# Regulatory Disclosures 31 December 2017







| CONTENTS   | PAGE |
|--|------|
| Key ratio  |      |
| - Capital ratio  | 1    |
| - Leverage ratio   | 1    |
| Overview of risk management and RWA                            | 2    |
| Linkages between financial statements and regulatory exposures | 7    |
| Credit risk for non-securitization exposures                   | 11   |
| Counterparty credit risk                                       | 34   |
| Securitization exposures                                       | 39   |
| Market risk  | 40   |
| Capital disclosures  | 45   |
| - Regulatory capital   | 45   |
| - Capital instruments  | 53   |
| - Countercyclical capital buffer ("CCyB") ratio                | 55   |
| Leverage ratio disclosures                                     | 56   |
| Liquidity information disclosures                              | 57   |



# **Key ratio**

# Capital ratio

|  | At 31 December 2017 |
|--|---------------------|
|  | HK\$'000            |
| Total risk-weighted assets                                     | 44,044,451          |
| CET1 capital   | 5,919,837           |
| CET1 capital ratio (as a percentage of risk-weighted assets)   | 13.44%              |
| Tier 1 capital   | 7,857,549           |
| Tier 1 capital ratio (as a percentage of risk-weighted assets) | 17.84%              |
| Total capital  | 8,709,791           |
| Total capital ratio (as a percentage of risk-weighted assets)  | 19.78%              |

# Leverage ratio

|                         | At 31 December 2017 |
|-------------------------|---------------------|
|                         | HK\$'000            |
| Tier 1 capital          | 7,857,549           |
| Leverage ratio exposure | 84,911,456          |
| Leverage ratio          | 9.25%               |



#### **OVA: Overview of risk management**

(a) The Group believes that sound risk management is crucial to the success of any corporation. In daily operations, the Bank attaches high degree of importance to risk management and emphasises that a balance between risk control and business development should be maintained. The Group has a robust risk management organizational structure with a comprehensive set of policies and procedures to identify, measure, monitor and control various risks that may arise. These risk management policies and procedures are regularly reviewed and updated to reflect changes in markets, business strategies and regulatory requirements.

The Group has adopted a prudent risk framework and culture, adhering to the principles of good governance and compliance. The Group has a defined risk appetite statement approved by the Board, which specifies the types and level of risk that the Group is willing to take in a controllable way in order to achieve its business goals and to meet the expectations of its stakeholders. The Group has also put in place appropriate internal control systems, including establishment of an organization structure that sets clear lines of authority and responsibility for monitoring compliance with policies, procedures and limits. Proper reporting lines also provide sufficient independence of the control functions from the business areas, as well as adequate segregation of duties throughout the organization which helps to promote an appropriate internal control environment.

(b) The Group has followed the guidelines as set out in the Supervisory Policy Manual CG-1 "Corporate Governance of Locally Incorporated Authorised Institutions" issued by The Hong Kong Monetary Authority (hereinafter referred to as the "HKMA"). The Group is committed to maintaining sound corporate governance standards and considers such commitment essential in balancing the interests of shareholders, customers and employees; and in upholding accountability and transparency.

The Board, representing the interests of shareholders, is the core of the Group's corporate governance framework. The Board is the highest decision making authority of the Group and has the ultimate responsibility for the oversight of risk management.

The Board, assisted by its standing committees, is responsible for determining the Group's overall risk management strategy, ensuring that the Group has an effective risk management system and monitoring the implementation of risk management strategies.

The Board authorizes the Management to implement the strategies as approved by the Board. The Management is responsible for the day-to-day operations of the Group and reports to the Board.

The Chief Executive is responsible for leading the whole Management to implement significant policies and business development strategies adopted by the Board.



#### **OVA: Overview of risk management (continued)**

(b) (continued)

Four committees have been established at the Board level to oversee various major areas: Bank's operation, financial performance, risk management and long-term development. The details on the four committees are set out on page 20-23, Corporate Governance of the Annual Report.

(c) Risk management culture is the common belief within the organization about risk management philosophy, vision, values and the code of conduct. The Group advocates proper standards of ethics in conducting its affairs with a high degree of integrity. The core ethical values include but not limited to honesty, integrity, diligence, fairness, responsible citizenship and accountability. The Group develops various codes of conduct and has sound management systems in place to enforce them. The standards of conduct are laid down in its risk management policies, and other operating principles and guidelines. All staff members are required to comply with these standards, when conducting their businesses.

The Group advocates that risk management is the responsibility of every staff members. The Group seeks to encourage staff members to continue enhancing and strengthening their knowledge and skills in risk management. The Group makes use of appropriate training programs, remuneration, incentive, reward and penalty schemes, assessment and feedback mechanism to guide and drive staff to conduct business in a responsible, honest, practical and proper manner.

- (d) The Group employs effective methodologies and tools for the measurement of various types of risk. The Group adopts different methods or models to measure each type of risk in accordance with the nature, scale and complexity of its business activities and business needs, etc.
- (e) The Group has developed management information systems to provide a comprehensive and efficient risk reporting to the Board and the management. The comprehensive risk management information systems are capable to provide regular and sufficiently detailed reports for the Board and Management to facilitate their continuous monitoring of the risk profile of the Group as well as the implementation of risk management policies (especially exceptions).



#### **OVA: Overview of risk management (continued)**

(f) 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 arising from extreme but plausible market or macroeconomic movements (such as Hong Kong and Mainland China Economic Slowdown, the increase of Fed fund target rate by the FOMC and the increase of CNY interbank offered rate in Mainland China) on the Group's financial positions, in particular, capital adequacy, profitability, and liquidity. Stress testing enables us to identify potentially risky portfolio segments as well as inherent systematic risks. Every stress test is documented and the stress testing results are reported to relevant committees. According to the stress testing result, whenever necessary, the Group will develop and execute action plan to mitigate potential impacts.

The result of stress testing will be used in the Internal Capital Adequacy Assessment Process ("ICAAP") and the Capital Plan process in order to align the capital requirement of our business strategy to our Risk Appetite.

The Asset and Liability Management Committee ("ALCO") monitors the results against the key risk limits approved by the Risk Management Committee. Financial Management Department reports the combined stress test results of the Group to the Board and Risk Management Committee regularly.

#### (g) Credit Risk

Credit Risk Management under Risk Management Department is responsible for overseeing Credit risk. The Group strives to obtain legally enforceable collaterals and guarantee as one of the measures to mitigate credit risk, and has formulated relevant policies and procedures to monitor the value of collateral and creditability of the guarantors effectively. Details on credit risk mitigation are set out on Note 4.1 to the Financial Statements.

#### Market Risk

Financial Management Department is mainly responsible for managing market risk, assisting senior management to perform their day-to-day duties, independently monitoring the market risk profile and compliance of management policies and limits of the Group, and ensuring that the aggregate and individual market risks are within acceptable levels. For details of the Group's Market Risk Management, please refer to Note 4.2 to the Financial Statements.

#### Interest Rate Risk

Financial Management Department is responsible for interest rate risk management. Its roles include the formulation of management policies, selection of methodologies, setting of risk indicators and limits, assessment of target balance sheet, monitoring of the compliance with policies and limits, and submission of interest rate risk management reports to the senior management and Risk Management Committee, etc. For details of the Group's Interest Rate Risk Management, please refer to Note 4.2 to the Financial Statements.



#### OVA: Overview of risk management (continued)

#### (g) (continued)

Liquidity Risk

Financial Management Department is responsible for overseeing the Group's liquidity risk. It cooperates with Treasury Division to assist the ALCO to perform liquidity management functions according to their specific responsibilities. The Group established liquidity risk management indicators and limits to identify, measure, monitor and control liquidity risk on daily basis. For details of the Group's Liquidity Risk Management, please refer to Note 4.3 to the Financial Statements.

#### Operational Risk

The Compliance and Operational Risk function under Risk Management Department is responsible for assisting the Management in managing the Group's operational risk. The Group has established an effective operational risk management framework to identify, assess, monitor and control the operational risks inherent in business activities and products, as well as purchase of insurance to mitigate unforeseeable operational risks.

To ensure operational risks are under proper monitoring, the Group has maintained a centralized operational risk management system which captured operational risk incidents submitted by the business and support units. The overall operational risk position will be reported to the Management and the Risk Management Committee on a regular or need basis.

#### Legal and Compliance Risk

From legal risk perspective, the local law firms engaged by the Group are covered by sufficient insured amount of the professional indemnity insurance. Insofar as compliance risk is concerned, the Group has implemented appropriate internal policies, procedures and control measures to mitigate the risk of failure to comply with all applicable laws and regulations.



#### **OV1: Overview of RWA**

|     |  | RV                     | VA.                     | Minimum capital requirements |
|-----|--|------------------------|-------------------------|------------------------------|
|     |  | At 31 December<br>2017 | At 30 September<br>2017 | At 31 December<br>2017       |
|     |  | HK\$'000               | HK\$'000                | HK\$'000                     |
| 1   | Credit risk for non-securitization exposures   | 39,816,871             | 32,575,273              | 3,368,069                    |
| 2   | Of which STC approach  | 1,750,372              | 1,213,705               | 140,030                      |
| 2a  | Of which BSC approach  | -                      | -                       | -                            |
| 3   | Of which IRB approach  | 38,066,499             | 31,361,568              | 3,228,039                    |
| 4   | Counterparty credit risk   | 96,219                 | 57,333                  | 7,842                        |
| 5   | Of which SA-CCR  | -                      | -                       | -                            |
| 5a  | Of which CEM   | 34,631                 | 20,145                  | 2,915                        |
| 6   | Of which IMM(CCR) approach   | =                      | =                       | =                            |
| 7   | Equity exposures in banking book under market-<br>based approach   | -                      | -                       | -                            |
| 8   | CIS exposures – LTA  | =                      | =                       | -                            |
| 9   | CIS exposures – MBA  | -                      | -                       | -                            |
| 10  | CIS exposures – FBA  | -                      | -                       | -                            |
| 11  | Settlement risk  |                        | -                       | -                            |
| 12  | Securitization exposures in banking book   | -                      | -                       | -                            |
| 13  | Of which IRB(S) approach – ratings-based method  | -                      | -                       | -                            |
| 14  | Of which IRB(S) approach – supervisory formula<br>method   | -                      | -                       | <u>-</u>                     |
| 15  | Of which STC(S) approach   | -                      | -                       | -                            |
| 16  | Market risk  | 153,038                | 72,450                  | 12,243                       |
| 17  | Of which STM approach  | -                      | -                       | -                            |
| 18  | Of which IMM approach  | 153,038                | 72,450                  | 12,243                       |
| 19  | Operational risk   | 2,392,450              | 2,271,150               | 191,396                      |
| 20  | Of which BIA approach  | Ξ                      | =                       | =                            |
| 21  | Of which STO approach  | 2,392,450              | 2,271,150               | 191,396                      |
| 21a | Of which ASA approach  | =                      | =                       | -                            |
| 22  | Of which AMA approach  | N/A                    | N/A                     | N/A                          |
| 23  | Amounts below the thresholds for deduction (subject to 250% RW)  | 19,750                 | 250                     | 1,580                        |
| 24  | Capital floor adjustment   | -                      | =                       | =                            |
| 24a | Deduction to RWA   | 719,677                | 728,046                 | 57,574                       |
| 24b | Of which portion of regulatory reserve for general banking risks and collective provisions which is not included in Tier 2         |                        |                         |                              |
|     | Capital  | -                      | 442                     | -                            |
| 24c | Of which portion of cumulative fair value gains arising from the revaluation of land and buildings which is not included in Tier 2 |                        |                         |                              |
|     | Capital  | 719,677                | 727,604                 | 57,574                       |
| 25  | Total  | 41,758,651             | 34,248,410              | 3,523,556                    |

RWAs in this table are before the application of the 1.06 scaling factor following a clarification from the HKMA. Minimum capital requirement represents the amount of capital required to be held for that risk based on its RWAs after any applicable scaling factor multiplied by 8%.



