859,833**	**166,866**	**401,692**	**600,541**	**416,298**	**166,276**
On-balance sheet liabilities						
Deposits from non-bank customers						
Pledged deposits	22,103	785	1,520	240	1	–
Demand, savings and current account deposits	1,038,049	–	–	–	–	–
Term, call and notice deposits	242,234	132,531	60,002	4,471	10	–
Amount payable arising from securities financing transactions	17,303	–	–	–	–	–
Amount payable arising from derivative contracts	34,841	41,972	152,080	288,121	56,636	–
Due to MA for a/c of Exchange Fund	18,552	–	–	–	–	–
Due to overseas central banks	1,799	1,010	357	–	–	–
Due to banks	68,984	20,616	–	2,517	–	–
Debt securities, prescribed instruments and structured financial instruments issued and outstanding	1,206	8,470	12,468	15,088	5,121	–
Other liabilities (including provisions)	72,136	20,474	6,477	4,634	873	57,019
Capital and reserves	277	–	5,839	28,415	7,658	156,454
Total	**1,517,484**	**225,858**	**238,743**	**343,486**	**70,299**	**213,473**
Off-balance sheet claims						
Irrevocable loan commitments or facilities received	5,860	–	–	–	–	–
Off-balance sheet obligations						
Irrevocable loan commitments or facilities granted	308,614	–	–	–	–	–
Other off-balance sheet obligations	70,391	–	–	–	–	–
Total	**379,005**	**–**	**–**	**–**	**–**	**–**
Funding gaps						
Contractual Maturity Mismatch	(1,030,795)	(58,971)	162,949	257,054	345,999	
Cumulative Contractual Maturity Mismatch	(1,030,795)	(1,089,766)	(926,817)	(669,762)	(323,763)	

8 Liquidity (continued)

b. Liquidity Coverage Ratio – for category 1 institution (LIQ1)

The following table sets out the details of LCR, high quality liquid assets ("HQLA"), and a breakdown of cash outflows and inflows.

	Number of data points used in calculating the average value of the Liquidity Coverage Ratio (LCR) and related components set out in this Template for the quarter ending on 30 September 2019 and 30 December 2019 are 77 and 75.	Q4 2019 Currency: (HK$mil)		Q3 2019 Currency: (HK$mil)	
	Basis of disclosure: Consolidated	UNWEIGHTED AMOUNT (Average Value)	WEIGHTED AMOUNT (Average Value)	UNWEIGHTED AMOUNT (Average Value)	WEIGHTED AMOUNT (Average Value)
A. HIGH QUALITY LIQUID ASSETS					
1	Total high quality liquid assets (HQLA)		345,541		248,016
B. CASH OUTFLOWS					
2	Retail deposits and small business funding, of which:	733,671	56,005	518,170	40,116
3	Stable retail deposits and stable small business funding	221,198	10,650	118,026	5,901
4	Less stable retail deposits and less stable small business funding	394,630	39,463	284,149	28,415
4a	Retail term deposits and small business term funding	117,843	5,892	115,995	5,800
5	Unsecured wholesale funding (other than small business funding) and debt securities and prescribed instruments issued by the institution, of which:	736,365	320,316	520,299	217,366
6	Operational deposits	381,020	93,696	282,135	69,904
7	Unsecured wholesale funding (other than small business funding) not covered in Row 6	351,911	223,186	237,831	147,129
8	Debt securities and prescribed instruments issued by the institution and redeemable within the LCR period	3,434	3,434	333	333
9	Secured funding transactions (including securities swap transactions)		844		945
10	Additional requirements, of which:	330,216	55,364	205,163	31,752
11	Cash outflows arising from derivative contracts and other transactions, and additional liquidity needs arising from related collateral requirements	24,603	24,567	16,355	16,355
12	Cash outflows arising from obligations under structured financing transactions and repayment of funding obtained from such transactions	699	699	126	126
13	Potential drawdown of undrawn committed facilities (including committed credit facilities and committed liquidity facilities)	304,914	30,098	188,682	15,271
14	Contractual lending obligations (not otherwise covered in Section B) and other contractual cash outflows	42,646	42,646	33,008	33,008
15	Other contingent funding obligations (whether contractual or non-contractual)	518,637	1,847	505,390	1,479
16	TOTAL CASH OUTFLOWS		477,022		324,666
C. CASH INFLOWS					
17	Secured lending transactions (including securities swap transactions)	34,817	8,138	21,261	4,722
18	Secured and unsecured loans (other than secured lending transactions covered in Row 17) and operational deposits placed at other financial institutions	313,053	180,066	237,542	123,246
19	Other cash inflows	61,326	50,571	40,883	34,856
20	TOTAL CASH INFLOWS	409,196	238,775	299,686	162,824
D. LIQUIDITY COVERAGE RATIO			ADJUSTED VALUE		ADJUSTED VALUE
21	TOTAL HQLA		345,541		248,016
22	TOTAL NET CASH OUTFLOWS		238,247		161,842
23	LCR (%)		146%		155%

8 Liquidity (continued)

b. Liquidity Coverage Ratio – for category 1 institution (LIQ1) (continued)

Key Drivers

Liquidity Coverage Ratio (LCR) measures the short-term resilience of the Group's liquidity risk profile, and is sensitive to balance sheet movement and composition. The Group has maintained a strong liquidity position and well above the regulatory requirement of 100% throughout the year of 2019 in spite of the challenging environment. On 1 October 2019, the Bank acquired SCB Taiwan and SCB Korea as its wholly owned subsidiaries. The quarterly average of LCR was 146% for the quarter ending 31 Dec 2019 (30 Sep 2019: 155%), mainly as a result of overall growth in the Group's balance sheet on account of acquisitions and increase in assets at a faster pace than deposits, thereby leading to a decrease in LCR as the Group looked to optimise its liquidity position.

Composition of High Quality Liquid Asset ("HQLA")

The Group holds significant levels of high quality unencumbered liquid assets that can be liquefied, repo-ed or used as collateral in the event of a liquidity stress.

The liquid assets consist predominately of Level 1 assets, including mainly cash and central bank reserves, Hong Kong exchange fund bills and notes, US treasuries and other marketable debt securities issued or guaranteed by other central banks and governments. In addition, the Group also holds level 2 assets such as high quality covered bonds, corporate bonds and bonds issued by public sector entities.

Concentration of Funding Sources

Our assets are primarily funded by customer deposits, largely made up of low cost and stable current and savings accounts. This forms a stable base for the Group's funding requirement. In addition, wholesale funding is widely diversified by client type and maturity which helps managing liquidity mismatches as required. The Group has various internal quantitative limits and metrics in place to monitor deposit concentrations, as well as HQLA Issuer concentrations.

The RALCO and the Country ALCO monitor trends in the balance sheet and ensure that any concerns that might impact the stability of deposits are addressed in an effective and timely manner. RALCO and ALCO also review balance sheet plans to ensure that projected asset growth is matched by growth in customer deposits.

Derivatives Exposure

The use of derivatives for hedging and sale to customers as risk management products is an important part of the Group's business activities. These instruments are also used to manage the Group's own exposures to market risk. The principal derivative instruments used by the Group are foreign exchange related and interest rate related contracts. Derivative positions are mark-to-market on a daily basis.

8 Liquidity (continued)

b. Liquidity Coverage Ratio – for category 1 institution (LIQ1) (continued)

Currency Mismatch on LCR

Customer assets are as far as possible funded in the same currency. Where mismatches arise, they are controlled by limits on the amount of foreign currency that can be swapped to local currency and vice versa. Such limits are therefore a means of controlling reliance on foreign exchange markets, which minimizes the risk that obligations could not be met in the required currency in the event that access to foreign exchange markets becomes restricted.

Majority of the Group's customer deposits are denominated in HKD, USD, CNY and KRW. The Group holds higher USD denominated HQLA due to its significant market depth and ease of conversion in the event of liquidity stress. This is in line with the Alternative Liquidity Approach option prescribed by HKMA. During this period, the Group maintained an amount of HKD-denominated level 1 assets well above the regulatory requirement of 20% of its HKD-denominated total net cash outflows.

Liquidity management

Treasury-Markets is responsible for managing the Group's liquidity position within the approved liquidity and funding risk limits and thresholds. Oversight under the liquidity and funding framework resides with RALCO and ALCO, supported by Treasury-Markets. RALCO and ALCO also ensure the Group remains in compliance with liquidity policies and practices, as well as local regulatory requirements.

It is the Group's policy to manage liquidity without presumption of the Group's parent support. RALCO and ALCO are responsible for ensuring that the Group is able to maintain adequate liquidity at all times and be in a position to meet all obligations as they fall due; repay depositors and fulfil all commitments to lend.

c. Net Stable Funding Ratio – for category 1 institution (LIQ2)

The following table sets out the details of NSFR and details of ASF and RSF components.

Table 1: LIQ2 for Quarter ending 31 December 2019

		(a)	*(b)*	*(c)*	*(d)*	*(e)*
		Unweighted value by residual maturity				
Basis of disclosure: consolidated Currency: (HK$mil)		*No specified term to maturity*	*<6 months or repayable on demand*	*6 months to < 12 months*	*12 months or more*	*Weighted amount*
A. Available stable funding ("ASF") item						
1	Capital:	157,157	–	–	43,122	200,279
2	Regulatory capital	157,157	–	–	11,677	168,834
2a	Minority interests not covered by row 2	–	–	–	–	–
3	Other capital instruments	–	–	–	31,445	31,445
4	Retail deposits and small business funding:	–	736,585	22,238	1,000	694,613
5	Stable deposits		210,704	2,750	526	203,307
6	Less stable deposits		525,881	19,488	474	491,306
7	Wholesale funding:		856,011	16,799	13,801	320,916
8	Operational deposits		380,420	–	–	190,210
9	Other wholesale funding	–	475,591	16,799	13,801	130,706
10	Liabilities with matching interdependent assets	53,820	–	–	–	–

8 Liquidity (continued)

c. Net Stable Funding Ratio – for category 1 institution (LIQ2) (continued)

Basis of disclosure: consolidated Currency: (HK$mil)		(a)	(b)	(c)	(d)	(e)
		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*	
11	Other liabilities:	73,174	60,462	6,582	22,668	25,959
12	Net derivative liabilities	–				
13	All other funding and liabilities not included in the above categories	73,174	60,462	6,582	22,668	25,959
14	**Total ASF**					**1,241,767**
B. Required stable funding ("RSF") item						
15	Total HQLA for NSFR purposes				480,036	45,363
16	Deposits held at other financial institutions for operational purposes	–	10,004	–	–	5,002
17	Performing loans and securities:	72,567	519,010	136,753	658,325	819,472
18	Performing loans to financial institutions secured by Level 1 HQLA	–	54,850	–	2,725	8,210
19	Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	21,820	183,634	42,335	40,449	111,357
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:	50,747	249,664	60,072	201,374	459,265
21	With a risk-weight of less than or equal to 35% under the STC approach	–	–	–	3,108	4,092
22	Performing residential mortgages, of which:	–	14,372	11,251	373,497	186,609
23	With a risk-weight of less than or equal to 35% under the STC approach	–	9,417	5,919	275,157	186,520
24	Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	–	16,490	23,095	40,280	53,031
25	Assets with matching interdependent liabilities	53,820	–	–	–	–
26	Other assets:	112,280	51,230	–	96	79,182
27	Physical traded commodities, including gold	717				609
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	–				–

8 Liquidity (continued)

c. Net Stable Funding Ratio – for category 1 institution (LIQ2) (continued)

Basis of disclosure: consolidated Currency: (HK$mil)	(a)	(b)	(c)	(d)	(e)
	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	
29 Net derivative assets	1,829				1,829
30 Total derivative liabilities before deduction of variation margin posted	34,552				M/A
31 All other assets not included in the above categories	75,182	51,230	–	96	76,744
32 Off-balance sheet items				851,321	15,431
33 **Total RSF**					**964,450**
34 **Net Stable Funding Ratio (%)**					**129%**

Table 2: LIQ2 for Quarter ending 30 September 2019

Basis of disclosure: consolidated Currency: (HK$mil)	(a)	(b)	(c)	(d)	(e)
	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:	114,132	–	–	40,691	154,823
2 Regulatory capital	114,132	–	–	11,812	125,944
2a Minority interests not covered by row 2	–	–	–	–	–
3 Other capital instruments	–	–	–	28,879	28,879
4 Retail deposits and small business funding:	–	519,052	27,559	542	498,474
5 Stable deposits		119,614	–	–	113,634
6 Less stable deposits		399,438	27,559	542	384,840
7 Wholesale funding:		594,500	15,443	9,536	223,467
8 Operational deposits		267,492	–	–	133,746
9 Other wholesale funding	–	327,008	15,443	9,536	89,721
10 Liabilities with matching interdependent assets	50,681	–	–	–	–
11 Other liabilities:	50,133	22,731	423	9,093	9,304
12 Net derivative liabilities	–				
13 All other funding and liabilities not included in the above categories	50,133	22,731	423	9,093	9,304
14 **Total ASF**					**886,068**
B. Required stable funding ("RSF") item					
15 Total HQLA for NSFR purposes				311,770	17,777
16 Deposits held at other financial institutions for operational purposes	–	6,992	–	–	3,496
17 Performing loans and securities:	68,410	389,014	114,879	427,464	589,316

