BEA東亞銀行

The Bank of East Asia, Limited
東亞銀行有限公司

Banking Disclosure Statement
For the period ended
31 December 2019

(Unaudited)

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Introduction

Purpose

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

These banking disclosures are governed by the Group's disclosure policy, which has been approved by the Board. The disclosure policy sets out the governance, control and assurance requirements for publication of the document. While the banking disclosure statement is not required to be externally audited, the document has been subject to independent review in accordance with the Group's policies on disclosure and its financial reporting and governance processes.

Basis of preparation

Except where indicated otherwise, the financial information contained in this Banking Disclosure Statement has been prepared on the basis of regulatory scope of consolidation specified by the HKMA to the Bank. The basis of consolidation for regulatory purposes is different from that for accounting purposes.

The banking disclosure statement

The HKMA has implemented the final standards on the Revised Pillar 3 Disclosure Requirements issued by the Basel Committee on Banking Supervision in January 2015, and also incorporated the BCBS Pillar 3 disclosures requirements – consolidated and enhanced framework finalized in March 2017 in the latest BDR. These disclosures are supplemented by specific additional requirements of the HKMA set out in the BDR. The banking disclosure statement includes the information required under the BDR.

According to the BDR, disclosure of comparative information is not required unless otherwise specified in the standard disclosure templates.

Table OVA: Overview of risk management

The Group has established a risk governance and management framework in line with the requirements set out by the HKMA and other regulators. This framework is built around a structure that enables the Board and Senior Management to discharge their risk management-related responsibilities with appropriate delegation and checks and balances. These responsibilities include defining risk appetite in accordance with the Group's business strategies and objectives, formulating risk policies that govern the execution of those strategies, and establishing procedures and limits for the approval, control, monitoring, and remedy of risks.

The Risk Committee stands at the highest level of the Group's risk governance structure below the Board. The Risk Committee provides direct oversight over the formulation of the Group's risk appetite, and sets the levels of risk that the Group is willing to undertake with regard to its financial capacity, strategic direction, prevailing market conditions, and regulatory requirements.

The Group faces a variety of risks that could affect its reputation, operations, and financial conditions. Under the ERM framework, the principal risks include credit risk, interest rate risk, market risk, liquidity risk, operational risk, reputation risk, strategic risk, legal risk, compliance risk, technology risk, business continuity risk, and new product and business risk.

The Group reviews the risk profile through regular assessments of both qualitative and quantitative risk factors to determine its tolerance of prevailing risk levels against the applicable risk appetites annually approved by the Board.

The Risk Committee also ensures that the Group's risk appetite is reflected in the policies and procedures that Senior Management adopt to execute their business functions. Through the Group's management committees, including the Crisis Management Committee, Risk Management Committee, Credit Committee, Asset and Liability Management Committee, and Operational Risk Management Committee – and with overall co-ordination by the Risk Management Division – the Risk Committee regularly reviews the Group's risk management framework and ensures that all important risk-related tasks are performed according to established policies with appropriate resources.

The Group has adopted the "Three Lines of Defence" risk management structure to ensure that roles and responsibilities in regard to risk management within the Group are clearly defined.

The first line of defence comprises the Risk Owners, who are heads of business units or support units of the Bank Group, together with staff under their management. They are primarily responsible for the day-to-day risk management of their units, including establishing and executing specific risk control mechanisms and detailed procedures.

The second line of defence consists of the Risk Controllers who are designated staff responsible for setting out a risk management governance framework, monitoring risks independently and supporting the management committees in their oversight of risk management for the Bank Group.

The third line of defence is the Internal Audit Division, which is responsible for providing assurance as to the effectiveness of the Group's risk management framework including risk governance arrangements.

The Group is committed to fostering strong risk culture embedded with risk ownership, accountability and awareness of all staff. Such environment for risk management is cultivated by both "top-down" and "bottom-up" channels.

"Top-down" channel is reflected in the Board's approval of the Risk Appetite Statement to define the risk tolerance for the Group, so that risk policies and limits can be designed specifically and accordingly. These policies and limits are accessible by all staff on internal electronic platform. Significant updates are communicated to staff by way of regular electronic bulletin.

Table OVA: Overview of risk management (continued)

"Bottom-up" channel is reinforced by staff's awareness of adherence to risk policies and limits, avoidance of excessive risk-taking, and regular information reporting on different risk areas to the Management Committees, the Risk Committee and the Board.

To provide the Board and Senior Management with a clear view of the Group's exposures to different risk types, information on both quantifiable and non-quantifiable risks is reported to the Management Committees, the Risk Committee and the Board at pre-determined schedule for review and discussion. The Group's enterprise risk management framework helps define the scope of risk information, such that those of asset quality, liquidity, profitability, portfolio mix, capital adequacy etc. on Group level and functional unit level are relevant. The information is analysed with regard to factors such as the Group's risk profile, risk management strategies and market statistics.

The Group maintains risk management systems to measure and monitor exposures, identify areas of high risk, and ensure that the magnitude of risk is within the tolerance level. In particular, the credit, market and operational risk management systems are also used for assessing the capital adequacy. Their features are as follows:

(a) Credit risk measurement system

The Group has established policies, procedures, and rating systems to identify, measure, monitor, control, and report on credit risk. In this connection, guidelines for management of credit risk have been laid down in the Group's Credit Risk Management Manual. These guidelines stipulate delegated lending authorities, credit underwriting criteria, a credit monitoring process, an internal rating structure, credit recovery procedures and a provisioning policy. They are reviewed and enhanced on an ongoing basis to cater for market changes, statutory requirements, and best practices in risk management processes.

The Group's credit risk management for the major types of credit risk is depicted as follows:

(i) Corporate and bank credit risk

The Group has laid down policies and procedures to evaluate the potential credit risk of a particular counterparty or transaction and to approve the transaction. For corporate and bank customers, the Group has different internal rating systems that are applied to each counterparty. For exposure classified as Specialised Lending in particular, supervisory slotting criteria are used. To monitor concentration risk, the Group has preset limits for exposures to individual industries and for borrowers and groups of borrowers. The Group also has a review process to ensure that the level of review and approval is proper and will depend on the size of the facility and rating of the credit.

The Group undertakes on-going credit analysis and monitoring at several levels. The policies are designed to promote early detection of counterparty, industry or product exposures that require special monitoring. The overall portfolio risk as well as individual impaired loans and potential impaired loans are monitored on a regular basis.

(ii) Retail credit risk

The Group's retail credit policy and approval process are designed for the fact that there are high volumes of relatively homogeneous and small value transactions in each retail loan category. The design of internal rating system and formulation of credit policies are primarily based on the demographic factors and the loss experience of the loan portfolios. The Group monitors its own and industry experience to determine and periodically revise product terms and desired customer profiles.

(iii) Credit for treasury transactions

The credit risk of the Group's treasury transactions is managed in the same way as the Group manages its corporate and bank lending risk. The Group applies an internal rating system to its counterparties and sets individual counterparty limits.

(iv) Credit–related commitment

The risks involved in credit-related commitments and contingencies are essentially the same as the credit risk involved in extending loan facilities to customers. These transactions are subject to the same credit application, portfolio maintenance and collateral requirements as for customers applying for loans.

Table OVA: Overview of risk management (continued)

(b) Market risk measurement system

The Group has formulated market risk management policy to identify, measure, monitor, control, and report on the market risk, where appropriate, to allocate adequate capital to cover those risks. The market risk management policy and core control limits are approved by the Board and are monitored and regularly reviewed to align with market changes, statutory requirements, and best practices in risk management processes.

For measuring and monitoring of market risk, market risk analysis is conducted on different dimensions, such as by risk factors, by regions, by currencies in the form of potential loss and impact to capital adequacy. Risk limits and management action triggers are set with reference to the nature, volume of transaction and risk appetite of the Bank. Multiple systems are employed to facilitate the calculation, measurement and analysis of market risk.

Hedging and risk mitigation are performed corresponding to the market risk exposures. Various strategies, including the use of traditional market instruments, such as interest rate swaps, or dynamic hedging are adopted by the Bank according to the complexity of the corresponding portfolio.

The effectiveness of the hedging results would be independently monitored by various risk management functions.

(c) Operational risk measurement system

Under the existing risk management framework, operational risk is monitored on a Bank Group basis. All operational risk incidents are captured in a centralised database. MIS reports with analysis of operational losses by event types, comparatives figures of current and prior period, etc. are presented to Operational Risk Management Committee on a regular basis. Amongst others, frequency and severity of operational risk incidents are key measurement to assess the operational risk profile of the Bank Group.

A centralised operational risk management function, Operational Risk Management Department under the Risk Management Division, is responsible for coordinating the establishment / development of standard tools to identify, assess, monitor and report the operational risk inherent in the material products, activities, processes and systems of the Bank Group. A documented set of process / procedures for control and mitigation of operational risk is in place to keep pace with the growth / changes in business activities (e.g. new products / markets, business expansion) and infrastructure of the Bank Group. For identified operational risk, appropriate measures will be taken to determine if the Bank Group should accept the risk, control / mitigate the risk, transfer the risk (such as taking out of insurance policies) or avoid the risk (by withdrawing completely from the business activity).

Stress testing is an integral part of the Group's risk management. The Group regularly performs stress-tests on the principal risks, where appropriate, covering the Group's major portfolios such as lending and investments. Various stress testing methodologies and techniques including sensitivity tests, scenario analyses and reverse stress testing are adopted to assess the potential impact of stressed business conditions (including hypothetical situations such as a significant economic downturn in Mainland China and Hong Kong) on the Group's financial positions, in particular, capital adequacy, profitability, and liquidity. Whenever necessary, a prompt management response will be developed and executed to mitigate potential impacts.

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Template KM1 - Key prudential ratios

	(HK$ million)	31 Dec 2019	30 Sep 2019	30 Jun 2019	31 Mar 2019	31 Dec 2018
	Regulatory capital (amount)					
1	Common Equity Tier 1 (CET1)	75,313	74,468	73,715	75,825	74,513
2	Tier 1	89,276	89,503	83,673	85,783	84,825
3	Total capital	98,625	102,786	97,885	100,128	99,027
	RWA (amount)					
4	Total RWA	484,195	470,728	482,430	501,233	475,714
	Risk-based regulatory capital ratios (as a percentage of RWA)					
5	CET1 ratio (%)	15.55%	15.82%	15.28%	15.13%	15.66%
6	Tier 1 ratio (%)	18.44%	19.01%	17.34%	17.11%	17.83%
7	Total capital ratio (%)	20.37%	21.84%	20.29%	19.98%	20.82%
	Additional CET1 buffer requirements (as a percentage of RWA)					
8	Capital conservation buffer requirement (%)	2.500%	2.500%	2.500%	2.500%	1.875%
9	Countercyclical capital buffer requirement (%)	0.882%	1.131%	1.090%	1.007%	0.774%
10	Higher loss absorbency requirements (%) (applicable only to G-SIBs or D-SIBs)	1.000%	1.000%	1.000%	1.000%	0.750%
11	Total AI-specific CET1 buffer requirements (%)	4.382%	4.631%	4.590%	4.507%	3.399%
12	CET1 available after meeting the AI's minimum capital requirements (%)	11.05%	11.32%	10.78%	10.63%	11.16%
	Basel III leverage ratio					
13	Total leverage ratio (LR) exposure measure	873,419	860,919	895,940	897,695	862,745
14	LR (%)	10.22%	10.40%	9.34%	9.56%	9.83%
	Liquidity Coverage Ratio (LCR)					
15	Total high quality liquid assets (HQLA)	55,748	50,688	54,771	56,872	60,377
16	Total net cash outflows	31,825	30,499	32,049	33,876	33,879
17	LCR (%)	175.72%	166.91%	171.72%	169.82%	180.47%
	Net Stable Funding Ratio (NSFR)					
18	Total available stable funding	525,048	513,923	537,746	537,846	538,482
19	Total required stable funding	464,523	461,568	467,499	479,956	458,754
20	NSFR (%)	113.03%	111.34%	115.03%	112.06%	117.38%

Template OV1: Overview of RWA

The following table provides an overview of capital requirements in terms of a detailed breakdown of RWAs for various risks as at 31st December 2019 and 30th September 2019 respectively:

		(a)	(b)	(c)
		RWA		Minimum capital requirements
	(HK$ million)	December 2019	September 2019	December 2019
1	**Credit risk for non-securitization exposures**	**380,363**	**365,438**	**32,064**
2	Of which STC approach	39,857	48,237	3,189
3	Of which foundation IRB approach	317,767	293,712	26,947
4	Of which supervisory slotting criteria approach	22,739	23,489	1,928
6	**Counterparty default risk and default fund contributions**	**3,454**	**4,865**	**286**
7a	Of which CEM	1,941	2,750	164
7b	Of which CEM (such a risk to CCPs which is not included in row 7a)	195	264	16
9	Of which others	1,318	1,851	106
10	CVA risk	725	943	58
11	Equity positions in banking book under the simple risk-weight method and internal models method	16,065	16,229	1,362
15	Settlement risk	0	0	0
16	**Securitization exposures in banking book**	**0**	**0**	**0**
17	Of which SEC-IRBA	0	0	0
18	Of which SEC-ERBA (including IAA)	0	0	0
19	Of which SEC-SA	0	0	0
19a	Of which SEC-FBA	0	0	0
20	**Market risk**	**13,260**	**14,742**	**1,061**
21	Of which STM approach	987	2,178	79
22	Of which IMM approach	12,273	12,564	982
24	Operational risk	34,878	34,460	2,790
24a	Sovereign concentration risk	0	0	0
25	Amounts below the thresholds for deduction (subject to 250% RW)	16,566	16,436	1,405
26	Capital floor adjustment	0	0	0
26a	**Deduction to RWA**	**3,619**	**3,567**	**290**
26b	Of which portion of regulatory reserve for general banking risks and collective provisions which is not included in Tier 2 Capital	474	395	38
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	3,145	3,172	252
27	**Total**	**461,692**	**449,546**	**38,736**

The minimum capital requirements presented in this template are after application of the 1.06 scaling factor, where applicable.

Template PV1: Prudent valuation adjustments

The following table shows a detailed breakdown of the constituent elements of valuation adjustment that have not been taken into account in the calculation of the amount of the Group's retained earnings or other disclosed reserves as at 31st December, 2019:

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	(HK$ million)	Equity	Interest rates	FX	Credit	Commodities	Total	Of which: In the trading book	Of which: In the banking book
1	Close-out uncertainty, of which:	9	-	-	-	-	9	9	-
2	*Mid-market value*	-	-	-	-	-	-	-	-
3	*Close-out costs*	-	-	-	-	-	-	-	-
4	*Concentration*	9	-	-	-	-	9	9	-
5	Early termination	-	-	-	-	-	-	-	-
6	Model risk	-	-	-	-	-	-	-	-
7	Operational risks	-	-	-	-	-	-	-	-
8	Investing and funding costs						-	-	-
9	Unearned credit spreads						-	-	-
10	Future administrative costs	-	-	-	-	-	-	-	-
11	Other adjustments	-	-	-	-	-	-	-	-
12	**Total adjustments**	9	-	-	-	-	9	9	-

Valuation adjustments are made for assets measured at fair value either through marked to market or marked to model, including non-derivative and derivative instruments. The Group has taken the following elements of valuation adjustment into consideration and makes adjustments, if any, in accordance with the Group's valuation process:

- Mid-market value – covering bid-offer adjustment on equity derivatives, interest rate swap and credit derivatives
- Close-out costs – covering bid-offer adjustment on futures contracts and foreign exchange contracts
- Concentration – covering liquidity valuation adjustment on equities, bonds and credit derivatives
- Model risk – covering valuation adjustment on structured products

Currently, the other elements of valuation adjustment are not considered in the valuation process in the view that the risk and financial impact involved are considered to be insignificant when compared to the market valuation adjustments mentioned above.

Template LI1: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories

The following table shows the differences between the carrying values as reported in the Group's financial statements following the scope of accounting consolidation and the carrying values under the scope of regulatory consolidation, with a breakdown into regulatory risk categories of every 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:				
(HK$ million)	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	subject to credit risk framework	subject to counterparty credit risk framework	subject to the securitization framework	subject to market risk framework	not subject to capital requirements or subject to deduction from capital
Assets							
Cash and balances with banks and other financial institutions	51,525	51,466	51,466	-	-	-	-
Placements with banks and other financial institutions	62,280	62,242	59,566	2,676	-	-	-
Trade bills	12,081	12,081	12,081	-	-	-	-
Trading assets	1,273	1,273		-	-	1,273	-
Derivative assets (Note)	5,693	5,693		5,693	-	4,146	-
Loans and advances to customers	505,336	505,098	505,098		-	-	-
Investment securities	163,514	141,500	141,500		-	-	-
Investments in subsidiaries	-	3,470	3,470	-	-	-	-
Investments in associates	9,970	5,266	5,266	-	-	-	-
Fixed assets							
- Investment properties	5,333	5,207	5,207	-	-	-	-
- Other property and equipment	7,907	7,638	7,638	-	-	-	-
- ROU assets	1,088	1,099	1,099	-	-	-	-
Goodwill and intangible assets	1,926	1,473	-	-	-	-	1,473

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

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
			Carrying values of items at 31 December 2019:				
(HK$ million)	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	subject to credit risk framework	subject to counterparty credit risk framework	subject to the securitization framework	subject to market risk framework	not subject to capital requirements or subject to deduction from capital
Deferred tax assets	1,563	1,563	-	-	-	-	1,563
Other assets	35,709	33,897	33,771	126	-	-	-
Total assets	**865,198**	**838,966**	**826,162**	**8,495**	**-**	**5,419**	**3,036**
Liabilities							
Deposits and balances of banks and other financial institutions	27,915	27,915	-	2,287	-	-	25,628
Deposits from customers	573,527	573,527	-	-	-	-	573,527
Derivatives liabilities (Note)	7,654	7,637	-	7,637	-	4,102	-
Certificates of deposit issued	74,059	74,059	-	-	-	-	74,059
Current taxation	2,103	2,005	-	-	-	-	2,005
Debt securities issued	3,181	3,181	-	-	-	-	3,181
Deferred tax liabilities	584	425	-	-	-	-	425
Other liabilities	56,299	36,785	-	-	-	-	36,785
Loan capital - at amortised cost	10,238	10,238	-	-	-	-	10,238
Total liabilities	**755,560**	**735,772**	**-**	**9,924**	**-**	**4,102**	**725,848**

Note: As the assets / liabilities arising from derivative contracts under the trading book are marked to market and subject to the risk that the counterparty may default its contractual obligations, the assets / liabilities are subject to both the market risk capital charge and the counterparty credit risk capital charge. Therefore, the amount shown in column (b) does not equal to the sum of the amounts shown in columns (d) and (f).

Template LI2: Main sources of differences between regulatory exposure amounts and carrying values in financial statements

The following table shows 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:

At 31 December 2019:

		(a)	(b)	(c)	(d)	(e)
			Items subject to:			
	(HK$ million)	Total	credit risk framework	securitization framework	counterparty credit risk framework	market risk framework
1	**Asset carrying value amount under scope of regulatory consolidation (as per template LI1)**	835,930	826,162	-	8,495	5,419
2	- Liabilities carrying value amount under regulatory scope of consolidation (as per template LI1)	9,924	-	-	9,924	4,102
3	Total net amount under regulatory scope of consolidation	826,006	826,162	-	(1,429)	1,317
4	Off-balance sheet amounts	200,790	64,667	-	4,672	-
5	Differences due to consideration of provisions		3,026	-	-	-
6	Differences due to credit risk mitigation		(14,378)	-	-	-
7	Differences due to potential exposures for counterparty credit risk		-	-	17,066	-
8	**Exposure amounts considered for regulatory purposes**	901,104	879,477	-	20,310	1,317

Template LIA: Explanations of differences between accounting and regulatory exposure amounts

The following table describes the sources of differences from financial statements amounts to regulatory exposure amounts, as displayed in templates LI1 and LI2:

(a) Differences between the amounts in columns (a) and (b) in template LI1	The basis of consolidation for regulatory purposes is different from the basis of consolidation for accounting purposes. Subsidiaries included in consolidation for regulatory purposes are specified in a notice from the HKMA in accordance with Section 3C of the Capital Rules. Subsidiaries not included in consolidation for regulatory purposes are non-financial companies and the securities and insurance companies that are authorised 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 Capital Rules and the Banking Ordinance.
(b) The main drivers for the differences between accounting values and amounts considered for regulatory purposes shown in template LI2	The differences are mainly attributable to the following factors: - The carrying values reported in the financial statement are after deduction of impairment allowances while the exposure amounts for regulatory purposes are before deducting impairment allowances (except for exposures under Standardised Approach of credit risk from which impairment allowances at Stage 3 made against the exposures are deducted); - The exposure amounts for regulatory purposes are after the adjustment for the capital effect of recognized credit risk mitigation on the principal amounts; - Counterparty credit risk exposures for regulatory purposes consist of both the current exposures and the potential exposures which are derived by applying the credit conversion factor (CCF) to the notional principal of the transactions or contracts.
(c) Systems and controls applied to assets valuation	In order to ensure that the valuation estimates are prudent and reliable, the Group has implemented the following valuation processes and methodologies: Independent Price Verification As part of the control process, market prices or model inputs used in the valuation process are either determined or validated by an independent function. Fair values of financial instruments are determined with reference to external quoted market prices or observable model inputs and validated against secondary sources when appropriate. For fair values that are determined through valuation models, the control process may include validation of the logics, inputs, and outputs by an independent function, and evaluation of any adjustments required on top of the valuation models. Fair value estimates are generally subjective in nature, and are made as of a specific point in time based on the characteristics of the financial instruments and relevant market information. The Group measures fair values using the following hierarchy of methods: Level 1 – Quoted market price in an active market for an identical instrument. Level 2 – Valuation techniques based on observable input. This category includes instruments valued using: quoted market prices in active markets for similar instruments; quoted prices for similar instruments in markets that are considered less than active; or other valuation techniques where all significant inputs are directly or indirectly observable from market data. Level 3 – Valuation techniques using significant unobservable inputs. This category includes all instruments where the valuation technique includes inputs not based on observable data and the unobservable inputs could have a significant effect on the instrument's valuation. This category includes instruments that are valued based on quoted prices for similar instruments where significant unobservable adjustments or assumptions are required to reflect differences between the instruments.