# 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.

At 31 December, 2017:

|   | (a)   | (b)   | (c)                                   | (d)   | (e)   | (f)                                 | (g)   |
|---|---|---|---------------------------------------|---|---|-------------------------------------|---|
|   |   |   |                                       | C   | Carrying values of item                       | S:                                  |   |
|   | Carrying values as<br>reported in published<br>financial statements | Carrying values under scope of regulatory consolidation | subject to credit risk<br>framework   | subject to<br>counterparty credit<br>risk framework | subject to the<br>securitization<br>framework | subject to market risk<br>framework | not subject to capital<br>requirements or<br>subject to deduction<br>from capital |
| Assets  |   |   |                                       |   |   |                                     |   |
| Cash and balances with banks and other financial institutions                                 | 17,287,963  | 17,287,963  | 17,287,963                            | _   |   | _                                   | -   |
| Placements with banks and other financial institutions maturing between one and twelve months | 780,905   | 780,905   | 780,905                               | -   |   | _                                   | _   |
| Financial assets designated at fair value through profit or loss                              | 212,225   | 212,225   | 212,225                               | -   |   | _                                   | _   |
| Derivative financial instruments  | 129,146   | 129,146   |                                       | 129,146   | -   | 8,073                               | -   |
| Advances and other accounts   | 43,054,376  | 43,054,376  | 43,054,376                            | ı   | -   | · _                                 | -   |
| Investment in securities  | 20,011,461  | 20,011,461  | 20,011,461                            | -   | -   | -                                   | -   |
| Investment in subsidiaries  | -   | 11,713  | · · · · · · · · · · · · · · · · · · · | -   | -   | -                                   | -   |
| Amounts due from subsidiaries   | -   | 8,057   | 20,501                                | -   | -   | -                                   | (12,444)  |
| Investment properties   | 214,910   | 214,910   | 214,910                               | -   | -   | -                                   | -   |
| Properties, plant and equipment   | 1,552,253   | 1,531,551   | 1,531,551                             | -   | -   | -                                   | -   |
| Deferred tax assets   | 19,911  | 19,911  | -                                     | -   | -   | -                                   | 19,911  |
| Other assets  | 825,781   | 825,781   | 825,781                               | -   | -   | -                                   | -   |
| Total assets  | 84,088,931  | 84,087,999  | 83,951,386                            | 129,146   |   | 8,073                               | 7,467   |



# 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:           |   |   |                                     |   |  |  |  |
|   | Carrying values as reported in published financial statements | Carrying values under scope of regulatory consolidation | subject to credit risk<br>framework | subject to<br>counterparty credit<br>risk framework | subject to the<br>securitization<br>framework | subject to market risk<br>framework | not subject to capital<br>requirements or<br>subject to deduction<br>from capital |  |  |  |
| Liabilities   |   |   |                                     |   |   |                                     |   |  |  |  |
| Deposits and balances from banks and other financial institutions | 9,987,634   | 9,987,634   | -                                   | -   | -   |                                     | 9,987,634   |  |  |  |
| Derivative financial instruments                                  | 18,789  | 18,789  | -                                   | 18,789  | -   | 7,583                               | 7,154   |  |  |  |
| Deposits from customers   | 63,279,437  | 63,329,964  | -                                   | -   | <del>-</del>                                  | -                                   | 63,329,964  |  |  |  |
| Other accounts and provisions                                     | 1,000,068   | 1,000,068   | -                                   | 7,736   | <u>-</u>                                      | -                                   | 1,000,068   |  |  |  |
| Current tax liabilities   | 91,552  | 87,744  | -                                   | -   | -   | -                                   | 87,744  |  |  |  |
| Deferred tax liabilities  | 147,954   | 144,753   | -                                   | -   | -   | _                                   | 144,753   |  |  |  |
| Total liabilities   | 74,525,434  | 74,568,952  | -                                   | 26,525  | -   | 7,583                               | 74,557,317  |  |  |  |

The amounts shown in the column 'Carrying values under scope of regulatory consolidation' do not equal the sum of the amounts shown in the remaining columns of this table for line items 'Derivative financial instruments', as the assets and liabilities included in these items are subject to regulatory capital charges for both CCR and market risk.



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

|   |   | а          | b                     | С                        | d                                  | е                     |
|---|---|------------|-----------------------|--------------------------|------------------------------------|-----------------------|
|   |   |            |                       | Items subject            | to:                                |                       |
|   |   | Total      | Credit risk framework | Securitisation framework | Counterparty credit risk framework | Market risk framework |
| 1 | Asset carrying value amount under scope of regulatory consolidation (as per template LI1)       | 84,080,532 | 83,951,386            | -                        | 129,146                            | 8,073                 |
| 2 | Liabilities carrying value amount under regulatory scope of consolidation (as per template LI1) | 11,635     | -                     | -                        | 11,635                             | 7,583                 |
| 3 | Total net amount under regulatory scope of consolidation  | 84,068,897 | 83,951,386            | -                        | 117,511                            | 490                   |
| 4 | Off-balance sheet amounts   | 2,334,411  | 2,251,169             | -                        | 83,242                             | -                     |
| 5 | Differences due to specific regulatory adjustments – Valuation adjustments                      | (6,390)    | (6,390)               | -                        | -                                  | -                     |
| 6 | Differences due to consideration of provisions  | 262,955    | 262,955               | -                        | -                                  | -                     |
| 7 | Differences due to EAD modeling and other differences   | 837,992    | 837,992               | -                        | -                                  | -                     |
| 8 | Exposure amounts considered for regulatory purposes   | 87,497,865 | 87,297,112            | _                        | 200,753                            | 490                   |



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

- (a) Differences between the amounts in columns (a) and (b) in template LI1 is due to the difference between basic of consolidation of regulatory purpose and accounting purpose. The combined basis for regulatory purposes comprises the positions of the Group's local offices and overseas branches specified by the HKMA for its regulatory purposes and in accordance with the Banking (Capital) Rules. For accounting purposes, subsidiaries are consolidated in accordance with HKFRSs and the list of subsidiaries is set out in Note 46 to the Financial Statements. Subsidiaries not included in consolidation for regulatory purposes can be referred to 'Basis of regulatory combination' under Note 4.4 Capital to the Financial Statements.
- (b) The main drivers for the differences between accounting values and amounts considered for regulatory purposes shown in template LI2 are as follow:
  - (i) Off-balance sheet amounts subject to credit risk frameworks include contingent liabilities and commitments, by applying a credit conversion factor ('CCF') to these items and consideration of potential future exposures ('PFE') for counterparty credit risk.
  - (ii) The carrying value reported in the financial statement is net of collective and individual impairment allowances while regulatory exposure amount is before the deduction of credit risk impairment.
  - (iii) Valuation adjustments included in regulatory adjustments
  - (iv) For certain retail exposures under IRB approach, the use of modeled exposures caused the difference between accounting carrying values and regulatory exposures
- (c) The Group has an established controls framework to ensure that fair values are either determined or validated by control units independent of the front offices. Specific controls include verification of observable pricing inputs; review and approval for new models and changes to models; calibration and back-testing of models against observed market transactions; analysis and investigation of significant daily valuation movements; review of significant unobservable inputs and valuation adjustments.

The Group chooses appropriate valuation methodologies in corresponding to the nature, position and complexity of treasury products and derivatives. They can be classified into marking-to-market and marking-to-model. Marking-to-market is valuation of positions by adopting readily available and observable close out prices in the market. If market quotation is not available, marking-to-model should be adopted. Marking-to-model is valuation which has to be benchmarked, extrapolated or otherwise derived from market data inputs.

On top of accounting valuation, the Group conducts liquidity risk adjustments for risk management and regulatory capital adequacy purpose in order to arrive at a prudent value. The appropriateness of the valuation adjustments is reviewed regularly.



#### CRA: General information about credit risk

- (a) Credit risk<sup>1</sup> is the risk of loss that a customer or counterparty is unable to or unwilling to meet its contractual obligations.
  Credit risk exists in the trading book and banking book, as well as from on- and off-balance sheet transactions. It arises principally from lending, trade finance, debt securities and treasury businesses.
- (b) The Group has formulated a comprehensive set of credit risk management policies and procedures, and appropriate credit risk limits to manage and control credit risk in a proactive and prudent manner. These policies, procedures and credit risk limits are regularly reviewed and updated to cope with changes in market conditions and business strategies. The credit risk policy and credit limits are set out in a sustainable, stable and healthy manner by adopting prudent and consistent credit risk management standards and practices. The Group will not relax the underwriting standards or sacrifice the credit quality in return for a rapid growth or return in loan portfolio or market share or meeting short term targets.
- (c) The Head of RMD is responsible for credit risk management with assistance from Credit Risk Management. Various units of the Group have their respective credit risk management responsibilities. Business units act as the first line of defense. The RMD, which is independent from the business units, is responsible for the day-to-day management of credit risks and has the primary responsibility for providing an independent due diligence through identifying, measuring, monitoring and controlling credit risk to ensure an effective checks and balances, as well as drafting, reviewing and updating credit risk management policies and procedures.

The Board of Directors delegates credit approval authority to the CE. The CE can further delegate to the subordinates within his limit authorized by the Board of Directors. The Group sets the limits of credit approval authority according to the credit business nature, rating, the level of transaction risk, and the extent of the credit exposure.

(d) The Group uses model as part of its credit risk management process which include the use of internal rating model outputs to support risk assessments in the credit approval process, ongoing credit risk management, monitoring and reporting.

Compliance function, which is independent from the business units, is responsible for day-to-day management of compliance risks. They have the primary responsibilities for providing an independent due diligence through identifying, measuring, monitoring and controlling compliance risk to ensure an effective check and balance.

<sup>&</sup>lt;sup>1</sup> Credit risk includes, but not limited to, credit concentration risk on any single credit exposure or exposure to the same group of customer or counterparty, geographical area, industry, or economic sector that could cause substantial losses to the Bank or material changes to the Bank's risk profile. Credit risk also includes counterparty credit risk arising from derivative transactions.



#### CRA: General information about credit risk (continued)

- (d) (continued)
  - Internal audit function is responsible for conducting independent checking, and report to the Board on the quality of risk management supervision, the adequacy and the compliance of internal policies and procedures.
- (e) The Group will provide timely, accurate and reliable credit risk reporting for reference by the Board of Directors, the Risk Management Committee, senior management and relevant units in the decision-making process. The Group provides various reports to the Board of Directors, Risk Management Committee and senior management regularly and where appropriate. The highlights include: large exposures and risk concentrations, ratio of total loans to loan limits, credit structure and quality, internal rating and trends, exposures to connected parties, impairment provision and stress test results.



#### CR1: Credit quality of exposures

|   |                             | Gross carrying      | g amounts of            | Allowances / |            |  |
|---|-----------------------------|---------------------|-------------------------|--------------|------------|--|
|   |                             | Defaulted exposures | Non-defaulted exposures | Impairments  | Net values |  |
|   |                             | HK\$'000            | HK\$'000                | HK\$'000     | HK\$'000   |  |
| 1 | Loans                       | 200,092             | 60,993,535              | 246,448      | 60,947,179 |  |
| 2 | Debt securities             | -                   | 20,132,743              | -            | 20,132,743 |  |
| 3 | Off-balance sheet exposures | 8,598               | 10,986,961              | -            | 10,995,559 |  |
| 4 | Total                       | 208,690             | 92,113,239              | 246,448      | 92,075,481 |  |

<sup>&</sup>quot;Defaulted exposures" are defined as the exposures are past due for more than 90 days or the borrower is unlikely to pay in full for the credit obligations.

#### CR2: Changes in defaulted loans and debt securities

|   |   | HK\$'000 |
|---|---|----------|
| 1 | Defaulted loans and debt securities as at 30 June 2017                        | 180,578  |
| 2 | Loans and debt securities that have defaulted since the last reporting period | 46,844   |
| 3 | Returned to non-defaulted status  | -        |
| 4 | Amounts written off   | (27,419) |
| 5 | Other changes   | 89       |
| 6 | Defaulted loans and debt securities as at 31 December 2017                    | 200,092  |



#### CRB: Additional disclosure related to credit quality of exposures

(a) Advances with a specific repayment date are classified as overdue when the principal or interest is past due and remains unpaid. Advances repayable by regular installments are classified as overdue when an installment payment is past due and remains unpaid. Advances 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 instruction or when the advances have remained continuously exceeded the approved limit that was advised to the borrower.

Advances are impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred and that loss event(s) has an impact on the estimated future cash flows of the advances that can be reliably estimated.

(b) Advances which are past due for more than 90 days but are not impaired as the carrying amount can be fully covered by the present value of estimated future cash flows.

#### (c) Individual impairment assessment:

If there is objective evidence indicating that an impairment loss on loans and receivables or held-to-maturity securities has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred), discounted at the financial asset's original effective interest rate. If a loan or held-to-maturity security has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract. As a practical expedient, the Group may measure impairment on the basis of an instrument's fair value using an observable market price.

The calculation of the present value of the estimated future cash flows of a collateralised financial asset reflects the cash flows that may result from foreclosure less costs for obtaining and selling the collateral.

#### Collective impairment assessment:

The assessment of future cash flows for loan portfolios was based on the historical loss experience of loans with similar credit risk characteristics, with adjustments based on economic factors and judgemental overlays. Parameters associated with the historical loss experience included probability of default, loss given default and loss identification period.