8 Liquidity (continued)

c. Net Stable Funding Ratio – for category 1 institution (LIQ2) (continued)

Basis of disclosure: consolidated Currency: (HK$mil)	(a)	(b)	(c)	(d)	(e)
	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*	
18 Performing loans to financial institutions secured by Level 1 HQLA	–	8,085	–	–	809
19 Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	19,578	161,878	66,993	50,113	127,469
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:	48,832	195,444	20,651	100,656	287,116
21 With a risk-weight of less than or equal to 35% under the STC approach	–	–	–	–	–
22 Performing residential mortgages, of which:	–	8,529	4,533	233,338	118,179
23 With a risk-weight of less than or equal to 35% under the STC approach	–	7,187	3,601	173,434	118,127
24 Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	–	15,078	22,702	43,357	55,743
25 Assets with matching interdependent liabilities	50,681	–	–	–	–
26 Other assets:	81,554	25,955	–	150	67,197
27 Physical traded commodities, including gold	1,075				914
28 Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	–				–
29 Net derivative assets	4,051				4,051
30 Total derivative liabilities before deduction of variation margin posted	17,362				N/A
31 All other assets not included in the above categories	59,066	25,955	–	150	62,232
32 Off-balance sheet items				712,830	9,942
33 **Total RSF**					**687,728**
34 **Net Stable Funding Ratio (%)**					**129%**

8 Liquidity (continued)

c. Net Stable Funding Ratio – for category 1 institution (LIQ2) (continued)

NSFR Key Drivers

Net Stable Funding Ratio (NSFR) requires the bank to maintain sufficient stable funding relative to required stable funding. It reflects a bank's long-term funding profile and compliment Liquidity Coverage Ratio (LCR) which measures short-term resilience to liquidity risk. The Group has continuously maintained a healthy NSFR ratio during the second half of 2019, and well above the regulatory requirement minimum of 100%.

Following the acquisition of SCB Taiwan and SCB Korea in October 2019, NSFR remained stable at 129% from Q3 to Q4 in 2019.

Composition of AI's interdependent assets and liabilities

Complying with HKMA Banking Liquidity Rules, the Group's interdependent assets and liabilities consist of legal tender notes and certificates of indebtedness, being one of the note-issuing bank in Hong Kong.

9 Credit risk for non-securitization exposures

a. General information about credit risk (CRA)

Our approach to credit risk can be found in the Risk management approach section in notes 34 on pages 95 to 143 of the 2019 consolidated financial statements.

b. Credit quality of exposures (CR1)

The following table sets out an overview of the credit quality of on- and off-balance sheet exposures.

		(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Gross carrying amounts of			*Of which ECL accounting provisions for credit losses on STC approach exposures*[1]		*Of which ECL accounting provisions for credit losses on IRB approach exposures*	
	At 31 December 2019	*Defaulted Exposures HK$'M*	*Non-defaulted Exposures HK$'M*	*Allowances/ Impairments HK$'M*	*Allocated in regulatory category of specific provisions HK$'M*	*Allocated in regulatory category of collective provisions HK$'M*	*HK$'M*	*Net values (a+b-c) HK$'M*
1	Loans	5,250	1,286,361	4,758	303	245	4,210	1,286,853
2	Debt securities	–	412,232	20	–	–	20	412,212
3	Off-balance sheet exposures	466	830,302	158	–	18	140	830,610
4	**Total**	5,716	2,528,895	4,936	303	263	4,370	2,529,675

[1] The categorisation of Expected Credit Loss ('ECL') accounting provisions into the regulatory categories of specific and collective provisions follows the treatment specified in the completion instructions of the HKMA Capital Adequacy Ratio – MA(BS)3 return. According to the completion instructions, the ECL accounting provisions classified into Stage 1 and Stage 2 are treated as collective provisions, while those classified under Stage 3 are treated as specific provisions.

Increase in total exposures was mainly due to acquisition of SCB China and SC NEA Group and the growth in balance sheet.

9 Credit risk for non-securitization exposures (continued)

c. Changes in defaulted loans and debt securities (CR2)

The following table sets out information on the changes in defaulted loans and debt securities, including any changes in the amount of defaulted exposures, movements between non-defaulted and defaulted exposures, and reductions in the defaulted exposures due to write-offs.

		(a) *HK$'M*
1	**Defaulted loans and debt securities at end of the previous reporting period (30 June 2019)**	3,626
2	Loans and debt securities that have defaulted since the last reporting period	2,973
3	Returned to non-defaulted status	(363)
4	Amounts written off	(1,173)
5	Other changes[1]	187
6	**Defaulted loans and debt securities at end of the current reporting period (31 December 2019)**	5,250

[1] Other changes included repayment, foreign exchange movement and the net increase in defaulted loans and debt securities from the acquisition of SC NEA Group.

d. Additional disclosure related to credit quality of exposures (CRB)

The following table sets out an additional qualitative and quantitative information on the credit quality of exposures to supplement the quantitative information provided under templates CR1 and CR2.

Please refer to note 2(k) of the consolidated financial statements for the approach for determining credit-impairment provisions and the definition of "credit impaired" and "forborne loans".

I. Exposures by geographical location (CRB1)

	At 31 December 2019	*Gross carrying amount* *HK$'M*
1	Hong Kong	958,402
2	South Korea	527,201
3	Mainland China	419,102
4	Others	629,906
5	**Total**	**2,534,611**

Increase in exposures in HK was mainly driven by the growth in balance sheet. Increase in Mainland China exposures and South Korea exposures was mainly due to the acquisition of SCB China and SCB Korea.

9 Credit risk for non-securitization exposures (continued)

d. Additional disclosure related to credit quality of exposures (CRB) (continued)

II. Exposures by Industry (CRB2)

	At 31 December 2019	*Gross carrying amount HK$'M*
1	Individuals	813,029
2	Financial concerns	588,386
3	Manufacturing	247,324
4	Wholesales and retail trade	174,293
5	Others[1]	711,579
6	**Total**	**2,534,611**

Increase in exposures across industries was mainly due to the acquisition of SCB China and SC NEA Group.

III. Exposures by residual maturity (CRB3)

	At 31 December 2019	*Repayable on demand to 1 year HK$'M*	*Due between 1 year to 5 years HK$'M*	*Due after 5 years HK$'M*	*Total HK$'M*
1	Loans	617,529	216,307	457,775	1,291,611
2	Debt securities	223,584	182,120	6,528	412,232
3	Off-balance sheet exposures	476,102	313,300	41,366	830,768
4	**Total**	1,317,215	711,727	505,669	2,534,611

Increase in exposures due between 1 year to 5 years was mainly due to the increase in undrawn facilities and debt securities over 1 year.

IV. Impaired exposures and related allowances and write-offs by geographical location (CRB4)

	At 31 December 2019	*Gross impaired advances HK$'M*	*Specific provisions[2] HK$'M*	*Advances written-off in a year HK$'M*
1	Hong Kong	2,023	812	895
2	Mainland China	1,031	661	541
3	Taiwan	1,131	287	199
4	South Korea	1,065	882	427
5	**Total**	5,250	2,642	2,062

9 Credit risk for non-securitization exposures (continued)

d. Additional disclosure related to credit quality of exposures (CRB) (continued)

V. Impaired exposures and related allowances and write-offs by Industry (CRB5)

	At 31 December 2019	*Gross impaired advances HK$'M*	*Specific provisions[2] HK$'M*	*Advances written-off in a year HK$'M*
1	Individuals	2,389	992	1,502
2	Manufacturing	1,440	909	260
3	Wholesales and Retail Trade	872	549	190
4	Property Investment	290	64	–
5	Others[1]	259	128	110
6	**Total**	5,250	2,642	2,062

1 "Others" constitutes segment less than 10% of total RWA and is disclosed on an aggregated basis.

2 Please refer to note 9(b) for the classification of specific provisions.

VI. Aging analysis of accounting past due exposures (CRB6)

Please refer to note 20 for aging analysis of past due exposures.

VII. Breakdown of restructured exposures (CRB7)

At 31 December 2019	*HK$'M*
Impaired	2,473
Not impaired	456
	2,929

e. Qualitative disclosures related to credit risk mitigation (CRC)

Potential credit losses from any given account, customer or portfolio are mitigated using a range of tools such as collateral, netting agreements, credit insurance, credit derivatives and guarantees. The reliance that can be placed on these mitigants is carefully assessed in light of issues such as legal certainty and enforceability, market valuation, correlation and counterparty risk of the guarantor. The requirement for risk mitigation is, however, not a substitute for the ability to pay, which is the primary consideration for any lending decisions.

Collateral types which are eligible for risk mitigation include: cash; account receivables; residential, commercial and industrial property; fixed assets such as motor vehicles, aircraft, plant and machinery; marketable securities; commodities; risk participations; guarantees; credit insurance; and standby letters of credit. The Group also enters into collateralised reverse repurchase agreements. Physical collateral, such as property, fixed assets and commodities, and financial collateral must be independently valued and an active secondary resale market must exist. The collateral must be valued prior to drawdown and regularly thereafter. The valuation frequency is at minimum annual and more frequent valuations are driven by the level of price volatility of each type of collateral and the nature of the underlying product or risk exposure. For financial collateral to be eligible for recognition the collateral must be sufficiently liquid, and its value over time sufficiently stable, to provide appropriate certainty as to the credit protection achieved. Risk mitigation benefits may be reduced or removed where the collateral value is not supported by a recent independent valuation.

9 Credit risk for non-securitization exposures (continued)

e. Qualitative disclosures related to credit risk mitigation (CRC) (continued)

Documentation must be held to enable the Group to realise the collateral without the cooperation of the obligor in the event that this is necessary.

Our approach to credit risk mitigation can be found in the Risk management approach section in notes 34(a) on pages 105 to 106 of the 2019 consolidated financial statements.

f. Overview of recognized credit risk mitigation (CR3)

The following table sets out the extent of credit risk exposures covered by different types of recognized CRM.

	At 31 December 2019	*(a)* *Exposures unsecured: carrying amount HK$'M*	*(b1)* *Exposures to be secured HK$'M*	*(b)* *Exposures secured by recognized collateral HK$'M*	*(d)* *Exposures secured by recognized guarantees HK$'M*	*(f)* *Exposures secured by recognized credit derivative contracts HK$'M*
1	Loans	694,090	592,763	487,694	49,061	–
2	Debt securities	395,223	16,989	13,446	234	–
3	**Total**	1,089,313	609,752	501,140	49,295	–
4	*– Of which defaulted*	*4,063*	*1,187*	*948*	*13*	*–*

Please refer to note 9(b) for the driver of increase in total exposures. No material change on the split between secured exposures and unsecured exposures during the period.

g. Qualitative disclosures on use of ECAI ratings under STC approach (CRD)

External ratings, where available, are used to assign risk-weights for standardized approach (SA) exposures under the following exposure classes: Multilateral development bank exposures, certain Bank and Corporate exposures are which exempt from application of IRB Approach.

These external ratings must come from External Credit Assessment Institutions (ECAI); which currently include Moody's, Standard & Poor's and Fitch. The Group uses the ECAI ratings from these agencies in its day-to-day business, which are tracked and kept updated.

The Group determines ECAI issuer ratings or ECAI issue-specific ratings in a process consistent with Part 4 of BCR and the exposures classes are assigned risk weightings as prescribed in the BCR.

9 Credit risk for non-securitization exposures (continued)

h. Credit risk exposures and effects of recognized credit risk mitigation – for STC approach (CR4)

The following table sets out the effect of any recognized CRM (including recognized collateral under both comprehensive and simple approaches) on the calculation of capital requirements. RWA density provides a synthetic metric on riskiness of each portfolio.

	At 31 December 2019	(a) Exposures pre-CCF and pre-CRM: On-balance sheet amount HK$'M	(b) Exposures pre-CCF and pre-CRM: Off-balance sheet amount HK$'M	(c) Exposures post-CCF and post-CRM: On-balance sheet amount HK$'M	(d) Exposures post-CCF and post-CRM: Off-balance sheet amount HK$'M	(e) RWA and RWA density: RWA HK$'M	(f) RWA and RWA density: RWA density %
	Exposure classes						
1	Sovereign exposures	4	18	13	1	–	0%
2	PSE exposures	–	–	471	–	94	20%
2a	– *Of which: domestic PSEs*	–	–	1	–	–	0%
2b	– *Of which: foreign PSEs*	–	–	470	–	94	20%
3	Multilateral development bank exposures	17,913	–	17,913	–	–	0%
4	Bank exposures	2,994	–	3,004	15	778	26%
5	Securities firm exposures	–	–	–	–	–	0%
6	Corporate exposures	36,513	4,840	21,708	644	21,420	96%
7	CIS exposures	–	–	–	–	–	0%
8	Cash items	–	–	–	–	–	0%
9	Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis	–	–	–	–	–	0%
10	Regulatory retail exposures	13,602	34,486	8,470	7	6,358	75%
11	Residential mortgage loans	18,748	245	18,748	49	7,509	40%
12	Other exposures which are not past due exposures	27,419	39,043	9,414	616	10,030	100%
13	Past due exposures	816	143	816	–	1,180	145%
14	Significant exposures to commercial entities	–	–	–	–	–	0%
15	**Total**	118,009	78,775	80,557	1,332	47,369	58%

Increase in credit risk exposures under STC approach during the period due to the acquisition of SC NEA Group, partly offset by the exposures moved to IRB approach due to new model implementation during the period.