Template LIA: Explanations of differences between accounting and regulatory exposure amounts (continued)

	Valuation adjustments Valuation adjustment will be applied on instruments that are subject to fair value measurement with residual market risk, where significant valuation uncertainty and financial impact may arise. The bank considers that the following valuation adjustments are relevant. (i) Bid offer adjustment: For the fixed income, credit derivatives and interest rate derivatives portfolio, two types of instruments, namely interest rate futures and credit default swap, would be adjusted to the prudent side of the bid offer close-out price. Regarding other types of instruments such as interest rate swap and cross currency swap which have no specific hedging purpose, the adjustment would be derived from the duration. For the equities and equity derivatives portfolio, bid offer adjustment would be applied to volatility dependent derivatives instruments based on the outstanding Vega position. Adjustments are made per underlying equity, based on the bid offer spread of implied volatility observed from the listed derivatives market. Bid offer adjustment is not performed for cash equity instruments in the dynamic hedging portfolio that are being marked at the exchange closing price given the generally insignificant net Delta position per underlying equity. Adjustment is not required for other cash equity instruments held, as they are already being marked at the market bid price. For the currency option portfolio, bid offer adjustment is not being performed due to the insignificant outstanding position. Delta and Vega position will be periodically reviewed to determine whether adjustment is required. In general, bid offer adjustment would not be required if the position is marked to the more prudent side of the bid offer rate or price, such as foreign exchange spot, forward, currency futures and cash equities. (ii) Liquidity valuation adjustment: Liquidity valuation adjustment would be applied to level 2 and level 3 financial instruments only. For the fixed income, credit derivatives and interest rate derivatives portfolio, liquidity valuation adjustment is being performed for less liquid position based on the product specific nature. Adjustment for interest rate swap and cross currency swap would be derived from the duration if the interest rate yield curve has wide bid-ask spread. Adjustment for debt securities would be derived from bid-offer spread if significant position of an illiquid instrument is held by the Bank. For credit default swap and credit linked note, adjustment would be derived from bid offer spread of its reference obligation if the counterparty or its reference obligation does not have an investment grade credit rating as instruments linked with a non-investment grade counterparty or reference obligation usually are not liquid in the market. For convertible asset swap, adjustment would not be required as the instrument is expected to be held until maturity and not expected to be sold in the secondary market. For interest rate futures, the adjustment is determined by the price difference between the day high and day low if significant position is held relative to open interest of the futures. For the equity derivatives portfolio, liquidity valuation adjustment is not being performed for level 2 and 3 equity derivatives instruments considering that the outstanding positions largely originate from dynamic hedging of callable bull / bear contracts and warrants issued and the Bank is the market maker for such products. For other customer derivatives products such as equity linked deposit, since customers are normally not allowed or expected to early terminate the contracts, thus the associated hedging positions would be held to expiration by the Bank at the same time. Moreover, the Bank has established progressively stringent individual position limits according to the underlying equity's average turnover and market capitalization. As a result, any residual positions would be insignificant relative to market liquidity and would not cause any material adverse impact to the overall valuation.

Template LIA: Explanations of differences between accounting and regulatory exposure amounts (continued)

	For the foreign exchange portfolio, liquidity valuation adjustment of spot and forward is not being performed due to the highly liquid market and insignificant positions on minor currencies. Liquidity valuation adjustment for currency futures would be applied if significant position is held relative to open interest of the futures, and would be determined by the price difference between the day high and day low. For the currency option portfolio, liquidity valuation adjustment is not being performed due to insignificant position. Delta and Vega position will be periodically reviewed to determine whether adjustment is required. (iii) Model risk adjustment: Model risk adjustment would be considered for structured products that are priced by simulation technique. The adjustment would be based on the alternate model if there is a significant variance between the original valuation and the price derived from alternate model. (iv) Credit valuation adjustment: Credit value adjustment would be considered for both positive exposure and negative exposure on derivatives. The adjustment for positive exposure on derivatives (i.e. credit valuation adjustment) would be based on the positive fair value of derivatives and the counterparties' probability of default and loss given default and the adjustment for negative exposure on derivatives (i.e. debit valuation adjustment) would be based on the negative fair value of derivatives and the bank's credit spread.

Template CC1: Composition of regulatory capital

At 31 December 2019		Amount (HK$ Million)	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
	CET1 capital: instruments and reserves		
1	Directly issued qualifying CET1 capital instruments plus any related share premium	41,379	(10) + (14)
2	Retained earnings	27,119	(11)
3	Disclosed reserves	20,732	(15) + (16) + (17)
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)	-	
6	**CET1 capital before regulatory adjustments**	89,230	
	CET1 capital: regulatory deductions		
7	Valuation adjustments	9	
8	Goodwill (net of associated deferred tax liabilities)	1,460	(4)
9	Other intangible assets (net of associated deferred tax liabilities)	13	(5)
10	Deferred tax assets (net of associated deferred tax liabilities)	1,563	(6)
11	Cash flow hedge reserve	-	
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	(8)	(7) + (8)
15	Defined benefit pension fund net assets (net of associated deferred tax liabilities)	-	
16	Investments in own CET1 capital instruments (if not already netted off paid-in capital on reported balance sheet)	-	
17	Reciprocal cross-holdings in CET1 capital instruments	-	
18	Insignificant 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)	-	
20	Mortgage servicing rights (net of associated deferred tax liabilities)	Not applicable	Not applicable
21	Deferred tax assets arising from temporary differences (net of associated deferred tax liabilities)	Not applicable	Not applicable
22	Amount exceeding the 15% threshold	Not applicable	Not applicable
23	of which: significant investments in the ordinary share of financial sector entities	Not applicable	Not applicable

Template CC1: Composition of regulatory capital (continued)

At 31 December 2019

		Amount (HK$ Million)	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
24	of which: mortgage servicing rights	Not applicable	Not applicable
25	of which: deferred tax assets arising from temporary differences	Not applicable	Not applicable
26	National specific regulatory adjustments applied to CET1 capital	10,880	
26a	Cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties)	5,718	(2) + (3)
26b	Regulatory reserve for general banking risks	5,162	(12)
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**	13,917	
29	**CET1 capital**	75,313	
	AT1 capital: instruments		
30	Qualifying AT1 capital instruments plus any related share premium	13,963	(18)
31	of which: classified as equity under applicable accounting standards	13,963	
32	of which: classified as liabilities under applicable accounting standards	-	
33	*Capital instruments subject to phase-out arrangements from AT1 capital*	-	
34	AT1 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in AT1 capital of the consolidation group)	-	
35	*of which: AT1 capital instruments issued by subsidiaries subject to phase-out arrangements*	-	
36	**AT1 capital before regulatory deductions**	13,963	
	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)	-	
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	-	

Template CC1: Composition of regulatory capital (continued)

At 31 December 2019

		Amount (HK$ Million)	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
43	**Total regulatory deductions to AT1 capital**	-	
44	**AT1 capital**	13,963	
45	**Tier 1 capital (T1 = CET1 + AT1)**	89,276	
	Tier 2 capital: instruments and provisions		
46	Qualifying Tier 2 capital instruments plus any related share premium	3,888	(9)
47	*Capital instruments subject to phase-out arrangements from Tier 2 capital*	-	
48	Tier 2 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in Tier 2 capital of the consolidation group)	-	
49	*of which: capital instruments issued by subsidiaries subject to phase-out arrangements*	-	
50	Collective provisions and regulatory reserve for general banking risks eligible for inclusion in Tier 2 capital	2,888	(13) - (1)
51	**Tier 2 capital before regulatory deductions**	6,776	
	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)	-	
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	(2,573)	
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	(2,573)	[(2) + (3)] X 45%
56b	Regulatory deductions applied to Tier 2 capital to cover the required deductions falling within §48(1)(g) of BCR	-	
57	**Total regulatory adjustments to Tier 2 capital**	(2,573)	
58	**Tier 2 capital (T2)**	9,349	
59	**Total regulatory capital (TC = T1 + T2)**	98,625	
60	**Total RWA**	484,195	

Template CC1: Composition of regulatory capital (continued)

At 31 December 2019

		Amount (HK$ Million)	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
	Capital ratios (as a percentage of RWA)		
61	**CET1 capital ratio**	15.55%	
62	**Tier 1 capital ratio**	18.44%	
63	**Total capital ratio**	20.37%	
64	**Institution-specific buffer requirement (capital conservation buffer plus countercyclical capital buffer plus higher loss absorbency requirements)**	4.382%	
65	of which: capital conservation buffer requirement	2.500%	
66	of which: bank specific countercyclical capital buffer requirement	0.882%	
67	of which: higher loss absorbency requirement	1.000%	
68	CET1 (as a percentage of RWA) available after meeting minimum capital requirements	11.05%	
	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	5,606	
73	Significant LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation	6,626	
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)	977	
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	503	
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)	3,498	
79	Cap for inclusion of provisions in Tier 2 under the IRB approach and SEC-IRBA	2,385	
	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

Template CC1: Composition of regulatory capital (continued) At 31 December 2019		**Amount (HK$ Million)**	**Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation**
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*	-	
85	*Amount excluded from Tier 2 capital due to cap (excess over cap after redemptions and maturities)*	-	

Template CC1: Composition of regulatory capital (continued)

Notes to the Template

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

	Description	Hong Kong basis (HK$ Million)	Basel III basis (HK$ Million)
9	**Other intangible assets (net of associated deferred tax liabilities)**	13	13
	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)**	1,563	334
	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.		
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.		

Template CC1: Composition of regulatory capital (continued)

Notes to the Template (continued)

	Description	Hong Kong basis (HK$ Million)	Basel III basis (HK$ Million)
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.		
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 noncapital 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.		
Remarks: The amount of the 10% threshold and 5% 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

Template CC2: Reconciliation of regulatory capital to balance sheet

Balance Sheet Reconciliation	Balance sheet as in published financial statements	Under regulatory scope of consolidation	Cross reference to Definition of Capital Components
	31/12/2019	31/12/2019	
	HK$ Mn	HK$ Mn	
Assets			
Cash and balances with banks and other financial institutions	51,525	51,466	
Placements with banks and other financial institutions	62,280	62,242	
Trade bills	12,081	12,081	
Trading assets	1,273	1,273	
Financial assets designated at fair value through profit or loss	-	-	
Derivative assets	5,693	5,693	
Loans and advances to customers	505,336	505,098	
of which: impairment allowances reflected in regulatory capital		(1,104)	(1)
Excess of total EL amount over total eligible provisions under the IRB Approach		-	
Investment securities	163,514	141,500	
Investments in subsidiaries	-	3,470	
Investments in associates	9,970	5,266	
Fixed assets			
- Investment properties	5,333	5,207	
of which: Cumulative fair value gains arising from the revaluation of land and buildings		3,861	(2)
- Other property and equipment	7,907	7,638	
of which: Cumulative fair value gains arising from the revaluation of land and buildings		1,857	(3)
- ROU assets	1,088	1,099	
Goodwill and intangible assets	1,926	1,473	
of which: goodwill		1,460	(4)
intangible assets		13	(5)
Deferred tax assets	1,563	1,563	
of which: deferred tax assets		1,563	(6)
Other assets	35,709	33,897	
Total assets	**865,198**	**838,966**	
Liabilities			
Deposits and balances of banks and other financial institutions	27,915	27,915	
Deposits from customers	573,527	573,527	
Trading liabilities	-	-	
Derivative liabilities	7,654	7,637	
Certificates of deposit issued			
- At fair value through profit or loss	27,401	27,401	
of which: gains and losses due to changes in own credit risk on fair valued liabilities		(8)	(7)
- At amortised cost	46,658	46,658	
Current taxation	2,103	2,005	
Debt securities issued			
- At fair value through profit or loss	-	-	
of which: gains and losses due to changes in own credit risk on fair valued liabilities		-	(8)
- At amortised cost	3,181	3,181	
Deferred tax liabilities	584	425	
Other liabilities	56,299	36,785	
Loan capital - at amortised cost	10,238	10,238	
of which: portion eligible for Tier 2 capital instruments		3,888	(9)
Total liabilities	**755,560**	**735,772**	
Shareholders' Equity			
Share capital	41,379	41,379	
of which: paid-in share capital		41,379	(10)
Reserves	53,928	47,852	
of which: retained earnings		27,119	(11)
of which: regulatory reserve earmarked		5,162	(12)
regulatory reserve for general banking risks		1,784	(13)
share premium		-	(14)
accumulated other comprehensive income		3,637	(15)
exchange revaluation reserve		(1,178)	(16)
other reserves		18,274	(17)
Additional equity instruments	13,963	13,963	(18)
Non-controlling interests	368	-	
of which: portion not eligible for inclusion in regulatory capital		-	
Total shareholders' equity	109,638	103,194	
Total liabilities and shareholders' equity	**865,198**	**838,966**	

Table CCA: Main features of regulatory capital instruments

		Ordinary Shares	US$650 million Additional Tier 1 issued in 2015	US$500 million Additional Tier 1 issued in 2017	US$650 million Additional Tier 1 issued in 2019	US$600 million Tier 2 due 2020	US$500 million Tier 2 due 2026
1	Issuer	The Bank of East Asia, Limited ("BEA")	BEA	BEA	BEA	BEA	BEA
2	Unique identifier - ISIN	HK0023000190	XS1326527246	XS1615078141	XS2049804896	XS0521073428	XS1508842256
3	Governing law(s) of the instrument	Hong Kong	England (Subordination governed by Hong Kong laws)	England (Subordination governed by Hong Kong laws)	England (Subordination governed by Hong Kong laws)	England (Subordination governed by Hong Kong laws)	England (Subordination governed by Hong Kong laws)
	Regulatory treatment						
4	Transitional Basel III rules#	N.A.	N.A.	N.A.	N.A.	Tier 2	N.A.
5	Post-transitional Basel III rules+	Common Equity Tier 1	Additional Tier 1	Additional Tier 1	Additional Tier 1	Ineligible	Tier 2
6	Eligible at solo*/group/group & solo	Solo and group	Solo and group	Solo and group	Solo and group	Solo and group	Solo and group
7	Instrument type	Ordinary shares	Perpetual non-cumulative Additional Tier 1 capital securities	Perpetual non-cumulative Additional Tier 1 capital securities	Perpetual non-cumulative Additional Tier 1 capital securities	Tier 2 notes	Tier 2 notes
8	Amount recognised in regulatory capital	HK$41,379 Mn	HK$5,016 Mn	HK$3,879 Mn	HK$5,068 Mn	HK$3,888 Mn	
9	Par value of instrument	N.A.	Issue price: US$650 million : 100%	Issue price: US$500 million : 100%	Issue price: US$650 million : 100%	Issue price : US$450 million: 99.04% US$150 million: 100.102%	Issue price : US$500 million: 99.838%
10	Accounting classification	Equity	Equity	Equity	Equity	Liability – amortised cost	Liability – amortised cost
11	Original date of issuance	Since incorporation	2nd December, 2015	18th May, 2017	19th September, 2019	US$450 million: 16th July, 2010 US$150 million: 23rd July, 2010	3rd November, 2016
12	Perpetual or dated	N.A.	Perpetual	Perpetual	Perpetual	Dated	Dated

Table CCA: Main features of regulatory capital instruments (continued)

		Ordinary Shares	US$650 million Additional Tier 1 issued in 2015	US$500 million Additional Tier 1 issued in 2017	US$650 million Additional Tier 1 issued in 2019	US$600 million Tier 2 due 2020	US$500 million Tier 2 due 2026
13	Original maturity date	N.A.	No maturity	No maturity	No maturity	16th July, 2020	3rd November, 2026
14	Issuer call subject to prior supervisory approval	No	Yes	Yes	Yes	No	Yes
15	Optional call date, contingent call dates and redemption amount	N.A.	First call date : 2nd December, 2020 Included tax and regulatory call options Redemptions in whole at 100% with accrued dividends	First call date : 18th May, 2022 Included tax and regulatory call options Redemptions in whole at 100% with accrued dividends	First call date : 19th September, 2024 Included tax and regulatory call options Redemptions in whole at 100% with accrued dividends	No issuer call option Included tax and regulatory call options Redemptions in whole at 100% with accrued interests	One-off call date: 3rd November, 2021 Included tax and regulatory call options Redemptions in whole at 100% with accrued interests, final amount subject to adjustment following occurance of a Non-Viability Event
16	Subsequent call dates, if applicable	N.A.	Any payment dates thereafter first call date	Any payment dates thereafter first call date	Any payment dates thereafter first call date	N.A.	N.A.
	Coupons / dividends						
17	Fixed or floating dividend/coupon	N.A.	Fixed	Fixed	Fixed	Fixed	Fixed
18	Coupon rate and any related index	N.A.	Up to 1st December, 2020 : 5.5% p.a. Thereafter and every 5 years thereafter reset at : 5-year U.S. Treasury + 3.834%	Up to 17th May, 2022 : 5.625% p.a. Thereafter and every 5 years thereafter reset at : 5-year U.S. Treasury + 3.682%	Up to 18th September, 2024 : 5.875% p.a. Thereafter and every 5 years thereafter reset at : 5-year U.S. Treasury + 4.257%	6.125% p.a.	Up to 2nd Nov, 2021: 4% p.a. Thereafter reset at : 5-year U.S. Treasury + 2.7%
19	Existence of a dividend stopper	No	Yes	Yes	Yes	No	No
20	Fully discretionary, partially discretionary or mandatory	N.A.	Fully discretionary	Fully discretionary	Fully discretionary	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No	No	No	No	No	No
22	Noncumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Cumulative	Cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible, conversion trigger (s)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Table CCA: Main features of regulatory capital instruments (continued)

		Ordinary Shares	US$650 million Additional Tier 1 issued in 2015	US$500 million Additional Tier 1 issued in 2017	US$650 million Additional Tier 1 issued in 2019	US$600 million Tier 2 due 2020	US$500 million Tier 2 due 2026
25	If convertible, fully or partially	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
26	If convertible, conversion rate	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
27	If convertible, mandatory or optional conversion	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
28	If convertible, specify instrument type convertible into	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
29	If convertible, specify issuer of instrument it converts into	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
30	Write-down feature	No	Yes	Yes	Yes	No	Yes
31	If write-down, write-down trigger(s)	N.A.	Occurrence of a "Non-Viability Event", which means the earlier of: (i) the HKMA notifying BEA in writing that the HKMA is of the opinion that a write-off or conversion is necessary, without which BEA would become non-viable; and (ii) the HKMA notifying BEA 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 BEA would become non-viable.	Occurrence of a "Non-Viability Event", which means the earlier of: (i) the HKMA notifying BEA in writing that the HKMA is of the opinion that a write-off or conversion is necessary, without which BEA would become non-viable; and (ii) the HKMA notifying BEA 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 BEA would become non-viable.	Occurrence of a "Non-Viability Event", which means the earlier of: (i) the HKMA notifying BEA in writing that the HKMA is of the opinion that a write-off or conversion is necessary, without which BEA would become non-viable; and (ii) the HKMA notifying BEA 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 BEA would become non-viable.	N.A.	Occurrence of a "Non-Viability Event", which means the earlier of: (i) the HKMA notifying BEA in writing that the HKMA is of the opinion that a write-off or conversion is necessary, without which BEA would become non-viable; and (ii) the HKMA notifying BEA 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 BEA would become non-viable.
32	If write-down, full or partial	N.A.	Partial	Partial	Partial	N.A.	Partial
33	If write-down, permanent or temporary	N.A.	Permanent	Permanent	Permanent	N.A.	Permanent
34	If temporary write-down, description of write-up mechanism	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
35	Position in subordination hierarchy in liquidation	N.A.	Immediately subordinated to unsecured senior notes / indebtedness and subordinated Tier 2 notes / indebtedness	Immediately subordinated to unsecured senior notes / indebtedness and subordinated Tier 2 notes / indebtedness	Immediately subordinated to unsecured senior notes / indebtedness and subordinated Tier 2 notes / indebtedness	Immediately subordinated to unsecured senior notes / indebtedness	Immediately subordinated to unsecured senior notes / indebtedness
36	Non-compliant transitioned features	No	No	No	No	Yes	No
37	If yes, specify non-compliant features	N.A.	N.A.	N.A.	N.A.	Absence of non-viability loss absorption criteria	N.A.