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

(c) (continued)

HKFRS 9 will come into effect starting from 1 January 2018 and will replace HKAS 39. The standard involves putting in place a new, expected-loss impairment model that will require more timely recognition of expected credit losses. Specifically, it requires entities to account for 12 months expected credit losses from inception when financial instruments are first recognised and to recognise full lifetime expected credit losses on a more timely basis when there have been significant increases in credit risk since initial recognition. The impairment for financial instruments that are subsequently measured at amortised cost, fair value through other comprehensive income (debt instruments), loan commitments and financial guarantees will be governed by this standard.

.

(d) Rescheduled advances are those advances that have been restructured or renegotiated because of deterioration in the financial position of the borrower or of the inability of the borrower to meet the original repayment schedule.



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

(e) Breakdown of exposures by geographical areas, industry and residual maturity.

Any segment which constitutes less than 10% of the Group's total RWA for credit risk (after taking into account any recognized CRM) is deemed non-significant exposures and disclosed on an aggregated basis under the category "other".

Exposures subject to credit risk framework are classified by geographical areas:

|                 | Hong       | Kong                | Mainland   | of China            | Otl        | ner                 | Total      |                     |  |
|-----------------|------------|---------------------|------------|---------------------|------------|---------------------|------------|---------------------|--|
|                 | HK\$'000   | % of total exposure |  |
| Loans           | 46,929,077 | 53.76               | 8,500,618  | 9.74                | 6,601,916  | 7.56                | 62,031,611 | 71.05               |  |
| Debt securities | 8,823,558  | 10.11               | 3,805,919  | 4.36                | 7,496,876  | 8.59                | 20,126,353 | 23.06               |  |
| Other           | 4,079,257  | 4.67                | 299,298    | 0.34                | 760,593    | 0.87                | 5,139,148  | 5.89                |  |
| Total           | 59,831,892 | 68.54               | 12,605,835 | 14.44               | 14,859,385 | 17.02               | 87,297,112 | 100.00              |  |

Exposures subject to credit risk framework are classified by industry:

|                 | Bank and Financial institution |                     | Property deve |                     | Professiona<br>individ |                     | Soverei   | gn                  | Oth        | ner                 | Tot        | tal                 |
|-----------------|--------------------------------|---------------------|---------------|---------------------|------------------------|---------------------|-----------|---------------------|------------|---------------------|------------|---------------------|
|                 | HK\$'000                       | % of total exposure | HK\$'000      | % of total exposure | HK\$'000               | % of total exposure | HK\$'000  | % of total exposure | HK\$'000   | % of total exposure | HK\$'000   | % of total exposure |
| Loans           | 18,260,868                     | 20.92               | 11,720,618    | 13.43               | 7,550,269              | 8.65                | 646,083   | 0.74                | 23,853,773 | 27.31               | 62,031,611 | 71.05               |
| Debt securities | 10,550,201                     | 12.09               | -             | -                   |                        | -                   | 5,099,986 | 5.84                | 4,476,166  | 5.13                | 20,126,353 | 23.06               |
| Other           |                                | =                   | -             | -                   |                        | =                   | -         | -                   | 5,139,148  | 5.89                | 5,139,148  | 5.89                |
| Total           | 28,811,069                     | 33.01               | 11,720,618    | 13.43               | 7,550,269              | 8.65                | 5,746,069 | 6.58                | 33,469,087 | 38.33               | 87,297,112 | 100.00              |

Exposures subject to credit risk framework are classified by residual maturity:

| , ,             | On Demand |                     | Withi      | n 1 y               | 1 -        | 5 y                 | Over       | <sup>-</sup> 5 y    | Und       | ated                | Tot        | tal                 |
|-----------------|-----------|---------------------|------------|---------------------|------------|---------------------|------------|---------------------|-----------|---------------------|------------|---------------------|
|                 | HK\$'000  | % of total exposure | HK\$'000   | % of total exposure | HK\$'000   | % of total exposure | HK\$'000   | % of total exposure | HK\$'000  | % of total exposure | HK\$'000   | % of total exposure |
| Loans           | 7,152,462 | 8.19                | 25,464,313 | 29.17               | 19,265,823 | 22.07               | 10,149,013 | 11.62               | -         | =                   | 62,031,611 | 71.05               |
| Debt securities | -         | 1                   | 8,778,044  | 10.06               | 11,270,023 | 12.91               | 78,286     | 0.09                | -         | -                   | 20,126,353 | 23.06               |
| Other           | -         |                     | 1,161,406  | 1.33                | 1,736,549  | 1.99                | 106,626    | 0.12                | 2,134,567 | 2.45                | 5,139,148  | 5.89                |
| Total           | 7,152,462 | 8.19                | 35,403,763 | 40.56               | 32,272,395 | 36.97               | 10,333,925 | 11.83               | 2,134,567 | 2.45                | 87,297,112 | 100.00              |



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

(f) Amounts of impaired exposures (according to the definitions in use under the applicable accounting standards) broken down by geographical areas and industries:

|                    | Gross<br>advances | Individually<br>assessed<br>impairment<br>allowances |
|--------------------|-------------------|--|
| Geographical areas | HK\$'000          | HK\$'000   |
| Mainland of China  | 197,044           | 69,823   |
| Others             | 1,895             | 292  |
| Total              | 198,939           | 70,115   |

|                            | Gross<br>advances | Individually<br>assessed<br>impairment<br>allowances |
|----------------------------|-------------------|--|
| Industry                   | HK\$'000          | HK\$'000   |
| Manufacturing              | 22,893            | 8,245  |
| Wholesale and retail trade | 47,197            | 13,944   |
| Others                     | 128,849           | 47,926   |
| Total                      | 198,939           | 70,115   |

Restructured exposures as at 31 December 2017 amounted to HK\$107,972,000 which is all classified as impaired exposures.

(g) Aging analysis of accounting past due exposures:

| Gross advances to customers which have been | Gross<br>advances |
|---|-------------------|
| overdue for                                 | HK\$'000          |
| - less than three months                    | 122,546           |
| - six months or less but over three months  | 32,012            |
| - one year or less but over six months      | 325               |
| - over one year                             | 44,952            |
| Total                                       | 199,835           |



#### CRC: Qualitative disclosures related to credit risk mitigation

(a) For collateral recognized for the purpose of capital management, the Group has established clear policies and procedures for collateral valuation and management which are compliant with the operational requirements for recognised collateral of credit risk mitigation set out in the Banking (Capital) Rules.

For credit exposures adopting FIRB approach for capital calculation purpose, the recognised eligible guarantees include the guarantees provided by banks, corporate and securities firms with a lower risk weights than the counterparty. The Group takes into account the credit risk mitigation effect of recognised collaterals through its determination of the net credit exposures and the effective LGD.

For retail exposures adopting IRB approach, the effect of the credit risk mitigation is incorporated into the internal risk parameters of PD or LGD depending on the nature of the guarantees and collaterals for calculating the risk exposures.

For credit exposures adopting STC approach, the main types of recognised collaterals include cash deposits, debt securities and equities for non-past due exposures. In addition, real estate collateral is also recognised for past due exposures. The treatment of recognised collateral is compliant with the comprehensive approach for credit risk mitigation set out in the Banking (Capital) Rules. For credit exposures under STC approach, the recognised guarantees for capital calculation include the guarantees given by sovereigns, public sector entities, multilateral development banks, or banks and corporates with ECAI issuer ratings both exempted from FIRB approach for credit exposures, that have lower risk weights than the counterparty.

Besides, the recognised netting for credit risk mitigation includes derivatives subject to valid bilateral netting agreements.

(b) The Group's collateral management policies sets out different valuation methods of collateral, type of valuation agencies, requirements and the form of valuation based on the nature and risk characteristics of loan, collateral and the type of valuation agencies for evaluate/revaluation objectively.

Depending on the level of risk, collateral condition and abnormal situation that may arise, the Group may adopt more prudent requirements on valuation method, frequency and on-site visit etc.

The assumptions of the valuation methodologies to be used in the valuation report should be reasonable and prudent and clearly documented.

The Group sets out different requirements in accordance with the nature of different credit, risk underlying and collateral types, including (but not limited to) monitoring of loan to value ratio, specific haircuts of different collateral, as well as the requirement of insurance.



#### CRC: Qualitative disclosures related to credit risk mitigation (continued)

(c) The credit and market risk concentrations within the credit risk mitigation (recognised collateral and guarantees for capital calculation) used by the Group are under a low level.

Up to the date of report, for capital calculation, except OTC derivative transactions cleared by central counterparties and derivatives subject to valid bilateral netting agreements, the Group has not used any other on-balance sheet or off-balance sheet recognised netting for credit risk mitigation. The Group also has not used any recognized credit derivative contracts for credit risk mitigation.

#### CR3: Overview of recognized credit risk mitigation

|   |                    | Exposures<br>unsecured:<br>carrying<br>amount | Exposures<br>to be<br>secured | Exposures<br>secured by<br>recognized<br>collateral | Exposures<br>secured by<br>recognized<br>guarantees | Exposures<br>secured by<br>recognized<br>credit<br>derivative<br>contracts |  |
|---|--------------------|---|-------------------------------|---|---|--|--|
|   |                    | HK\$'000                                      | HK\$'000                      | HK\$'000  | HK\$'000  | HK\$'000   |  |
| 1 | Loans              | 44,948,381                                    | 15,998,798                    | 11,242,667  | 4,756,132   | -  |  |
| 2 | Debt securities    | 18,120,045                                    | 2,012,698                     | -   | 2,012,698   | -  |  |
| 3 | Total              | 63,068,426                                    | 18,011,496                    | 11,242,667  | 6,768,830   | -  |  |
| 4 | Of which defaulted | 64,731  | 65,244                        | 65,244  | -   | -  |  |

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

- (a) The Group performs the ECAI issuer ratings mapping to its exposures in banking book in accordance with Part 4 of the Banking (Capital) Rules. The ECAIs recognized by the Group include Standard & Poors, Moody's and Fitch.
- (b) The Group adopts STC approach based on external credit rating to determine the risk weight of the credit exposure that approved by the HKMA to be exempted from FIRB approach, which included Sovereign exposures and Equity exposures.
- (c) For credit exposures adopting STC approach, the main types of recognised collaterals include cash deposits, debt securities and equities for non-past due exposures. In addition, real estate collateral is also recognised for past due exposures. The treatment of recognised collateral is compliant with the comprehensive approach for credit risk mitigation as mentioned in the Banking (Capital) Rules. For credit exposures under STC approach, the recognised guarantees for capital calculation include the guarantees given by sovereigns, public sector entities, multilateral development banks, or banks and corporates with ECAI issuer ratings both exempted from FIRB approach for credit exposures, that have lower risk weights than the counterparty. Besides, the recognised netting for credit risk mitigation includes derivatives subject to valid bilateral netting agreements.



# CR4: Credit risk exposures and effects of recognized credit risk mitigation - for STC approach

|    |  | Exposures pre-CO        | CF and pre-CRM           | Exposures post-CO       | CF and post-CRM          | RWA and R | NA density  |
|----|--|-------------------------|--------------------------|-------------------------|--------------------------|-----------|-------------|
|    |  | On-balance sheet amount | Off-balance sheet amount | On-balance sheet amount | Off-balance sheet amount | RWA       | RWA density |
|    | Exposure classes   | HK\$'000                | HK\$'000                 | HK\$'000                | HK\$'000                 | HK\$'000  | HK\$'000    |
| 1  | Sovereign exposures  | 5,746,069               | -                        | 5,746,069               | -                        | 12,484    | 0.22        |
| 2  | PSE exposures  | -                       | -                        | -                       | -                        | -         | -           |
| 2a | Of which: domestic PSEs  | -                       | -                        | -                       | -                        | -         | -           |
| 2b | Of which: foreign PSEs   | -                       | -                        | -                       | -                        | -         | -           |
| 3  | Multilateral development bank exposures  | 15,381                  | -                        | 15,381                  | -                        | 3,076     | 20.00       |
| 4  | Bank exposures   | 55,646                  | -                        | 55,646                  | -                        | 27,823    | 50.00       |
| 5  | Securities firm exposures  | -                       | -                        | -                       | -                        | -         | -           |
| 6  | Corporate exposures  | 820,137                 | 123,021                  | 820,137                 | 35,956                   | 819,396   | 95.71       |
| 7  | CIS exposures  | -                       | -                        | -                       | -                        | -         | -           |
| 8  | Cash items   | -                       | -                        | -                       | -                        | -         | -           |
| 9  | Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis | -                       | -                        | -                       | -                        | -         | -           |
| 10 | Regulatory retail exposures  | 190,428                 | 171,862                  | 190,428                 | 20,051                   | 145,258   | 69.01       |
| 11 | Residential mortgage loans   | 3,830                   | -                        | 3,830                   | -                        | 1,915     | 50.00       |
| 12 | Other exposures which are not past due exposures   | 756,907                 | 39,468                   | 756,907                 | -                        | 739,106   | 97.65       |
| 13 | Past due exposures   | 1,260                   | -                        | 1,260                   | -                        | 1,314     | 104.29      |
| 14 | Significant exposures to commercial entities   | -                       | -                        | -                       | -                        | -         | -           |
| 15 | Total  | 7,589,658               | 334,351                  | 7,589,658               | 56,007                   | 1,750,372 | 22.89       |