9 Credit risk for non-securitization exposures (continued)

i. Credit risk exposures by asset classes and by risk weights – for STC approach (CR5)

The following table sets out a breakdown of credit risk exposures by asset classes and by risk weights (corresponding to the classification of exposures according to the approaches used).

	At 31 December 2019	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(ha)	(i)	(j) Total credit risk exposures amount (post CCF and post CRM)
	Risk Weight	0%	10%	20%	35%	50%	75%	100%	150%	250%	Others	
	Exposure class	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M
1	Sovereign exposures	14	–	–	–	–	–	–	–	–	–	14
2	PSE exposures	–	–	471	–	–	–	–	–	–	–	471
2a	*– Of which: domestic PSEs*	–	–	1	–	–	–	–	–	–	–	1
2b	*– Of which: foreign PSEs*	–	–	470	–	–	–	–	–	–	–	470
3	Multilateral development bank exposures	17,913	–	–	–	–	–	–	–	–	–	17,913
4	Bank exposures	–	–	2,760	–	66	–	193	–	–	–	3,019
5	Securities firm exposures	–	–	–	–	–	–	–	–	–	–	0
6	Corporate exposures	–	–	358	–	1,292	–	20,702	–	–	–	22,352
7	CIS exposures	–	–	–	–	–	–	–	–	–	–	0
8	Cash items	–	–	–	–	–	–	–	–	–	–	0
9	Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis	–	–	–	–	–	–	–	–	–	–	0
10	Regulatory retail exposures	–	–	–	–	–	8,477	–	–	–	–	8,477
11	Residential mortgage loans	–	–	–	16,809	–	1,449	539	–	–	–	18,797
12	Other exposures which are not past due exposures	–	–	–	–	–	–	10,030	–	–	–	10,030
13	Past due exposures	2	–	17	–	11	–	14	772	–	–	816
14	Significant exposures to commercial entities	–	–	–	–	–	–	–	–	–	–	–
15	**Total**	17,929	–	3,606	16,809	1,369	9,926	31,478	772	–	–	81,889

Decrease in regulatory retail exposures under 75% risk weight was mainly driven by the exposures moved to IRB approach due to new model implementation during the period.

9 Credit risk for non-securitization exposures (continued)

j. Qualitative disclosures related to internal models for measuring credit risk under IRB approach (CRE)

Model Governance

All IRB models are developed by Enterprise Risk Analytics (ERA), following internal standards for model development, validation and performance monitoring defined by the Group Credit Model Assessment Committee (CMAC). New models, changes to new models and existing models (periodically) are subject to independent validation by Group Model Validation (GMV). Standards and models are approved by the Regional Executive Risk Committee (RERC), on recommendation from the Model Assessment Forum (MAF). ERA and GMV are separate departments within Group Risk. The Regional Model Risk Management (MRM) team provides independent oversight of model risk management and of adherence to HKMA requirements.

The performance of existing IRB models, including actual against predicted metrics, is monitored regularly by the model owners based on the internal standards and is reported through the MAF to the RERC. In addition, existing models are subject to annual independent validation by GMV.

Group Internal Audit is responsible for carrying out independent audit reviews of IRB models' development, validation, approval and monitoring.

Probability of Default

Probability of Default (PD) is estimated based on one of three industry standard approaches, namely the good- bad approach where a sufficient number of internal defaults is available, the shadow-bond approach where there are no sufficient internal defaults but there are external ratings for a large number of obligors, or the constrained expert judgement approach where neither internal defaults nor external ratings are available.

In Corporate & Institutional Banking (CIB) and Commercial Banking (CB), the largest portfolios are rated based on the shadow bond approach (Sovereigns, Banks, Large Corporates) or the good-bad approach (Mid Corporates). Central governments and central banks are rated using the Sovereign model. Non-bank financial institutions are rated using one of six constrained expert judgement models depending on their line of business, with the largest being Funds, Finance & Leasing, and Broker Dealers. Corporate clients are differentiated by their annual sales turnover and rated using one of the corporate models, unless they are commodity traders (for which a separate model has been developed) or are classified under specialised lending. Excluding the Sovereign model, the CIB and CB internal rating-based (IRB) PD models are subject to the 0.03 per cent regulatory floor.

PD models for retail clients under each asset class are developed following the good-bad approach. The same PD modelling approach is taken across the four key retail client product types: Residential Mortgages, Credit Cards (Qualifying Revolving Retail), Personal Instalment Loans (Other Retail) and Retail SME (Small Business Retail). The approach is based on using the country and product specific application scores for new to bank clients and behaviour scores for existing clients. The scorecards are built using demographic information, financial information, observed client performance data (for behaviour scores), and where available, credit bureau data. Statistical techniques are used to develop a relationship between this information and the probability of default. The scorecards are used to make credit decisions. In addition, the PD models are segmented by delinquency status. All retail client PD models are built and validated using internal default data and are subject to the 0.03 per cent regulatory floor.

Estimates of PD were computed as of 31 December 2018 and are compared with default observations through 31 December 2019.

Our historical default experience for sovereigns or banks is minimal, so the predicted PD reflects a particularly low number of defaults. We experienced no defaults for sovereigns or banks during 2019. The actual default rates for 'Corporates', 'Residential mortgages', 'Qualifying revolving retail', 'Small Business Retail' and 'Other retail' asset classes in 2019 remained below the model predictions, based on the arithmetic average PD by obligors.

9 Credit risk for non-securitization exposures (continued)

j. Qualitative disclosures related to internal models for measuring credit risk under IRB approach (CRE) (continued)

Loss Given Default

The CIB and CB loss given default (LGD) model is a parameter-based model reflecting the Group's recovery and workout process, which takes into account risk drivers such as portfolio segment, product, credit grade of the obligor and collateral attached to the exposure. The model is calibrated based on downturn experience, if that is more conservative than the long-run experience.

The calculation of realised versus predicted LGD is affected by the fact that it may take a number of years for the workout process to be completed. As such, an observed recovery value cannot be assigned to the majority of the 2019 defaults, making it meaningless to compare realised versus predicted outcomes in a manner similar to that for PD and exposure at default (EAD).

To address this for 'Sovereign', 'Banks' and 'Corporates' asset classes we have adopted an approach based on a four-year rolling period of predicted and realised LGD, which for the current reporting year includes 2016 to 2019 defaults that have completed their workout process as at the end of 2019. This approach compares the four-year rolling predicted LGD, providing the predicted outcome of these resolved defaults one year prior to default, against the realised LGD for the same set of defaults. These two figures are fully comparable, thereby providing a meaningful assessment for the LGD model's performance. There were no defaults in the previous four years for 'Sovereign' and 'Banks'. The realised LGD values for 'Corporates' are lower than the predicted LGD values. This is explained by the regulatory guidance to calibrate LGD models to downturn conditions.

LGDs for retail portfolios follow two approaches:

- LGDs for unsecured products are based on historical loss experience of defaults during a downturn; these are portfolio-specific LGD estimates segmented by default status (including restructuring).

- LGDs for secured products are parameter-based estimates mainly driven by how the default is resolved (cure, sale or charge-off). Key LGD parameters are differentiated by segments such as loan- to-value, property type and default status. These parameters are calibrated based on the portfolio's downturn experience.

Retail LGD model development considers defaults from a cohort and the actual recoveries up to the end of the workout window which is typically two to three years. For workout window of 2 years, the observed LGD from the December 2016 cohort (existing defaults and those defaulted in the next 12 months) was calculated based on actual recoveries observed from January 2017 until December 2019. This is compared to the predicted outcome of the same set of defaults.

Under this approach, realised LGD values for all retail asset classes except 'Small business retail', are lower than predicted LGD values, primarily due to the regulatory guidance to calibrate LGD models to downturn conditions. For 'Small business retail', the underlying model has acceptable performance, with figure reported being affected by the very low volume of defaults involved.

Exposure At Default

EAD takes into consideration the potential drawdown of a commitment as an obligor moves towards default by estimating the Credit Conversion Factor (CCF) of undrawn commitments.

9 Credit risk for non-securitization exposures (continued)

j. Qualitative disclosures related to internal models for measuring credit risk under IRB approach (CRE) (continued)

Exposure At Default (continued)

The CIB and CB EAD model has adopted the momentum approach to estimate the CCF, with the type of facility and the level of utilisation being key drivers of CCF. The model is calibrated based on the Group's internal downturn experience.

EAD for retail portfolios differs between revolving products and term products. For revolving products, EAD is computed by estimating the CCF of undrawn commitments. For term products, EAD is set at the outstanding balance plus any undrawn portion. All the retail client EAD models are built and validated using internal default data.

The comparison of realised versus predicted EAD is summarised as ratio of the sum of outstanding amount at time of default to the sum of predicted EAD of assets of each defaulted client in 2019. The ratios for all models are smaller than one, indicating that the predicted EAD is higher than the realised outstanding amount at default. This is explained by the regulatory guidance to assign conservatism to the CCF of certain exposure types and to calibrate the models to downturn conditions, as well as by the impact of management action leading to a reduction in actual exposure prior to default.

At 31 December 2019, the portion of exposure at default ("EAD") and RWA within the Group covered by IRB approach are summarised in the following table. The remaining portions not covered by IRB approach are under STC approach.

Percentage of total EAD and RWA covered by IRB approach

At 31 December 2019 Portfolio	*Percentage of total EAD under IRB approach*	*Percentage of total RWA under IRB approach*
Corporate exposures (includes SME and other corporates and specialised lending)	96%	91%
Sovereign exposures	96%	100%
Bank exposures (including securities firms)	99%	99%
Residential mortgage loans	96%	89%
Other retail exposures	92%	86%
Equity exposures	0%	0%
Other exposures	98%	98%

The above table covers credit risk for non-securitization exposures excluding counterparty credit risk.

For counterparty credit risk, the percentage of total RWA covered by models is 98% for corporate exposures and nearly 100% for bank exposures.

9 Credit risk for non-securitization exposures (continued)

k. Credit risk exposures by portfolio and PD ranges – for IRB approach (CR6)

The following table sets out the main parameters of internal models used for the calculation of credit risk capital requirements under the IRB approach, for the purpose of enhancing the transparency of RWA calculations and the reliability of regulatory measures.

At 31 December 2019 PD scale	(a) Original on-balance sheet gross exposure HK$'M	(b) Off-balance sheet exposures pre-CCF HK$'M	(c) Average CCF	(d) EAD post-CRM and post-CCF HK$'M	(e) Average PD	(f) Number of obligors	(g) Average LGD	(h) Average maturity	(i) RWA HK$'M	(j) RWA density	(k) EL HK$'M	(l) Provisions HK$'M
Portfolio (i) – Sovereign												
0.00 to < 0.15	376,746	4,580	40.33%	394,972	0.02%	63	46.08%	1.59	34,188	9%	41	
0.15 to < 0.25	–	–	0.00%	–	0.00%	–	0.00%	–	–	0%	–	
0.25 to < 0.50	–	–	0.00%	–	0.00%	–	0.00%	–	–	0%	–	
0.50 to < 0.75	–	–	0.00%	–	0.00%	–	0.00%	–	–	0%	–	
0.75 to < 2.50	–	–	0.00%	–	0.00%	–	0.00%	–	–	0%	–	
2.50 to < 10.00	258	353	37.00%	–	0.00%	–	0.00%	–	–	0%	–	
10.00 to < 100.00	–	–	0.00%	–	0.00%	–	0.00%	–	–	0%	–	
100.00 (Default)	–	–	0.00%	–	0.00%	–	0.00%	–	–	0%	–	
Sub-total	377,004	4,933	40.09%	394,972	0.02%	63	46.08%	1.59	34,188	9%	41	468
Portfolio (ii) – Bank												
0.00 to < 0.15	302,631	85,828	11.84%	325,822	0.04%	184	43.98%	1.21	41,454	13%	57	
0.15 to < 0.25	3,608	5,389	39.81%	5,630	0.22%	33	37.84%	0.90	1,803	32%	5	
0.25 to < 0.50	3,527	13,686	15.03%	5,524	0.39%	31	37.01%	1.93	2,827	51%	8	
0.50 to < 0.75	6,471	28,568	7.45%	5,954	0.55%	53	40.48%	0.78	3,121	52%	13	
0.75 to < 2.50	3,686	8,073	21.68%	5,370	1.39%	127	41.90%	1.47	4,906	91%	32	
2.50 to < 10.00	78	445	26.34%	196	4.06%	21	36.34%	0.67	211	108%	3	
10.00 to < 100.00	3	18	21.31%	5	13.77%	7	8.32%	0.47	2	42%	–	
100.00 (Default)	–	–	0.00%	–	0.00%	–	0.00%	–	–	0%	–	
Sub-total	320,004	142,007	12.94%	348,501	0.08%	456	43.68%	1.21	54,324	16%	118	744
Portfolio (iii) – Corporate – Other												
0.00 to < 0.15	121,089	154,838	22.64%	173,417	0.08%	908	47.38%	1.48	36,643	21%	62	
0.15 to < 0.25	51,284	50,823	20.31%	57,915	0.22%	553	47.73%	1.34	22,621	39%	60	
0.25 to < 0.50	39,886	42,941	27.60%	50,376	0.38%	461	40.06%	1.55	24,772	49%	79	
0.50 to < 0.75	63,328	71,081	24.11%	75,490	0.58%	736	44.50%	1.44	47,495	63%	192	
0.75 to < 2.50	66,970	46,427	21.80%	69,990	1.21%	955	35.41%	1.38	48,576	69%	306	
2.50 to < 10.00	30,142	24,378	20.68%	24,851	4.41%	613	38.66%	1.09	25,575	103%	360	
10.00 to < 100.00	17,160	7,241	19.01%	6,032	18.25%	304	29.13%	2.19	7,603	126%	217	
100.00 (Default)	3,033	240	20.18%	3,082	100.00%	94	49.38%	1.82	4,934	160%	1,572	
Sub-total	392,892	397,969	22.87%	461,153	1.52%	4,624	43.64%	1.44	218,219	47%	2,848	4,673