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

Template CCyB1: Geographical distribution of credit exposures used in countercyclical capital buffer (“CCyB”)

The following table presents the geographical breakdown of risk-weighted amounts (RWA) in relation to private sector credit exposures as at 31st December 2019:

		a	c	d	e
	Geographical breakdown by Jurisdiction (J)	**Applicable JCCyB ratio in effect**	**RWA used in computation of CCyB ratio**	**AI-specific CCyB ratio**	**CCyB amount**
		(%)	**(HK$ Million)**	**(%)**	**(HK$ Million)**
1	Hong Kong SAR	2.000%	156,683		
2	France	0.250%	45		
3	United Kingdom	1.000%	14,837		
4	Sweden	2.500%	41		
	Sum of above		171,606		
	Total (including those exposures in jurisdictions with zero JCCyB ratio)		372,132	0.882%	4,271

Template LR1: Summary comparison of accounting assets against Leverage Ratio ("LR") exposure measure

At 31 Dec 2019

	Item	Value under Leverage Ratio framework (HK$ Million)
1	Total consolidated assets as per published financial statements	865,198
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(37,224)
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	10,668
5	Adjustment for SFTs (i.e. repos and similar secured lending)	9,788
6	Adjustment for off-balance sheet ("OBS") items (i.e. conversion to credit equivalent amounts of OBS exposures)	42,974
6a	Adjustment for specific and collective provisions that are allowed to be excluded from exposure measure	(4,060)
7	Other adjustments	(13,925)
8	**Leverage ratio exposure measure**	873,419

Template LR2: Leverage ratio ("LR")

		(HK$ Million)	
		At 31 Dec 2019	At 30 Sep 2019
On-balance sheet exposures			
1	On-balance sheet exposures (excluding those arising from derivative contracts and SFTs, but including collateral)	827,974	804,804
2	Less: Asset amounts deducted in determining Tier 1 capital	(13,925)	(13,547)
3	**Total on-balance sheet exposures (excluding derivative contracts and SFTs)**	814,049	791,257
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)	5,685	8,804
5	Add-on amounts for PFE associated with all derivative contracts	7,878	9,743
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	(2,973)	(3,960)
8	Less: Exempted CCP leg of client-cleared trade exposures	-	-
9	Adjusted effective notional amount of written credit derivative contracts	78	78
10	Less: Adjusted effective notional offsets and add-on deductions for written credit derivative contracts	-	-
11	**Total exposures arising from derivative contracts**	10,668	14,665
Exposures arising from securities financing transactions (SFTs)			
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	9,275	12,526
13	Less: Netted amounts of cash payables and cash receivables of gross SFT assets	-	-
14	CCR exposure for SFT assets	513	893
15	Agent transaction exposures	-	-
16	**Total exposures arising from SFTs**	9,788	13,419
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	200,790	203,001
18	Less: Adjustments for conversion to credit equivalent amounts	(157,816)	(157,717)
19	**Off-balance sheet items**	42,974	45,284
Capital and total exposures			
20	**Tier 1 capital**	89,276	89,503
20a	**Total exposures before adjustments for specific and collective provisions**	877,479	864,625
20b	**Adjustments for specific and collective provisions**	(4,060)	(3,706)
21	**Total exposures after adjustments for specific and collective provisions**	873,419	860,919
Leverage ratio			
22	**Leverage ratio**	**10.22%**	**10.40%**

Table LIQA: Liquidity risk management

Liquidity risk is the risk that the Group may not be able to meet its obligations as they come due because of an inability to obtain adequate funding (funding liquidity risk); or that the Group cannot easily liquidate assets quickly without significantly lowering market prices because of inadequate market depth or market disruptions (market liquidity risk).

The purpose of liquidity risk management is to ensure sufficient cash flows to meet all financial commitments and to capitalise on opportunities for business expansion. This includes the Group's ability to meet deposit withdrawals either on demand or at contractual maturity, to repay borrowings as they mature, to make new loans and investments as opportunities arise and last but not least, to comply with all the statutory requirements for liquidity risk management, including Liquidity Coverage Ratio ("LCR") and Net Stable Funding Ratio ("NSFR").

The Group reviews the risk profile through regular assessments of both qualitative and quantitative risk factors to determine its tolerance of prevailing risk levels against applicable risk appetites statement for liquidity risk annually approved by the Board. The Asset and Liability Management Committee is delegated by the Board to oversee the Group's liquidity risk management. The Asset and Liability Management Committee is composed of balanced representation of senior staff from various business units, Treasury, Risk Management and Finance to jointly formulate adequate funding strategies. The Asset and Liability Management Committee sets the strategy, policy, and limits for managing liquidity risk and the means for ensuring that such strategy and policy are implemented. Regular meetings are held to review the compliance status of the monitoring matrix established and the need for any change in strategy and policy. Liquidity is managed daily by the Capital Markets & Liquidity Management Department under the Treasury Markets Division of the Group within the set limits. The Asset & Liability Management Department under the Risk Management Division of the Group is responsible for monitoring the activities relating to liquidity risk. The Internal Audit Division performs periodic reviews to ensure that the liquidity risk management functions are carried out effectively.

The implementation of LCR and NSFR imposes a more stringent regulatory regime for liquidity risk management on the Group. To ensure compliance with the enhanced regulatory requirement, internal targets for LCR and NSFR have been set above regulatory required levels, making reference to the Group's liquidity risk appetite. In addition, material changes in the LCR and NSFR will be reviewed regularly by the Asset and Liability Management Committee together with proposed mitigation actions to cope with adverse changes arising from, but not limited to, composition of the deposit base and remaining tenor to maturity, lending activities with respect to different maturity tenors, and the Group's asset and liability mix strategy. In planning the asset and liability mix strategy, the Group assesses the impact of asset growth and funding structure on the LCR and NSFR with support from relevant business units for the Asset and Liability Management Committee's review and decision.

In 2019, the Group is required to calculate LCR and NSFR in accordance with the regulatory requirements, and to maintain these ratios not less than 100% for both LCR and NSFR on a consolidated basis. As at 31st December, 2019, the ratios are reported as follows:

	As at 31st December 2019
Liquidity Coverage Ratio	222%
Net Stable Funding Ratio	113%

As part of Group efforts to manage the LCR and NSFR effectively, emphasis is placed on strengthening the deposit base by retaining loyal customers and maintaining customer relationships. The Group balances funding among retail, small business, and wholesale funding to avoid concentration in any one source. The Group also diversifies its tenors of funding over various time horizons to avoid significant maturity mismatch in any time bucket. Professional markets are accessed through the issuance of certificates of deposit, medium-term notes, subordinated debt, money market placement and borrowing for the purposes of providing additional funding, maintaining a presence in local money markets, and optimising asset and liability maturities.

Table LIQA: Liquidity risk management (continued)

The table below shows the Group's concentration of sources of funding as at 31st December, 2019. There was no outstanding deposit balance from a single customer exceeding 1% of total liabilities on the Group level.

	As a percentage of Total Available Stable Funding (exclude Capital)
Deposits from Retail Customers	39.6%
Deposits from Small Business	4.3%
Deposits from Corporate Customers	32.0%
Funding provided by Financial Institutions	11.5%
Debt securities or prescribed instruments issued	11.1%
Other liabilities exclude capital instruments	1.5%
Total	**100.0%**

In addition to observing the statutory LCR and NSFR, the Group has established different liquidity metrics – including but not limited to the loan-to-deposit ratio, cumulative maturity mismatch ratio, funding concentration ratio, intra-group exposure threshold, and cross currency funding ratio – to measure and analyse the Group's liquidity risks. As at 31st December 2019, the loan-to-deposit ratio of the Group was 78.6%. The Group maintains sufficient high quality liquid assets ("HQLAs") as a liquidity cushion that can be accessed in times of stress. The HQLAs for fulfilling the LCR consist of cash, exchange fund bills and notes, high quality government debt securities and other equivalent liquid marketable assets.

The composition of the Group's HQLAs is shown as below table. The majority of HQLAs are denominated in Hong Kong dollars. Contingent funding sources are maintained to provide strategic liquidity to meet unexpected and material cash outflows. As of 31st December 2019, the Group's holdings of level 2 assets by industry (except Sovereign, Central Banks and Public Sector Entities) were less than 10% of the total HQLAs amount.

	As a percentage of total HQLA (unweighted)
- Level 1	
Cash and Withdrawable Central Bank Reserves	27.4%
Exchange fund bills and notes	33.3%
Marketable debt securities:-	
Issued by Sovereigns or Governments	12.3%
Issued by Central Banks	8.8%
Issued by Multilateral Development Banks	1.4%
- Level 2A	
Marketable debt securities:-	
Issued by Sovereigns or Governments	2.0%
Issued by Corporates	0.0%
Others	0.6%
- Level 2B	
Marketable debt securities:-	
Issued by Corporates	14.2%
Total	**100.0%**

Table LIQA: Liquidity risk management (continued)

Internally, intra-group funding transactions are carried out at arm's length and treated in a manner in line with other third party transactions, with regular monitoring and appropriate control. Head Office is a net funding provider to overseas branches and subsidiary. As at 31st December 2019, funding needs arising from respective branches and subsidiary are shown as follows:

(HK$ million)	**As at 31st December 2019**
The Bank of East Asia (China) Limited	10,131
Overseas branches	
- Labuan	744
- Los Angeles	6,423
- Macau	3,256
- New York	4,982
- Singapore	6,393
- Taipei	525
- London	8,880

As a majority of the Group's liquidity risk arises from the maturity mismatch gap between the Group's asset and liability portfolios, the Group manages liquidity risk by conducting cash flow analysis and projections through the regular use of the Bank's management information system. These are carried out on a regular basis to identify funding needs arising from on and off-balance sheet items in a specific time frame over a set of time horizons.

The Group's analysis of on- and off-balance sheet items by remaining maturity and the resultant liquidity gaps as at 31st December 2019 is shown as follows:

(HK$ million)	**Repayable on demand or next day**	**Within 1 month**	**3 months or less but over 1 month**	**1 year or less but over 3 months**	**5 years or less but over 1 year**	**Over 5 years**	**Undated or overdue**
Currency notes and coins	1,228	-	-	-	-	-	-
Placements with banks and other financial institutions	51,073	34,503	12,144	2,467	109	-	14,023
Advances to customers, acceptances and bills of exchange held	11,430	63,733	37,875	101,017	199,283	112,704	6,939
Debt securities, prescribed instruments and structured financial instruments held	140,144	2,493	2,225	3,676	2,663	271	-
Other assets	12,466	923	2,062	118	204	323	27,736
Total on-balance sheet assets	**216,341**	**101,652**	**54,306**	**107,278**	**202,259**	**113,298**	**48,698**
Total off-balance sheet claims	**2,056**	**3,899**	**7,231**	**4,763**	**7,212**	**1,888**	**347**
Deposits and balance of banks and other financial institutions	5,037	6,679	7,856	3,797	6	-	-
Deposits from customers	219,776	114,719	149,083	87,166	9,470	1	-
Debt securities, prescribed instruments and structured financial instruments issued	201	6,837	26,807	62,005	3,287	1,675	-
Other liabilities and capital	15,453	1,227	299	6,903	29	17,954	89,104
Total on-balance sheet liabilities	**240,467**	**129,462**	**184,045**	**159,871**	**12,792**	**19,630**	**89,104**
Total off-balance sheet obligations	**11,446**	**21,087**	**8,574**	**7,553**	**19,859**	**3,195**	**3,463**
Contractual maturity mismatch	**(33,516)**	**(44,998)**	**(131,082)**	**(55,383)**	**176,820**	**92,361**	**(43,522)**
Cumulative contractual maturity mismatch	**(33,516)**	**(78,514)**	**(209,596)**	**(264,979)**	**(88,159)**	**4,202**	**(39,320)**

Table LIQA: Liquidity risk management (continued)

The Group also conducts stress testing regularly to analyse liquidity risk. Both on and off-balance sheet items and their impact on cash flow are considered, together with applicable hypothetical and historical assumptions. The assessment and review of market liquidity risk are included in the various control processes, including investment/ trading strategy, market risk monitoring, valuation, and portfolio review.

Three stress scenarios – namely an institution-specific crisis, a general market crisis, and a crisis involving a combination of the two – are adopted with minimum survival period defined according to the HKMA's Supervisory Policy Manual LM-2, "Sound Systems and Controls for Liquidity Risk Management".

With reference to the stress-testing results, the Group identifies potential vulnerabilities within the Group, establishes internal limits, and formulates a contingency funding policy that sets out the Group's strategy for dealing with any liquidity problem and the procedures for making up cash flow deficits in emergency situations.

The contingency funding policy is designed to be pro-active and pre-emptive, and stipulates the following three stages:

1. The Group utilises early warning indicators, which cover both qualitative and quantitative measures, and monitors both internal and external factors. Should there be any early signs of significant impact on the Group's liquidity position, the Asset and Liability Management Committee is informed. The Asset and Liability Management Committee will consider appropriate remedial actions and will consider employing crisis management if the situation warrants.

2. A Crisis Management Committee, which is chaired by the Co-Chief Executives, is formed to handle the crisis. Strategy and procedures for obtaining contingency funding, as well as roles and responsibilities of the parties concerned, are clearly stated.

3. In the final stage, a post-crisis review is carried out to recommend necessary improvements to avoid incidents of a similar nature in the future.

An annual drill test is conducted and the contingency funding policy is subject to regular review in order to accommodate any changes in the business environment. Any significant changes to the contingency funding policy are approved by the Board.

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Template LIQ1: Liquidity Coverage Ratio ("LCR")

	(HK$ Million)	Quarter ending on 31 December 2019		Quarter ending on 30 September 2019	
	Number of data points used in calculating the average value of the LCR and related components set out in this template	75		77	
	Basis of disclosure: consolidated	**Unweighted value** (average)	**Weighted value** (average)	**Unweighted value** (average)	**Weighted value** (average)
A.	**High Quality Liquid Assets (HQLA)**				
1	Total HQLA		55,748		50,688
B.	**Cash Outflows**				
2	Retail deposits and small business funding, of which:	293,052	21,271	298,910	21,948
3	*Stable retail deposits and stable small business funding*	43,471	1,338	44,450	1,369
4	*Less stable retail deposits and less stable small business funding*	149,085	14,908	157,107	15,711
4a	*Retail term deposits and small business term funding*	100,496	5,025	97,353	4,868
5	Unsecured wholesale funding (other than small business funding), and debt securities and prescribed instruments issued by the institution, of which:	132,184	76,346	134,396	75,538
6	*Operational deposits*	0	0	-	-
7	*Unsecured wholesale funding (other than small business funding) not covered in row 6*	125,944	70,106	126,755	67,897
8	*Debt securities and prescribed instruments issued by the institution and redeemable within the LCR period*	6,240	6,240	7,641	7,641
9	Secured funding transactions (including securities swap transactions)		1,853		876
10	Additional requirements, of which:	86,381	11,927	87,607	11,597
11	*Cash outflows arising from derivative contracts and other transactions, and additional liquidity needs arising from related collateral requirements*	2,386	2,386	2,452	2,452
12	*Cash outflows arising from obligations under structured financing transactions and repayment of funding obtained from such transactions*	0	0	-	-
13	*Potential drawdown of undrawn committed facilities (including committed credit facilities and committed liquidity facilities)*	83,995	9,541	85,155	9,145
14	Contractual lending obligations (not otherwise covered in Section B) and other contractual cash outflows	9,984	9,984	6,829	6,829
15	Other contingent funding obligations (whether contractual or non-contractual)	118,702	2,272	122,256	2,413
16	**Total Cash Outflows**		123,653		119,201
C.	**Cash Inflows**				
17	Secured lending transactions (including securities swap transactions)	2,495	2,087	1,887	1,863
18	Secured and unsecured loans (other than secured lending transactions covered in row 17) and operational deposits placed at other financial institutions	147,299	89,006	142,943	86,121
19	Other cash inflows	5,735	5,360	5,085	4,661
20	**Total Cash Inflows**	155,529	96,453	149,915	92,645
D.	**Liquidity Coverage Ratio**		**Adjusted value**		**Adjusted value**
21	**Total HQLA**		55,748		50,688
22	**Total Net Cash Outflows**		31,825		30,499
23	**LCR (%)**		175.72%		166.91%

This is the standard disclosure template that a category 1 institution must use for the purposes of making its liquidity information disclosures under section 16FK or 103A (where applicable) of the Banking (Disclosure) Rules.

Template LIQ1: Liquidity Coverage Ratio ("LCR") (continued)

Main drivers of LCR results

The Liquidity Coverage Ratio ("LCR"), which came into effect on 1st January, 2015, promotes the short-term resilience of the Group's liquidity risk by requiring that the Group hold sufficient high quality liquid assets ("HQLAs") to survive under a pre-defined stress scenario over a period of 30 days. It is expressed as a percentage, of the amount of a category 1 institution's HQLAs to the amount of the institution's "total net cash outflows" over 30 calendar days. The Banking (Liquidity) Rules require that Group meets the minimum LCR of not less than 100% starting from 1st January, 2019.

The total net cash outflows is the total cash outflows offset by the total cash inflows. Total cash outflows mainly consist of customer deposits which are the Group's main source of stable funding. Total cash inflows mainly come from maturing assets such as money market placements, loans and securities within 30 calendar days.

The Group's LCR is well above the regulatory limit of 100% throughout the fourth quarter of 2019. The average LCR decreased from 180% for the fourth quarter of 2018 to 176% for the fourth quarter of 2019 mainly resulted from comparably lower average holdings of high quality liquid assets.

Composition of HQLA

The HQLAs for fulfilling the LCR consist of cash, exchange fund bills and notes, high quality government debt securities and other equivalent liquid marketable assets. The majority of HQLAs are denominated in Hong Kong dollars. The classification of HQLAs among level 1, 2A or 2B is based on the credit rating of securities and a number of market factors in determining the degree of readiness of monetizing the assets in short period of time. The Group's liquid assets are predominately classified as level 1 assets.

Concentration of Funding Sources

The Group has strengthened the deposit base by retaining loyal customers and maintaining customer relationships. The Group balances funding among retail, small business, and wholesale funding to avoid concentration in any one source. Professional markets are accessed through the issuance of certificates of deposit, medium-term notes, subordinated debt, money market placement, and borrowing for the purposes of providing additional funding, maintaining a presence in local money markets, and optimizing asset and liability maturities.

Currency mismatch in the LCR

Majority of the Group's customer deposits are denominated in HKD, USD and RMB. The Bank held an amount of HKD-denominated level 1 assets that was not less than 20% of its HKD-denominated total net cash outflows. The Group manages the composition of its HQLA by currency through funding swaps. There is no significant currency mismatch in the Bank's LCR at respective levels of consolidation.

Degree of centralization of liquidity management

The Asset and Liability Management Committee is delegated by the Board to oversee the Group's liquidity risk management. The Asset and Liability Management Committee sets the strategy, policy, and limits for managing liquidity risk and the means for ensuring that such strategy and policy are implemented. Regular meetings are held to review the compliance status of the monitoring matrix established and the need for any change in strategy and policy. Liquidity is managed daily by the Capital Markets & Liquidity Management Department under the Treasury Markets Division of the Group within the set limits. The Asset & Liability Management Department under the Risk Management Division of the Group is responsible for monitoring the activities relating to liquidity risk. The Internal Audit Division performs periodic reviews to ensure that the liquidity risk management functions are carried out effectively.