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

|    | Risk Weight Exposure class   | 0%        | 10%      | 20%      | 35%      | 50%      | 75%      | 100%      | 150%     | 250%     | Others   | Total credit<br>risk<br>exposures<br>amount<br>(post CCF<br>and post<br>CRM) |
|----|--|-----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|--|
|    |  | HK\$'000  | HK\$'000 | HK\$'000 | HK\$'000 | HK\$'000 | HK\$'000 | HK\$'000  | HK\$'000 | HK\$'000 | HK\$'000 | HK\$'000   |
| 1  | Sovereign exposures  | 5,683,647 | -        | 62,422   | -        | -        | -        | -         | -        | -        | -        | 5,746,069  |
| 2  | PSE exposures  | -         | -        | -        | -        | -        | -        | -         | -        | -        | -        | -  |
| 2a | Of which: domestic PSEs  | -         | -        | -        | -        | -        | -        | -         | -        | -        | -        | -  |
| 2b | Of which: foreign PSEs   | =         | -        | -        | -        | =        | -        | =         | =        | -        |          |  |
| 3  | Multilateral development bank exposures  | -         | -        | -        | -        | -        | -        | -         |          | -        | -        | -  |
| 4  | Bank exposures   | -         | -        | 15,381   | -        | -        | -        | -         | -        | -        | -        | 15,381   |
| 5  | Securities firm exposures  | -         | -        | -        | -        | 55,646   | -        | -         | -        | -        | -        | 55,646   |
| 6  | Corporate exposures  | 36,697    | -        | -        | -        | -        | -        | 819,396   | -        | -        | _        | 856,093  |
| 7  | CIS exposures  | -         | -        | -        | -        | -        | -        | -         | -        | -        | _        | -  |
| 8  | Cash items   | -         | -        | -        | -        | -        | -        | -         | -        | -        | _        | -  |
| 9  | Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis | -         | -        | -        |          | -        | -        | -         | -        | -        |          | -  |
| 10 | Regulatory retail exposures  | 16,802    | -        | -        | -        | -        | 193,677  | -         | -        | -        | _        | 210,479  |
| 11 | Residential mortgage loans   | -         | -        | -        | -        | 3,830    | -        | -         | -        | -        | _        | 3,830  |
| 12 | Other exposures which are not past due exposures   | 17,801    | -        | -        | -        | -        | -        | 739,106   | -        | -        |          | 756,907  |
| 13 | Past due exposures   | -         | -        | -        | -        | -        | -        | 1,153     | 107      | -        | _        | 1,260  |
| 14 | Significant exposures to commercial entities   | -         | -        | -        | -        | -        | -        | -         | -        | -        |          | -  |
| 15 | Total  | 5,754,947 | -        | 77,803   | •        | 59,476   | 193,677  | 1,559,655 | 107      | -        | -        | 7,645,665  |



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

(a) The Group uses statistical models to provide own estimated probability of default ("PD") for its corporate, bank and retail borrowers, and loss given default ("LGD") and exposure at default ("EAD") for retail exposures under retail IRB approach.

The Group uses internal rating system to assess the borrower's likelihood of default for all IRB portfolios. PD estimates the risk of borrower default over a one-year period. A borrower credit grade means a grouping of similar credit-worthiness to which borrowers are assigned on the basis of specified and distinct set of rating criteria, from which the average PD are derived for risk-weighted assets calculation.

Before commencing the model development procedure, development requirement should be submitted to senior management. After the approval of development requirement, the model development and maintenance unit of Credit Risk Management is responsible for the model development process. After conducting user acceptance test and independent validation, the developed model is submitted to Risk Management Committee of the Board for approval. For models used in the calculation of statutory minimum capital requirement, prior approval of HKMA is required before implementation.

(b) The model development and maintenance unit conducts assessment on the discriminatory power, accuracy and stability of the rating systems. Internal audit reviews the internal rating system and the operations of the related credit risk control units.

The Group requires that model validations should be conducted by a model validation unit which is independent from the model development and maintenance unit. Both qualitative and quantitative analysis are used in model validation.

(c) The performance of internal rating system is put under ongoing periodic monitoring. A set of quantitative indicators approved by the Risk Management Committee of the Board are used for reviewing the performance of credit risk models with respect to discriminatory power, accuracy, stability and conservativeness. Persistent breaches of internal thresholds are duly investigated and remedial actions are taken where necessary. Besides quantitative tests, qualitative analysis is conducted to provide supplementary information on areas such as portfolio concentration and rating migration. The results of periodic monitoring are reported to the Risk Management Committee of the Board.

.



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

(d) The Group adopts the FIRB approach to calculate the regulatory capital requirements for most of the corporate and bank exposures, and adopts the supervisory slotting criteria approach to project finance exposures under specialised lending. The Group adopts retail IRB approach for retail exposures to individuals and small business. The following is the table showing the Group's different capital calculation approaches to each asset class and sub-classes of exposures (other than securitisation exposures).

| Asset Class         | Exposure sub-class   | Capital calculation approach           |  |  |  |  |
|---------------------|--|--|--|--|--|--|
| Corporate exposures | Specialised lending under supervisory slotting criteria approach (project finance) | Supervisory Slotting Criteria Approach |  |  |  |  |
|                     | Small-and-medium sized corporates  | FIRB Approach                          |  |  |  |  |
|                     | Other corporates   |  |  |  |  |  |
| Sovereign exposures | Sovereigns   | Standardised (credit risk) Approach    |  |  |  |  |
|                     | Sovereign foreign public sector entities   |  |  |  |  |  |
|                     | Multilateral development banks   |  |  |  |  |  |
| Bank exposures      | Banks  | FIRB Approach                          |  |  |  |  |
|                     | Securities firms   |  |  |  |  |  |
|                     | Public sector entities (excluding sovereign foreign public sector entities)        | Standardised (credit risk) Approach    |  |  |  |  |
| Retail exposures    | Residential mortgages to individuals   | Retail IRB Approach                    |  |  |  |  |
|                     | Residential mortgages to property-holding shell companies                          |  |  |  |  |  |
|                     | Qualifying revolving retail  |  |  |  |  |  |
|                     | Other retail to individuals  |  |  |  |  |  |
|                     | Small business retail  |  |  |  |  |  |
| Equity exposures    |  | Standardised (credit risk) Approach    |  |  |  |  |
| Other exposures     | Cash items   | Specific Risk-weight Approach          |  |  |  |  |
|                     | Other items  | 1                                      |  |  |  |  |



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

(e) The portion of EAD subject to credit risk framework covered by the STC approach and FIRB approaches are as follow:

| RWA approach | Exposure type       | Portfolios                            | Portion of EAD (%) |
|--------------|---------------------|---------------------------------------|--------------------|
| IRB approach | Bank Exposures      |                                       | 32.66              |
|              | Corporate Exposures | Small-and-medium sized Corporates     | 6.98               |
|              |                     | Other Corporates                      | 39.38              |
|              | Retail Exposures    | Qualifying Revolving Retail Exposures | 0.00               |
|              |                     | Residential Mortgages to Individuals  | 3.83               |
|              |                     | Small Business Retail Exposures       | 0.32               |
|              |                     | Other Retail Exposures to Individuals | 4.89               |
|              | Others exposures    |                                       | 3.17               |
| IRB coverage |                     |                                       | 91.23              |
| STC approach | Sovereign Exposure  |                                       | 6.58               |
|              | Others exposures    |                                       | 2.19               |
| STD coverage |                     |                                       | 8.77               |
| Total        |                     |                                       | 100.00             |



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

(f) The following is a table showing key IRB models used with respect to each asset class and sub-classes of exposure:

| Asset class         | Exposure sub-class  | IRB model used  |
|---------------------|---|---|
| Corporate exposures | Small-and-medium sized corporates  Other corporates   | Bank-like PD Model: Mainly applicable to banks, banking groups and relevant holding companies     Non-bank Financial Institution (Insurance) PD Model: Mainly   |
| Bank exposures      | Banks Securities firms  | <ul> <li>applicable to insurers</li> <li>3. Non-bank Financial Institution (Securities) PD Model: Mainly applicable to securities firms and relevant holding companies</li> <li>4. Large Corporate PD Model: Mainly applicable to companies with higher annual sales turnover</li> <li>5. Corporate SME/Middle Market PD Model Mainly applicable to companies with lower annual sales turnover</li> <li>6. Real Estate Developer PD Model: Mainly applicable to real estate developers</li> <li>7. Corporate Real Estate Investor PD Model: Mainly applicable to companies with a real estate investment focus in their business activities</li> <li>8. Object Finance PD Model: Mainly applicable to funding used for acquisition of specific physical assets</li> </ul> |
| Retail exposures    | Residential mortgages to individuals Residential mortgages to property- holding shell companies | Retail Mortgage Loan PD Model   |
|                     | Qualifying revolving retail   | Other Retail PD Model   |
|                     | Other retail to individuals   | Initial Public Offering (IPO) PD Model :Mainly applicable to other exposures     Other Retail PD Model : Mainly applicable to other exposures   |
|                     | Small business retail   | Retail SME PD Model   |

(g) Probability of default (PD) is modeled following the through-the-cycle (TTC) approach. For portfolios with a sufficient number of defaults, PD models are built on a statistical basis. For historically low-default portfolios, PD models rely more heavily on external data and/or expert judgement. Compared with historical average actual observed default rates, the estimated PD of the Group is generally conservative.

Loss given default (LGD) is modeled using risk drivers such as product type and collateral attached to the exposure.

The LGD models are calibrated based on downturn experience. Historical loss experience of defaults during a downturn and stressed parameter based estimates (such as the cure rate) are considered for LGD estimation.

Exposure at default (EAD) takes into account the potential drawdown of a commitment as an obligor defaults. For reducing balance exposures which do not allow additional drawdowns, EAD is estimated as the outstanding balance. For revolving balance exposures which allow additional drawdowns, EAD is predicted by estimating the credit conversion factors (CCF) of undrawn commitments. Historical default experience, external data and expert judgement are used for CCF estimation.