9 Credit risk for non-securitization exposures (continued)

k. Credit risk exposures by portfolio and PD ranges – for IRB approach (CR6) (continued)

At 31 December 2019 PD scale	(a) Original on-balance sheet gross exposure HK$'M	(b) Off-balance sheet exposures pre-CCF HK$'M	(c) Average CCF	(d) EAD post-CRM and post-CCF HK$'M	(e) Average PD	(f) Number of obligors	(g) Average LGD	(h) Average maturity	(i) RWA HK$'M	(j) RWA density	(k) EL HK$'M	(l) Provisions HK$'M
Portfolio (iv) – Corporate – Small-and-medium sized corporates												
0.00 to < 0.15	405	–	0.00%	405	0.13%	1	65.66%	4.17	229	57%	–	
0.15 to < 0.25	869	1,231	43.15%	1,349	0.23%	171	27.95%	1.10	264	20%	1	
0.25 to < 0.50	1,458	1,148	20.07%	1,685	0.29%	136	33.88%	1.21	430	26%	2	
0.50 to < 0.75	3,179	1,417	13.96%	3,359	0.60%	210	19.90%	1.34	813	24%	4	
0.75 to < 2.50	5,936	2,676	15.98%	6,251	1.52%	906	27.97%	1.57	3,111	50%	26	
2.50 to < 10.00	5,992	1,704	15.83%	5,548	4.74%	356	23.58%	1.30	3,196	58%	66	
10.00 to < 100.00	1,901	251	16.67%	1,225	16.97%	54	24.34%	1.08	1,186	97%	53	
100.00 (Default)	216	73	11.19%	222	100.00%	69	57.16%	1.22	367	165%	129	
Sub-total	19,956	8,500	20.54%	20,044	4.07%	1,903	26.76%	1.41	9,596	48%	281	264
Portfolio (v) – Retail – QRRE												
0.00 to < 0.15	6,111	103,462	49.69%	57,525	0.07%	1,068,783	88.55%	–	2,315	4%	37	
0.15 to < 0.25	307	2,834	81.73%	2,623	0.18%	94,511	78.85%	–	201	8%	4	
0.25 to < 0.50	1,270	11,869	53.59%	7,631	0.31%	130,340	87.76%	–	1,018	13%	21	
0.50 to < 0.75	1,878	22,887	49.91%	13,301	0.67%	181,050	89.09%	–	3,349	25%	80	
0.75 to < 2.50	1,336	7,099	54.37%	5,196	1.45%	82,643	88.16%	–	2,303	44%	67	
2.50 to < 10.00	2,265	3,185	62.87%	4,268	5.24%	55,123	89.07%	–	4,567	107%	199	
10.00 to < 100.00	733	334	71.12%	970	24.16%	13,147	88.80%	–	2,059	212%	208	
100.00 (Default)	131	7	0.43%	131	100.00%	6,361	64.95%	–	174	133%	71	
Sub-total	14,031	151,677	51.17%	91,645	0.90%	1,631,958	88.26%	–	15,986	17%	687	234
Portfolio (vi) – Retail – Residential mortgage exposures												
0.00 to < 0.15	206,697	1,078	100.68%	207,781	0.08%	105,707	12.33%	–	31,243	15%	22	
0.15 to < 0.25	137,130	5,767	100.37%	142,918	0.18%	89,414	14.23%	–	17,210	12%	38	
0.25 to < 0.50	26,575	473	101.54%	27,055	0.44%	24,899	15.40%	–	3,358	12%	18	
0.50 to < 0.75	10,865	17	100.80%	10,882	0.55%	9,183	16.49%	–	2,010	18%	10	
0.75 to < 2.50	21,345	322	100.69%	21,669	1.17%	17,837	15.27%	–	4,779	22%	39	
2.50 to < 10.00	5,752	92	100.42%	5,845	3.81%	5,469	14.87%	–	2,424	41%	33	
10.00 to < 100.00	890	11	100.18%	901	28.70%	1,296	16.99%	–	765	85%	46	
100.00 (Default)	615	–	100.00%	615	100.00%	971	20.54%	–	886	144%	55	
Sub-total	409,869	7,760	100.50%	417,666	0.47%	254,776	13.50%	–	62,675	15%	261	874

9 Credit risk for non-securitization exposures (continued)

k. Credit risk exposures by portfolio and PD ranges – for IRB approach (CR6) (continued)

At 31 December 2019 PD scale	(a) Original on-balance sheet gross exposure HK$'M	(b) Off-balance sheet exposures pre-CCF HK$'M	(c) Average CCF	(d) EAD post-CRM and post-CCF HK$'M	(e) Average PD	(f) Number of obligors	(g) Average LGD	(h) Average maturity	(i) RWA HK$'M	(j) RWA density	(k) EL HK$'M	(l) Provisions HK$'M
Portfolio (vii) – Retail – Small business retail exposures												
0.00 to < 0.15	131	31	82.97%	137	0.08%	9	61.12%	–	16	12%	–	
0.15 to < 0.25	305	37	36.47%	264	0.20%	225	68.19%	–	74	28%	–	
0.25 to < 0.50	627	51	53.58%	418	0.37%	188	46.64%	–	117	28%	1	
0.50 to < 0.75	638	50	30.14%	409	0.63%	281	61.45%	–	206	50%	2	
0.75 to < 2.50	3,084	268	8.23%	2,426	1.49%	1,614	79.37%	–	2,230	92%	29	
2.50 to < 10.00	1,640	89	8.23%	1,267	4.22%	677	83.81%	–	1,532	121%	45	
10.00 to < 100.00	258	19	6.91%	167	32.05%	113	86.23%	–	262	157%	45	
100.00 (Default)	26	2	0.00%	22	100.00%	19	88.31%	–	28	126%	18	
Sub-total	6,709	547	20.86%	5,110	3.33%	3,126	75.55%	–	4,465	87%	140	81
Portfolio (viii) – Other retail exposures to individuals												
0.00 to < 0.15	2,158	13,760	85.33%	13,899	0.06%	70,203	80.34%	–	1,830	13%	7	
0.15 to < 0.25	2,241	2,655	83.21%	4,450	0.16%	23,607	80.76%	–	1,261	28%	6	
0.25 to < 0.50	12,964	4,992	63.37%	16,127	0.34%	54,742	76.68%	–	7,053	44%	42	
0.50 to < 0.75	7,260	2,798	56.18%	8,832	0.67%	38,177	77.14%	–	5,718	65%	46	
0.75 to < 2.50	18,159	5,709	37.43%	20,297	1.36%	84,349	64.59%	–	14,800	73%	180	
2.50 to < 10.00	31,779	6,781	58.03%	35,713	4.70%	138,858	57.95%	–	29,651	83%	850	
10.00 to < 100.00	3,296	648	38.83%	3,548	23.78%	24,747	75.18%	–	5,330	150%	625	
100.00 (Default)	1,275	–	0.00%	1,275	100.00%	24,490	62.91%	–	1,499	118%	682	
Sub-total	79,132	37,343	66.97%	104,141	4.04%	459,173	68.38%	–	67,142	64%	2,438	1,286
Total (sum of all portfolios)	1,619,597	750,736	29.79%	1,843,232	0.83%	2,356,079	40.86%	1.42	466,595	25%	6,814	8,624

Increase in exposures, EAD, number of obligors, RWA, and EL across different portfolios were mainly due to acquisition of SC NEA Group and balance sheet growth.

9 Credit risk for non-securitization exposures (continued)

I. Effects on RWA of recognized credit derivative contracts used as recognized credit risk mitigation – for IRB approach (CR7)

The following table sets out the effect of recognized credit derivative contracts on the calculation of credit risk capital requirements under the IRB approach. The hypothetical RWA before taking into account the mitigation effect of recognized credit derivative contracts (column (a) below) is disclosed to evaluate the impact of recognized credit derivative contracts on RWA. This is irrespective of the extent that recognized CRM are taken into account in calculating the RWA.

	At 31 December 2019	*(a)* *Pre-credit derivatives RWA* *HK$'M*	*(b)* *Actual RWA* *HK$'M*
1	Corporate – Specialized lending under supervisory slotting criteria approach (project finance)	–	–
2	Corporate – Specialized lending under supervisory slotting criteria approach (object finance)	4,934	4,934
3	Corporate – Specialized lending under supervisory slotting criteria approach (commodities finance)	–	–
4	Corporate – Specialized lending under supervisory slotting criteria approach (income-producing real estate)	6,786	6,786
5	Corporate – Specialized lending (high-volatility commercial real estate)	–	–
6	Corporate – Small-and-medium sized corporates	9,596	9,596
7	Corporate – Other corporates	218,219	218,219
8	Sovereigns	33,754	33,754
9	Sovereign foreign public sector entities	434	434
10	Multilateral development banks	–	–
11	Bank exposures – Banks	47,273	47,273
12	Bank exposures – Securities firms	5,558	5,558
13	Bank exposures – Public sector entities (excluding sovereign foreign public sector entities)	1,493	1,493
14	Retail – Small business retail exposures	4,465	4,465
15	Retail – Residential mortgages to individuals	60,600	60,600
16	Retail – Residential mortgages to property-holding shell companies	2,075	2,075
17	Retail – Qualifying revolving retail exposures (QRRE)	15,986	15,986
18	Retail – Other retail exposures to individuals	67,142	67,142
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)	–	–
24a	Equity – Equity exposures associated with equity investments in funds (CIS exposures)	–	–
25	Other – Cash items	4	4
26	Other – Other items	33,234	33,234
27	**Total**	511,553	511,553

There is no effect in RWA as the Group does not have credit derivative contracts used as recognised credit risk mitigation.

Increase in pre-credit derivatives RWA and actual RWA were mainly due to acquisition of SC NEA Group.

9 Credit risk for non-securitization exposures (continued)

m. RWA flow statements of credit risk exposures under IRB approach (CR8)

The following table sets out a flow statement explaining variations in the RWA for credit risk determined under the IRB approach.

		(a) Amount HK$'M
1	**RWA as at end of previous reporting period (30 September 2019)**	**391,086**
2	Asset size[1]	(9,026)
3	Asset quality	657
4	Model updates[2]	5,824
5	Methodology and policy	–
6	Acquisitions and disposals[3]	122,630
7	Foreign exchange movements	379
8	Other	–
9	**RWA as at end of reporting period (31 December 2019)**	**511,550**

[1] Decrease in RWA from asset size was mainly driven by the decrease in interbank placements.

[2] Increase in RWA from model updates was due to new model implementation during the period.

[3] Acquisition and disposals during the period represented the acquisition of SC NEA Group.

n. Back-testing of PD per portfolio – for IRB approach (CR9)

The following table sets out the comparison between observed and predicted PD, LGD and EAD.

Observed vs. Predicted PD, LGD and EAD

2019	PD (%)		LGD (%)		EAD Ratio
Asset Class	Observed	Predicted	Observed	Predicted	Observed /Predicted)
Sovereigns	0.00	0.24	N/A	N/A	N/A
Banks	0.00	0.49	N/A	N/A	N/A
Corporates	1.81	3.57	26.12	46.90	0.82
Qualifying revolving retail exposures (QRRE)	0.27	0.63	64.11	74.38	0.82
Residential mortgages	0.17	0.54	19.30	21.87	0.98
Small business retail exposures	2.89	3.26	86.18	85.80	0.83
Other retail exposures to individuals	2.10	3.40	41.00	59.89	0.94

2018	PD (%)		LGD (%)		EAD Ratio
Asset Class	Observed	Predicted	Observed	Predicted	Observed /Predicted)
Sovereigns	0.00	0.04	N/A	N/A	N/A
Banks	0.00	0.86	N/A	N/A	N/A
Corporates	1.02	2.55	13.57	35.55	0.90
Qualifying revolving retail exposures (QRRE)	0.25	0.69	62.79	71.63	0.87
Residential mortgages	0.03	0.20	4.92	14.25	0.99
Small business retail exposures	2.58	3.42	84.97	86.40	0.95
Other retail exposures to individuals	1.23	2.50	83.87	90.19	0.83

Note: The 2018 model back-testing result is shown for reference only, it is not comparable to the 2019 model back-testing result since it does not take into account of the acquisition of SCB China and SC NEA Group during 2019.