Template LIQ2: Net Stable Funding Ratio ("NSFR")

		Quarter ended 31 Dec 2019				
(HK$ Million)		(a)	(b)	(c)	(d)	(e)
Basis of disclosure: consolidated		**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:	104,423	57	4,830	5,588	112,426
2	*Regulatory capital*	104,423	0	0	3,913	108,336
2a	*Minority interests not covered by row 2*	0	0	0	0	0
3	*Other capital instruments*	0	57	4,830	1,675	4,090
4	Retail deposits and small business funding:		297,536	5,654	2,328	278,938
5	*Stable deposits*		74,243	538	11	71,053
6	*Less stable deposits*		223,293	5,116	2,317	207,885
7	Wholesale funding:		269,716	24,838	9,564	120,698
8	*Operational deposits*		0	0	0	0
9	*Other wholesale funding*	0	269,716	24,838	9,564	120,698
10	Liabilities with matching interdependent assets	0	0	0	0	0
11	Other liabilities:	29,750	56,184	19,230	3,370	12,986
12	*Net derivative liabilities*	0				
13	*All other funding and liabilities not included in the above categories*	29,750	56,184	19,230	3,370	12,986
14	**Total ASF**					525,048
B. Required stable funding ("RSF") item						
15	Total HQLA for NSFR purposes	112,524				8,945
16	Deposits held at other financial institutions for operational purposes	0	0	0	0	0
17	Performing loans and securities:	10,517	232,007	56,292	362,644	405,905
18	*Performing loans to financial institutions secured by Level 1 HQLA*	34	2,769	0	0	311
19	*Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions*	0	104,101	10,528	5,621	26,500
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:*	9,293	109,480	40,222	187,308	241,962
21	*With a risk-weight of less than or equal to 35% under the STC approach*	0	140	0	0	70
22	*Performing residential mortgages, of which:*	0	3,965	3,437	118,328	85,526
23	*With a risk-weight of less than or equal to 35% under the STC approach*	0	3,352	2,949	93,770	64,100
24	*Securities that are not in default and do not qualify as HQLA, including exchange-traded equities*	1,190	11,692	2,105	51,407	51,606
25	Assets with matching interdependent liabilities	0	0	0	0	0
26	Other assets:	41,265	20,481	4,103	202	45,464
27	*Physical traded commodities, including gold*	412				350
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*	1,189				1,047
29	*Net derivative assets*	582				582
30	*Total derivative liabilities before deduction of variation margin posted*	7,637				N / A
31	*All other assets not included in the above categories*	31,445	20,481	4,103	202	43,485
32	Off-balance sheet items		200,371			4,209
33	**Total RSF**					464,523
34	**Net Stable Funding Ratio (%)**					113.03%

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Template LIQ2: Net Stable Funding Ratio ("NSFR") (continued)

		Quarter ended 30 Sep 2019				
(HK$ Million)		(a)	(b)	(c)	(d)	(e)
Basis of disclosure: consolidated		**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:	103,238	6,574	4,834	5,625	111,280
2	*Regulatory capital*	103,238	3,980	0	3,978	107,216
2a	*Minority interests not covered by row 2*	0	0	0	0	0
3	*Other capital instruments*	0	2,594	4,834	1,647	4,064
4	Retail deposits and small business funding:		296,423	5,929	2,582	278,276
5	*Stable deposits*		70,908	624	10	67,966
6	*Less stable deposits*		225,515	5,305	2,572	210,310
7	Wholesale funding:		258,977	27,277	11,397	109,969
8	*Operational deposits*		0	0	0	0
9	*Other wholesale funding*	0	258,977	27,277	11,397	109,969
10	Liabilities with matching interdependent assets	0	0	0	0	0
11	Other liabilities:	31,964	39,143	23,191	2,803	14,398
12	*Net derivative liabilities*	0				
13	*All other funding and liabilities not included in the above categories*	31,964	39,143	23,191	2,803	14,398
14	**Total ASF**					513,923
B. Required stable funding ("RSF") item						
15	Total HQLA for NSFR purposes	101,407				8,800
16	Deposits held at other financial institutions for operational purposes	0	0	0	0	0
17	Performing loans and securities:	10,655	230,546	62,830	352,364	401,573
18	*Performing loans to financial institutions secured by Level 1 HQLA*	34	820	0	0	116
19	*Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions*	0	104,399	8,007	6,006	25,669
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:*	9,358	109,295	47,799	185,402	244,093
21	*With a risk-weight of less than or equal to 35% under the STC approach*	0	176	0	0	88
22	*Performing residential mortgages, of which:*	0	4,238	3,335	111,615	80,939
23	*With a risk-weight of less than or equal to 35% under the STC approach*	0	3,427	2,851	88,596	60,726
24	*Securities that are not in default and do not qualify as HQLA, including exchange-traded equities*	1,263	11,794	3,689	49,341	50,756
25	Assets with matching interdependent liabilities	0	0	0	0	0
26	Other assets:	45,736	21,187	5,486	86	47,008
27	*Physical traded commodities, including gold*	393				334
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*	1,183				1,040
29	*Net derivative assets*	1,295				1,295
30	*Total derivative liabilities before deduction of variation margin posted*	11,077				N / A
31	*All other assets not included in the above categories*	31,788	21,187	5,486	86	44,339
32	Off-balance sheet items		205,095			4,187
33	**Total RSF**					461,568
34	**Net Stable Funding Ratio (%)**					111.34%

Table IRRBBA: Interest rate risk in banking book – risk management objectives and policies

The Group defines interest rate risk in the banking book ("IRRBB") per requirement of Hong Kong Monitory Authority ("HKMA") Supervisory Policy Manual IR-1. IRRBB refers to the risk of the Group's financial condition resulting from adverse movements in interest rates that affect the Group's banking book interest rate sensitive positions and off-balance sheet items.

The Group has established risk governance management framework to oversee and monitor IRRBB. The framework is built around a structure that enables the Board to discharge the responsibility for on-going IRRBB management to the Risk Committee, the Risk Management Committee ("RMC") and the Asset and Liability Management Committee ("ALCO"). The ALCO deals with all IRRBB issues of the Group. It is also responsible for conducting a regular review of interest rate trends, outcome analysis in terms of risk profile, stress testing results and deciding the corresponding hedging strategy.

The Group has implemented Enterprise Risk Management framework for identifying and managing potential risks of the Group. Under such framework, three lines of defence are adopted for interest rate risk management. The first line of defence comprises risk owners at business units. They are primarily responsible for the day-to-day interest rate risk management. The second line of defence refers to the risk controller of interest rate risk, who is designated as the Head of Asset & Liability Management Department ("ALMD") and the third line of defence refers to the Internal Audit Division.

Risk appetite has been defined in accordance with the Group's business strategies and objectives to govern the IRRBB activities in order to optimize risk and return. Risk limits and/ or management action triggers ("MAT") are established for on-going monitoring of impact to economic value of equity ("EVE") and net interest income ("NII") resulting from future interest rate change.

For monitoring of IRRBB, risk reports are compiled and monitored on a daily basis. Besides, risk reports are prepared for different level of governance on a regular basis.

Derivatives, such as interest rate swaps and interest rate futures are used to manage IRRBB exposure. Hedging is entered either against individual transactions or on portfolio basis. Hedge accounting treatment under Hong Kong Financial Reporting Standard is actively applied to avoid fluctuation of profit and loss arising from mark-to-market of the hedging derivatives.

The Group also conducts stress-testing to measure the vulnerability to loss in stressed market conditions and consider those results when reviewing policy, limits and capital adequacy. The stress testing includes the six HKMA standardized interest rate shock scenarios and internal scenarios set with historical / hypothetical / forward looking assumptions. Changes in economic value and in earnings are measured and assessed.

The Group applied below key assumptions that required by HKMA IR-1.

1. Non-maturity deposits ("NMD")

   NMD here refers to current and savings deposits, the deposits types without maturity of the Group. The average repricing maturity of NMDs are determined per historical re-pricing and run off behavior with consideration of relationship between market interest rate and the interest rate offered by the Group. Geographical factors (like Hong Kong and China) are also considered.

   Average behavioural maturity of NMDs is calculated based on the weighted average of each time buckets using the behavioural weights. The Group's average and longest behavioural maturity of NMDs are 0.64 year and 5 years respectively.

2. Cash flow of retail fixed rate loans and retail time deposits with optionality

   Prepayment on retail fixed rate loans would cause the loans being paid back on an earlier date than the contractual maturity.

   Retail time deposits subject to early redemption risk are time deposits that can be withdrawn early at the discretion of the customer. Except there is significant penalty that the customers might not early uplift or breaking the deposits contract due to interest rate change.

Table IRRBBA: Interest rate risk in banking book – risk management objectives and policies (continued)

According to the characteristic of different products, various statistical methods with reference to macroeconomic factors and historical data are applied to forecast prepayment rates on retail fixed rate loans and early withdrawal rates on retail time deposits to adequately assess the impact on earnings and economic value.

3. Treatment of commercial margins and spread

   In measurement of economic value of equity, the commercial margins and spread components have been included in the cash flows used in the computation and discount rate used.

4. Aggregation method

   Significant currencies are defined that account for 5% or more of the Group's total on-balance sheet interest rate sensitive position in all currencies. The total position in non-reported currencies could not exceed 10% of the same. Adverse currency impact would be aggregated for significant currencies. For prudent sake, no netting is adopted among currencies.

5. Constant balance sheet under earnings perspective

   Under earnings perspective approach, the Group assesses the impact on earnings over the next 12 months based on the two standard interest rate shock assuming constant balance sheet, where maturing or repricing cash flows are replaced by new cash flows with identical features with regard to the amount, repricing period and spread components. It measures the impact on the Group's NII when interest rates change in parallel up and down movement.

There are no difference in the assumptions applied in internal monitoring and regulatory reporting.

Other than those regulatory provided assumptions, other assumptions are validated and reported on annual basis or as required during the year.

Template IRRBB1: Quantitative information on interest rate risk in banking book

This table provides information on the change in economic value of equity ("EVE") and also the change in net interest income ("NII") over next 12 months under each of the prescribed interest rate shock scenario in respect of the Group's interest rate exposures arising from banking book positions for the current annual reporting date at 31st December 2019. Since this is the first time disclosure under new requirements of HKMA, comparative figures with previous year are not available.

(in HK$ million)		Adverse impact on EVE	Adverse impact on NII
	Period	**31st December 2019**	
1	Parallel up	113	13
2	Parallel down	2,339	2,781
3	Steepener	302	
4	Flattener	22	
5	Short rate up	62	
6	Short rate down	1,479	
7	**Maximum**	2,339	2,781
	Period	**31st December 2019**	
8	**Tier 1 capital**	89,276	

In order to produce quantitative estimation on IRRBB, the Group has assumed shock scenarios to interest rate yield curves which allow changes in economic value and earnings to be computed with consideration of optionality and behavioural assumptions. These scenarios are applied to IRRBB exposures in each currency for which the Group has material positions.

The prescribed interest rate shock scenarios are provided by the Hong Kong Monetary Authority in their Supervisory Policy Manual IR-1, Interest Rate Risk in the Banking Book and are generally described as follows:

1. Parallel up: A constant parallel shock up across all time buckets
2. Parallel down: A constant parallel shock down across all time buckets
3. Steepener: Short rates down and long rates up
4. Flattener: Short rates up and long rates down
5. Short rate up: Rates up are greatest at shortest time bucket and diminish towards current rates in longer time buckets
6. Short rate down: Rates down are greatest at shortest time bucket and diminish towards current rates in longer time buckets

Based on the analysis above, the parallel down shock scenario would cause the most significant adverse impact on net interest income and economic value of equity, which would lead to 19.2% decrease in the Group's NII and 2.6% decrease in the Tier 1 Capital at the consolidated level respectively.

Table REMA: Remuneration policy

Disclosure of Remuneration Policy

In accordance with the "Guideline on a Sound Remuneration System" (the "Guideline") issued by the HKMA in March 2010 and its revision effective March 2015, the Bank has reviewed and revised its Remuneration Policy for employees of the Group, including its overseas branches and subsidiaries. The Remuneration Policy covers all categories of employees, including the 4 described in paragraph 2.1.1 of the Guideline. The Remuneration committee ("RC"), Group Chief Risk Officer and Group Chief Compliance Officer annually reviews the Bank's Remuneration Policy, including a reassessment of the principles applied in determining remuneration packages, as well as the structure and amount of compensation ultimately awarded.

The Remuneration Policy was reviewed and endorsed by RC in 2019. The major changes were to include the review of other Material Risk Takers ("MRTs"), in addition to individual and collective MRTs; elaborate the consideration factors in determining remuneration adjustment in case of misconduct; extend the use of remuneration adjustment to employee beyond those directly responsible for misconduct; set out the roles and responsibilities of the risk control functions in the design and implementation of the Bank's Remuneration Policy in order to meet HKMA's expectation; strengthen the governance on variable remuneration with active involvement of risk control functions; and specify the role of RC in reviewing the appropriateness of the deferral threshold.

General Principles

The Remuneration Policy of the Group promotes effective risk management, and is designed to encourage employee behaviour that supports the Group's business objectives, long-term financial soundness, risk tolerance, risk management framework and corporate values.

Remuneration Structure

Employee remuneration packages may consist of a combination of fixed and variable remuneration. The appropriate proportion of fixed and variable remuneration shall vary according to an employee's seniority, role, responsibilities, and activities within the Group, among other things.

Fixed remuneration refers to an employee's annual salary (including year-end pay), while variable remuneration – comprising cash bonus payments and/or share options – is awarded based on the employee's performance with a view to better aligning incentives with risk and longer-term value creation. Variable remuneration, which is awarded in the form of cash bonus payments and/or share options, is determined taking into account an employee's seniority, role and responsibilities, and the actual or potential risks that the employee's activities may create for the Group and the extent to which they may affect its overall performance. In general, share options will be granted to staff at General Manager grade or above only.

Separate bonus schemes apply to risk control personnel, whose awards are not linked to the performances of the business units that they oversee.

Employees' Performance Measurements and the Award of Variable Remuneration

The RC determines the measures and the corresponding target levels of the Group's performance with reference to corporate goals and objectives at the beginning of each financial year and when necessary.

The performance of business units will be assessed by a combination of financial and non-financial factors (including compliance and risk management) which are determined by senior management with reference to the relevant corporate goals and the functional responsibilities of the business units.

The award of variable remuneration is determined by taking into account a combination of corporate and/or business results as well as the assessment of individual employee's performance against the pre-set financial/quantitative measures and non-financial/qualitative measures for the year which include adherence to risk management policies, compliance with legal, regulatory and ethical standards, results of internal audit reviews as well as adherence to corporate values.

Table REMA: Remuneration policy (continued)

To ensure that there is balance between financial factors and non-financial factors in the assessment of performance of both business units and individual employees, the overall weighting on financial factors is limited to avoid over reliance on financial measures and to align with HKMA's expectation on Bank Culture Reform. Performance is therefore judged, not only on what is achieved over the short and long-term, but also on how it is achieved. Performance in relation to non-financial factors, including risk, compliance and adherence to corporate values, forms a significant part of the employee performance appraisal exercise, given that poor performance in these areas can be indicative of significant risks to the Group. Adverse performance in non-financial/qualitative factors will override outstanding financial/quantitative achievements and be reflected by a reduction to, or elimination of, any variable remuneration. To help ensure a balanced evaluation, a series of compliance and risk management ratings are also taken into account. The major types of risks covered are market, credit, interest rate, liquidity and operational risks. Other risks including legal, reputation, technology, strategic, compliance, business continuity, and new product and business risks are closely monitored at Bank level by various Management Committees and adjustment will be made to an individual's variable remuneration when appropriate.

The Bank Group also carries out regular review to assess instances of non-compliance with risk control procedures and/or regulatory requirements. Instances of non-compliance are escalated for consideration in remuneration decision, including adjustment of variable remuneration within the year, adjustment of unvested awards granted in prior year(s) and clawback of vested awards.

In 2019, a joint meeting of the Chairmen of the AC, RC and RIC was held to review and deliberate the alignment of risk and remuneration in the determination of variable remuneration, with an aim to supporting sound risk management and long-term financial soundness of the Bank.

Senior Executive Compensation

The RC annually reviews the remuneration packages of the Senior Management (including the Executive Chairman, Co-Chief Executives and Deputy Chief Executives of the Bank), and Key Personnel (including 16 General Managers, the Executive Director & Chief Executive of BEA China, the Head of Capital Markets & Liquidity Management Department and the Head of Fixed Income Capital Markets Department). In determining the remuneration packages of the Senior Management and Key Personnel, the RC takes into account individual performances, performances of respective divisions and departments, and the Group's overall business goals and objectives. In 2019, the Bank engaged an external consultant, Ernst & Young, to review BEA's performance framework of variable bonus scheme, long-term incentive scheme, and executive remuneration and pay structure.

The aggregate payouts for these senior executives for 2019 are shown in the table below in accordance with the disclosure requirement 3.3 of the Guideline.

Deferral Arrangements

The award of variable remuneration to the Senior Management and Key Personnel is subject to deferment in such a manner as determined by the RC. In general, the proportion of variable remuneration which is subject to deferment will increase progressively in line with the seniority, scope of responsibilities, and other relevant factors pertinent to the Senior Management and Key Personnel.

The award of deferred remuneration is subject to a minimum vesting period and pre-defined vesting conditions as determined by the RC and communicated to all relevant employees. Deferred remuneration is awarded in such a manner so as to align employees' incentive awards with long-term value creation and the time horizons of risk. The future performance (both financial and non-financial) of the Group, relevant business units, and individual employees, as well as the creation of value for our shareholders, are taken into consideration when determining vesting conditions. Vesting and payment of deferred remuneration will be made gradually over a period of 3 years and no faster than on a pro-rata basis.

In circumstances where it is later established that decisions or actions made by an employee and/or business unit in a particular year had a severe negative impact on the Bank Group's overall profitability, any unvested portions (i.e. both cash bonus and/or share option tranche(s) which have yet to be vested) of deferred variable remuneration (relating to that particular year) should be forgone, either in part or in whole, as determined by the RC.

In circumstances where it is later established that any performance measurement for a particular year was based on data that is later proven to have been manifestly misstated, or it is later established that the relevant employee has committed fraud, malfeasance, or a violation of internal control policies, any unvested portions (i.e. both cash bonuses and/or share option tranches that have yet to be vested) of deferred variable remuneration (relating to that particular year in question) should be forgone, either in part or in whole, as determined by the RC. In certain circumstances, clawback of vested portion of the deferred variable remuneration of that particular year may apply.

Template REM1: Remuneration awarded during financial year

Total value of remuneration in 2019

	2019		2018 (Restated)	
Total value of remuneration awards for the current financial year	Non-deferred (HK$)	Deferred (HK$)	Non-deferred (HK$)	Deferred (HK$)
(i) Senior Management				
Number of employees	5		5	
Fixed remuneration				
• Cash-based	32,054,590	0	27,594,730	0
Variable remuneration				
• Cash-based	10,341,860	4,453,435	24,671,494	17,742,521
• Share Options	0	9,287,068	0	12,761,654
(ii) Key Personnel				
Number of employees	21		20	
Fixed remuneration				
• Cash-based	57,633,282	0	54,156,659	0
Variable remuneration				
• Cash-based	22,717,002	11,414,932	27,363,815	12,484,987
• Share Options	0	3,729,737	0	6,138,670
Total Remuneration	**122,746,734**	**28,885,172**	**133,786,698**	**49,127,832**

(i) The values of share options for 2019 and 2018 are calculated based on the fair value of the Bank's shares on 17th January, 2020 for the 2019 Award and 18th January, 2019 for the 2018 Award respectively. The values are for indicative purpose only.

(ii) The remuneration of Key Personnel for 2019 included the remuneration of two Key Personnel who retired from the Group on 1st August, 2019 and 1st September, 2019 respectively and two Key Personnel who joined the Group on 27th May, 2019 and 23rd August, 2019 respectively. The remuneration of Key Personnel for 2018 included the remuneration of one Key Personnel who retired from the Group on 1st May, 2018 and two Key Personnel who joined the Group on 5th March, 2018 and 20th April, 2018 respectively.

(iii) The Share Options to one member of Senior Management and one Key Personnel under the 2018 Award were withheld in May 2019 and the deferred and non-deferred portion of cash-based variable remuneration for the related members were adjusted to meet the deferral requirement of the Bank accordingly. As such, the non-deferred variable cash, deferred variable cash and deferred Share Options for 2018 were restated. A certain number of Share Options for the 2018 Award to the member of Senior Management will be granted together with the Share Options under the 2019 Award in 2020, while the related Share Options for the Key Personnel will not be granted.