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

### (a) FIRB approach

|                          |                   | Original<br>on-<br>balance<br>sheet<br>gross<br>exposure | Off-<br>balance<br>sheet<br>exposure<br>s<br>pre-CCF | Average<br>CCF | EAD post-<br>CRM and<br>post-CCF | Average<br>PD | Number<br>of<br>obligors | Average<br>LGD | Average<br>maturity | RWA        | RWA<br>density | EL       | Provisions |
|--------------------------|-------------------|--|--|----------------|----------------------------------|---------------|--------------------------|----------------|---------------------|------------|----------------|----------|------------|
|                          | PD scale          | HK\$'000   | HK\$'000   | %              | HK\$'000                         | %             |                          | %              | Year                | HK\$'000   | %              | HK\$'000 | HK\$'000   |
| Bank                     | 0.00 to < 0.15    | 24,392,123   | 2,906  | 100.00         | 24,987,576                       | 0.06          | 129                      | 45.00          | 2.5                 | 7,331,718  | 29.34          | 6,950    |            |
| Exposures                | 0.15 to < 0.25    | 2,295,676  | 300,000  | 88.40          | 2,285,671                        | 0.22          | 21                       | 45.00          | 2.5                 | 1,356,268  | 59.34          | 2,263    |            |
|                          | 0.25 to < 0.50    | 744,201  | -  | 100.00         | 879,087                          | 0.39          | 10                       | 45.00          | 2.5                 | 676,225    | 76.92          | 1,543    |            |
|                          | 0.50 to < 0.75    | 354,904  | 216,699  | 62.09          | 354,904                          | 0.67          | 5                        | 45.00          | 2.5                 | 362,633    | 102.18         | 1,067    |            |
|                          | 0.75 to < 2.50    | 545  | 80,000   | 0.68           | 545                              | 2.03          | 1                        | 45.00          | 2.5                 | 629        | 115.41         | 5        |            |
|                          | 2.50 to < 10.00   | -  | 9,500  | -              | -                                | -             | =                        | -              | =                   | -          | -              | -        |            |
|                          | 10.00 to < 100.00 | -  | -  | -              | -                                | -             | =                        | -              | =                   | -          | -              | -        |            |
|                          | 100.00 (Default)  | -  | -  | -              | -                                | -             | =                        | -              | =                   | -          | -              | -        |            |
|                          | Sub-total         | 27,787,449   | 609,105  | 100.00         | 28,507,783                       | 0.09          | 166                      | 45.00          | 2.5                 | 9,727,473  | 34.12          | 11,828   | 1,522      |
| Corporate                | 0.00 to < 0.15    | 215,253  | 26,199   | 88.76          | 206,786                          | 0.12          | 32                       | 43.74          | 2.5                 | 52,419     | 25.35          | 109      |            |
| Exposures                | 0.15 to < 0.25    | 102,995  | 41,319   | 71.42          | 103,068                          | 0.22          | 17                       | 38.87          | 2.5                 | 33,055     | 32.07          | 88       |            |
| <ul><li>Small-</li></ul> | 0.25 to < 0.50    | 178,626  | 206,717  | 48.40          | 187,149                          | 0.39          | 20                       | 39.17          | 2.5                 | 81,566     | 43.58          | 286      |            |
| and-                     | 0.50 to < 0.75    | 937,151  | 186,744  | 83.18          | 866,988                          | 0.61          | 48                       | 40.87          | 2.5                 | 473,690    | 54.64          | 2,159    |            |
| medium                   | 0.75 to < 2.50    | 2,877,952  | 495,353  | 84.63          | 2,689,908                        | 1.49          | 140                      | 39.73          | 2.5                 | 1,934,936  | 71.93          | 15,685   |            |
| sized                    | 2.50 to < 10.00   | 1,604,834  | 195,585  | 89.24          | 1,606,676                        | 4.86          | 53                       | 41.94          | 2.5                 | 1,710,599  | 106.47         | 32,760   |            |
| Corporate                | 10.00 to < 100.00 | 429,830  | 23,082   | 94.91          | 429,881                          | 11.82         | 9                        | 24.36          | 2.5                 | 358,895    | 83.49          | 11,287   |            |
| S                        | 100.00 (Default)  | -  | -  | -              | -                                | -             | =                        | -              | =                   | -          | -              | -        |            |
|                          | Sub-total         | 6,346,641  | 1,174,999  | .84.14         | 6,090,456                        | 2.88          | 319                      | 39.50          | 2.5                 | 4,645,160  | 76.27          | 62,374   | 25,039     |
| Corporate                | 0.00 to < 0.15    | 8,267,123  | 1,824,746  | 88.24          | 8,386,056                        | 0.10          | 61                       | 44.89          | 2.5                 | 2,523,956  | 30.10          | 3,709    |            |
| Exposures                | 0.15 to < 0.25    | 1,930,624  | 745,488  | 78.56          | 2,108,653                        | 0.22          | 18                       | 44.45          | 2.5                 | 1,018,074  | 48.28          | 2,062    |            |
| <ul><li>Other</li></ul>  | 0.25 to < 0.50    | 2,952,100  | 173,075  | 94.68          | 2,830,021                        | 0.39          | 45                       | 44.50          | 2.5                 | 1,777,287  | 62.80          | 4,911    |            |
| Corporate                | 0.50 to < 0.75    | 7,144,713  | 492,387  | 93.61          | 7,152,381                        | 0.59          | 82                       | 34.61          | 2.5                 | 4,128,577  | 57.72          | 14,739   |            |
| S                        | 0.75 to < 2.50    | 8,484,376  | 3,352,335  | 81.44          | 9,798,035                        | 1.31          | 167                      | 36.82          | 2.5                 | 8,217,606  | 83.87          | 47,336   |            |
|                          | 2.50 to < 10.00   | 3,524,029  | 610,129  | 85.39          | 3,530,116                        | 4.16          | 61                       | 22.32          | 2.5                 | 2,505,808  | 70.98          | 34,218   |            |
|                          | 10.00 to < 100.00 | 340,138  | 100,351  | 80.73          | 355,629                          | 13.30         | 4                        | 13.58          | 2.5                 | 224,163    | 63.03          | 5,900    |            |
|                          | 100.00 (Default)  | 218,005  | 8,598  | 98.10          | 222,303                          | 100.00        | 10                       | 40.50          | 2.5                 | 148,631    | 66.86          | 86,375   |            |
|                          | Sub-total         | 32,861,108   | 7,307,109  | 86.72          | 34,383,194                       | 1.78          | 448                      | 37.72          | 2.5                 | 20,544,102 | 59.75          | 199,250  | 210,785    |



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

#### (a) Retail IRB approach

|             |                   | Original on-<br>balance<br>sheet gross<br>exposure | Off-<br>balance<br>sheet<br>exposures<br>pre-CCF | Average<br>CCF | EAD post-<br>CRM and<br>post-CCF | Average<br>PD | Number<br>of<br>obligors | Average<br>LGD | Average maturity | RWA      | RWA<br>density | EL       | Provisions |
|-------------|-------------------|--|--|----------------|----------------------------------|---------------|--------------------------|----------------|------------------|----------|----------------|----------|------------|
|             | PD scale          | HK\$'000   | HK\$'000   | %              | HK\$'000                         | %             |                          | %              | Year             | HK\$'000 | %              | HK\$'000 | HK\$'000   |
| Retail      | 0.00 to < 0.15    | 628  | 1,522  | 86.35          | 1,857                            | 0.07          | 3                        | 20.30          | 1.0              | 16       | 0.87           | 0        |            |
| Exposures – | 0.15 to < 0.25    | -  | -  | -              | -                                | -             | 1                        | -              | -                | -        | -              | -        |            |
| Qualifying  | 0.25 to < 0.50    | -  | -  | -              | -                                | ı             | 1                        | -              | -                | -        | -              | ı        |            |
| Revolving   | 0.50 to < 0.75    | -  | -  | -              | -                                | -             | -                        | -              | -                | -        | -              | -        |            |
| Retail      | 0.75 to < 2.50    | -  | -  | -              | -                                | -             | -                        | -              | -                | -        | -              | -        |            |
| Exposures   | 2.50 to < 10.00   | -  | -  | -              | -                                | 1             | 1                        | -              | -                | -        | -              | -        |            |
| (QRRE)      | 10.00 to < 100.00 | -  | -  | -              | -                                | -             | -                        | -              | -                | -        | -              | -        |            |
|             | 100.00 (Default)  | -  | -  | -              | -                                | -             | -                        | -              | -                | -        | -              | -        |            |
|             | Sub-total         | 628  | 1,522  | 86.35          | 1,857                            | 0.07          | 3                        | 20.30          | 1.0              | 16       | 0.87           | -        | -          |
| Retail      | 0.00 to < 0.15    | 2,677,409  | -  | 100.00         | 2,677,429                        | 0.09          | 1,297                    | 12.90          | 4.9              | 456,316  | 17.04          | 321      |            |
| Exposures – | 0.15 to < 0.25    | 400,008  | -  | 100.00         | 400,008                          | 0.22          | 92                       | 11.12          | 5.0              | 61,222   | 15.31          | 96       |            |
| Residential | 0.25  to < 0.50   | 204,736  | -  | 100.00         | 204,736                          | 0.39          | 70                       | 13.36          | 5.0              | 35,191   | 17.19          | 105      |            |
| Mortgages   | 0.50 to < 0.75    | 51,816   | -  | 100.00         | 51,815                           | 0.58          | 27                       | 15.60          | 5.0              | 11,851   | 22.87          | 45       |            |
| Exposures   | 0.75 to < 2.50    | 2,335  | -  | 100.00         | 2,335                            | 1.37          | 5                        | 10.58          | 4.8              | 393      | 16.84          | 1        |            |
|             | 2.50 to < 10.00   | 1,705  | -  | 100.00         | 1,705                            | 3.52          | 1                        | 10.00          | 5.0              | 465      | 27.25          | 4        |            |
|             | 10.00 to < 100.00 | 1,956  | -  | 100.00         | 1,956                            | 18.00         | 1                        | 10.00          | 5.0              | 1,076    | 54.99          | 33       |            |
|             | 100.00 (Default)  | -  | -  | -              | -                                | -             | -                        | -              | -                | -        | -              | 2        |            |
|             | Sub-total         | 3,339,965  | -  | 100.00         | 3,339,984                        | 0.15          | 1,493                    | 12.76          | 4.9              | 566,514  | 16.96          | 607      | 2,323      |



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

#### (b) Retail IRB approach (continued)

|               |                   | Original on-<br>balance<br>sheet gross<br>exposure | Off-<br>balance<br>sheet<br>exposures<br>pre-CCF | Average<br>CCF | EAD post-<br>CRM and<br>post-CCF | Average<br>PD | Number<br>of<br>obligors | Average<br>LGD | Average<br>maturity | RWA        | RWA<br>density | EL       | Provisions |
|---------------|-------------------|--|--|----------------|----------------------------------|---------------|--------------------------|----------------|---------------------|------------|----------------|----------|------------|
|               | PD scale          | HK\$'000   | HK\$'000   | %              | HK\$'000                         | %             |                          | %              | Year                | HK\$'000   | %              | HK\$'000 | HK\$'000   |
| Retail        | 0.00 to < 0.15    | 69,344   | 89,122   | 60.26          | 95,486                           | 0.08          | 116                      | 6.61           | 2.3                 | 1,323      | 1.39           | 5        |            |
| Exposures –   | 0.15 to < 0.25    | 32,446   | 5,799  | 88.84          | 33,978                           | 0.22          | 27                       | 5.99           | 3.9                 | 878        | 2.59           | 4        |            |
| Small         | 0.25 to < 0.50    | 35,374   | 8,252  | 86.66          | 37,808                           | 0.39          | 39                       | 5.72           | 3.8                 | 1,344      | 3.56           | 8        |            |
| Business      | 0.50 to < 0.75    | 27,262   | 22,264   | 69.44          | 34,390                           | 0.61          | 31                       | 5.71           | 3.0                 | 1,556      | 4.52           | 11       |            |
| Retail        | 0.75 to < 2.50    | 62,008   | 13,288   | 87.61          | 65,963                           | 1.25          | 39                       | 7.28           | 3.7                 | 5,182      | 7.86           | 59       |            |
| Exposures     | 2.50 to < 10.00   | 11,543   | 1,648  | 91.74          | 12,102                           | 3.84          | 17                       | 7.99           | 2.8                 | 1,385      | 11.44          | 39       |            |
|               | 10.00 to < 100.00 | -  | -  | -              | -                                | -             | -                        | -              | -                   | -          | -              | -        |            |
|               | 100.00 (Default)  | -  | -  | -              | -                                | -             | -                        | -              | -                   | -          | -              | -        |            |
|               | Sub-total         | 237,977  | 140,373  | 73.93          | 279,727                          | 0.64          | 269                      | 6.52           | 3.1                 | 11,668     | 4.17           | 126      | 1,005      |
| Retail        | 0.00 to < 0.15    | 563,971  | 542,126  | 96.54          | 1,067,868                        | 0.07          | 245                      | 18.08          | 1.0                 | 42,486     | 3.98           | 171      |            |
| Exposures –   | 0.15 to < 0.25    | 79,635   | 259  | 99.99          | 79,885                           | 0.22          | 136                      | 12.85          | 4.0                 | 4,434      | 5.55           | 23       |            |
| Other Retail  | 0.25 to < 0.50    | 630,528  | 3,231  | 100.00         | 633,804                          | 0.38          | 306                      | 11.78          | 4.8                 | 45,636     | 7.20           | 283      |            |
| Exposures     | 0.50 to < 0.75    | 1,042,200  | 79,084   | 99.92          | 1,120,356                        | 0.57          | 269                      | 15.60          | 3.0                 | 132,834    | 11.86          | 971      |            |
| to            | 0.75 to < 2.50    | 315,496  | 799,938  | 57.89          | 645,680                          | 0.84          | 226                      | 19.31          | 1.6                 | 120,701    | 18.69          | 1,171    |            |
| Individuals   | 2.50 to < 10.00   | 719,431  | -  | 100.00         | 719,443                          | 2.92          | 65                       | 39.29          | 1.6                 | 390,998    | 54.35          | 8,176    |            |
|               | 10.00 to < 100.00 | 4,267  | 3,460  | 100.00         | 7,727                            | 29.81         | 9                        | 18.81          | 3.2                 | 3,168      | 41.00          | 324      |            |
|               | 100.00 (Default)  | -  | -  | -              | -                                | -             | -                        | -              | -                   | -          | -              | -        |            |
|               | Sub-total         | 3,355,528  | 1,428,098  | 89.36          | 4,274,763                        | 0.90          | 1,256                    | 20.15          | 2.3                 | 740,257    | 17.32          | 11,119   | 2,621      |
| Total (sum of | all portfolios)   | 73,929,296   | 10,661,207                                       | 90.97          | 76,877,764                       | 1.12          | 3,954                    | 38.39          | 2.6                 | 36,235,190 | 47.13          | 285,316  | 243,295    |