9 Credit risk for non-securitization exposures (continued)

n. Back-testing of PD per portfolio – for IRB approach (CR9) (continued)

The following table sets out back-testing data to validate the reliability of PD calculations, including a comparison of the PD used to calculate capital requirements with the effective default rates of obligors under the IRB approach.

(a)	(b) PD Range (as of 31 December 2018)	(c) External rating equivalent	(d) Weighted average PD	(e) Arithmetic average PD by obligors	(f) Number of obligors 31 December 2018	31 December 2019	(g) Defaulted obligors in the year	(h) Of which: new defaulted obligors in the year	(i) Average historical annual default rate
Portfolio (i) – Sovereign			0.02%	0.24%	57	59	0	0	0.00%
	0.00 to < 0.15	AAA to BBB-			56	49			
	0.15 to < 0.25	BBB, BBB-			0	0			
	0.25 to < 0.50	BBB-, BB+, BB			0	0			
	0.50 to < 0.75	BB+, BB			0	0			
	0.75 to < 2.50	BB, BB-, B+, B			1	0			
	2.50 to < 10.00	B, B-, CCC, C			0	0			
	10.00 to < 100.00	CCC, C			0	0			
	New obligors acquired during the year	D				10			
Portfolio (ii) – Bank			0.09%	0.49%	453	444	0	0	0.00%
	0.00 to < 0.15	AAA to BBB-			228	184			
	0.15 to < 0.25	BBB, BBB-			36	27			
	0.25 to < 0.50	BBB-, BB+, BB			25	21			
	0.50 to < 0.75	BB+, BB			39	32			
	0.75 to < 2.50	BB, BB-, B+, B			100	68			
	2.50 to < 10.00	B, B-, CCC, C			22	14			
	10.00 to < 100.00	CCC, C			3	2			
	New obligors acquired during the year	D				96			
Portfolio (iii) – Corporate - Specialized Lending under supervisory slotting criteria approach (object finance)			0.65%	0.70%	269	292	0	0	0.00%
	0.00 to < 0.15	AAA to BBB-			49	38			
	0.15 to < 0.25	BBB, BBB-			39	39			
	0.25 to < 0.50	BBB-, BB+, BB			20	20			
	0.50 to < 0.75	BB+, BB			53	48			
	0.75 to < 2.50	BB, BB-, B+, B			98	70			
	2.50 to < 10.00	B, B-, CCC, C			10	10			
	10.00 to < 100.00	CCC, C			0	0			
	New obligors acquired during the year	D				67			

9 Credit risk for non-securitization exposures (continued)

n. Back-testing of PD per portfolio – for IRB approach (CR9) (continued)

(a)	(b) PD Range (as of 31 December 2018)	(c) External rating equivalent	(d) Weighted average PD	(e) Arithmetic average PD by obligors	(f) Number of obligors 31 December 2018	31 December 2019	(g) Defaulted obligors in the year	(h) Of which: new defaulted obligors in the year	(i) Average historical annual default rate
Portfolio (iv) – Corporate – Small-and-medium sized corporates			3.64%	4.78%	6,111	5,468	213	49	3.34%
	0.00 to < 0.15	AAA to BBB-			7	1			
	0.15 to < 0.25	BBB, BBB-			483	403			
	0.25 to < 0.50	BBB-, BB+, BB			124	91			
	0.50 to < 0.75	BB+, BB			790	661			
	0.75 to < 2.50	BB, BB-, B+, B			1,301	1,015			
	2.50 to < 10.00	B, B-, CCC, C			2,199	1,722			
	10.00 to < 100.00	CCC, C			1,207	821			
	New obligors acquired during the year	D				754			
Portfolio (v) – Corporate – Other corporates			0.87%	1.13%	5,208	5,299	25	0	0.77%
	0.00 to < 0.15	AAA to BBB-			1,247	1,098			
	0.15 to < 0.25	BBB, BBB-			638	520			
	0.25 to < 0.50	BBB-, BB+, BB			627	536			
	0.50 to < 0.75	BB+, BB			858	746			
	0.75 to < 2.50	BB, BB-, B+, B			898	684			
	2.50 to < 10.00	B, B-, CCC, C			498	356			
	10.00 to < 100.00	CCC, C			442	156			
	New obligors acquired during the year	D				1,203			
Portfolio (vi) – Retail – Qualifying revolving retail exposures			0.76%	0.63%	1,576,695	1,656,905	4,278	45	0.42%
	0.00 to < 0.15				1,037,142	927,231			
	0.15 to < 0.25				90,135	78,601			
	0.25 to < 0.50				123,333	110,957			
	0.50 to < 0.75				170,946	159,287			
	0.75 to < 2.50				85,116	79,023			
	2.50 to < 10.00				55,265	50,441			
	10.00 to < 100.00				14,758	12,236			
	New obligors acquired during the year					239,129			
Portfolio (vii) – Retail – Residential mortgage exposures			0.36%	0.54%	271,976	280,879	508	36	0.19%
	0.00 to < 0.15				113,912	94,264			
	0.15 to < 0.25				86,026	72,267			
	0.25 to < 0.50				34,625	29,133			
	0.50 to < 0.75				5,119	4,444			
	0.75 to < 2.50				22,939	19,240			
	2.50 to < 10.00				7,640	6,347			
	10.00 to < 100.00				1,715	1,455			
	New obligors acquired during the year					53,729			

9 Credit risk for non-securitization exposures (continued)

n. Back-testing of PD per portfolio – for IRB approach (CR9) (continued)

(a)	(b) PD Range (as of 31 December 2018)	(c) External rating equivalent	(d) Weighted average PD	(e) Arithmetic average PD by obligors	(f) Number of obligors 31 December 2018	(f) Number of obligors 31 December 2019	(g) Defaulted obligors in the year	(h) Of which: new defaulted obligors in the year	(i) Average historical annual default rate
Portfolio (viii) – Retail – Small business retail exposures			2.98%	3.26%	18,494	17,313	546	12	3.11%
	0.00 to < 0.15				941	681			
	0.15 to < 0.25				944	727			
	0.25 to < 0.50				2,392	1,846			
	0.50 to < 0.75				1,991	1,594			
	0.75 to < 2.50				7,050	5,890			
	2.50 to < 10.00				4,218	3,530			
	10.00 to < 100.00				958	665			
	New obligors acquired during the year					2,380			
Portfolio (ix) – Retail – Other retail exposures to individuals			2.63%	3.40%	476,731	461,691	10,987	997	2.33%
	0.00 to < 0.15				74,291	66,026			
	0.15 to < 0.25				25,738	21,781			
	0.25 to < 0.50				62,915	50,188			
	0.50 to < 0.75				42,420	33,529			
	0.75 to < 2.50				91,086	67,663			
	2.50 to < 10.00				145,992	113,391			
	10.00 to < 100.00				34,289	22,938			
	New obligors acquired during the year					86,175			

Please refer to note 9j (CRE) for the explanation on back-testing results.

9 Credit risk for non-securitization exposures (continued)

o. Specialized lending under supervisory slotting criteria approach and equities under simple risk-weight method – for IRB approach (CR10)

The following table sets out the quantitative information in respect of specialized lending under the supervisory slotting criteria approach.

Specialized Lending under supervisory slotting criteria approach – Other than HVCRE

At 31 December 2019		(a)	(b)	(c)	(d)(i)	(d)(ii)	(d)(iii)	(d)(iv)	(d)(v)	(e)	(f)
Supervisory Rating Grade	Remaining Maturity	On-balance sheet exposure amount HK$'M	Off-balance sheet exposure amount HK$'M	SRW	PF HK$'M	OF HK$'M	CF HK$'M	IPRE HK$'M	Total HK$'M	RWA HK$'M	Expected loss amount HK$'M
Strong^	Less than 2.5 years	413	9	50%	–	282	–	134	416	208	–
Strong	Equal to or more than 2.5 years	2,530	110	70%	–	2,552	–	–	2,552	1,786	10
Good^	Less than 2.5 years	758	–	70%	–	–	–	758	758	531	3
Good	Equal to or more than 2.5 years	3,085	1,010	90%	–	3,170	–	408	3,578	3,221	29
Satisfactory		5,145	128	115%	–	133	–	5,062	5,195	5,974	145
Weak		–	–	250%	–	–	–	–	–	–	–
Default		–	–	0%	–	–	–	–	–	–	–
Total		11,931	1,257		–	6,137	–	6,362	12,499	11,720	187

^ Use of preferential risk-weights.

Increase in total exposure, income-producing real estate exposure and total RWA was mainly due to acquisition of SC NEA Group.

10 Counterparty Credit risk

a. Qualitative disclosures related to counterparty credit risk (including those arising from clearing through CCPs) (CCRA)

Counterparty credit risk (CCR) is the risk that a counterparty in foreign exchange, interest rate, commodity, equity or credit derivative or repo contract defaults prior to the maturity date of the contract, and that the Group at the time has a claim on the counterparty. CCR arises predominantly in the trading book, but also arises in the non-trading book when hedging with external counterparties is required.

CCR is managed within the overall credit risk appetite for corporate and financial institutions. CCR limits are set for individual counterparties, including central clearing counterparties, and for specific portfolios. Individual limits are calibrated to the credit grade and business model of the counterparties, and are set on Potential Future Exposure (PFE). Portfolio limits are set to contain concentration risk across multiple dimensions, and are set on PFE or other equivalent measures.

The Group reduces its credit exposures to counterparties by entering into contractual netting agreements where feasible. This results in a single amount owed by or to the counterparty. The amount is calculated by netting the Mark-To-Market (MTM) owed by the counterparty to the Group and the MTM owed by the Group to the counterparty on the transactions covered by the netting agreement. In line with the International Accounting Standard (IAS) 32 principles, the Group's balance sheet will present assets and liabilities on a net basis provided there is a legally enforceable right to set off assets and liabilities, and the Group intends to settle on a net basis or realise the asset and liability simultaneously.

10 Counterparty Credit risk (continued)

a. Qualitative disclosures related to counterparty credit risk (including those arising from clearing through CCPs) (CCRA) (continued)

The Group seeks to negotiate Credit Support Annexes (CSAs) with counterparties when collateral is deemed a necessary or desirable mitigant to the exposure.

The MTM of all trades captured under CSAs is calculated daily. Additional collateral will be called from the counterparty if total uncollateralised MTM exposure exceeds the threshold and minimum transfer amount specified in the CSA. Additional collateral may be required from the counterparty to provide an extra buffer to the daily variation margin process.

In line with market convention, the Group negotiates CSA terms for certain counterparties where the thresholds related to each party are dependent on their ECAI long-term rating. Such clauses are typically mutual in nature. As a result, a downgrade in the Group's rating would result in some counterparties seeking additional collateral calls to cover negative MTM portfolios where thresholds are lowered. As of 31 Dec 2019, the Group was required to provide no collateral in the case of a one-notch credit downgrade.

Wrong-way risk

Wrong-way risk occurs when an exposure increase is coupled with a decrease in the credit quality of the obligor. Specifically, as the MTM on a derivative or repo contract increases in favour of the Group, the driver of this MTM change also reduces the ability of the counterparty to meet its payment, margin call or collateral posting requirements. Wrong-way risk mostly arises from FX transactions and financing transactions. The Group employs various policies and procedures to ensure that wrong-way risk exposures are recognised upfront, monitored, and where required, contained by limits on country, tenor, collateral type and counterparty.

Stress Testing

Stress testing is an integral part of CCR management, complementing PFE or other portfolio limits. Single and multi-factor scenarios are regularly applied to the CCR portfolio to identify and quantify exposures that could become a concern for the Group. The stressed exposures are monitored monthly at regional and global counterparty credit risk exposure forums. The relevance and severity of the stress scenarios are periodically reviewed with cross functional stakeholders.

Exposure value calculation

Exposure calculation used for risk management is based on PFE. The PFE is mostly calculated from simulation models, and from PFE add-ons for the non-simulated products.

Derivatives exposures are calculated using the Mark-to-Market Method. Individual transactions are measured using the sum of current replacement cost and potential future credit exposure, and the benefit of master netting agreements is applied using the Net-Gross Ratio. Exposure for repurchase transactions and securities lending or borrowing transactions is calculated using the Financial Collateral Comprehensive Method. Supervisory volatility adjustments are applied to both collateral and exposure legs and the benefit of master netting agreements is taken into consideration.

The Group has credit policies and procedures setting out the criteria for collateral to be recognised as a credit risk mitigant, including requirements concerning legal certainty, priority, concentration, correlation, liquidity and valuation parameters such as frequency of review and independence.

The Group also has policies and procedures in place setting out the criteria for guarantees to be recognised as a credit risk mitigant. Where guarantees meet regulatory criteria, the Group treats the exposure as guarantor risk from counterparty credit risk capital standpoint.