Template REM2: Special payments

In 2019, no guaranteed bonuses, sign-on, or severance payments were made to the Senior Management and Key Personnel of the Group. In 2018, an aggregate amount of HK$1,600,000 sign-on payment was made to two Key Personnel while no guaranteed bonuses or severance payments were made.

Template REM3: Deferred remuneration

Total outstanding deferred remuneration in 2019

Outstanding deferred remuneration	Vested portion during the year 2019 (HK$)	Unvested portion as at the end of 2019 (HK$)	Performance adjustments to Vested portion during the year 2019 (HK$)	Performance adjustments to Unvested portion as at the end of 2019 (HK$)
(i) Senior Management				
• Cash-based	4,351,024	27,272,253	0	0
• Share Options	27,369,154	34,363,626	0	0
(ii) Key Personnel				
• Cash-based	6,048,441	20,623,751	0	0
• Share Options	10,813,838	15,416,594	0	0

Remarks:

(i) The values of share options are calculated based on the fair value on the respective Grant Dates.

(ii) The vested cash bonuses and share options relate to the 2015 variable remuneration award granted in 2016 and vested in 2019, the 2016 variable remuneration award granted in 2017 and vested in 2019 and the 2017 variable remuneration award granted in 2018 and vested in 2019. The total number of share options granted in 2016, 2017 and 2018 are 6,262,500 shares, 6,400,000 shares and 5,850,000 shares respectively.

(iii) The unvested cash bonuses and share options relate to the 2016, 2017 and 2018 variable remunerations.

(iv) The outstanding deferred remuneration of Key Personnel in 2019 included the vested and unvested cash bonuses and share options of three Key Personnel who retired from the Group on 1st May, 2018, 1st August, 2019 and 1st September, 2019 respectively.

Total outstanding deferred remuneration in 2018

Outstanding deferred remuneration	Vested portion during the year 2018 (HK$)	Unvested portion as at the end of 2018 (HK$)	Performance adjustments to Vested portion during the year 2018 (HK$)	Performance adjustments to Unvested portion as at the end of 2018 (HK$)
(i) Senior Management				
• Cash-based	2,662,886	13,053,081	0	0
• Share Options	23,334,819	50,812,963	0	0
(ii) Key Personnel				
• Cash-based	4,423,492	13,655,744	865,243	0
• Share Options	8,192,641	20,977,531	296,665	0

Remarks:

(i) The values of share options are calculated based on the fair value on the respective Grant Dates.

(ii) The vested cash bonuses and share options relate to the 2014 variable remuneration award granted in 2015 and vested in 2018, the 2015 variable remuneration award granted in 2016 and vested in 2018 and the 2016 variable remuneration award granted in 2017 and vested in 2018. The total number of share options granted in 2015, 2016 and 2017 are 6,100,000 shares, 6,262,500 shares and 6,400,000 shares respectively.

(iii) The unvested cash bonuses and share options relate to the 2015, 2016 and 2017 variable remunerations.

(iv) The outstanding deferred remuneration of Key Personnel in 2018 included the vested and unvested cash bonuses and share options of one Key Personnel who retired from the Group on 1st May, 2018.

Table CRA: General information about credit risk

Overview

Credit risk is the risk of loss arising from a borrower or counterparty failing to meet its obligations. Credit risk exists in the trading book and banking book, as well as from on- and off-balance sheet transactions of the Group. It arises principally from lending, trade finance and treasury businesses.

For the purpose of this document, any reference to exposures related to "credit risk" is referring to the same scope (i.e. non-securitization exposures excluding counterparty credit risk) unless otherwise specified.

The Group has established policies, procedures, risk profile and rating systems to identify, measure, monitor, control, and report on credit risk. In this connection, guidelines for management of credit risk have been laid down in the Group's Credit Risk Management Manual which is in line with the business strategy and risk appetite and above all, the regulatory guidelines and statutory requirements. These guidelines stipulate delegated lending authorities, credit underwriting criteria, credit monitoring processes, an internal rating structure, credit recovery procedures and a provisioning policy. They are reviewed and enhanced on an ongoing basis to cater for market changes, statutory requirements, and best practices in risk management processes.

Also, credit risk control limits are set for different levels. Risk, return, and market situation are considered when setting all limits. Active limit monitoring is undertaken.

Credit Risk Management

Pursuant to the establishment of the framework of Enterprise Risk Management ("ERM"), a "Three Lines of Defence" risk management model has been adopted by the Group as follows:

- The first line of defence: Risk Owners;
- The second line of defence: Risk Controllers; and
- The third line of defence: Internal Audit Division ("IAD").

Credit risk is one of the major risk types identified by the Group under the ERM framework. The Head of Credit Risk Management Department ("CRMD") under Risk Management Division ("RMD") is the Risk Controller of Credit Risk who is responsible for setting out a credit risk management governance framework, monitoring credit risk independently, and supporting the Credit Committee in managing all credit risk-related issues of the Group. Credit Committee receives a variety of reports on the credit risk exposures including asset quality and loan impairment charges, total exposures and RWAs, as well as updates on specific loan portfolios that are considered to have heightened credit risk.

As a prudent measure for the credit environment, CRMD has reviewed its roles, functions and organization structure, in particular, to ensure that under ERM framework, the first line of defence holds frontline positions in identification, assessment, management and reporting of risk exposures, having regard to the Group's risk appetite, policies, procedures and controls.

Being the third line of defence, IAD is responsible for providing assurance on the effectiveness of the Group's risk management framework including risk governance arrangements.

Template CR1: Credit quality of exposures

The table below provides an overview of the credit quality of on- and off-balance sheet exposures as at 31st December 2019:

		(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Gross carrying amounts of		Allowances / impairments	Of which ECL accounting provisions for credit losses on STC approach exposures		Of which ECL accounting provisions for credit losses on IRB approach exposures	Net values (a+b-c)
	(HK$ million)	Defaulted exposures	Non-defaulted exposures		Allocated in regulatory category of specific provisions	Allocated in regulatory category of collective provisions		
1	Loans	6,189	628,518	3,786	517	144	3,125	630,921
2	Debt securities	0	139,949	287	0	5	282	139,662
3	Off-balance sheet exposures	0	200,514	82	0	4	78	200,432
4	**Total**	**6,189**	**968,981**	**4,155**	**517**	**153**	**3,485**	**971,015**

Template CR2: Changes in defaulted loans and debt securities

The table below provides 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 for the period from 30th June 2019 to 31st December 2019:

		(a)
	(HK$ million)	Amount
1	**Defaulted loans and debt securities at end of the previous reporting period (30th June 2019)**	**8,335**
2	Loans and debt securities that have defaulted since the last reporting period	4,451
3	Returned to non-defaulted status	(22)
4	Amounts written off	(3,593)
5	Other changes*	(2,982)
6	**Defaulted loans and debt securities at end of the current reporting period (31st December 2019)**	**6,189**

* Other changes include loan repayment, disposal of the impaired loans and exchange rate difference

Table CRB: Additional disclosure related to credit quality of exposures

The Group adopts a forward-looking "expected credit loss" model for measuring and recognising impairment loss to meet the requirement of HKFRS9. Impairment allowance was measured for 12-month or lifetime expected credit losses ("ECL") using a 3-stage approach as follows:-

<table>
<tr><th>Stage</th><th>Description</th><th>Impairment Loss</th><th colspan="2">HKMA's 5-Grade Asset</th></tr>
<tr><td>1</td><td>Performing</td><td>12-month ECL</td><td>Pass</td><td>General (i.e. do not meet the Bank's criteria of "Significant Increase of Credit Risk")</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Performing but with credit risk increased significantly at reporting date since its initial recognition</td><td rowspan="2">Lifetime ECL</td><td>Pass</td><td>Meet the Bank's criteria of "Significant Increase of Credit Risk"</td></tr>
<tr><td colspan="2">Special Mention</td></tr>
<tr><td rowspan="3">3</td><td rowspan="3">Non-Performing</td><td rowspan="3">Lifetime ECL</td><td colspan="2">Substandard</td></tr>
<tr><td colspan="2">Doubtful</td></tr>
<tr><td colspan="2">Loss</td></tr>
</table>

- 12-month ECL are the portion of ECL that result from default events on a financial instrument that are possible within the 12 months after the reporting date.
- Lifetime ECL are the expected losses that result from all possible default events over the expected life of financial instrument.

The key inputs into the measurement of ECL are the term structure of the following variables:-

- Probability of default (PD);
- Loss given default (LGD); and
- Exposure of default (EAD)

For the portfolios without PD, references of peer bank PD estimates of similar portfolios and the long-run average default rate of the portfolios are used. The PD term structure estimation is referenced to forecast of economic index relevant to the portfolio.

LGD is the magnitude of the likely loss if there is a default. For the portfolios with insufficient historical loss and recovery data, either reference of peer bank LGD estimates of the similar portfolios or external data source are used for derivating the LGD estimates.

For the portfolio with individual assessment of credit risk mitigation measures, collateral values are projected for different economic scenario so as to reflect LGD estimates under different economic scenarios.

A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Loans and advances with a specific repayment date are classified as overdue when the principal or interest is overdue and remains unpaid at the period-end. Loans repayable by regular instalments are treated as overdue when an instalment payment is overdue and remains unpaid at period-end. Loans repayable on demand are classified as overdue either when a demand for repayment has been served on the borrower but repayment has not been made in accordance with the demand notice, and/or when the loans have remained continuously outside the approved limit advised to the borrower for more than the overdue period in question. In addition, a loan that is overdue for 90 days or more is considered impaired. There were no loans and advances that are past due for more than 90 days but are not impaired as at 31st December, 2019.

Loan will be regarded as "rescheduled loan" when it has been restructured or renegotiated due to financial difficulty of the borrower or the revised repayment terms are non-commercial to the Bank.

Table CRB: Additional disclosure related to credit quality of exposures (continued)

The quality of loans and advances to customers can be analysed as follows:-

Total Advances to Customers (HK$ million)	12-month ECL	Lifetime ECL not credit-impaired	Lifetime ECL credit-impaired
Pass	477,364	14,257	-
Special Mention	-	11,056	-
Substandard	-	-	4,757
Doubtful	-	-	1,314
Loss	-	-	118
Total	**477,364**	**25,313**	**6,189**

(i) Exposure by geographical area

(HK$ million)	Total Advances to Customers	Advances Overdue for Over Three Months	Impaired Advances to Customers	Impairment Provision for Stage 3	Write-off
Hong Kong	252,250	391	716	176	615
Mainland China	186,379	1,603	4,997	2,508	5,002
Other Asian Countries & Regions	30,255	110	156	67	13
Others	39,982	-	320	-	-
Total	**508,866**	**2,104**	**6,189**	**2,751**	**5,630**

(ii) Exposure by industry sector

Industry Sector (HK$ million)	Total Advances to Customers	Impaired Advances to Customers	Impairment Provision for Stage 3	Write-off
Property investment	96,703	1,076	301	1,657
Property development	83,901	1,329	257	2,058
Loans for purchase of residential properties	80,528	264	19	6
Financial Concern	52,613	48	0	0
Others	195,121	3,472	2,174	1,909
Total	**508,866**	**6,189**	**2,751**	**5,630**

(iii) Breakdown of exposures by remaining maturity

Total Advances to Customers	(HK$ million)
Repayable on demand	3,697
Within 1 month	63,570
3 months or less but over 1 month	29,767
1 year or less but over 3 months	86,300
5 years or less but over 1 year	199,203
Over 5 year	123,670
Undated or overdue	2,659
Total	**508,866**

Table CRB: Additional disclosure related to credit quality of exposures (continued)

(iv) The aging analysis of loans and advances to customers that are past due:-

Gross advances overdue for	(HK$ million)
- 6 months or less but over 3 months	1,049
- 1 year or less but over 6 months	308
- Over 1 year	747
Total	**2,104**

(v) Rescheduled exposure

Rescheduled exposure	(HK$ million)
Impaired Exposure	10
Not Impaired Exposure	163
Total	**173**

Table CRC: Qualitative disclosures related to credit risk mitigation

Process of managing and recognising credit risk mitigation

In evaluating the credit risk associated with an individual customer or counterparty, financial strength and repayment ability are always the primary considerations. Credit risk may be mitigated by obtaining recognised collateral and guarantees from the customer or counterparty. Meanwhile, recognised netting is not adopted by the Group.

The relevant policies and processes relating to the use of credit risk mitigation are established and approved by Credit Committee, in which guidelines and collateral valuation parameters are subject to regular reviews to ensure their effectiveness over credit risk management.

The Group applies safe custodian of collaterals, concentration limit and loan-to-value ratio controls, regular re-valuation and close monitoring. In particular, the Group monitors the value of the collateral on a sufficiently frequent basis with respect to the nature of the underlying credit, type of collateral and market practice, and at least annually. Marketable securities (i.e. equity share) are marked-to-market on a daily basis whilst valuations on properties are reviewed periodically.

The most common method of mitigating credit risk is to lend against eligible collateral. The extent of collateral coverage over the Group's loans and advances to customer depends on the type of customers and the product offered. Types of collateral include residential properties (in the form of mortgages over property), other properties, other registered securities over assets, cash deposits, standby letters of credit and guarantees. The Group has established guidelines and limits to control and monitor the credit risk arising from collateral concentration, and such guidelines and limits are subject to regular review. While on-going monitoring has been in place, the exposures which pledged with properties and shares are within the pre-set limit as at 31 Dec 2019.

Template CR3: Overview of recognised credit risk mitigation

The following table presents the extent of credit risk exposures covered by different types of recognised CRM as at 31st December 2019:

		(a)	(b1)	(b)	(d)	(f)
(HK$ million)		Exposures unsecured: carrying amount	Exposures to be secured	Exposures secured by recognised collateral	Exposures secured by recognised guarantees	Exposures secured by recognised credit derivative contracts
1	Loans	328,674	302,247	300,703	1,544	0
2	Debt securities	105,242	34,420	0	34,420	0
3	**Total**	**433,916**	**336,667**	**300,703**	**35,964**	**0**
4	Of which defaulted	136	3,157	3,157	0	0

Table CRD: Qualitative disclosures on use of ECAI ratings under STC approach

The Group adopts the Standardised approach, which mainly features the risk-weighting of credit risk exposures according to credit ratings provided by External Credit Assessment Institutions ("ECAIs") recognised by the HKMA, in assessing the capital adequacy of credit risk exposures which do not qualify for or are exempted from the use of an IRB approach.

Credit ratings from Moody's Investors Service and Standard and Poor's Ratings Services are used in the Group for risk-weighting credit risk exposures under the following exposure classes:

- Sovereign;
- Public sector entity;
- Bank;
- Securities firm;
- Corporate; and
- Collective investment scheme.

In accordance with the requirements prescribed in Part 4 of the Banking (Capital) Rules in respect of the application of ECAI ratings, for an exposure falling under any of the exposure classes listed above that consists of a debt obligation issued or undertaken by the obligor or an interest in a collective investment scheme which has one or more than one ECAI issue specific rating, the Group would apply the issue specific rating(s) directly in risk-weighting the exposure; while for an exposure falling under one of the first five exposure classes listed above which does not have an ECAI issue specific rating and the obligor of which has an ECAI issuer rating but does not have a long-term ECAI issue specific rating assigned to a debt obligation issued or undertaken by the obligor, the Group would use the ECAI issuer rating in risk-weighting the exposure under any of the following circumstances:

- The use of the ECAI issuer rating would result in the allocation of a risk weight to the exposure that would be equal to, or higher than, the risk weight allocated to the exposure on the basis that the obligor has neither an ECAI issuer rating nor an ECAI issue specific rating assigned to a debt obligation issued or undertaken by the obligor; the ECAI issuer rating is only applicable to unsecured exposures to the obligor as an issuer that are not subordinated to other exposures to that obligor; and the exposure to the obligor ranks equally with, or is subordinated to, the unsecured exposures referred to above.

- The use of the ECAI issuer rating would result in the allocation of a risk weight to the exposure that would be lower than the risk weight allocated to the exposure on the basis that the obligor has neither an ECAI issuer rating nor an ECAI issue specific rating assigned to a debt obligation issued or undertaken by the obligor; the ECAI issuer rating is only applicable to unsecured exposures to the obligor as an issuer that are not subordinated to other exposures to that obligor; and the exposure to the obligor is not subordinated to other exposures to the obligor as an issuer.

Template CR4: Credit risk exposures and effects of recognised credit risk mitigation – for STC approach

The following table illustrates the effect of any recognised CRM (including recognised collateral under both comprehensive and simple approaches) on the calculation of credit risk capital requirements under STC approach as at 31st December 2019:

		(a)	(b)	(c)	(d)	(e)	(f)
		Exposures pre-CCF and pre-CRM		Exposures post-CCF and post-CRM		RWA and RWA density	
	Exposure Classes	On-balance sheet amount (HK$ Mn)	Off-balance sheet amount (HK$ Mn)	On-balance sheet amount (HK$ Mn)	Off-balance sheet amount (HK$ Mn)	RWA (HK$ Mn)	RWA density
1	Sovereign exposures	77,445	0	77,445	0	642	0.83%
2	PSE exposures	410	263	539	254	134	16.93%
2a	Of which: domestic PSEs	0	193	129	219	82	23.66%
2b	Of which: foreign PSEs	410	70	410	35	52	11.67%
3	Multilateral development bank exposures	1,017	0	1,017	0	0	0.00%
4	Bank exposures	129	0	129	0	26	20.00%
5	Securities firm exposures	6,880	866	5,126	12	2,569	50.00%
6	Corporate exposures	8,950	3,128	5,904	71	5,637	94.33%
7	CIS exposures	0	0	0	0	0	-
8	Cash items	0	0	0	0	0	-
9	Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis	0	0	0	0	0	-
10	Regulatory retail exposures	30,082	12,009	29,197	18	21,911	75.00%
11	Residential mortgage loans	8,027	676	7,708	84	3,342	42.90%
12	Other exposures which are not past due exposures	14,449	3,236	5,418	113	5,531	100.00%
13	Past due exposures	60	0	60	0	65	107.96%
14	Significant exposures to commercial entities	0	0	0	0	0	-
15	**Total**	**147,449**	**20,178**	**132,543**	**552**	**39,857**	**29.95%**

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The Bank of East Asia, Limited
東亞銀行有限公司

Template CR5: Credit risk exposures by asset classes and by risk weights – for STC approach

The following table presents a breakdown of credit risk exposures under STC approach by asset classes and by risk weights as at 31st December 2019:

	(HK$ million)	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(ha)	(i)	(j)
	Risk Weight / Exposure Class	0%	10%	20%	35%	50%	75%	100%	150%	250%	Others	Total credit risk exposures amount (post CCF and post CRM)
1	Sovereign exposures	74,237	0	3,208	0	0	0	0	0	0	0	77,445
2	PSE exposures	185	0	565	0	43	0	0	0	0	0	793
2a	Of which: domestic PSEs	0	0	305	0	43	0	0	0	0	0	348
2b	Of which: foreign PSEs	185	0	260	0	0	0	0	0	0	0	445
3	Multilateral development bank exposures	1,017	0	0	0	0	0	0	0	0	0	1,017
4	Bank exposures	0	0	129	0	0	0	0	0	0	0	129
5	Securities firm exposures	0	0	0	0	5,138	0	0	0	0	0	5,138
6	Corporate exposures	0	0	395	0	45	0	5,535	0	0	0	5,975
7	CIS exposures	0	0	0	0	0	0	0	0	0	0	0
8	Cash items	0	0	0	0	0	0	0	0	0	0	0
9	Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis	0	0	0	0	0	0	0	0	0	0	0
10	Regulatory retail exposures	0	0	0	0	0	29,215	0	0	0	0	29,215
11	Residential mortgage loans	0	0	0	6,716	0	334	742	0	0	0	7,792
12	Other exposures which are not past due exposures	0	0	0	0	0	0	5,531	0	0	0	5,531
13	Past due exposures	0	0	0	0	0	0	50	10	0	0	60
14	Significant exposures to commercial entities	0	0	0	0	0	0	0	0	0	0	0
15	**Total**	**75,439**	**0**	**4,297**	**6,716**	**5,226**	**29,549**	**11,858**	**10**	**0**	**0**	**133,095**

Table CRE: Qualitative disclosures related to internal models for measuring credit risk under IRB approach

The Group mainly adopts the IRB approach and relies on its own internal rating models for assessments of the Group's capital adequacy in relation to credit risk exposures.