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

|    |  | Pre-credit<br>derivatives<br>RWA | Actual RWA |  |
|----|--|----------------------------------|------------|--|
|    |  | HK\$'000                         | HK\$'000   |  |
| 1  | Corporate – Specialized lending under supervisory slotting criteria approach (project finance)                   | -                                | -          |  |
| 2  | Corporate – Specialized lending under supervisory slotting criteria approach (object finance)                    | _                                | -          |  |
| 3  | Corporate – Specialized lending under supervisory slotting criteria approach (commodities finance)               | -                                | -          |  |
| 4  | Corporate – Specialized lending under supervisory slotting criteria approach (income-producing real estate)      | -                                | -          |  |
| 5  | Corporate – Specialized lending (high-volatility commercial real estate)   | -                                | -          |  |
| 6  | Corporate – Small-and-medium sized corporates  | 4,645,160                        | 4,645,160  |  |
| 7  | Corporate – Other corporates   | 20,544,102                       | 20,544,102 |  |
| 8  | Sovereigns   | -                                | -          |  |
| 9  | Sovereign foreign public sector entities   | -                                | -          |  |
| 10 | Multilateral development banks   | -                                | -          |  |
| 11 | Bank exposures – Banks   | 9,365,548                        | 9,365,548  |  |
| 12 | Bank exposures – Securities firms  | 361,925                          | 361,925    |  |
| 13 | Bank exposures – Public sector entities (excluding sovereign foreign public sector entities)                     | _                                | -          |  |
| 14 | Retail – Small business retail exposures   | 11,668                           | 11,668     |  |
| 15 | Retail – Residential mortgages to individuals  | 533,336                          | 533,336    |  |
| 16 | Retail – Residential mortgages to property-holding shell companies   | 33,178                           | 33,178     |  |
| 17 | Retail – Qualifying revolving retail exposures (QRRE)  | 16                               | 16         |  |
| 18 | Retail – Other retail exposures to individuals   | 740,257                          | 740,257    |  |
| 19 | Equity – Equity exposures under market-based approach (simple risk-weight method)                                | _                                | -          |  |
| 20 | Equity – Equity exposures under market-based approach (internal models method)                                   | _                                | -          |  |
| 21 | Equity – Equity exposures under PD/LGD approach (publicly traded equity exposures held for long-term investment) | -                                | -          |  |
| 22 | Equity – Equity exposures under PD/LGD approach (privately owned equity exposures held for long-term investment) | _                                | -          |  |
| 23 | Equity – Equity exposures under PD/LGD approach (other publicly traded equity exposures)                         | _                                | _          |  |
| 24 | Equity – Equity exposures under PD/LGD approach (other equity exposures)   | -                                | -          |  |
| 25 | Equity – Equity exposures associated with equity investments in funds (CIS exposures)                            | -                                | -          |  |
| 26 | Other – Cash items   | -                                | -          |  |
| 27 | Other – Other items  | 1,831,309                        | 1,831,309  |  |
| 28 | Total (under the IRB calculation approaches)   | 38,066,499                       | 38,066,499 |  |

The group did not use any recognized credit derivatives contracts for credit risk mitigation.



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

|   |                             | HK\$'000   |
|---|-----------------------------|------------|
| 1 | RWA as at 30 September 2017 | 31,361,568 |
| 2 | Asset size                  | 6,288,064  |
| 3 | Asset quality               | 366,085    |
| 4 | Model updates               | -          |
| 5 | Methodology and policy      | -          |
| 6 | Acquisitions and disposals  | -          |
| 7 | Foreign exchange movements  | 50,782     |
| 8 | Other                       | -          |
| 9 | RWA as at 31 December 2017  | 38,066,499 |



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

The following table shows the back-testing result of PD by credit portfolios. Estimates of PD are computed as of 31 December 2016 and the observation period is the whole year of 2017. Compared with historical average actual observed default rates, the estimated PD of the Group is generally conservative. The key models used in the Group are disclosed in section (f) of Table CRE above.

| (a)                      | (b)                   | (c)                        | (d)                       | (e)  | (f)                                       |                                   | (g)                                  | (h)  | (i)   |
|--------------------------|-----------------------|----------------------------|---------------------------|--|---|-----------------------------------|--------------------------------------|--|---|
|                          | PD Range              | External rating equivalent | Weighted<br>average<br>PD | Arithmetic<br>average<br>PD by<br>obligors | Number of<br>Beginnin<br>g of the<br>year | of obligors<br>End of<br>the year | Defaulted<br>obligors in<br>the year | Of which:<br>new<br>defaulted<br>obligors in the<br>year | Average<br>historical<br>annual<br>default rate |
| Bank                     | 0.00 to <             |                            |                           |  |   |                                   |                                      |  |   |
| Exposures                | 0.15                  | AAA to BBB+                | 0.06%                     | 0.06%                                      | 52  | 60                                | -                                    | -  | 0.00%   |
|                          | 0.15 to < 0.25        | BBB+ to BBB                | 0.22%                     | 0.22%                                      | 6   | 7                                 | _                                    | _  | 0.00%   |
|                          | 0.25 to <             | DDD+ to DDD                | 0.22 /0                   | 0.22 /0                                    | 0   | ,                                 | _                                    |  | 0.0078  |
|                          | 0.50                  | BBB to BB+                 | 0.39%                     | 0.39%                                      | 2   | 7                                 | -                                    | -  | 0.00%   |
|                          | 0.50 to <             |                            |                           |  |   |                                   |                                      |  |   |
|                          | 0.75                  | BB+                        | 0.67%                     | 0.64%                                      | 5   | 7                                 | -                                    | -  | 0.00%   |
|                          | 0.75 to < 2.50        | BB+ to B+                  | 0.89%                     | 1.46%                                      | 2   | 1                                 | _                                    | _  | 0.00%   |
|                          | 2.50 to <             | BB1 10 B1                  | 0.0070                    | 1.4070                                     |   |                                   |                                      |  | 0.0070  |
|                          | 10.00                 | B+ to B-                   | -                         | 3.51%                                      | 1   | 1                                 | -                                    | -  | 0.00%   |
|                          | 10.00 to              |                            |                           |  |   |                                   |                                      |  |   |
| _                        | < 100.00<br>0.00 to < | B- to C                    | -                         | -  | -   | -                                 | -                                    | -  | -   |
| Corporate<br>Exposures - | 0.00 to <             | AAA to BBB+                | 0.09%                     | 0.10%                                      | 45  | 64                                | _                                    | _  | 0.00%   |
| Other                    | 0.15 to <             | 7.0.0.1.0.0.0.0.7          | 0.0070                    | 01.1070                                    |   |                                   |                                      |  | 0.0070  |
| Corporates               | 0.25                  | BBB+ to BBB                | 0.22%                     | 0.22%                                      | 23  | 21                                | -                                    | 1  | 0.00%   |
|                          | 0.25 to <             | DDD (+ DD -                | 0.000/                    | 0.000/                                     | 50  | 40                                |                                      |  | 0.700/  |
|                          | 0.50<br>0.50 to <     | BBB to BB+                 | 0.39%                     | 0.39%                                      | 53  | 46                                | -                                    | -  | 0.70%   |
|                          | 0.30 to <             | BB+                        | 0.58%                     | 0.59%                                      | 90  | 96                                | 1                                    | _  | 0.37%   |
|                          | 0.75 to <             |                            | 0.007.0                   | 0.007,0                                    |   |                                   |                                      |  | 010170  |
|                          | 2.50                  | BB+ to B+                  | 1.30%                     | 1.33%                                      | 189                                       | 178                               | 1                                    | -  | 0.76%   |
|                          | 2.50 to <             | D . 4- D                   | 4.450/                    | 4.400/                                     | 43  | 00                                | _                                    |  | 0.000/  |
|                          | 10.00<br>10.00 to     | B+ to B-                   | 4.15%                     | 4.10%                                      | 43  | 63                                | -                                    | -  | 0.98%   |
|                          | < 100.00              | B- to C                    | 13.66%                    | 15.85%                                     | 10  | 4                                 | 1                                    | -  | 3.82%   |
| Corporate                | 0.00 to <             |                            |                           |  |   |                                   |                                      |  |   |
| Exposures -              | 0.15                  | AAA to BBB+                | 0.13%                     | 0.12%                                      | 35  | 34                                | -                                    | -  | 0.00%   |
| Small-and-               | 0.15 to < 0.25        | BBB+ to BBB                | 0.22%                     | 0.220/                                     | 23  | 19                                | -                                    |  | 0.500/  |
| medium<br>sized          | 0.25 to <             | DDD+ (U DDD                | 0.2276                    | 0.22%                                      | 23  | 19                                | -                                    | -  | 0.59%   |
| Corporates               | 0.50                  | BBB to BB+                 | 0.39%                     | 0.39%                                      | 34  | 30                                | -                                    | -  | 0.51%   |
|                          | 0.50 to <             |                            |                           |  |   |                                   |                                      |  |   |
|                          | 0.75                  | BB+                        | 0.58%                     | 0.59%                                      | 59  | 54                                | -                                    | -  | 0.26%   |
|                          | 0.75 to < 2.50        | BB+ to B+                  | 1.39%                     | 1.39%                                      | 152                                       | 147                               | _                                    | _  | 0.39%   |
|                          | 2.50 to <             | דט טד דט טד                | 1.33/0                    | 1.33/0                                     | 102                                       | 141                               | _                                    | _  | 0.33/0  |
|                          | 10.00                 | B+ to B-                   | 4.42%                     | 4.25%                                      | 54  | 52                                | -                                    | -  | 1.02%   |
|                          | 10.00 to              |                            |                           |  | _   | _                                 |                                      |  |   |
|                          | < 100.00              | B- to C                    | 10.67%                    | 11.62%                                     | 3   | 9                                 | -                                    | -  | 0.00%   |



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

| (a)                       | (b)               | (c)                              | (d)                       | (e)  | (      | f)          | (g)                                  | (h)  | (i)   |
|---------------------------|-------------------|----------------------------------|---------------------------|--|--------|-------------|--------------------------------------|--|---|
|                           | PD Range          | External<br>rating<br>equivalent | Weighted<br>average<br>PD | Arithmeti<br>c<br>average<br>PD by<br>obligors | Number | of obligors | Defaulted<br>obligors in<br>the year | Of which:<br>new<br>defaulted<br>obligors in the<br>year | Average<br>historical<br>annual<br>default rate |
| Retail<br>Exposures -     | 0.00 to < 0.15    | -                                | 0.03%                     | 0.04%  | 2      | 3           | -                                    | -  | 0.00%   |
| Qualifying<br>Revolving   | 0.15 to < 0.25    | -                                | N/A                       | N/A  | -      | -           |                                      | -  | 0.00%   |
| Retail<br>Exposures       | 0.25 to < 0.50    | -                                | N/A                       | N/A  | -      | -           | -                                    | -  | 0.00%   |
|                           | 0.50 to < 0.75    | -                                | N/A                       | N/A  | -      | -           | -                                    | -  | 0.00%   |
|                           | 0.75 to < 2.50    | -                                | N/A                       | N/A  | -      | -           | -                                    | -  | 0.00%   |
|                           | 2.50 to < 10.00   | -                                | 3.80%                     | 3.80%  | 1      | -           | -                                    | -  | 0.00%   |
|                           | 10.00 to < 100.00 | -                                | N/A                       | N/A  | -      | -           | -                                    | -  | 0.00%   |
| Retail<br>Exposures -     | 0.00 to < 0.15    | -                                | 0.09%                     | 0.08%  | 1,377  | 1,386       | -                                    | -  | 0.08%   |
| Residential<br>Mortgages  | 0.15 to < 0.25    | -                                | 0.22%                     | 0.22%  | 102    | 92          | -                                    | -  | 0.00%   |
| Exposures                 | 0.25 to < 0.50    | -                                | 0.39%                     | 0.39%  | 51     | 70          | -                                    | -  | 0.00%   |
|                           | 0.50 to < 0.75    | -                                | 0.52%                     | 0.53%  | 35     | 27          | -                                    | -  | 0.00%   |
|                           | 0.75 to < 2.50    | -                                | 1.11%                     | 1.22%  | 10     | 5           | -                                    | -  | 0.00%   |
|                           | 2.50 to < 10.00   | -                                | 9.11%                     | 9.11%  | 1      | 1           | -                                    | -  | 2.50%   |
|                           | 10.00 to < 100.00 | -                                | 16.32%                    | 15.51%   | 3      | 1           | -                                    | -  | 0.00%   |
| Retail<br>Exposures -     | 0.00 to < 0.15    | AAA to<br>BBB+                   | 0.09%                     | 0.09%  | 71     | 67          | -                                    | -  | 0.00%   |
| Small<br>Business         | 0.15 to < 0.25    | BBB+ to<br>BBB                   | 0.22%                     | 0.22%  | 19     | 18          | -                                    | -  | 0.00%   |
| Retail<br>Exposures       | 0.25 to < 0.50    | BBB to<br>BB+                    | 0.39%                     | 0.39%  | 23     | 19          | -                                    | -  | 0.00%   |
|                           | 0.50 to < 0.75    | BB+                              | 0.58%                     | 0.58%  | 27     | 16          | -                                    | -  | 0.00%   |
|                           | 0.75 to < 2.50    | BB+ to B+                        | 1.34%                     | 1.22%  | 24     | 25          | -                                    | -  | 0.00%   |
|                           | 2.50 to < 10.00   | B+ to B-                         | 3.46%                     | 5.22%  | 16     | 13          | -                                    | -  | 1.83%   |
|                           | 10.00 to < 100.00 | B- to C                          | 36.32%                    | 36.32%   | 1      | -           | 1                                    | -  | 20.00%  |
| Retail<br>Exposures -     | 0.00 to < 0.15    | -                                | 0.07%                     | 0.07%  | 217    | 250         | -                                    | -  | 0.00%   |
| Other Retail<br>Exposures | 0.15 to < 0.25    | -                                | 0.22%                     | 0.22%  | 137    | 159         | -                                    | -  | 0.00%   |
| to<br>Individuals         | 0.25 to < 0.50    | -                                | 0.39%                     | 0.39%  | 392    | 381         | -                                    | -  | 0.00%   |
|                           | 0.50 to < 0.75    | -                                | 0.55%                     | 0.56%  | 312    | 364         | -                                    | -  | 0.11%   |
|                           | 0.75 to < 2.50    | -                                | 0.91%                     | 0.92%  | 107    | 147         | -                                    | -  | 0.00%   |
|                           | 2.50 to < 10.00   | -                                | 3.15%                     | 3.14%  | 95     | 108         | -                                    | -  | 0.00%   |
|                           | 10.00 to < 100.00 | =                                | 33.00%                    | 33.00%   | 5      | 9           | -                                    | -  | 0.00%   |



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

There were no specialized lending under supervisory slotting criteria approach and the Group did not use simple risk-weight method to measure equities exposures as at 31 December 2017.