Credit valuation adjustments

Credit valuation adjustments (CVA) measures potential MTM loss associated with the deterioration in the creditworthiness of the counterparty. The Group applies standardized approach to calculate CVA capital charge on over-the-counter derivative contracts.

10 Counterparty Credit risk (continued)

b. Analysis of counterparty default risk exposures (other than those to CCPs) by approaches (CCR1)

The following table sets out a comprehensive breakdown of default risk exposures (other than those to CCPs), RWAs, and, where applicable, main parameters under the approaches used to calculate default risk exposures in respect of derivative contracts and SFTs.

	At 31 December 2019	*(a)* *Replacement cost (RC)* *HK$'M*	*(b)* *PFE*	*(c)* *Effective EPE*	*(d)* *Alpha (α) used for computing default risk exposure* *%*	*(e)* *Default risk exposure after CRM* *HK$'M*	*(f)* *RWA* *HK$'M*
1	SA-CCR (for derivative contracts)	–	–		1.4	–	–
1a	CEM[1]	28,881	62,555		0.0	91,434	25,377
2	IMM (CCR) approach			–	0.0	–	–
3	Simple Approach (for SFTs)					–	–
4	Comprehensive Approach (for SFTs)[2]					100,027	1,709
5	VaR (for SFTs)					–	–
6	**Total**						**27,086**

[1] Increase in default risk exposure under CEM approach was mainly driven by the acquisition of SC NEA Group.

[2] Decrease in default risk exposure under comprehensive approach was mainly due to decrease in repo balance, partly offset by an increase in reverse repo.

c. CVA capital charge (CCR2)

The following table sets out an information on portfolios subject to the CVA capital charge and the CVA calculations based on standardized CVA method and advanced CVA method.

	At 31 December 2019	*(a)* *EAD post CRM* *HK$'M*	*(b)* *RWA* *HK$'M*
	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	98,735	27,672
4	**Total**	**98,735**	**27,672**

Increase in EAD post CRM was mainly due to the acquisition of SC NEA Group.

10 Counterparty Credit risk (continued)

d. Counterparty default risk exposures (other than those to CCPs) by asset classes and by risk weights – for STC approach (CCR3)

The following table sets out a breakdown of default risk exposures, other than those to CCPs, in respect of derivative contracts and SFTs that are subject to the STC approach, by asset classes and risk-weights (the latter representing the riskiness attributed to the exposure according to the respective approaches), irrespective of the approach used to determine the amount of default risk exposures.

	At 31 December 2019	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	Risk Weight	*0%*	*10%*	*20%*	*35%*	*50%*	*75%*	*100%*	*150%*	*250%*	*Others*	*Total default risk exposure after CRM*
	Exposure class	*HK$'M*	*HK$'M*	*HK$'M*	*HK$'M*	*HK$'M*	*HK$'M*	*HK$'M*	*HK$'M*	*HK$'M*	*HK$'M*	*HK$'M*
1	Sovereign exposures	–	–	–	–	–	–	–	–	–	–	**–**
2	PSE exposures	–	–	–	–	–	–	–	–	–	–	**–**
2a	*– Of which: domestic PSEs*	–	–	–	–	–	–	–	–	–	–	**–**
2b	*– Of which: foreign PSEs*	–	–	–	–	–	–	–	–	–	–	**–**
3	Multilateral development bank exposures	150	–	–	–	–	–	–	–	–	–	**150**
4	Bank exposures	–	–	32	–	–	–	–	–	–	–	**32**
5	Securities firm exposures	–	–	–	–	–	–	–	–	–	–	**–**
6	Corporate exposures	–	–	–	–	–	–	251	–	–	–	**251**
7	CIS exposures	–	–	–	–	–	–	–	–	–	–	**–**
8	Regulatory retail exposures	–	–	–	–	–	222	–	–	–	–	**222**
9	Residential mortgage loans	–	–	–	–	–	–	–	–	–	–	**–**
10	Other exposures which are not past due exposures	–	–	–	–	–	–	–	–	–	–	**–**
11	Significant exposures to commercial entities	–	–	–	–	–	–	–	–	–	–	**–**
12	**Total**	**150**	**–**	**32**	**–**	**–**	**222**	**251**	**–**	**–**	**–**	**655**

Decrease in total default risk exposure after CRM was mainly due to decrease in derivatives exposures with customers subject to STC approach.

10 Counterparty Credit risk (continued)

e. Counterparty default risk exposures (other than those to CCPs) by portfolio and PD range – for IRB approach (CCR4)

The following table sets out all the relevant parameters used for the calculation of counterparty default risk capital requirements for IRB exposures (other than those to CCPs).

At 31 December 2019 *PD scale*	*(a)* *EAD post-CRM* *HK$'M*	*(b)* *Average PD*	*(c)* *Number of obligors*	*(d)* *Average LGD*	*(e)* *Average maturity*	*(f)* *RWA* *HK$'M*	*(g)* *RWA density*
Portfolio (i) – Sovereign							
0.00 to < 0.15	21,823	0.02%	16	18.26%	0.80	782	3.58%
0.15 to < 0.25	0	0.00%	0	0.00%	–	0	0.00%
0.25 to < 0.50	0	0.00%	0	0.00%	–	0	0.00%
0.50 to < 0.75	0	0.00%	0	0.00%	–	0	0.00%
0.75 to < 2.50	0	0.00%	0	0.00%	–	0	0.00%
2.50 to < 10.00	0	0.00%	0	0.00%	–	0	0.00%
10.00 to < 100.00	20	13.77%	2	45.00%	4.46	46	237.63%
100.00 (Default)	0	0.00%	0	0.00%	–	0	0.00%
Sub-total	21,843	0.03%	18	18.29%	0.80	828	3.79%
Portfolio (ii) – Bank							
0.00 to < 0.15	138,883	0.05%	97	23.84%	0.79	12,428	8.95%
0.15 to < 0.25	3,087	0.22%	29	42.98%	1.57	1,415	45.83%
0.25 to < 0.50	1,832	0.39%	18	22.47%	1.12	594	32.43%
0.50 to < 0.75	3,723	0.53%	29	6.23%	0.92	327	8.79%
0.75 to < 2.50	1,276	1.34%	13	7.14%	1.12	185	14.49%
2.50 to < 10.00	87	2.67%	1	3.16%	1.00	6	7.42%
10.00 to < 100.00	79	13.77%	1	45.00%	2.56	198	249.81%
100.00 (Default)	0	0.00%	0	0.00%	–	0	0.00%
Sub-total	148,967	0.09%	188	23.64%	0.82	15,153	10.17%
Portfolio (iii) – Corporate							
0.00 to < 0.15	8,049	0.08%	307	43.75%	2.24	2,202	27.36%
0.15 to < 0.25	2,495	0.22%	259	61.45%	1.31	1,246	49.92%
0.25 to < 0.50	3,094	0.39%	261	37.26%	1.02	1,453	46.96%
0.50 to < 0.75	3,045	0.57%	232	50.56%	1.27	2,122	69.67%
0.75 to < 2.50	2,795	1.07%	144	54.18%	1.61	2,648	94.77%
2.50 to < 10.00	426	3.71%	67	62.08%	1.06	695	163.16%
10.00 to < 100.00	92	14.01%	28	72.06%	2.11	316	341.33%
100.00 (Default)	0	0.00%	0	0.00%	–	0	0.00%
Sub-total	19,996	0.50%	1,298	47.97%	1.67	10,682	53.42%
Total (sum of all portfolios)	190,806	0.13%	1,504	25.58%	0.91	26,663	13.97%

Increase in counterparty default risk exposures, number of obligors and RWA across portfolios was mainly driven by the acquisition of SC NEA Group and increase in derivatives volume. Movement in average PD, average LGD, average maturity and risk density were mainly due to change in portfolio and customer mix after the acquisition.

10 Counterparty Credit risk (continued)

f. Composition of collateral for counterparty default risk exposures (including those for contracts or transactions cleared through CCPs) (CCR5)

The following table sets out a breakdown of all types of collateral posted or recognized collateral received to support or reduce the exposures to counterparty default risk exposures in respect of derivative contracts or SFTs entered into, including contracts or transactions cleared through a CCP.

	(a)	*(b)*	*(c)*	*(d)*	*(e)*	*(f)*
	Derivative contracts				*SFTs*	
At 31 December 2019	*Fair value of recognized collateral received*		*Fair value of posted collateral*		*Fair value of recognized collateral received*	*Fair value of posted collateral*
Exposure classes	*Segregated HK$'M*	*Unsegregated HK$'M*	*Segregated HK$'M*	*Unsegregated HK$'M*	*HK$'M*	*HK$'M*
Cash – domestic currency	–	–	–	15	8,889	5,229
Cash – other currencies	–	1,595	–	2,026	7,436	67,416
Domestic sovereign debt	–	–	–	–	1,497	10,000
Other sovereign debt	–	–	–	–	44,724	4,991
Government agency debt	–	–	–	–	3,354	–
Corporate bonds	–	4,145	–	–	16,785	12,391
Equity securities	–	–	–	–	5,496	–
Other collateral	–	536	–	–	–	–
Total	**–**	**6,276**	**–**	**2,041**	**88,181**	**100,027**

Increase in fair value of collateral received on derivative contracts was mainly driven by the acquisition of SC NEA Group. Decrease in fair value of posted collateral on derivative contracts was mainly driven by the decrease in collateral requirements. Movement of fair value of recognized collateral received and posted collateral on SFTs was in line with the default risk exposure movement.

g. Credit-related derivatives contracts (CCR6)

The following table sets out the amount of credit-related derivative contracts, broken down into credit protection bought and credit protection sold.

At 31 December 2019	*(a) Protection bought HK$'M*	*(b) Protection sold HK$'M*
Notional amounts		
Single-name credit default swaps	–	–
Index credit default swaps	–	–
Total return swaps	15,427	1,749
Credit-related options	–	–
Other credit-related derivative contracts	10,090	8,784
Total notional amounts	**25,517**	**10,533**
Fair values		
Positive fair value (asset)	202	92
Negative fair value (liability)	(2,974)	(295)

Notional amounts and fair value increase were mainly driven by the acquisition of SC NEA Group.

10 Counterparty Credit risk (continued)

h. Exposures to CCPs (CCR8)

The following table sets out a comprehensive breakdown of exposures to both qualifying and non-qualifying CCPs and the respective RWAs, covering all types of credit risk exposures (including default risk exposures to the CCPs, credit risk exposures arising from initial margins posted, and default fund contributions made, to the CCPs).

	At 31 December 2019	*(a)* *Exposure after CRM HK$'M*	*(b)* *RWA HK$'M*
1	**Exposures of the AI as clearing member or client to qualifying CCPs (total)**		**2,542**
2	Default risk exposures to qualifying CCPs (excluding items disclosed in rows 7 to 10), – *of which:*	14,571	291
3	*(i) OTC derivative transactions*	–	–
4	*(ii) Exchange-traded derivative contracts*	14,571	291
5	*(iii) Securities financing transactions*	–	–
6	*(iv) Netting sets subject to valid cross-product netting agreements*	–	–
7	Segregated initial margin	–	
8	Unsegregated initial margin	443	9
9	Funded default fund contributions	180	2,242
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	–	–

Increase in exposures to CCPs was mainly due to acquisition of SCB Korea and the launch of new products during the period.

11 Securitization exposures

a. Qualitative disclosures related to securitization exposure (SECA)

Securitization activities are undertaken by the Group for risk-taking purpose by various businesses acting as investors. The Group adopts the SEC-ERBA approach to calculate the credit risk for asset securitizations in which it is an investing institution. There was no asset securitizations for which the Group was an originating institution under the regulatory consolidation scope.

The Group uses the following external credit assessment institutions to calculate the capital adequacy requirements: S&P, Moody's and Fitch Ratings.

The Group's securitization exposures are measured in accordance with the accounting policy described in note 2(i) of the 2019 consolidated financial statements.

The securitised assets have appropriate credit and market risk limits in place with exposures being monitored against these limits. There is also a periodic performance analysis of the underlying collateral pools through review of trustee reports, market research and monitoring the changes of their external ratings. In addition, for Corporate & Institutional Banking and Commercial Banking clients, there is an internal credit model in place to measure any change in the performance of the underlying collateral pools.

b. Securitization exposures in banking book (SEC1)

The following table sets out a breakdown of securitization exposures in the banking book.

	(a)	*(b)*	*(c)*	*(d)*	*(e)*	*(f)*	*(g)*	*(h)*	*(i)*
	Acting as originator (excluding sponsor)			*Acting as sponsor*			*Acting as investor*		
	Traditional	*Synthetic*	*Sub-total*	*Traditional*	*Synthetic*	*Sub-total*	*Traditional*	*Synthetic*	*Sub-total*
1 Retail (total) – of which:	**–**	**–**	**–**	**–**	**–**	**–**	**12,034**	**–**	**12,034**
2 residential mortgage	–	–	–	–	–	–	7,789	–	7,789
3 credit card	–	–	–	–	–	–	–	–	–
4 other retail exposures	–	–	–	–	–	–	4,246	–	4,246
5 re-securitization exposures	–	–	–	–	–	–	–	–	–
7 Wholesale (total) – of which:	**–**	**–**	**–**	**–**	**–**	**–**	**287**	**–**	**287**
8 loans to corporates	–	–	–	–	–	–	–	–	–
6 commercial mortgage	–	–	–	–	–	–	–	–	–
9 lease and receivables	–	–	–	–	–	–	–	–	–
10 other wholesale	–	–	–	–	–	–	287	–	287
11 re-securitization exposures	–	–	–	–	–	–	–	–	–

The movement during the period was mainly driven by the change in portfolio mix in the ordinary course of business.