Overview of the Group's Application of IRB Approach

The Group has been approved by the Hong Kong Monetary Authority pursuant to the Banking (Capital) Rules to use the respective IRB approaches to calculate its credit risk for non-securitisation exposures falling under the following exposure classes:

Exposure class	Description	IRB approach
Corporate	Specialised lending and exposures to small-and-medium sized corporates and other corporates which have sufficient financial information for PD estimation	Specialised lending: Supervisory slotting criteria approach Other than specialised lending: Foundation IRB approach
Bank	Exposures to banks which have sufficient financial information for PD estimation	Foundation IRB approach
Retail	Qualifying revolving retail exposures, small business retail exposures and other retail exposures to individuals in Hong Kong, and mortgages to individuals and property holding shell companies in Hong Kong and Mainland China	Retail IRB approach
Equity	All direct and indirect equity interests in publicly-traded and private companies	Market-based approach
Other	All cash items and other items	Specific risk-weighting approach

The table below indicates the portion of EAD within the Group covered by the Standardised approach and the respective IRB approaches for each of the exposure classes as at 31st December 2019:

Exposure class	Standardised approach	IRB approaches					
		Foundation IRB approach	Supervisory slotting criteria approach	Retail IRB approach	Market-based approach	Specific risk-weighting approach	Other
Sovereign	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Corporate	1.36%	91.22%	7.42%	0.00%	0.00%	0.00%	0.00%
Bank	4.36%	95.64%	0.00%	0.00%	0.00%	0.00%	0.00%
Retail	21.49%	0.00%	0.00%	78.51%	0.00%	0.00%	0.00%
Equity	0.00%	0.00%	0.00%	0.00%	37.75%	0.00%	62.25%
Other	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%

Control Mechanisms for Internal Models

Risk Strategy & Governance Department under the Risk Management Division is responsible for the initial design and development, ongoing enhancement and monitoring of the Group's credit risk internal rating models. To ensure that the internal rating models fit for purpose, they should be reviewed by functions independent from the function in charge of development. For this purpose, the Independent Validation Section has been established within Risk Management Division to validate the internal rating models independently while Internal Audit Division is responsible for reviewing the validation process and estimation of the risk components of the internal rating models. All credit risk internal rating models are subject to the review and approval by the Credit Committee, which has been delegated by the Board of Directors to deal with all credit risk related issues of the Group.

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

To ensure that the Credit Committee has sufficient information to execute the review and approval of the internal rating models, reports with the following information should be submitted by Risk Strategy & Governance Department to the Credit Committee regularly:

- risk profile by grade;
- risk rating migration across grades;
- estimation of relevant parameters per grade;
- comparison of realised default rates (LGDs and EADs where applicable) against expectation;
- changes in regulatory capital due to model enhancement;
- results of credit risk stress-testing; and
- material changes or exceptions from established policies that will materially impact the operations of the internal rating models.

Main Characteristics of Internal Models

The Group has developed internal models for estimation of the probability of default ("PD") of obligors in the bank, corporate and retail exposure classes. In addition, internal models for estimation of the loss given default ("LGD") and exposure at default ("EAD") have also been developed for retail exposures. As at 31st December 2019, approximately 80% of the Group's exposures under IRB approach (measured in terms of RWA) are covered by internal models.

Internal Models for non-Retail Portfolios

The scope of application of different PD models is determined according to the nature of counterparties. The Bank PD model is applied to exposures to bank obligors while the Corporate PD model is applied to exposures to obligors that are corporates.

The Bank PD model relies on financial information as the base rating and expert qualitative assessment as exceptional rating adjustment. As internal default data is not available for this low default portfolio, the PDs are estimated with reference to the external credit ratings of the obligors and calibrated to the long-run default rates associated with respective external credit ratings published by ECAIs.

The Corporate PD model relies heavily on the statistical analysis of quantitative financial information and expert qualitative assessment of individual obligors. As there are sufficient internal default data for this portfolio, the PDs are estimated with reference to the historical internal default data and calibrated to the long-run default rates from the Group's internal data.

Under the Foundation IRB approach, the Group applies the supervisory estimates in determining the LGD and EAD for non-retail portfolios.

Internal Models for Retail Portfolio

The retail portfolio has been segmented into various sub-portfolios according to product characteristics with one PD model developed for each of the sub-portfolios. As more sufficient sample is available for retail exposures, the retail PD models are built on a pool basis with reference to the historical internal default data and the PD estimates are calibrated to the long-run default rates from the Group's internal data.

Under the Retail IRB approach, the Group also generates its own LGD and EAD estimates for retail portfolios with the use of internal models.

The retail LGD models are developed according to the historical data collected during the recovery processes. In determining the time lapse between default event and closure of the exposure in LGD estimation, an exposure is considered to be closed when there is no reasonable prospect of further recovery. All LGD models are calibrated to an economic downturn. For secured retail portfolios, downturn LGDs are estimated by adjusting the LGDs with reference to the highest drop in the corresponding macroeconomic index associated with respective collateral types; whilst for unsecured retail portfolios, downturn LGDs refer to the highest actual LGDs in the last 5 years.

EAD is calculated as the sum of on-balance sheet amount and credit equivalent amount of off-balance sheet items. For the Hong Kong credit card portfolio, two distinctive models for estimation of the credit equivalent amount and hence EAD have been developed taking into consideration the different behaviours of accounts with high and low utilisations respectively. For Hong Kong credit card exposures with high utilisation, the credit equivalent amount is calculated as the product of utilisation ratio and credit limit; while for those with low utilisation, the historical realised further drawdown ratio of unutilised portion in the year prior to default is used in estimating the credit equivalent amount and hence the EAD.

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

For other retail exposures, credit equivalent amounts for performing accounts are estimated with a credit conversion factor of 100% and those for non-performing accounts with a credit conversion factor of 0%.

The main characteristics of individual component models are summarised in the table below:

Portfolio	Component	Number of Material Model(s)	Model Description and Methodology	Regulatory Floor
Bank	PD	1	Statistical model built on financial information as the base rating and expert qualitative assessment as exceptional rating adjustment, and calibrated to the long-run default rates associated with respective external credit ratings published by ECAIs.	0.03%
Corporate	PD	2	Statistical models built by combining financial information and expert qualitative assessment, and calibrated to the long-run default rates from the Group's internal data. The 2 models are for borrowers operating in Mainland China and for borrowers operating outside Mainland China, respectively.	0.03%
Retail – Hong Kong Credit Card	PD	1	Statistical model built on internal and bureau data, and calibrated to the long-run default rates from the Group's internal data.	0.03%
	LGD	1	Statistical model built on internal loss and recovery data, with the downturn LGD referring to the highest LGD in the last 5 years.	–
	EAD	2	For high utilisation accounts, the credit equivalent amount is calculated as the product of utilisation ratio and credit limit; while for low utilisation accounts, the historical realised further drawdown ratio of unutilised portion in the year prior to default is used in estimating the credit equivalent amount.	–
Retail – Hong Kong Unsecured Overdraft	PD	1	Statistical model built on internal and bureau data, and calibrated to the long-run default rates from the Group's internal data.	0.03%
	LGD	1	Statistical model built on internal loss and recovery data, with the downturn LGD referring to the highest LGD in the last 5 years.	–
	EAD	1	In estimating the credit equivalent amount and hence the EAD, a credit conversion factor of 100% is applied to performing accounts and a credit conversion factor of 0% to non-performing accounts.	–

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

Portfolio	Component	Number of Material Model(s)	Model Description and Methodology	Regulatory Floor
Retail – Hong Kong Revolving Loan	PD	1	Statistical model built on internal and bureau data, and calibrated to the long-run default rates from the Group's internal data.	0.03%
	LGD	1	Statistical model built on internal loss and recovery data, with the downturn LGD referring to the highest LGD in the last 5 years.	–
	EAD	1	In estimating the credit equivalent amount and hence the EAD, a credit conversion factor of 100% is applied to performing accounts and a credit conversion factor of 0% to non-performing accounts.	–
Retail – Hong Kong Other Unsecured Loan	PD	1	Statistical model built on internal and bureau data, and calibrated to the long-run default rates from the Group's internal data.	0.03%
	LGD	1	Statistical model built on internal loss and recovery data, with the downturn LGD referring to the highest LGD in the last 5 years.	–
	EAD	1	In estimating the credit equivalent amount and hence the EAD, a credit conversion factor of 100% is applied to performing accounts and a credit conversion factor of 0% to non-performing accounts.	–
Retail – Hong Kong Residential Mortgage	PD	1	Statistical model built on historical default data with consideration of mortgage scheme type, borrower type and delinquency status, and calibrated to the long-run default rates from the Group's internal data.	0.03%
	LGD	1	Statistical model built on internal loss and recovery data, with the downturn LGD estimated by adjusting the LGD with reference to the historical highest drop in Hong Kong Private Domestic Price Index.	10%
	EAD	1	In estimating the credit equivalent amount and hence the EAD, a credit conversion factor of 100% is applied to performing accounts and a credit conversion factor of 0% to non-performing accounts.	–
Retail – Hong Kong Non-residential Mortgage	PD	1	Statistical model built on historical default data and calibrated to the long-run default rates from the Group's internal data.	0.03%
	LGD	1	Statistical model built on internal loss and recovery data, with the downturn LGD estimated by adjusting the LGD with reference to the historical highest drop in Hong Kong Private Office Price Index.	–
	EAD	1	In estimating the credit equivalent amount and hence the EAD, a credit conversion factor of 100% is applied to performing accounts and a credit conversion factor of 0% to non-performing accounts.	–

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

Portfolio	Component	Number of Material Model(s)	Model Description and Methodology	Regulatory Floor
Retail – Hong Kong Other Secured Loan	PD	1	Statistical model built on historical default data with consideration of collateral type and delinquency status, and calibrated to the long-run default rates from the Group's internal data.	0.03%
	LGD	1	Statistical model built on internal loss and recovery data, with the downturn LGD estimated by adjusting the LGD with reference to the historical highest drop in License Fee of Urban Taxi.	–
	EAD	1	In estimating the credit equivalent amount and hence the EAD, a credit conversion factor of 100% is applied to performing accounts and a credit conversion factor of 0% to non-performing accounts.	–
Retail – China Mortgage Loan	PD	1	Statistical model built on historical default data with consideration of delinquency status, and calibrated to the long-run default rates from the Group's internal data.	0.03%
	LGD	1	Statistical model built on internal loss and recovery data, with the downturn LGD estimated by adjusting the LGD with reference to the historical highest drop in China Property Price Index.	–
	EAD	1	In estimating the credit equivalent amount and hence the EAD, a credit conversion factor of 100% is applied to performing accounts and a credit conversion factor of 0% to non-performing accounts.	–

Comparison of Actual Default Rate against Estimated Probability of Default

The following tables present a comparison of the actual percentage of default during the last three reporting periods and the corresponding 1-year probability of default estimated as at the end of the previous financial year-ends.

2019

Exposure class	Actual percentage of default for the year ended 31st December, 2019	Estimated 1-year probability of default at 31st December, 2018
Bank	0.00%	0.32%
Corporate	1.21%	2.55%
Retail – QRRE	0.30%	0.55%
Retail – Residential mortgage exposures	0.15%	0.70%
Retail – Small business retail exposures	0.82%	1.22%
Other retail exposures to individuals	2.46%	3.93%

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

2018

Exposure class	Actual percentage of default for the year ended 31st December, 2018	Estimated 1-year probability of default at 31st December, 2017
Bank	0.00%	0.29%
Corporate	1.31%	3.78%
Retail – QRRE	0.38%	0.55%
Retail – Residential mortgage exposures	0.15%	0.77%
Retail – Small business retail exposures	0.20%	1.44%
Other retail exposures to individuals	2.24%	3.57%

2017

Exposure class	Actual percentage of default for the year ended 31st December, 2017	Estimated 1-year probability of default at 31st December, 2016
Bank	0.00%	0.27%
Corporate	1.20%	4.21%
Retail – QRRE	0.39%	0.56%
Retail – Residential mortgage exposures	0.16%	1.00%
Retail – Small business retail exposures	1.70%	2.45%
Other retail exposures to individuals	2.01%	3.86%

An actual default rate for a particular financial year is “point-in-time” in nature and, as the economy moves above or below cyclical norms, may differ from the corresponding PD estimate which is measured on a “through-the-cycle” basis.

As shown in the above tables, the actual default rates have been lower than the corresponding PD estimates in the last three reporting periods.

Template CR6: Credit risk exposures by portfolio and PD ranges – for IRB approach

The following table presents the main parameters of internal models used for the calculation of credit risk capital requirements under the IRB approach at 31st December 2019:

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	PD Scale	Original on-balance sheet gross exposure (HK$ Mn)	Off-balance sheet exposure pre-CCF (HK$ Mn)	Average CCF	EAD post-CRM and post-CCF (HK$ Mn)	Average PD	Number of obligors	Average LGD	Average maturity	RWA (HK$ Mn)	RWA density	EL (HK$ Mn)	Provisions (HK$ Mn)
Bank	0.00 to <0.15	76,266	3	20.00%	76,379	0.07%	232	46.18%		23,668	30.99%	23	
	0.15 to <0.25	16,659	624	33.51%	17,022	0.23%	86	45.35%		10,724	63.00%	18	
	0.25 to <0.50	16,995	373	20.00%	17,187	0.33%	70	45.41%		12,030	69.99%	26	
	0.50 to <0.75	8,466	0	20.00%	8,467	0.51%	31	44.68%		7,260	85.75%	20	
	0.75 to <2.50	3,307	568	80.40%	3,764	1.12%	28	44.98%		4,185	111.16%	19	
	2.50 to <10.00	401	0	-	401	5.23%	4	45.00%		605	151.07%	9	
	10.00 to <100.00	0	0	-	0	-	0	-		0	-	0	
	100.00 (Default)	0	0	-	0	-	0	-		0	-	0	
	Sub-total	**122,094**	**1,568**	**47.26%**	**123,220**	**0.21%**	**451**	**45.82%**		**58,472**	**47.45%**	**115**	**39**
Corporate – small-and-medium sized corporates	0.00 to <0.15	4,610	445	59.02%	5,362	0.07%	40	39.16%		926	17.27%	2	
	0.15 to <0.25	13,442	2,518	54.82%	14,213	0.20%	109	38.85%		4,585	32.26%	11	
	0.25 to <0.50	4,375	1,256	43.16%	4,743	0.34%	72	37.36%		1,890	39.85%	6	
	0.50 to <0.75	2,234	1,099	37.75%	3,131	0.52%	95	39.14%		1,569	50.09%	6	
	0.75 to <2.50	12,665	2,246	44.33%	13,530	1.36%	410	37.84%		9,044	66.85%	69	
	2.50 to <10.00	11,938	1,871	18.11%	14,129	5.14%	735	36.55%		13,367	94.61%	261	
	10.00 to <100.00	861	30	83.24%	867	11.82%	39	35.43%		1,062	122.49%	36	
	100.00 (Default)	1,762	0	-	1,762	100.00%	290	38.51%		3,831	217.47%	455	
	Sub-total	**51,887**	**9,465**	**41.83%**	**57,737**	**4.92%**	**1,790**	**37.91%**		**36,274**	**62.83%**	**846**	**1,086**

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

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	PD Scale	Original on-balance sheet gross exposure (HK$ Mn)	Off-balance sheet exposure pre-CCF (HK$ Mn)	Average CCF	EAD post-CRM and post-CCF (HK$ Mn)	Average PD	Number of obligors	Average LGD	Average maturity	RWA (HK$ Mn)	RWA density	EL (HK$ Mn)	Provisions (HK$ Mn)
Corporate – other (including purchased corporate receivables)	0.00 to <0.15	83,521	24,625	40.86%	98,404	0.07%	470	43.43%		24,265	24.66%	32	
	0.15 to <0.25	101,802	31,164	31.64%	117,844	0.20%	541	41.80%		49,148	41.71%	97	
	0.25 to <0.50	38,399	17,559	12.89%	39,860	0.34%	243	41.18%		21,912	54.97%	55	
	0.50 to <0.75	23,737	10,402	23.79%	25,282	0.52%	147	38.03%		15,693	62.07%	50	
	0.75 to <2.50	37,322	26,330	14.95%	35,854	1.23%	347	32.87%		27,593	76.96%	139	
	2.50 to <10.00	25,557	15,419	11.68%	21,707	5.39%	259	26.78%		20,477	94.33%	290	
	10.00 to <100.00	2,277	226	96.05%	2,113	14.01%	18	34.07%		3,382	160.06%	101	
	100.00 (Default)	2,955	3	50.00%	2,956	100.00%	91	43.22%		3,740	126.51%	1,352	
	Sub-total	**315,570**	**125,728**	**24.35%**	**344,020**	**1.58%**	**2,116**	**40.00%**		**166,210**	**48.31%**	**2,116**	**4,412**
Retail – QRRE	0.00 to <0.15	46	10,955	59.44%	6,557	0.14%	500,017	91.87%		479	7.31%	8	
	0.15 to <0.25	36	225	61.91%	176	0.24%	7,888	91.74%		20	11.42%	0	
	0.25 to <0.50	3,185	20,276	61.14%	15,582	0.35%	424,023	91.87%		2,417	15.51%	51	
	0.50 to <0.75	155	1,794	80.46%	1,598	0.59%	63,003	90.63%		369	23.09%	9	
	0.75 to <2.50	566	2,533	67.45%	2,275	1.40%	102,857	90.52%		995	43.72%	29	
	2.50 to <10.00	929	1,308	75.52%	1,917	5.23%	38,810	91.27%		2,144	111.82%	91	
	10.00 to <100.00	20	16	91.57%	34	23.44%	743	91.10%		77	227.34%	7	
	100.00 (Default)	52	0	-	52	100.00%	34,777	91.45%		268	516.18%	26	
	Sub-total	**4,989**	**37,107**	**62.53%**	**28,191**	**0.94%**	**1,172,118**	**91.65%**		**6,769**	**24.01%**	**221**	**122**

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

	PD Scale	(a) Original on-balance sheet gross exposure (HK$ Mn)	(b) Off-balance sheet exposure pre-CCF (HK$ Mn)	(c) Average CCF	(d) EAD post-CRM and post-CCF (HK$ Mn)	(e) Average PD	(f) Number of obligors	(g) Average LGD	(h) Average maturity	(i) RWA (HK$ Mn)	(j) RWA density	(k) EL (HK$ Mn)	(l) Provisions (HK$ Mn)
Retail – Residential mortgage exposures (including both to individuals and to property-holding shell companies)	0.00 to <0.15	7,262	547	100.00%	7,809	0.10%	2,039	30.49%		1,713	21.93%	2	
	0.15 to <0.25	39,644	1,143	100.00%	40,787	0.23%	18,971	21.82%		8,174	20.04%	21	
	0.25 to <0.50	62,414	259	100.00%	62,674	0.34%	22,099	15.13%		12,967	20.69%	32	
	0.50 to <0.75	1,744	0	-	1,744	0.64%	1,201	30.07%		487	27.94%	3	
	0.75 to <2.50	1,716	37	100.00%	1,752	1.25%	1,915	11.46%		378	21.59%	3	
	2.50 to <10.00	818	0	100.00%	819	6.97%	658	29.37%		933	113.98%	17	
	10.00 to <100.00	814	0	-	814	16.83%	570	18.97%		828	101.74%	30	
	100.00 (Default)	301	0	-	301	100.00%	139	19.92%		560	186.13%	21	
	Sub-total	**114,713**	**1,986**	**100.00%**	**116,700**	**0.72%**	**47,592**	**18.80%**		**26,040**	**22.31%**	**129**	**1,378**
Retail – small business retail exposures	0.00 to <0.15	0	0	-	0	-	0	-		0	-	0	
	0.15 to <0.25	37	0	-	37	0.25%	19	28.07%		5	13.06%	0	
	0.25 to <0.50	81	1	100.00%	82	0.34%	38	12.42%		6	7.13%	0	
	0.50 to <0.75	25	10	100.00%	36	0.55%	68	68.76%		18	51.90%	0	
	0.75 to <2.50	558	27	100.00%	585	1.40%	372	22.29%		144	24.77%	2	
	2.50 to <10.00	23	2	100.00%	24	4.71%	30	50.48%		18	72.83%	1	
	10.00 to <100.00	4	0	-	4	21.74%	8	30.57%		3	67.74%	0	
	100.00 (Default)	1	0	-	1	100.00%	4	75.75%		0	1.13%	1	
	Sub-total	**729**	**40**	**100.00%**	**769**	**1.54%**	**539**	**24.68%**		**194**	**25.30%**	**4**	**10**