#### **Counterparty Credit risk**

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

- (a) The Group's counterparty credit risk arising from derivative contracts and securities financing transactions both in trading and banking book is subject to the same risk management framework as mentioned in Note 4 to the Financial Statements. The Group establishes credit limit through formal credit approval procedures to control the pre-settlement credit risk arising from derivative transactions and settlement limit to control the settlement risk arising from foreign exchange-related transactions for counterparties in both the trading book and banking book.
- (b) The Group monitors the risk exposures arising from due to market fluctuations in the market by using the current exposure and the potential exposure value of the transactions. Exceptions or excesses are timely and closely identified and monitored by RMD.

Credit equivalent amount and capital charge for the relevant counterparty credit exposures are determined following the regulatory capital requirements. Currently, the Group has adopted the Current Exposure Method to measure the relevant credit equivalent amount, which comprises current exposures and potential future exposures. The relevant counterparty default risk capital charge is calculated under the FIRB/STC approach. In addition, the Group has adopted standardised credit valuation adjustment ("CVA") method to calculate the relevant counterparty CVA capital charge.

(c) If the Group has purchased credit protection, credit assessments and reviews should also be conducted on the creditworthiness of the credit protection providers. Whether specific wrong-way risk exists in the Group's exposure to the credit protection providers should also be included in the assessments. For credit protection via purchasing credit derivative contracts, limits are set for each credit protection provider and approvals from relevant level of management should be obtained, in order to control the concentration risk arising from individual credit protection providers.

The Group has procedures in place for requiring limit setting on central counterparty exposures, which is subject to review annually or where necessary. When the limit is breached, relevant business units will be alerted and immediate credit review would be conducted where necessary. Measures such as adjusting the current business strategy or suspending new transactions would also be considered.

- (d) In controlling and monitoring of wrong-way risk (risk of existence of positive correlation between the PD of a counterparty and credit exposures driven by mark-to-market value of the underlying transactions), specific wrong-way risk transactions are generally not allowed.
- (e) The requirement in payment or collateral is categorized according to difference internal rating. The payment and collateral increase caused by poor rating.



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

|    |                                   | Replacement cost (RC) | PFE      | Effective<br>EPE | Alpha (α) used<br>for computing<br>default risk<br>exposure | Default<br>risk<br>exposure<br>after CRM | RWA      |
|----|-----------------------------------|-----------------------|----------|------------------|---|--|----------|
|    |                                   | HK\$'000              | HK\$'000 | HK\$'000         |   | HK\$'000                                 | HK\$'000 |
| 1  | SA-CCR (for derivative contracts) | -                     | -        |                  | 1.4   | -  | -        |
| 1a | CEM                               | 117,511               | 83,242   |                  | -   | 200,753                                  | 34,631   |
| 2  | IMM (CCR) approach                |                       |          | -                | -   | -  | -        |
| 3  | Simple Approach (for SFTs)        |                       |          |                  |   | -  | -        |
| 4  | Comprehensive Approach (for SFTs) |                       |          |                  |   | -  | -        |
| 5  | VaR (for SFTs)                    |                       |          |                  |   | -  | -        |
| 6  | Total                             |                       |          |                  |   |  | 34,631   |

### **CCR2: CVA capital charge**

|   |  | EAD post CRM | RWA      |
|---|--|--------------|----------|
|   |  | HK\$'000     | HK\$'000 |
|   | Netting sets for which CVA capital charge is calculated by the advanced CVA method     | -            | -        |
| 1 | (i) VaR (after application of multiplication factor if applicable)                     |              | -        |
| 2 | (ii) Stressed VaR (after application of multiplication factor if applicable)           |              | -        |
| 3 | Netting sets for which CVA capital charge is calculated by the standardized CVA method | 201,441      | 61,588   |
| 4 | Total  | 201,441      | 61,588   |



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

|    | Risk Weight Exposure class                       | 0%       | 10%      | 20%      | 35%      | 50%      | 75%      | 100%     | 150%     | 250%     | Others   | Total default risk exposure after CRM |
|----|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------------------------------------|
|    | ·  | HK\$'000                              |
| 1  | Sovereign exposures                              | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 2  | PSE exposures                                    | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 2a | Of which: domestic PSEs                          | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 2b | Of which: foreign PSEs                           | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 3  | Multilateral development bank exposures          | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 4  | Bank exposures                                   | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 5  | Securities firm exposures                        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 6  | Corporate exposures                              | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 7  | CIS exposures                                    | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 8  | Regulatory retail exposures                      | 27,677   | -        | -        | -        | -        | 880      | -        | -        | -        | -        | 28,557                                |
| 9  | Residential mortgage loans                       | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 10 | Other exposures which are not past due exposures | 64,681   | -        | -        | -        | -        | -        | 3,811    | -        | -        | -        | 68,492                                |
| 11 | Significant exposures to commercial entities     | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -                                     |
| 12 | Total  | 92,358   | -        | -        | -        | -        | 880      | 3,811    | -        | -        | -        | 97,049                                |



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

### FIRB approach

|                   |                   | EAD post-CRM | Average PD | Number of obligors | Average LGD | Average<br>maturity | RWA      | RWA density |
|-------------------|-------------------|--------------|------------|--------------------|-------------|---------------------|----------|-------------|
|                   | PD scale          | HK\$'000     | %          | _                  | %           | HK\$'000            | HK\$'000 | %           |
| Bank              | 0.00 to < 0.15    | 85,131       | 0.04       | -                  | 45.00       | 2.50                | 18,088   | 21.25       |
|                   | 0.15 to < 0.25    | -            | -          | -                  | -           | -                   | -        | -           |
|                   | 0.25 to < 0.50    | -            | -          | -                  | -           | -                   | -        | -           |
|                   | 0.50 to < 0.75    | -            | -          | -                  | -           | -                   | -        | -           |
|                   | 0.75 to < 2.50    | -            | =          | -                  | -           | -                   | -        | -           |
|                   | 2.50 to < 10.00   | -            | -          | -                  | -           | -                   | -        | -           |
|                   | 10.00 to < 100.00 | -            | -          | -                  | -           | -                   | -        | -           |
|                   | 100.00 (Default)  | -            | -          | -                  | -           | -                   | -        | -           |
|                   | Sub-total         | 85,131       | 0.04       | -                  | 45.00       | 2.50                | 18,088   | 21.25       |
| Corporate         | 0.00 to < 0.15    | -            | -          | -                  | -           | -                   | -        | -           |
| Exposures -       | 0.15 to < 0.25    | -            | -          | -                  | -           | -                   | -        | -           |
| Other             | 0.25 to < 0.50    | 11,722       | 0.39       | -                  | 45.00       | 2.50                | 7,263    | 61.96       |
| Corporates        | 0.50 to < 0.75    | 6,601        | 0.51       | -                  | 45.00       | 2.50                | 4,636    | 70.24       |
|                   | 0.75 to < 2.50    | -            | -          | -                  | -           | -                   | -        | -           |
|                   | 2.50 to < 10.00   | -            | -          | -                  | -           | -                   | -        | -           |
|                   | 10.00 to < 100.00 | -            | -          | -                  | -           | -                   | -        | -           |
|                   | 100.00 (Default)  | -            | -          | -                  | -           | -                   | -        | -           |
|                   | Sub-total         | 18,323       | 0.43       | -                  | 45.00       | 5.00                | 11,899   | 64.94       |
| Corporate         | 0.00 to < 0.15    | -            | -          | -                  | -           | -                   | -        | -           |
| Exposures -       | 0.15 to < 0.25    | -            | -          | -                  | -           | -                   | -        | -           |
| Small-and-        | 0.25 to < 0.50    | -            | -          | -                  | -           | -                   | -        | -           |
| medium sized      | 0.50 to < 0.75    | -            | -          | -                  | -           | -                   | -        | -           |
| Corporates        | 0.75 to < 2.50    | 250          | 0.89       | -                  | 45.00       | 2.50                | 173      | 69.34       |
| Ī                 | 2.50 to < 10.00   | -            | =          | =                  | -           | =                   | =        | -           |
|                   | 10.00 to < 100.00 | -            | =          | -                  | -           | =                   | =        | -           |
|                   | 100.00 (Default)  | -            | =          | -                  | -           | =                   | =        | -           |
|                   | Sub-total         | 250          | 0.89       | -                  | 45.00       | 2.50                | 173      | 69.34       |
| Total (sum of all | portfolios)       | 103,704      | 0.11       | -                  | 45.00       | 2.94                | 30,160   | 29.08       |



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

|                         |            | Derivative                   | SFTs       |                     |                                      |                      |
|-------------------------|------------|------------------------------|------------|---------------------|--------------------------------------|----------------------|
|                         |            | f recognized<br>received     |            | of posted<br>ateral | Fair value<br>of                     | Fair value of        |
|                         | Segregated | Unsegregated                 | Segregated | Unsegregated        | recognized<br>collateral<br>received | posted<br>collateral |
|                         | HK\$'000   | 0 HK\$'000 HK\$'000 HK\$'000 |            | HK\$'000            | HK\$'000                             | HK\$'000             |
| Cash - other currencies | -          | 153,791                      | -          | -                   | -                                    | -                    |
| Total                   | -          | 153,791                      | -          | -                   | -                                    | -                    |

#### **CCR6: Credit-related derivatives contracts**

The Group had no exposures of Credit-related derivatives contracts as at 31 December 2017.

### CCR7: RWA flow statements of default risk exposures under IMM (CCR) approach

The Group did not use IMM(CCR) approach to measure default risk exposures as at 31 December 2017.

### **CCR8: Exposures to CCPs**

The Group had no exposures to CCP as at 31 December 2017.



### Securitization exposures

### SECA: Qualitative disclosures related to securitization exposures

There were no securitization exposures as at 31 December 2017.

### SEC1: Securitization exposures in banking book

There were no securitization exposures in the banking book as at 31 December 2017.

### SEC2: Securitization exposures in trading book

There were no securitization exposures in the trading book as at 31 December 2017.

# SEC3: Securitization exposures in banking book and associated capital requirements – where Al acts as originator

There were no securitization exposures in the banking book and the associated capital requirements where the Group acts as an originator as at 31 December 2017.

# SEC4: Securitization exposures in banking book and associated capital requirements – where Al acts as investor

There were no securitization exposures in the banking book and the associated capital requirements where the Group acts as an investor as at 31 December 2017.



### MRA: Qualitative disclosures related to market risk

Market risk refers to the risk of loss arising from movements in the value of foreign exchange, interest rate, equity and commodity positions held by the Group due to the volatility of financial market price (foreign exchange rate, interest rate, equity price, commodity price). The Group adopts a moderate market risk appetite to achieve a balance between risk and return. The Group's objective in managing market risk is to secure healthy growth of the treasury business, by effective management of potential market risk in the Group's business, according to the Group's overall risk appetite and strategy of treasury business on the basis of a well-established risk management regime and related management measures.