11 Securitization exposures (continued)

c. Securitization exposures in trading book (SEC2)

The following table sets out a breakdown of securitization exposures in the trading book.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Acting as originator (excluding sponsor)			Acting as sponsor			Acting as investor		
	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
1 Retail (total) – of which:	**–**	**–**	**–**	**–**	**–**	**–**	**2,131**	**–**	**2,131**
2 residential mortgage	–	–	–	–	–	–	1,089	–	1,089
3 credit card	–	–	–	–	–	–	52	–	52
4 other retail exposures	–	–	–	–	–	–	990	–	990
5 re-securitization exposures	–	–	–	–	–	–	–	–	–
6 Wholesale (total) – of which:	**–**	**–**	**–**	**–**	**–**	**–**	**518**	**–**	**518**
7 loans to corporates	–	–	–	–	–	–	41	–	41
8 commercial mortgage	–	–	–	–	–	–	–	–	–
9 lease and receivables	–	–	–	–	–	–	–	–	–
10 other wholesale	–	–	–	–	–	–	477	–	477
11 re-securitization exposures	–	–	–	–	–	–	–	–	–

The movement during the period was mainly driven by transactions in ordinary course of business.

d. Securitization exposures in banking book and associated capital requirements – where AI acts as investor (SEC4)

The following table sets out the securitization exposures in the banking book where the Group acts as an investing institution of securitization transactions and the associated capital requirements.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
	Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap			
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	SEC-IRBA	SEC-ERBA (incl IAA)	SEC-SA	SEC-FBA	SEC-IRBA	SEC-ERBA (incl IAA)	SEC-SA	SEC-FBA	SEC-IRBA	SEC-ERBA (incl IAA)	SEC-SA	SEC-FBA
1 **Total exposures**	**9,691**	**2,199**	**144**	**287**	**–**	**–**	**12,321**	**–**	**–**	**–**	**2,971**	**–**	**–**	**–**	**238**	**–**	**–**
2 Traditional securitization	**9,691**	**2,199**	**144**	**287**	**–**	**–**	**12,321**	**–**	**–**	**–**	**2,971**	**–**	**–**	**–**	**238**	**–**	**–**
3 *Of which securitization*	***9,691***	***2,199***	***144***	***287***	**–**	**–**	***12,321***	**–**	**–**	**–**	***2,971***	**–**	**–**	**–**	***238***	**–**	**–**
4 *Of which retail underlying*	*9,691*	*2,199*	144	–	–	–	*12,034*	–	–	–	*2,569*	–	–	–	*206*	–	–
5 *Of which wholesale*	–	–	–	287	–	–	287	–	–	–	402	–	–	–	32	–	–
6 *Of which re-securitization*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
7 *Of which senior*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8 *Of which non-senior*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
9 Synthetic securitization	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
10 *Of which securitization*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
11 *Of which retail underlying*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
12 *Of which wholesale*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
13 *Of which re-securitization*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
14 *Of which senior*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
15 *Of which non-senior*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

12 Market risk

a. Qualitative disclosures related to market risk (MRA)

For market risk, the Group uses a stochastic asset-liability model approach for two guaranteed retirement funds and the standardized (market risk) approach for other exposures.

Further information regarding market risk governance and management is set out in note 34 (c) traded risk on pages 122 to 127 of the 2019 consolidated financial statements.

b. Market risk under STM approach (MR1)

The following table sets out the components of the market risk capital requirements calculated using the standardized (market risk) approach (STM approach).

	At 31 December 2019	*(a)* *RWA* *HK$'M*
	Outright product exposures	
1	Interest rate exposures (general and specific risk)[1]	82,674
2	Equity exposures (general and specific risk)	–
3	Foreign exchange (including gold) exposures[2]	1,720
4	Commodity exposures	2,121
	Option exposures	
5	Simplified approach	–
6	Delta-plus approach	595
7	Other approach	–
8	Securitization exposures	1,339
9	**Total**	**88,449**

[1] Increase in RWA from interest rate exposure was mainly due to the acquisition of SC NEA Group.
[2] Decrease in foreign exchange exposures was mainly due to the decrease in structural position.

c. Market risk exposures on guaranteed retirement funds

The capital requirement for the Group's guaranteed retirement funds is calculated based on the potential shortfall between the estimated returns from the funds and the guaranteed returns. The projected returns are estimated using a simulation approach with a 99% confidence level. The model is back-tested against actual results. As of 31 December 2019, the accounting provisions exceed the potential shortfalls, hence there are no additional capital requirements.

13 Interest rate risk

a. Interest rate risks: Objectives and guidelines for interest rate risk management in the banking book ("IRRBBA")

Overview

The Group defines Interest Rate Risk in the Banking Book ("IRRBB") as the potential for loss of future earnings or economic value following adverse movements in interest rates, which arises from a mismatch in the re-pricing profile of assets, liabilities, and off-balance sheet items in the banking book. This risk is incorporated in the Capital and Liquidity Risk Type Framework, as a risk sub-type of Capital and Liquidity Risk.

IRRBB is managed at country level by the ALCO and at regional level by the RALCO and is independently monitored by Treasury Risk and Finance. IRRBB is also subject to Group Internal Audit and model governance. IRRBB models are independently validated and approved by a designated model approval body.

Measurement of IRRBB

The Group uses two key metric types for measuring IRRBB: Net Interest Income ("NII") Sensitivity, an income measure which quantifies the potential change in projected net interest income over a one-year horizon from defined movements in interest rates; and Economic Value of Equity ("EVE"), a value measure which estimates the potential change in the present value of the Group's Banking Book assets and liabilities from defined movements in interest rates. Both NII and EVE are monitored monthly against defined Risk Appetite limits.

Methodology

NII and EVE are calculated under various interest rate scenarios, including parallel and non-parallel shifts and a range of internally designed scenarios that assess vulnerabilities in the Group's business model and key behavioural assumptions under interest rate shocks and stresses. Risk Appetite limits are monitored with respect to six interest rate scenarios prescribed by the HKMA.

The model assumptions used internally do not differ from the ones set by the HKMA.

The EVE is calculated based on the assumption that expired interest rate sensitive positions are not replaced. The cash flows include commercial spread components and financial investments consider credit dependent spread components. Cash flows including commercial margins and other spread components are discounted with a risk-free rate curve per currency (based on IBOR and Swap market rates).

The NII is computed based on the assumption of a constant balance sheet excluding non-rate-sensitive items. The non-maturing deposit ("NMD") are repriced based on the NMD behavioral model while the managed rate asset is repriced after the first business day. Non-maturing positions (which are not subject to any behavioral assumptions / models) are 100% repriced after the first business day.

The average repricing maturity of NMD has been determined based on the relationship between market interest rate and interest rate offered to the customer with consideration of the historical run off behavior.

As at 31 December 2019, the Group's average and longest repricing maturity assigned to non-maturing deposits are 0.33 year and 5 years respectively.

Prepayment model has been used to forecast prepayment rates on retail fixed rate loans and floating rate mortgage portfolios without prime rate cap.

13 Interest rate risk (continued)

a. Interest rate risks: Objectives and guidelines for interest rate risk management in the banking book ("IRRBBA") (continued)

Methodology (continued)

The redemption rates of the term deposits have been determined via the parametric time series model.

The Group has identified certain automatic options positions in the banking book. Statistical models have been used for computing the values of the automatic options for EVE calculation. The optionality is split out and priced in isolation using applicable method.

Adverse currency impact on EVE are aggregated for significant currencies following HKMA's standardized framework.

Management of IRRBB

The Group uses Funds Transfer Pricing ("FTP") to transfer re-pricing risk from the business to Treasury Markets, including that arising from structural positions such as the investment of equity and non-maturity deposit balances. For non-maturity deposits, the assumed duration is dependent on the portion that can be considered stable and the degree to which these balances are considered price sensitive. The re-pricing risk transferred to Treasury Markets is managed on an integrated basis with a securities portfolio maintained for liquidity and investment management purposes. Any basis risk that is not transferred and cannot be hedged by Treasury Markets is reported and overseen at Country ALCO and RALCO.

Re-pricing risk arising within Treasury Markets is managed using a combination of on-balance sheet and derivative hedges; derivative hedges are subject to Fair Value and Cash Flow Hedge accounting treatment where available under Hong Kong Financial Reporting Standards. Treasury Markets' interest rate risk positions and limits are independently monitored by the Traded Risk Management ("TRM") function.

b. Quantitative information on interest rate risk in banking book ("IRRBB1")

The interest rate risk sensitivity figures presented in the IRRBB1 table represent the effect of six interest rate scenarios defined by HKMA on the expected present value of the banking book as well as the impact of the two parallel shock scenarios on the net interest income of the banking book.

HK$'M		*(a)*	*(b)*	*(c)*	*(d)*
		ΔEVE		*ΔNII*	
		Change in economic value of equity		*Change in net interest income*	
	Period	*At 31 December 2019*	*At 30 June 2019*	*At 31 December 2019*	*At 30 June 2019*
1	Parallel up	6,372	N/A	1,536	N/A
2	Parallel down	2,553	N/A	(1,512)	N/A
3	Steepener	794	N/A		
4	Flattener	4,097	N/A		
5	Short rate up	4,058	N/A		
6	Short rate down	1,621	N/A		
7	**Maximum**	6,372	N/A	1,536	N/A
	Period	**31 December 2019**		**30 June 2019**	
8	**Tier 1 capital**	138,097		N/A	

13 Interest rate risk (continued)

b. Quantitative information on interest rate risk in banking book ("IRRBB1") (continued)

As of 31 December 2019, the most adverse of the six HKMA interest rate scenarios with regard to EVE was the "Parallel up" scenario (a constant parallel shock up across all time buckets), resulting in an adverse change of economic value of equity of HKD 6,372 million, representing an effect equal to 4.6% of tier 1 capital.

The more adverse of the two parallel interest rate scenarios with regard to NII over the next 12 months was the "Parallel up" scenario, resulting in a potential loss of HKD 1,536 million.

The prior period information is not available as the measurement of IRRBB based on standardized framework (in accordance with the Supervisory Policy Manual IR1 issued by the HKMA) was implemented from 1 July 2019.

14 Remuneration (REMA/REM1/REM2/REM3)

Pursuant to Section 3 of CG-5 on Guideline on a Sound Remuneration System of the Supervisory Policy manual issued by the HKMA and to comply with the Banking (Disclosure) Rules Section 16ZS-16ZV, the following disclosures are required:

a) Information relating to the governance structure of the remuneration system

b) Information relating to the design and structure of the remuneration processes

c) Description of the ways in which current and future risks are taken into account in the remuneration processes

d) Description of the ways in which the Group seeks to link performance during a performance measurement period with levels of remuneration

e) Description of the ways in which the Group seeks to adjust remuneration to take account of longer-term performance

f) Description of the different forms of variable remuneration that the Group utilises and the rationale for using these different forms

g) Number of meetings held by the Board Remuneration Committee during the financial year and remuneration paid to the staff

The Group adopts the remuneration policy and systems of SC PLC. Please refer to the Directors' Remuneration Report in the Annual Report of SC PLC for details of the Board Remuneration Committee, the major characteristics of the remuneration system, and how risks are taken into account in the remuneration processes.

h) Aggregate quantitative information on remuneration for Senior Management and Key Personnel (Note 1) for the years ended 31 December 2019 and 31 December 2018 are as follows:

14 Remuneration (REMA/REM1/REM2/REM3) (continued)

Analysis of remuneration split between fixed and variable remuneration [2]

	2019 Senior Management [1] HK$'000	*2019* Key Personnel [1] HK$'000	*2018* Senior Management [1] HK$'000	*2018* Key Personnel [1] HK$'000
Fixed remuneration				
– Cash-based	65,372	71,779	49,491	48,075
– Shares and shared-linked instruments	–	–	–	–
– Others	–	–	–	–
Variable remuneration				
– Up front cash	33,085	29,236	12,821	13,774
– Up front shares	13,958	15,119	9,447	7,686
– Deferred cash	19,655	19,662	11,309	8,154
– Deferred shares				
Restricted shares	28,455	20,645	12,718	9,300
Performance shares	–	–	–	–
– Others	–	–	–	–
Total remuneration	160,525	156,441	95,786	86,989
Number of staff at 31 December	13	26	11	15

Analysis of deferred remuneration [2]