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

	PD Scale	(a) Original on-balance sheet gross exposure (HK$ Mn)	(b) Off-balance sheet exposure pre-CCF (HK$ Mn)	(c) Average CCF	(d) EAD post-CRM and post-CCF (HK$ Mn)	(e) Average PD	(f) Number of obligors	(g) Average LGD	(h) Average maturity	(i) RWA (HK$ Mn)	(j) RWA density	(k) EL (HK$ Mn)	(l) Provisions (HK$ Mn)
Other retail exposures to individuals	0.00 to <0.15	311	14	59.37%	320	0.03%	108	70.16%		24	7.51%	0	
	0.15 to <0.25	195	28	100.00%	223	0.23%	428	49.49%		46	20.68%	0	
	0.25 to <0.50	72	125	68.37%	157	0.35%	246	91.59%		85	53.75%	1	
	0.50 to <0.75	2,075	143	98.46%	2,215	0.53%	885	68.54%		1,125	50.81%	8	
	0.75 to <2.50	4,558	203	96.27%	4,753	1.62%	12,478	48.53%		2,779	58.46%	39	
	2.50 to <10.00	1,842	76	87.99%	1,908	4.72%	5,781	51.42%		1,449	75.92%	50	
	10.00 to <100.00	175	0	60.91%	176	27.34%	1,130	60.90%		254	144.53%	30	
	100.00 (Default)	152	0	-	152	100.00%	567	57.26%		142	93.49%	88	
	Sub-total	**9,380**	**589**	**89.08%**	**9,904**	**3.84%**	**21,623**	**55.32%**		**5,904**	**59.61%**	**216**	**182**
Total (sum of all portfolios)		**619,362**	**176,483**	**34.60%**	**680,541**	**1.47%**	**1,246,229**	**39.59%**		**299,863**	**44.06%**	**3,647**	**7,229**

Template CR7: Effects on RWA of recognised credit derivative contracts used as recognised credit risk mitigation – for IRB approach

The following table presents the effect of recognised credit derivative contracts on the calculation of credit risk capital requirements under the IRB approach as at 31st December 2019:

		(a)	(b)
(HK$ million)		Pre-credit derivatives RWA	Actual RWA
1	Corporate – Specialised lending under supervisory slotting criteria approach (project finance)	102	102
2	Corporate – Specialised lending under supervisory slotting criteria approach (object finance)	627	627
3	Corporate – Specialised lending under supervisory slotting criteria approach (commodities finance)	0	0
4	Corporate – Specialised lending under supervisory slotting criteria approach (income-producing real estate)	22,010	22,010
5	Corporate – Specialised lending (high-volatility commercial real estate)	0	0
6	Corporate – Small-and-medium sized corporates	36,274	36,274
7	Corporate – Other corporates	166,210	166,210
8	Sovereigns	0	0
9	Sovereign foreign public sector entities	0	0
10	Multilateral development banks	0	0
11	Bank exposures – Banks	58,472	58,472
12	Bank exposures – Securities firms	0	0
13	Bank exposures – Public sector entities (excluding sovereign foreign public sector entities)	0	0
14	Retail – Small business retail exposures	194	194
15	Retail – Residential mortgages to individuals	24,556	24,556
16	Retail – Residential mortgages to property-holding shell companies	1,484	1,484
17	Retail – Qualifying revolving retail exposures (QRRE)	6,769	6,769
18	Retail – Other retail exposures to individuals	5,904	5,904
19	Equity – Equity exposures under market-based approach (simple risk-weight method)	16,065	16,065
20	Equity – Equity exposures under market-based approach (internal models method)	0	0
21	Equity – Equity exposures under PD/LGD approach (publicly traded equity exposures held for long-term investment)	0	0
22	Equity – Equity exposures under PD/LGD approach (privately owned equity exposures held for long-term investment)	0	0
23	Equity – Equity exposures under PD/LGD approach (other publicly traded equity exposures)	0	0
24	Equity – Equity exposures under PD/LGD approach (other equity exposures)	0	0
25	Equity – Equity exposures associated with equity investments in funds (CIS exposures)	0	0
25a	Equity – Specified equity exposures to financial sector entities and commercial entities	16,566	16,566
26	Other – Cash items	0	0
27	Other – Other items	17,904	17,904
28	**Total**	**373,137**	**373,137**

Template CR8: RWA flow statements of credit risk exposures under IRB approach

The following table presents a flow statement explaining variations in the RWA for credit risk determined under the IRB approach for the period from 30th September 2019 to 31st December 2019:

		(a)
	(HK$ million)	Amount
1	**RWA as at end of previous reporting period**	**349,866**
2	Asset size	1,399
3	Asset quality	20,580
4	Model updates	0
5	Methodology and policy	0
6	Acquisitions and disposals	-7
7	Foreign exchange movements	1,685
8	Other	-386
9	**RWA as at end of reporting period**	**373,137**

Template CR9: Back-testing of PD per portfolio – for IRB approach

The following table provides back-testing data as at 31st December 2019 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)	(c)		(d)	(e)	(f)		(g)	(h)	(i)
Portfolio	PD Range	External Rating Equivalent		Weighted Average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which: new defaulted obligors in the year	Average historical annual default rate
		Moody's	Standard & Poor's			Beginning of the year	End of the year			
Bank	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	0.07%	0.08%	256	388	0	0	0.00%
	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	0.22%	0.22%	64	122	0	0	0.00%
	0.25 to <0.50	Baa2 to Ba1	BBB to BB+	0.38%	0.40%	101	253	0	0	0.00%
	0.50 to <0.75	Ba1 to Ba2	BB+ to BB	-	-	0	19	0	0	-
	0.75 to <2.50	Ba2 to B2	BB to B	1.06%	1.10%	23	65	0	0	0.00%
	2.50 to <10.00	B2 to Caa1	B to CCC+	4.32%	5.22%	8	14	0	0	0.00%
	10.00 to <100.00	Caa1 to C	CCC+ to C	-	-	0	0	0	0	-
Corporate - small-and-medium sized corporates	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	0.07%	0.08%	56	75	0	0	0.00%
	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	0.19%	0.18%	53	78	0	0	0.00%
	0.25 to <0.50	Baa2 to Ba1	BBB to BB+	0.30%	0.32%	137	165	0	0	0.11%
	0.50 to <0.75	Ba1 to Ba2	BB+ to BB	0.54%	0.54%	93	115	0	0	0.20%
	0.75 to <2.50	Ba2 to B2	BB to B	1.54%	1.48%	419	482	2	1	1.09%
	2.50 to <10.00	B2 to Caa1	B to CCC+	5.16%	5.58%	811	887	7	0	1.70%
	10.00 to <100.00	Caa1 to C	CCC+ to C	19.86%	19.49%	56	57	7	0	12.51%
Corporate - other (including purchased corporate receivables)	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	0.07%	0.07%	593	798	1	0	0.13%
	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	0.18%	0.18%	317	442	1	0	0.06%
	0.25 to <0.50	Baa2 to Ba1	BBB to BB+	0.30%	0.29%	308	423	1	0	0.22%
	0.50 to <0.75	Ba1 to Ba2	BB+ to BB	0.54%	0.54%	143	187	0	0	0.41%
	0.75 to <2.50	Ba2 to B2	BB to B	1.27%	1.37%	321	411	5	0	0.94%
	2.50 to <10.00	B2 to Caa1	B to CCC+	5.05%	5.05%	296	354	7	0	1.66%
	10.00 to <100.00	Caa1 to C	CCC+ to C	31.14%	23.08%	25	27	12	0	26.46%

Template CR9: Back-testing of PD per portfolio – for IRB approach (continued)

(a)	(b)	(c)		(d)	(e)	(f)		(g)	(h)	(i)
Portfolio	PD Range	External Rating Equivalent		Weighted Average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which: new defaulted obligors in the year	Average historical annual default rate
		Moody's	Standard & Poor's			Beginning of the year	End of the year			
Retail – QRRE	0.00 to <0.15			0.14%	0.14%	468,668	485,510	113	0	0.03%
	0.15 to <0.25			0.24%	0.24%	8,122	9,303	2	0	0.06%
	0.25 to <0.50			0.35%	0.35%	436,723	518,421	1,085	14	0.23%
	0.50 to <0.75			0.59%	0.65%	53,263	75,657	188	52	0.32%
	0.75 to <2.50			1.34%	1.20%	89,931	147,803	746	54	0.75%
	2.50 to <10.00			5.21%	5.34%	40,544	45,061	1,222	26	3.85%
	10.00 to <100.00			23.59%	28.45%	849	1,181	343	204	22.17%
Retail – Residential mortgage exposures (including both to individuals and to property-holding shell companies)	0.00 to <0.15			0.10%	0.10%	1,965	2,661	1	0	0.01%
	0.15 to <0.25			0.23%	0.24%	21,690	29,892	18	1	0.07%
	0.25 to <0.50			0.34%	0.34%	19,547	19,549	10	0	0.09%
	0.50 to <0.75			0.64%	0.64%	1,200	2,402	0	0	0.13%
	0.75 to <2.50			1.14%	0.90%	1,957	2,103	0	0	0.14%
	2.50 to <10.00			6.98%	6.93%	819	820	7	0	1.02%
	10.00 to <100.00			16.73%	18.30%	735	738	39	0	4.26%
Retail – small business retail exposures	0.00 to <0.15			-	-	0	0	0	0	-
	0.15 to <0.25			0.25%	0.25%	45	47	0	0	0.00%
	0.25 to <0.50			0.34%	0.34%	53	57	0	0	0.36%
	0.50 to <0.75			0.53%	0.53%	173	200	0	0	0.30%
	0.75 to <2.50			1.40%	1.24%	413	462	5	1	0.62%
	2.50 to <10.00			4.00%	4.00%	41	42	1	0	1.89%
	10.00 to <100.00			11.58%	11.83%	8	8	1	0	20.31%

Template CR9: Back-testing of PD per portfolio – for IRB approach (continued)

(a)	(b)	(c)		(d)	(e)	(f)		(g)	(h)	(i)
Portfolio	PD Range	External Rating Equivalent		Weighted Average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which: new defaulted obligors in the year	Average historical annual default rate
		Moody's	Standard & Poor's			Beginning of the year	End of the year			
Other retail exposures to individuals	0.00 to <0.15			0.03%	0.05%	157	245	1	1	0.00%
	0.15 to <0.25			0.21%	0.25%	315	322	1	0	0.06%
	0.25 to <0.50			0.36%	0.35%	235	271	3	0	2.36%
	0.50 to <0.75			0.54%	0.58%	1,098	1,456	1	0	0.04%
	0.75 to <2.50			1.59%	1.85%	13,926	20,443	194	30	1.34%
	2.50 to <10.00			4.52%	6.16%	7,248	9,130	345	48	3.33%
	10.00 to <100.00			25.01%	29.16%	762	1,691	140	21	13.37%

As at 31st December 2019, approximately 80% of the Group's exposures under IRB approach (in terms of RWA) are covered by internal models whose back-testing results are shown in the above table.

Template CR10: Specialised lending under supervisory slotting criteria approach and equities under simple risk-weight method – for IRB approach

I. Specialised Lending under supervisory slotting criteria approach – HVCRE

The following table presents quantitative information in respect of specialised lending – HVCRE under the supervisory slotting criteria approach as at 31st December 2019:

		(a)	(b)	(c)	(d)	(e)	(f)
Supervisory Rating Grade	Remaining Maturity	On-balance sheet exposure amount (HK$ Mn)	Off-balance sheet exposure amount (HK$ Mn)	SRW	EAD amount (HK$ Mn)	RWA (HK$ Mn)	Expected loss amount (HK$ Mn)
Strong ^	Less than 2.5 years	0	0	70%	0	0	0
Strong	Equal to or more than 2.5 years	0	0	95%	0	0	0
Good ^	Less than 2.5 years	0	0	95%	0	0	0
Good	Equal to or more than 2.5 years	0	0	120%	0	0	0
Satisfactory		0	0	140%	0	0	0
Weak		0	0	250%	0	0	0
Default		0	0	0%	0	0	0
Total		**0**	**0**		**0**	**0**	**0**

^ Use of preferential risk-weights.

Template CR10: Specialised lending under supervisory slotting criteria approach and equities under simple risk-weight method – for IRB approach (continued)

II. Specialised Lending under supervisory slotting criteria approach – Other than HVCRE

The following table presents quantitative information in respect of specialised lending – other than HVCRE under the supervisory slotting criteria approach as at 31st 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$ Mn)	Off-balance sheet exposure amount (HK$ Mn)	SRW	EAD amount (HK$ Mn)					RWA (HK$ Mn)	Expected loss amount (HK$ Mn)
					PF	OF	CF	IPRE	Total		
Strong ^	Less than 2.5 years	0	0	50%	0	0	0	0	0	0	0
Strong	Equal to or more than 2.5 years	28,173	4,089	70%	146	835	0	30,120	31,101	21,771	125
Good ^	Less than 2.5 years	0	0	70%	0	0	0	0	0	0	0
Good	Equal to or more than 2.5 years	893	28	90%	0	8	0	885	893	804	7
Satisfactory		6	0	115%	0	0	0	6	6	6	0
Weak		58	8	250%	0	14	0	49	63	158	5
Default		596	5	0%	0	0	0	600	600	0	300
Total		**29,726**	**4,130**		**146**	**857**	**0**	**31,660**	**32,663**	**22,739**	**437**

^ Use of preferential risk-weights.

III. Equity exposures under the simple risk-weight method

The following table presents quantitative information in respect of equity exposures under the simple risk-weight method as at 31st December 2019:

	(a)	(b)	(c)	(d)	(e)
Categories	On-balance sheet exposure amount (HK$ Mn)	Off-balance sheet exposure amount (HK$ Mn)	SRW	EAD amount (HK$ Mn)	RWA (HK$ Mn)
Publicly traded equity exposures	7	0	300%	7	21
All other equity exposures	4,011	0	400%	4,011	16,044
Total	**4,018**	**0**		**4,018**	**16,065**

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

Counterparty Credit Risk Management

The Group has adopted the Current Exposure Method for regulatory capital calculation of its counterparty credit risk ("CCR") arising from derivative contracts booked in the banking book and trading book.

The Group has in place a set of policies and a comprehensive framework to effectively manage such counterparty credit risk.

Under this management framework, the Group establishes credit limit through formal credit approval procedures to control the pre-settlement and settlement credit risk arising from derivative transactions. In this connection, distinct credit limits for counterparty credit exposure for individual counterparties and each group of related counterparties are determined based on the credit standing of the counterparties, collateral value, contract nature, actual needs, etc.

From a risk management perspective, the Group monitors the risk exposure due to fluctuations in the market by using the current exposure and the potential exposure value of the transactions.

All credit facilities granted to a counterparty, including general credit facilities as well as pre-settlement Limit for derivative and FX products will be subject to review on an annual basis, in order to assess the latest information together with credit standing of the counterparties, and decide whether any adjustment of the credit package is required. Similar to the Group's general credit risk management, a number of credit risk mitigating measures, such as collateral, margining and netting arrangements may be adopted.

At 31st December, 2019, no recognised credit derivative contract is applied as credit risk mitigation and no valid bilateral netting agreement is taken into account in the calculation of regulatory capital.

Wrong-way risk occurs when counterparty's risk exposures are adversely correlated with its credit quality. It is further classified into specific wrong-way risk and general wrong-way risk. The Group has set out in its internal policies a process for identification of wrong-way risk for individual counterparties.

To monitor and control wrong-way risk, any wrong-way risk will be identified and evaluated at the time of credit application, in which the analysis and mitigation measures are documented in the credit proposal for approver's consideration. The wrong-way risk will be monitored during the tenor of relevant transaction, and cases with wrong-way risk are reported. Besides, regular stress-testing is conducted to assess the potential impact of wrong-way risk on the Group's capital adequacy and profitability.

Credit ratings downgrade

A credit rating downgrade clause in International Swaps and Derivatives Association ("ISDA") Master Agreement or a credit rating downgrade threshold clause in a Credit Support Annexes ("CSA") is designed to trigger an action if the credit rating of the affected party falls below a specified level. These actions may include the requirement to pay or increase collateral, the termination of transactions by the non-affected party or the assignment of transactions by the affected party.

As at 31st December, 2019, the potential value of the additional collateral pertaining to ISDA and CSA downgrade thresholds that the Group would need to post with counterparties in the event of a one-notch downgrade and a two-notch downgrade of the Group's rating was HK$0 and HK$76.3 million respectively.

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

The following table presents a comprehensive breakdown of counterparty 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 as at 31st December 2019:

		(a)	(b)	(c)	(d)	(e)	(f)
		Replacement cost (RC) (HK$ Mn)	PFE (HK$ Mn)	Effective EPE (HK$ Mn)	Alpha (α) used for computing default risk exposure	Default risk exposure after CRM (HK$ Mn)	RWA (HK$ Mn)
1	SA-CCR (for derivative contracts)	0	0		1.4	0	0
1a	CEM	1,985	3,375		N/A	3,905	1,941
2	IMM (CCR) Approach			0	N/A	0	0
3	Simple Approach (for SFTs)					0	0
4	Comprehensive Approach (for SFTs)					5,062	370
5	VaR (for SFTs)					0	0
6	**Total**						**2,311**

Template CCR2: CVA capital charge

The following table presents information on portfolios subject to the CVA capital charge and the CVA calculations based on standardised CVA method and advanced CVA method as at 31st December 2019:

	(HK$ million)	(a) EAD post CRM	(b) RWA
	Netting sets for which CVA capital charge is calculated by the advanced CVA method	0	0
1	(i) VaR (after application of multiplication factor if applicable)		0
2	(ii) Stressed VaR (after application of multiplication factor if applicable)		0
3	Netting sets for which CVA capital charge is calculated by the standardised CVA method	3,351	725
4	**Total**	**3,351**	**725**

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

The following table presents a breakdown of default risk exposures as at 31st December 2019, 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, irrespective of the approach used to determine the amount of default risk exposures:

	(HK$ million)	(a)	(b)	(c)	(ca)	(d)	(e)	(f)	(g)	(ga)	(h)	(i)
	Risk Weight / Exposure Class	0%	10%	20%	35%	50%	75%	100%	150%	250%	Others	Total default risk exposure after CRM
1	Sovereign exposures	0	0	0	0	0	0	0	0	0	0	0
2	PSE exposures	0	0	0	0	0	0	0	0	0	0	0
2a	Of which: domestic PSEs	0	0	0	0	0	0	0	0	0	0	0
2b	Of which: foreign PSEs	0	0	0	0	0	0	0	0	0	0	0
3	Multilateral development bank exposures	0	0	0	0	0	0	0	0	0	0	0
4	Bank exposures	0	0	1	0	17	0	0	0	0	0	18
5	Securities firm exposures	0	0	0	0	560	0	0	0	0	0	560
6	Corporate exposures	0	0	0	0	0	0	40	0	0	0	40
7	CIS exposures	0	0	0	0	0	0	0	0	0	0	0
8	Regulatory retail exposures	0	0	0	0	0	21	0	0	0	0	21
9	Residential mortgage loans	0	0	0	0	0	0	0	0	0	0	0
10	Other exposures which are not past due exposures	0	0	0	0	0	0	47	0	0	0	47
11	Significant exposures to commercial entities	0	0	0	0	0	0	0	0	0	0	0
12	**Total**	**0**	**0**	**1**	**0**	**577**	**21**	**87**	**0**	**0**	**0**	**686**

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

The Bank applies two internal rating models at the group level for risk-weighting its counterparty default risk portfolio, with the bank model applied to bank obligors and the corporate model applied to corporate obligors. For each of the regulatory portfolios disclosed in this template, 100% of the RWAs are covered by the internal rating models described.

The following table presents all the relevant parameters used for the calculation of counterparty default risk capital requirements for IRB exposures (other than those to CCPs) as at 31st December 2019:

		(a)	(b)	(c)	(d)	(e)	(f)	(g)
	PD Scale	EAD post-CRM (HK$ Mn)	Average PD	Number of obligors	Average LGD	Average maturity	RWA (HK$ Mn)	RWA density
Bank	0.00 to <0.15	5,351	0.07%	56	14.82%		582	10.87%
	0.15 to <0.25	1,571	0.18%	31	20.74%		397	25.30%
	0.25 to <0.50	311	0.33%	19	45.00%		235	75.47%
	0.50 to <0.75	321	0.52%	6	37.01%		226	70.60%
	0.75 to <2.50	222	0.96%	10	45.00%		257	115.45%
	2.50 to <10.00	20	2.71%	2	45.00%		30	146.87%
	10.00 to <100.00	0	-	0	-		0	-
	100.00 (Default)	0	-	0	-		0	-
	Sub-total	**7,796**	**0.15%**	**124**	**19.07%**		**1,727**	**22.15%**
Corporate	0.00 to <0.15	80	0.09%	15	30.91%		15	19.25%
	0.15 to <0.25	128	0.19%	31	39.43%		50	38.73%
	0.25 to <0.50	59	0.34%	15	22.89%		18	31.26%
	0.50 to <0.75	74	0.52%	17	37.54%		44	59.49%
	0.75 to <2.50	71	1.59%	52	11.00%		20	28.01%
	2.50 to <10.00	73	5.74%	43	17.31%		45	61.35%
	10.00 to <100.00	0	-	0	-		0	-
	100.00 (Default)	0	-	0	-		0	-
	Sub-total	**485**	**1.29%**	**173**	**28.21%**		**192**	**39.64%**
Total (sum of all portfolios)		**8,281**	**0.22%**	**297**	**19.60%**		**1,919**	**23.17%**

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

The following table presents a breakdown of all types of collateral posted or recognised collateral received to support or reduce the exposures to counterparty default risk exposures as at 31st December 2019 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	
	Fair value of recognised collateral received		Fair value of posted collateral		Fair value of recognised collateral received	Fair value of posted collateral
(HK$ million)	Segregated	Unsegregated	Segregated	Unsegregated		
Cash – domestic currency	0	1,604	0	192	0	2,002
Cash – other currencies	0	74,583	0	3,822	2,213	671
Debt securities	0	0	0	0	2,520	2,389
Equity securities	0	162	0	0	1	0
Other collateral	0	0	0	0	0	0
Total	**0**	**76,349**	**0**	**4,014**	**4,734**	**5,062**

Template CCR6: Credit-related derivatives contracts

The following table presents the amount of credit-related derivative contracts as at 31st December 2019, broken down into credit protection bought and credit protection sold:

(HK$ million)	(a) Protection bought	(b) Protection sold
Notional amounts		
Credit default swaps	0	0
Total return swaps	0	0
Other credit-related derivative contracts	0	0
Total notional amounts	**0**	**0**
Fair values		
Positive fair value (asset)	0	0
Negative fair value (liability)	0	0

Table MRA: Qualitative disclosures related to market risk

The Group has established risk governance management framework to oversee and monitor market risk. This framework is built around a structure that enables the Board to discharge the responsibility for on-going market risk management to the Risk Committee, the Risk Management Committee and the Asset and Liability Management Committee. The Asset and Liability Management Committee deals with all market risk-related issues of the Group. It is also responsible for conducting a regular review of market risk trends and deciding the corresponding strategy.

Besides, the Group has implemented Enterprise Risk Management framework for identifying and managing potential risks of the Group. Under such framework, three lines of defence are adopted for market risk management. The first line of defence comprises risk owners at business units. They are primarily responsible for the day-to-day market risk management. The second line of defence refers to the risk controller of market risk, who is designated as the Head of Asset & Liability Management Department and the third line of defence refers to the Internal Audit Division.

The Group Chief Risk Officer coordinates market risk management related matters of the Group, works closely with the Head of Asset & Liability Management Department on the formulation of market risk management policies. Moreover, on a daily basis, the Group Chief Risk Officer is responsible for overseeing the Bank Group's risk management issues which include, but are not limited to, the risk management infrastructure, strategies, appetites, culture, and resources. The Group has formulated the market risk management policy to identify, measure, monitor, control, and report on the market risk, where appropriate, to allocate adequate capital to cover those risks. The market risk management policy and core control limits are approved by the Board and are monitored and regularly reviewed to align with market changes, statutory requirements, and best practices in risk management processes.

Risk appetite has been defined in accordance with the Group's business strategies and objectives to govern the trading book activities in order to optimize risk and return. Hedging is allowed and monitored per market risk management framework.

For measuring and monitoring of market risk, market risk analysis is conducted on different dimensions, such as by risk factors, by regions, by currencies in the form of potential loss and impact to capital adequacy. Risk limits and management action triggers are set with reference to the nature, volume of transaction and risk appetite of the Bank. Multiple systems are employed to facilitate the calculation, measurement and analysis of market risk.

For reporting of market risk, risk reporting for trading book positions is compiled and monitored on a daily basis. Besides, risk reports are prepared for different level of governance on a regular basis.

Table MRB: Additional qualitative disclosures for AI using IMM approach

The calculation of market risk capital charge adopted by the Group is divided into two parts: market risk capital charge for general market risk and market risk capital charge for specific risk. General market risk arising from debt securities, interest rates, equities and FX trading activities of the bank group under scope of capital adequacy consolidation is covered by the VaR and stressed VaR models, while specific risk from debt securities and equities of trading book is separately captured in market risk capital charge via standardised approach.

The Group estimates VaR and stressed VaR for the trading portfolio by historical simulation approach, where the VaR and stressed VaR are calculated by revaluing the portfolio (through full revaluation approach) for each of the market movement scenarios obtained from the historical observation period.

This methodology uses movements in market rates and prices (to be updated on daily basis in the model) over a one-day holding period (for daily risk management purpose) or ten-day holding period from ten-day historical returns (for regulatory purpose) with a 99% confidence level. Two-year observation period is adopted for VaR, and one-year observation period of 2008 to 2009 financial tsunami historical scenario is adopted for stressed VaR. The scenario was chosen according to the assessment of the Group with reference to the severity of different historical scenario and was approved by the Hong Kong Monetary Authority.

Mixed approach is adopted for simulating potential movements in risk factors; where relative return is assumed for FX, equities and implied volatilities risk factors, and absolute return is assumed for interest rate risk factors.

In order to validate the accuracy and internal consistency of data and parameters used for the internal models and modelling processes, back-testing is conducted to compare daily actual / hypothetical profit & loss with VaR results on the trading portfolio.

Template MR1: Market risk under Standardised (market risk) approach (STM approach)

The table below provides the components of the market risk capital requirements calculated using the STM approach exposures as at 31st December 2019:

(HK$ million)	RWA
Outright product exposures	
Interest rate exposures (general and specific risk)	56
Equity exposures (general and specific risk)	931
Option exposures	-
Securitization exposures	-
Total	987

Template MR2: RWA flow statements of market risk exposures under IMM approach

The table below presents a flow statement explaining variations in the RWA for market risk determined under the IMM approach for the period from 30th September 2019 to 31st December 2019:

		(a)	(b)	(c)	(d)	(e)	(f)
	(HK$ million)	VaR	Stressed VaR	IRC	CRC	Other	Total RWA
1	**RWA as at end of previous reporting period**	**3,410**	**9,154**	**0**	**0**	**0**	**12,564**
1a	Regulatory adjustment	2,371	6,417	0	0	0	8,788
1b	RWA as at day-end of previous reporting period	1,039	2,737	0	0	0	3,776
2	Movement in risk levels	-101	201	0	0	0	100
3	Model updates/changes	0	0	0	0	0	0
4	Methodology and policy	0	0	0	0	0	0
5	Acquisitions and disposals	0	0	0	0	0	0
6	Foreign exchange movements	3	16	0	0	0	19
7	Other	2	-11	0	0	0	-9
7a	RWA as at day-end of reporting period	943	2,943	0	0	0	3,886
7b	Regulatory adjustment	2,206	6,181	0	0	0	8,387
8	**RWA as at end of reporting period**	**3,149**	**9,124**	**0**	**0**	**0**	**12,273**

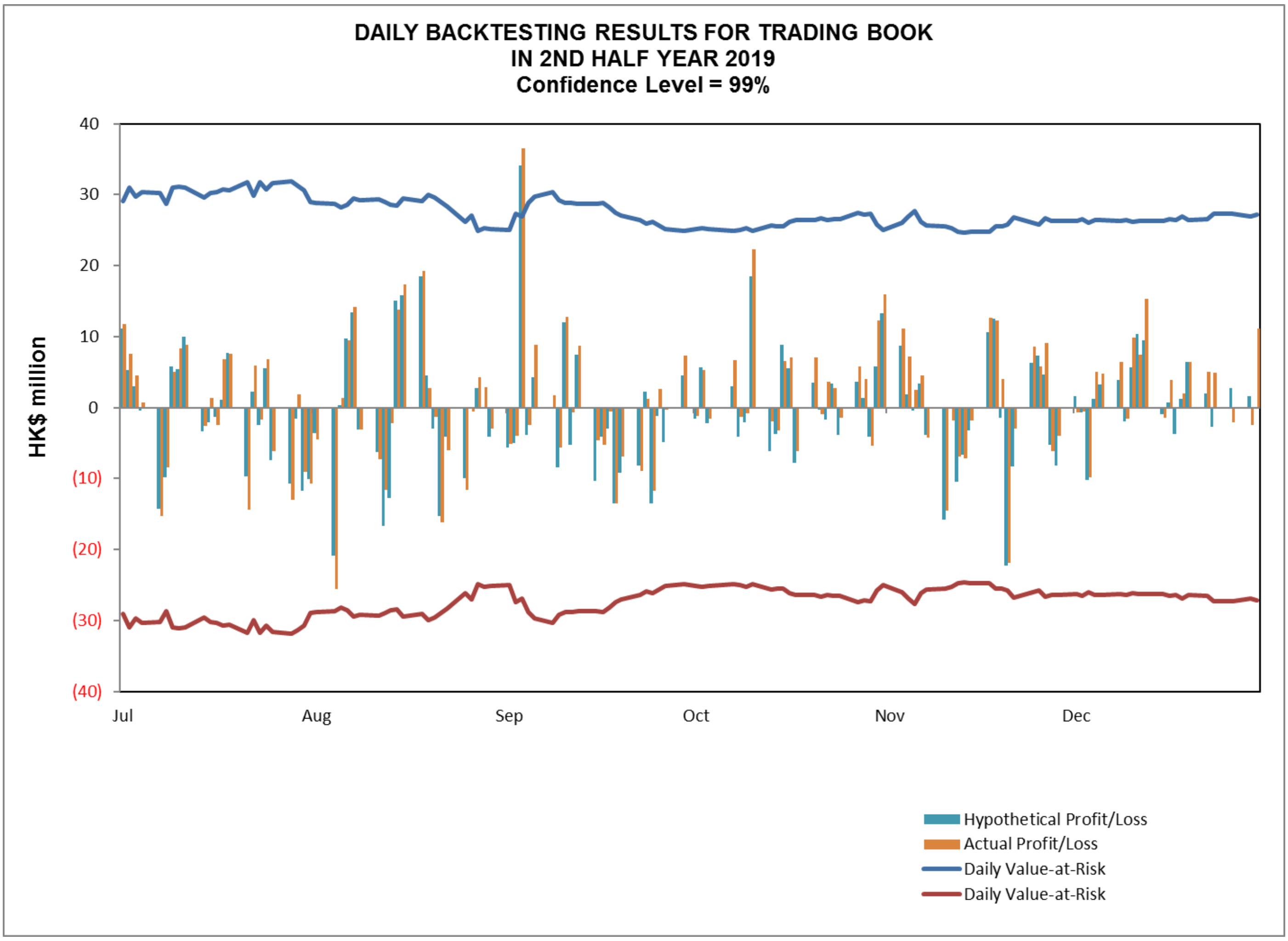
Template MR3: IMM approach values for market risk exposures

The table below discloses the values resulting from the different types of models used for computing the regulatory market risk capital requirement at the group-wide level, before any additional capital charge is applied:

(HK$ million)		(a) Value
VaR (10 days – one-tailed 99% confidence interval)		
1	Maximum Value	107
2	Average Value	88
3	Minimum Value	75
4	Period End	75
Stressed VaR (10 days – one-tailed 99% confidence interval)		
5	Maximum Value	275
6	Average Value	244
7	Minimum Value	218
8	Period End	235
Incremental risk charge (IRC) (99.9% confidence interval)		
9	Maximum Value	0
10	Average Value	0
11	Minimum Value	0
12	Period End	0
Comprehensive risk charge (CRC) (99.9% confidence interval)		
13	Maximum Value	0
14	Average Value	0
15	Minimum Value	0
16	Period End	0
17	Floor	0

Template MR4: Comparison of VaR estimates with gains or losses

The graph below presents a comparison of the results of estimates from the key VaR model for calculating market risk capital requirements with both hypothetical and actual trading outcomes:



The actual P/L is the P/L arising from trading activities in the trading book, which excludes reserves, commissions and fees. The hypothetical P/L is calculated by the change of trading book portfolio value assuming the end of day position remains unchanged.

International Claims

The information on international claims discloses exposures to foreign counterparties on which the ultimate risk lies, and is derived according to the location of the counterparties after taking into account any recognised risk transfer. In general, such transfer of risk takes place if the claims are guaranteed by a party in a country which is different from that of the counterparty or if the claims are on an overseas branch of a bank whose head office is located in another country. Only countries constituting 10% or more of the aggregate international claims after taking into account any recognised risk transfer are disclosed.

	31/12/2019					
			Non-bank private sector			
(HK$ million)	Banks	Official sector	Non-bank financial institutions	Non-financial private sector	Others	Total claims
Counterparty country/ jurisdiction						
Developed countries	32,481	1,461	4,819	24,747	-	63,508
Offshore centres	14,895	1,199	9,711	60,838	-	86,643
- of which: Hong Kong	4,689	1,196	6,342	53,639	-	65,866
Developing Asia and Pacific	41,395	5,561	6,293	110,952	-	164,201
- of which: China	24,771	5,559	5,413	101,334	-	137,077

	31/12/2018					
			Non-bank private sector			
(HK$ million)	Banks	Official sector	Non-bank financial institutions	Non-financial private sector	Others	Total claims
Counterparty country/ jurisdiction						
Developed countries	37,965	197	7,294	17,817	-	63,273
Offshore centres	7,388	2,072	6,137	65,648	-	81,245
- of which: Hong Kong	4,720	2,069	4,386	56,114	-	67,289
Developing Asia and Pacific	40,348	3,937	10,175	103,268	-	157,728
- of which: China	24,761	3,831	8,512	97,012	-	134,116

The above figures are computed in accordance with the HKMA's guidelines on the return of international banking statistics and the Banking (Disclosure) Rules in respect of the reporting period on the consolidated basis.

Mainland Activities

The table below summaries the non-bank Mainland China exposure of the Bank's Hong Kong Office and the Bank's Mainland subsidiary banks categorised by types of counterparties:

	31/12/2019		
	On-balance sheet exposure	Off-balance sheet exposure	Total
	HK$ Mn	HK$ Mn	HK$ Mn
Type of counterparties			
1. Central government, central government owned entities and their subsidiaries and joint ventures	27,595	3,301	30,896
2. Local governments, local government-owned entities and their subsidiaries and joint ventures	14,503	402	14,905
3. PRC nationals residing in Mainland China or other entities incorporated in Mainland China and their subsidiaries and joint ventures	147,908	8,869	156,777
4. Other entities of central government not reported in item 1 above	6,178	253	6,431
5. Other entities of local governments not reported in item 2 above	5,462	3	5,465
6. PRC nationals residing outside Mainland China or entities incorporated outside Mainland China where the credit is granted for use in Mainland China	3,904	1,260	5,164
7. Other counterparties where the exposures are considered by the reporting institution to be non-bank Mainland China exposures	41,385	3,144	44,529
Total	246,935	17,232	264,167
Total assets after provision	787,635		
On-balance sheet exposures as percentage of total assets	31.4%		

Mainland Activities (Continued)

	31/12/2018		
	On-balance sheet exposure	Off-balance sheet exposure	Total
	HK$ Mn	HK$ Mn	HK$ Mn
Type of counterparties			
1. Central government, central government-owned entities and their subsidiaries and joint ventures	32,173	4,327	36,500
2. Local governments, local government-owned entities and their subsidiaries and joint ventures	18,020	615	18,635
3. PRC nationals residing in Mainland China or other entities incorporated in Mainland China and their subsidiaries and joint ventures	173,067	11,813	184,880
4. Other entities of central government not reported in item 1 above	5,441	246	5,687
5. Other entities of local governments not reported in item 2 above	4,237	120	4,357
6. PRC nationals residing outside Mainland China or entities incorporated outside Mainland China where the credit is granted for use in Mainland China	4,715	375	5,090
7. Other counterparties where the exposures are considered by the reporting institution to be non-bank Mainland China exposures	39,019	2,240	41,259
Total	276,672	19,736	296,408
Total assets after provision	772,097		
On-balance sheet exposures as percentage of total assets	35.9%		

The above figures are disclosed in accordance with the return relating to Mainland activities the Bank submitted to the HKMA pursuant to section 63 of the Banking Ordinance in respect of the interim reporting period, which are computed on the consolidated basis as required by the HKMA for its regulatory purposes.

Currency Concentration

The net non-structural position or net structural position in a particular foreign currency is disclosed when the position in that currency constitutes 10% or more of the total net position or total net structural position in all foreign currencies respectively. The net option position is calculated in the basis of the delta-weighted position of all foreign currency option contracts.

	31/12/2019						
	USD HK$ Mn	JPY HK$ Mn	EUR HK$ Mn	RMB HK$ Mn	MOP HK$ Mn	Other foreign currencies HK$ Mn	Total HK$ Mn
Spot assets	212,490	1,865	8,617	232,104	1,224	72,651	528,951
Spot liabilities	(202,136)	(716)	(4,140)	(234,431)	(1,104)	(62,474)	(505,001)
Forward purchases	156,893	1,241	1,018	132,662	-	6,732	298,546
Forward sales	(163,466)	(2,349)	(5,332)	(132,936)	-	(16,716)	(320,799)
Net options position	(2,216)	(1)	2	2,785	-	8	578
Net long/(short) non-structural position	1,565	40	165	184	120	201	2,275

	31/12/2018						
	USD HK$ Mn	JPY HK$ Mn	EUR HK$ Mn	RMB HK$ Mn	MOP HK$ Mn	Other foreign currencies HK$ Mn	Total HK$ Mn
Spot assets	212,810	1,571	6,412	258,066	1,061	74,673	554,593
Spot liabilities	(190,629)	(884)	(4,901)	(262,525)	(908)	(68,531)	(528,378)
Forward purchases	276,356	2,959	6,348	244,093	-	8,481	538,237
Forward sales	(289,323)	(3,571)	(7,847)	(248,000)	-	(14,471)	(563,212)
Net options position	(7,372)	(2)	(1)	7,487	-	(20)	92
Net long/(short) non-structural position	1,842	73	11	(879)	153	132	1,332

Currency Concentration (Continued)

	31/12/2019				
	USD HK$ Mn	RMB HK$ Mn	MYR HK$ Mn	Other foreign currencies HK$ Mn	Total HK$ Mn
Net structural position	(12,365)	15,550	2,281	975	6,441

	31/12/2018				
	USD HK$ Mn	RMB HK$ Mn	MYR HK$ Mn	Other foreign currencies HK$ Mn	Total HK$ Mn
Net structural position	(6,989)	13,801	2,226	936	9,974

The above figures are disclosed in accordance with the return relating to foreign currency positions the Bank submitted to the HKMA pursuant to section 63 of the Banking Ordinance in respect of the interim reporting period, which are computed on consolidated basis as required by the HKMA for its regulatory purposes.

Capital Buffer

Countercyclical Capital Buffer Ratio

	31/12/2019	31/12/2018
	%	%
Countercyclical capital buffer ratio	0.882	0.774

The relevant disclosures pursuant to section 16FG of the Banking (Disclosure) Rules can be found in Template CCyB1 in this Banking Disclosure Statement.

Capital Conservation Buffer Ratio

Under section 3M of the Capital Rules, the capital conservation buffer ratio for calculating the Bank's buffer level is 2.5% for 2019 and 1.875% for 2018.

Higher Loss Absorbency Ratio

The HKMA has designated the Bank as a domestic systematically important authorised institution ("D-SIB"). Under section 3V of the Capital Rules, the higher loss absorbency ratio applicable to the Bank is 1% for 2019 and 0.75% for 2018.

Glossary

Abbreviations	Descriptions
CCF	Credit Conversion Factor
CCP	Central Counterparty
CCR	Counterparty Credit Risk
CEM	Current Exposure Method
CF	Commodities Finance
CIS	Collective Investment Scheme
CRC	Comprehensive Risk Charge
CRM	Credit Risk Mitigation
CVA	Credit Valuation Adjustment
EAD	Exposure at Default
ECL	Expected Credit Loss
EL	Expected Loss
EPE	Expected Positive Exposure
HVCRE	High-Volatility Commercial Real Estate
IAA	Internal Assessment Approach
IMM (CCR) Approach	Internal Models (Counterparty Credit Risk) Approach
IMM Approach	Internal Models Approach
IPRE	Income-Producing Real Estate
IRB Approach	Internal Ratings-Based Approach
IRC	Incremental Risk Charge
LGD	Loss Given Default
OF	Object Finance
PD	Probability Of Default
PF	Project Finance
PFE	Potential Future Exposure
PSE	Public Sector Entity
QRRE	Qualifying Revolving Retail Exposures
RW	Risk Weight
RWA	Risk-Weighted Amount
SA-CCR	Standardised Approach for measuring Counterparty Credit Risk Exposures
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
SRW	Supervisory Risk Weight
STC Approach	Standardized (Credit Risk) Approach
STM Approach	Standardized (Market Risk) Approach
VaR	Value-at-Risk