	2019 Senior Management [1] HK$'000	*2019* Key Personnel [1] HK$'000	*2018* Senior Management [1] HK$'000	*2018* Key Personnel [1] HK$'000
At 1 January	63,524	64,186	48,563	58,714
Dividends granted during the year	508	593	450	554
Awarded during the year	48,110	40,307	24,028	17,454
Paid out during the year	(29,503)	(29,512)	(9,682)	(8,865)
Vested and lapsed during the year	(125)	(1,890)	–	–
Non vested due to performance adjustment	(2,249)	(2,238)	–	–
Impact of changes to the population during the year [3]	44,170	35,148	–	–
At 31 December	124,435	106,594	63,359	67,857
Vested during the year	29,192	30,025	9,372	10,124

14 Remuneration (REMA/REM1/REM2/REM3) (continued)

Analysis of total amount of outstanding deferred remuneration[2]

	2019		*2018*	
	Senior Management[1] HK$'000	*Key Personnel[1] HK$'000*	*Senior Management[1] HK$'000*	*Key Personnel[1] HK$'000*
At 31 December				
– Vested	1,426	14,570	2,745	11,738
– Not-vested	123,009	92,024	60,614	56,119
	124,435	106,594	63,359	67,857
At 31 December				
– Cash	38,125	34,720	19,294	15,699
– Shares	86,310	71,874	44,065	52,158
– Cash-linked instruments	–	–	–	–
– Others	–	–	–	–
	124,435	106,594	63,359	67,857
Total amount of remuneration exposed to ex post explicit and / or implicit adjustments[4]				
– Deferred remuneration (outstanding)	124,435	106,594	63,359	67,857
– Retained remuneration	18,727	18,712	4,359	3,920

Analysis of adjustments of deferred remuneration[2]

	2019		*2018*	
	Senior Management[1] HK$'000	*Key Personnel[1] HK$'000*	*Senior Management[1] HK$'000*	*Key Personnel[1] HK$'000*
Total amount of adjustments during the financial year due to:				
– ex post explicit adjustments	(2,249)	(2,238)	–	–
– ex post implicit adjustments	14,160	11,322	(12,284)	(13,997)

14 Remuneration (REMA/REM1/REM2/REM3) (continued)

Analysis of guaranteed bonuses, sign-on awards and severance payments during the year[2]

	2019		*2018*	
	Senior Management[1] *HK$'000*	*Key Personnel[1]* *HK$'000*	*Senior Management[1]* *HK$'000*	*Key Personnel[1]* *HK$'000*
Guaranteed bonuses awarded	–	–	–	–
Sign-on awards made	–	–	–	–
Severance payments awarded and made	625	439	–	–
Highest severance payments awarded	625	439	–	–
Number of beneficiaries of guaranteed bonuses awarded	–	–	–	–
Number of beneficiaries of sign-on awards made	–	–	–	–
Number of beneficiaries of severance payments awarded and made	1	1	–	–

1 As defined in the CG-5 Guideline on a Sound Remuneration System issued by the HKMA, senior management are those who are responsible for oversight of either the Group's company-wide strategy or activities or those of the Group's material business lines. Key Personnel are individual employees whose duties or activities in the course of their employment involve the assumption of material risk or the taking on of material exposures on behalf of the Group.

2 The population of Senior Management and Key Personnel in 2019 differs from that of 2018. Comparative amounts for 2018 in this note have not been restated and represent the organization structure prior to the acquisition of SCB China and SC NEA Group and are therefore not directly comparable to the 2019 amounts.

3 Changes to the population including leavers, joiners and the structure change in 2019.

4 Ex post adjustments are adjustments made after the awards are granted.

15 Operational risk

The Group adopts the standardized (operational risk) approach for assessing capital requirements for operational risk.

Further information regarding operational risk governance and management is set out in note 34(g) on pages 137 to 138 of the 2019 consolidated financial statements.

16 Analysis of fee and commission income

The products constituting not less than 10% of the total amount of fee and commission income are as follows:

	2019 *HK$'M*
Insurance services	2,016
Financial market products	2,826
Investment services	2,042
Credit cards related fees	1,423

17 International claims

International claims are on-balance sheet exposures of counterparties based on the location of those counterparties after taking into account the transfer of risk. Recognized risk transfer refers to the reduction of exposure to a particular country by an effective transfer of credit risk to a different country. For a claim on the branch of a bank or other financial institution, the risk will be transferred to the country where its head office is situated.

International claims on individual countries or segments, after risk transfer, amounting to 10% or more of the aggregated international claims are shown as below:

At 31 December 2019	*Banks* *HK$'M*	*Official Sector* *HK$'M*	*Non-bank Financial institution* *HK$'M*	*Non-financial private sector* *HK$'M*	*Total* *HK$'M*
Developed countries	181,705	61,468	14,221	29,469	286,863
– of which United Kingdom (excluding Guernsey, Isle of Man and Jersey)	117,892	257	232	4,177	122,558
Offshore centres	10,747	890	27,259	113,603	152,499
– of which Hong Kong SAR	5,004	443	20,344	95,223	121,014
Developing Asia and Pacific	154,630	28,041	9,173	107,830	299,674
– of which China	113,515	5,953	7,788	81,857	209,113

18 Advances to customers analysed by industry sector

The analysis of gross advances to customers by industry sector is based on the categories used by the HKMA.

	At 31 December 2019 HK$'M	*% of advances covered by collateral or other securities*
Gross advances for use in Hong Kong		
Industrial, commercial and financial		
– Property development	19,758	31%
– Property investment	25,635	84%
– Financial concerns	38,630	49%
– Stockbrokers	6,761	58%
– Wholesale and retail trade	16,759	21%
– Manufacturing	20,665	9%
– Transport and transport equipment	7,609	45%
– Recreational activities	1,043	12%
– Information technology	3,769	1%
– Others	24,097	13%
Individuals		
– Advances for the purchase of flats in the Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme	743	100%
– Advances for the purchase of other residential properties	219,259	100%
– Credit card advances	22,623	0%
– Others	37,800	38%
Total gross advances for use in Hong Kong	445,151	
Trade finance	79,622	5%
Trade bills	1,884	5%
Gross advances for use outside Hong Kong	485,109	52%
Gross advances to customers	1,011,766	55%

The above balances do not include inter-company loans and advances.

18 Advances to customers analysed by industry sector (continued)

The amount of impaired and overdue advances to customers and individually and collectively assessed impairment provision for industry sectors which constitute not less than 10% of the Bank and its subsidiaries' total advances to customers are as follows:

	Impaired advances to customers HK$'M	*Overdue advances to customers HK$'M*	*Stage 3 expected credit loss provision HK$'M*	*Stage 1 & 2 expected credit loss provision HK$'M*	*Provision charge HK$'M*
At 31 December 2019					
Advances for the purchase of other residential properties	102	74	3	6	3
Gross advances for use outside Hong Kong	3,043	1,356	1,678	951	682

19 Loans and advances to customers by geographical location

The analysis of gross advances to customers by geographical location is in accordance with the location of counterparties, after taking into account of any recognised risk transfer.

At 31 December 2019	*Total gross loans and advances to customers HK$'M*	*Impaired advances to customers HK$'M*	*Overdue advances to customers HK$'M*	*Stage 3 expected credit loss provision HK$'M*	*Stage 1 & 2 expected credit loss provision HK$'M*
Hong Kong	443,207	2,023	930	812	959
Mainland China	161,903	1,031	794	661	450
South Korea	264,851	1,065	415	882	354
Taiwan	68,090	1,131	65	287	262
Others	73,715	–	–	–	64
Total	**1,011,766**	**5,250**	**2,204**	**2,642**	**2,089**

20 Overdue advances to customers

	At 31 December 2019 *HK$'M*	*% of advances to customers*
Gross advances to customers which have been overdue with respect to either principal or interest for periods of:		
6 months or less but over 3 months	720	0.07%
1 year or less but over 6 months	243	0.03%
Over 1 year	1,241	0.12%
	2,204	0.22%

	At 31 December 2019 HK$'M
Fair value of collateral held against the covered portion of overdue advances to customers	1,160
Covered portion of overdue advances to customers	607
Uncovered portion of overdue advances to customers	1,597

The covered portion of overdue advances to customers represents the amount of collateral held against outstanding balances. It does not include any collateral held over and above outstanding exposures.

The collateral held in respect of overdue advances to customers consists of cash, properties, securities and government guarantee.

	At 31 December 2019 HK$'M
Stage 3 expected credit loss provision against advances to customers overdue more than 3 months	1,289

As at 31 December 2019, there were no overdue advances to banks and other financial institutions, debt securities and other assets.

21 Rescheduled advances to customers

	At 31 December 2019	
	HK$'M	*% of advances to customers*
Rescheduled advances to customers	2,349	0.23%

Rescheduled advances are those advances, which have been restructured or renegotiated because of a deterioration in the financial position of the borrowers, or the inability of the borrowers to meet the original repayment schedule and for which the revised repayment terms are non-commercial to the Group. Rescheduled advances to customers are stated net of any advances that have subsequently become overdue for over 3 months and reported as overdue advances in note 20.

As at 31 December 2019, there were no rescheduled advances to banks and other financial institutions, debt securities and other assets.

22 Mainland Activities

	On-balance sheet exposure HK$'M	*Off-balance sheet exposure HK$'M*	*Total HK$'M*
At 31 December 2019			
(i) Central government, central government-owned entities and their subsidiaries and joint ventures ("JVs")	69,702	12,432	82,134
(ii) Local governments, local government-owned entities and their subsidiaries and JVs	5,332	426	5,758
(iii) PRC nationals residing in Mainland China or other entities incorporated in Mainland China and their subsidiaries and JVs	146,705	20,678	167,383
(iv) Other entities of central government not reported in item (i) above	3,838	286	4,124
(v) Other entities of local governments not reported in item (ii) above	986	455	1,441
(vi) PRC nationals residing outside Mainland China or entities incorporated outside Mainland China where the credit is granted for use in Mainland China	27,862	2,666	30,528
(vii) Other counterparties where the exposures are considered by the reporting institution to be non-bank Mainland China exposures	22,745	4,164	26,909
Total	277,170	41,107	318,277
Total assets after provision	1,635,483		
On-balance sheet exposures as percentage of total assets	16.95%		

The off-balance sheet exposure represents the amount at risk should the contract be fully drawn upon and the client default. As the facilities may expire without being drawn upon, the contractual amounts do not represent future cash flows.

22 Mainland Activities (continued)

The note is compiled in accordance with the completion instructions of the return of Mainland activities ("MA(BS)20"), and hence only relates to the Bank and SCB China.

23 Off-balance sheet exposures

Contingent liabilities and commitments

Note 33(a) on page 94 of the 2019 consolidated financial statements list out a summary of the contractual amounts of each significant contingent liability and commitment.

The total credit risk weighted amount (before 1.06 scaling factor) of contingent liabilities and commitments is: HK$ 58,275m.

Acronyms

AI	Authorized institution
AIRB	Advanced internal ratings-based approach
ALCO	Asset and Liability Committee
ASA	Alternative standardized approach
ASF	Available stable funding
AT1	Additional tier 1
Bank	Standard Chartered Bank (Hong Kong) Limited
BCBS	Basel Committee on Banking Supervision
BCR	Banking (Capital) Rules
BDR	Banking (Disclosure) Rules
BIA	Basic indicator approach
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
CF	Commodities finance
CIS	Collective investment scheme
CRC	Comprehensive risk charge
CRM	Credit risk mitigation
CVA	Credit valuation adjustment
D-SIB	Domestic systematically 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 systematically important bank
HKMA	Hong Kong Monetary Authority
HVCRE	High-volatility commercial real estate
HQLA	High quality liquid assets
IMM	Internal models approach
IMM (CCR)	Internal models (counterparty credit risk) approach
ICAAP	Internal Capital Adequacy Assessment Process
IPRE	Income-producing real estate
IRB	Internal ratings-based approach
IRC	Incremental risk charge
JCCyB	Jurisdictional countercyclical capital buffer
JVs	Joint ventures
LAC	Loss-absorbing capacity
LCR	Liquidity coverage ratio
LGD	Loss given default
LMR	Liquidity Maintenance Ratio
LR	Leverage Ratio
LTA	Look through approach
MBA	Mandate-based approach
MSRs	Mortgage servicing rights
N/A	Not applicable
NSFR	Net stable funding ratio
OF	Object finance
OTC	Over-the-counter
PD	Probability of default
PF	Project finance
PFE	Potential future exposure
PRC	People's Republic of China
PVA	Prudential Valuation Adjustments
PSE	Public sector entity
QRRE	Qualifying revolving retail exposures
RC	Replacement cost
RSF	Required stable funding
RW	Risk-weight
RWA	Risk-weighted asset/risk-weighted amount
S&P	Standard & Poor's
SA-CCR	Standardized approach for counterparty credit risk
SEC-ERBA	Securitization external ratings-based approach
SEC-FBA	Securitization fall back approach
SEC-IRBA	Securitization internal ratings-based approach
SEC-SA	Securitization standardized approach
SFT	Securities financing transaction
SME	Small and Medium Enterprises
SRW	Supervisory risk-weights
STC	Standardized (credit risk) approach
STM	Standardized (market risk) approach
STO	Standardized (operational risk) approach
VaR	Value at risk