In accordance with the Group's corporate governance principles in respect of risk management, the Board and Risk Management Committee, senior management and functional departments/units perform their duties and responsibilities to manage the Group's market risk. Financial Management Department is mainly responsible for managing market risk, assisting senior management to perform their day-to-day duties, independently monitoring the market risk profile and compliance of management policies and limits of the Group, and ensuring that the aggregate and individual market risks are within acceptable levels, as well as reporting general market risks to the Risk Management Committee and senior management on a periodic basis.

The Group sets up market risk indicators and limits to identify, measure, monitor and control market risk. Major risk indicators and limits include but are not limited to VAR, Stop Loss, Open Position, Stress Testing and Sensitivity Analysis etc. To meet management requirements, major risk indicators and limits are classified into three levels, and are approved by the Risk Management Committee, ALCO and the Head of Financial Management Department respectively. Review of the major risk indicators and limits will be conducted periodically. Business units are required to conduct their business within approved market risk indicators and limits can utilize hedging strategies to manage risk within set limits.



### MRB: Additional qualitative disclosures for AI using IMM approach

The Group continues to adopt the internal models ("IMM") approach to calculate the general market risk capital charge for foreign exchange and interest rate exposures and exclude its structural FX positions in the calculation of the market risk capital charge. The Group continues to adopt the standardized (market risk) ("STM") approach to calculate the market risk capital charge for the remaining exposures. Regulatory VAR and Stressed VAR models are adopted to use in the Group.

IMM VAR and stressed VAR measures used for market risk regulatory capital purposes are calculated to a 99% confidence level and use a 10-day holding period. The stressed VAR uses the same methodology as the VAR model and is generated with inputs calibrated to the historical market data from a continuous 12-month period of significant financial stress relevant to the Group's portfolio. For management purposes, the Group uses 1-day 99% VAR to measure and report general market risks, and sets up the VAR limit of the Group.

Directly modeled 10-day holding period is used in the calculation of Regulatory VAR, whereby two-year historical observations are equally weighted. Absolute returns are used for interest rates; logarithmic returns are used for foreign exchange rates and implied volatilities under historical simulation, where the data are updated daily.

Stressed VAR model is based on a directly modeled 10-day holding period, which is same as regulatory VAR model. Based on the assessment at the most volatile period in recent history, relevant historical crises are first identified. With further assessment, January 2008 to December 2008 is chosen as the stress period in calculating Stressed VAR.

Full revaluation approach is used in both VAR and Stressed VAR model. Specific risk charge is calculated as a standalone charge by using a different method (i.e. Standardized approach). It is aggregated by simple sum with the VAR and Stressed VAR contributions when computing the market risk capital charge.

The Group adopts back-testing to measure the accuracy of VAR model results. The back-testing compares the calculated VAR figure of market risk positions of each business day with the actual and hypothetical gains or losses arising from those positions on the next business day. Generally speaking, the number of back-testing exceptions in a rolling 12-month period will not exceed four times, given a 99% confidence level.



### MR1: Market risk under STM approach

The Group did not have market risk exposures under STM approach as at 31 December 2017.

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

|    |   | VaR      | Stressed<br>VaR | IRC      | CRC      | Other    | Total RWA |
|----|---|----------|-----------------|----------|----------|----------|-----------|
|    |   | HK\$'000 | HK\$'000        | HK\$'000 | HK\$'000 | HK\$'000 | HK\$'000  |
| 1  | RWA as at 30 September 2017               | 39,412   | 33,038          |          |          | -        | 72,450    |
| 1a | Regulatory adjustment                     | (16,249) | (4,363)         | -        | -        | -        | (20,612)  |
| 1b | RWA as at day-end of 30<br>September 2017 | 23,163   | 28,675          |          |          | -        | 51,838    |
| 2  | Movement in risk levels                   | (6,200)  | (7,813)         | -        |          | -        | (14,013)  |
| 3  | Model updates/changes                     | -        | -               | -        | =        | =        | -         |
| 4  | Methodology and policy                    | -        | -               | -        | -        | -        | -         |
| 5  | Acquisitions and disposals                | -        | -               | -        | -        | -        | -         |
| 6  | Foreign exchange movements                | -        | -               | -        | -        | -        | -         |
| 7  | Other                                     | -        | -               | -        | -        | -        | -         |
| 7a | RWA as at day-end of 31<br>December 2017  | 16,963   | 20,862          | -        | 1        | -        | 37,825    |
| 7b | Regulatory adjustment                     | 51,775   | 63,438          | -        | 1        | -        | 115,213   |
| 8  | RWA as at 31 December 2017                | 68,738   | 84,300          | 1        | 1        | -        | 153,038   |

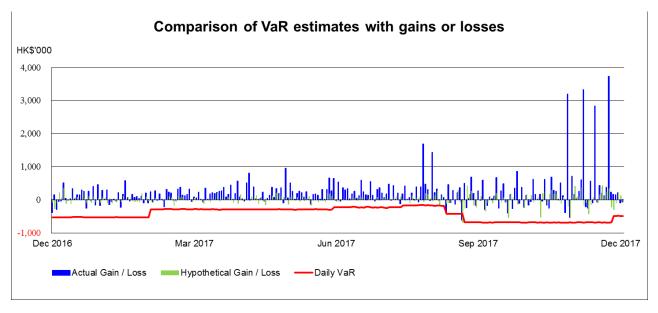


## MR3: IMM approach values for market risk exposures

|       |  | HK\$'000 |
|-------|--|----------|
| VaR   | (10 days – one-tailed 99% confidence interval)           |          |
| 1     | Maximum Value  | 1,906    |
| 2     | Average Value  | 1,323    |
| 3     | Minimum Value  | 617      |
| 4     | As At 31 December 2017                                   | 1,357    |
| Stres | sed VaR (10 days – one-tailed 99% confidence interval)   |          |
| 5     | Maximum Value  | 2,339    |
| 6     | Average Value  | 1,451    |
| 7     | Minimum Value  | 280      |
| 8     | As At 31 December 2017                                   | 1,669    |
| Incre | mental risk charge (IRC) (99.9% confidence interval)     |          |
| 9     | Maximum Value  | -        |
| 10    | Average Value  | -        |
| 11    | Minimum Value  | -        |
| 12    | As At 31 December 2017                                   | -        |
| Com   | prehensive risk charge (CRC) (99.9% confidence interval) |          |
| 13    | Maximum Value  | -        |
| 14    | Average Value  | -        |
| 15    | Minimum Value  | -        |
| 16    | As At 31 December 2017                                   | -        |
| 17    | Floor  | -        |



### MR4: Comparison of VaR estimates with gains or losses



Market risk regulatory capital charge is calculated under the Banking (Capital) (Amendment) Rules 2011 to incorporate capital charge for stressed VaR. Regulatory VaR and stressed VaR measures used for market risk regulatory capital purposes are calculated to a 99% confidence level and use a 10-day holding period. The stressed VaR uses the same methodology as the VaR model and is generated with inputs calibrated to the historical market data from a continuous 12-month period of significant financial stress relevant to the Group's portfolio.

The Group adopts a regulatory VaR model, using a historical simulation approach and two years of historical data, to capture general interest rate and foreign exchange risks over a 10-day holding period with a 99% confidence level. The Group adopts back-testing to measure the accuracy of VaR model results. Actual and hypothetical P&L are compared against the corresponding 99% one-day regulatory VaR over the recent 250 business days. The numbers of exception (actual or hypothetical P&L exceeds the VaR) determines the value of VaR multiplication factor.

Actual P&Ls are the P&Ls in respect to trading activities within the scope of regulatory VaR model, which includes intraday P&Ls; excludes commissions, fees and reserves. Hypothetical P&Ls are the hypothetical changes in portfolio value assuming unchanged end-of-day position.

During the period, one exception is noted in actual and hypothetical P&L back-testing respectively (excess amount: HK\$178,000 and HK\$255,000 respectively) at 18 September 2017 as shown above. The exception was driven by unexpected market movements in foreign exchange rates.



### Regulatory capital

Reconciliation of regulatory scope combined balance sheet to capital components

|   | At 3   | 1 December 20   | 17  |
|---|--|---|---|
|   | Balance sheet<br>as in<br>published<br>financial<br>statements   | Under regulatory scope of combination   | Cross<br>reference<br>to definition<br>of capital<br>components |
|   | HK\$'000   | HK\$'000  | componente  |
| ASSETS Cash and balances with banks and other financial institutions Placements with banks and other financial institutions maturing between one and twelve months Financial assets designated at fair value through profit or loss Derivative financial instruments - of which: debit valuation adjustments in respect of derivative contracts Advances and other accounts Investment in securities Investment in subsidiaries Amounts due from subsidiaries Investment properties Properties, plant and equipment Deferred tax assets | 17,287,963<br>780,905<br>212,225<br>129,146<br>43,054,376<br>20,011,461<br>-<br>214,910<br>1,552,253<br>19,911 | 17,287,963<br>780,905<br>212,225<br>129,146<br>399<br>43,054,376<br>20,011,461<br>11,713<br>8,057<br>214,910<br>1,531,551<br>19,911 | (1)   |
| Other assets  | 825,781  | 825,781   |   |
| Total assets  | 84,088,931   | 84,087,999  |   |
| LIABILITIES  Deposits and balances from banks and other financial institutions  Derivative financial instruments  - of which: debit valuation adjustments in respect of derivative contracts  Deposits from customers  Other accounts and provisions  Current tax liabilities  Deferred tax liabilities   | 9,987,634<br>18,789<br>63,279,437<br>1,000,068<br>91,552<br>147,954  | 9,987,634<br>18,789<br>(903)<br>63,329,964<br>1,000,068<br>87,744<br>144,753  | (3)   |
| Total liabilities   | 74,525,434   | 74,568,952  |   |



### Regulatory capital (continued)

Reconciliation of regulatory scope combined balance sheet to capital components (continued)

|   | At 3          |             |               |
|---|---------------|-------------|---------------|
|   | Balance sheet |             | Cross         |
|   | as in         | Under       | reference     |
|   | published     | regulatory  | to definition |
|   | financial     | scope of    | of capital    |
|   | statements    | combination | components    |
| FOURTY  | HK\$'000      | HK\$'000    |               |
| EQUITY  |               |             |               |
| Share capital   | 300,000       | 300,000     | (4)           |
| Reserves  | 7,325,785     | 7,281,335   |               |
| - Retained earnings   | 5,942,842     | 5,916,657   | (5)           |
| - of which: cumulative fair value gains arising from the revaluation of |               |             | ` ,           |
| investment properties   |               | 204,335     | (6)           |
| - Premises revaluation reserve  | 1,122,434     | 1,104,169   | (7)           |
| - Reserve for fair value changes of available-for-sale securities       | (84,885)      | (84,885)    | (8)           |
| - Regulatory reserve  | 325,391       | 325,391     | (9)           |
| - Translation reserve   | 20,003        | 20,003      | (10)          |
| Capital and reserves attributable to the equity holders of the Bank     | 7,625,785     | 7,581,335   |               |
| Additional equity instruments   | 1,937,712     | 1,937,712   | (11)          |
| Total equity  | 9,563,497     | 9,519,047   |               |
| Total liabilities and equity  | 84,088,931    | 84,087,999  |               |



|          |   |  |  | 1  |
|----------|---|--|--|--|
|          |   | At 31  | December 20  | 17   |
|          |   | Component of<br>regulatory<br>capital<br>reported by<br>bank<br>HK\$'000 | Amounts<br>subject to<br>pre-Basel III<br>treatment*<br>HK\$'000 | Cross<br>reference to<br>regulatory<br>scope<br>consolidated<br>balance<br>sheet |
|          | CET1 capital: instruments and reserves  |  |  |  |
| 1        | Directly issued qualifying CET1 capital instruments plus any related share  | 200,000  |  | (4)  |
| 2        | premium Retained earnings   | 300,000<br>5,916,657   |  | (4)  |
| 3        | Disclosed reserves  | 5,910,057  |  | (7)+(8)+   |
| 3        | Disclosed reserves  | 1,364,678  |  | (9)+(10)   |
| 4        | Directly issued capital subject to phase out from CET1 capital (only applicable to  | 1,504,070  |  | (3)1(10)   |
| ľ        | non-joint stock companies)  | Not applicable   |  |  |
|          | Public sector capital injections grandfathered until 1 January 2018   | 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 deductions   | 7,581,335  |  |  |
|          | CET1 capital: regulatory deductions   |  |  |  |
| 7        | Valuation adjustments   | 6,390  |  | Not<br>applicable  |
| 8        | Goodwill (net of associated deferred tax liability)   | -  |  |  |
| 9        | Other intangible assets (net of associated deferred tax liability)  | -  | -  |  |
| 10       | Deferred tax assets net of deferred tax liabilities   | 19,911   |  | (2)  |
| 11       | Cash flow hedge reserve   | -  |  |  |
| 12       | Excess of total EL amount over total eligible provisions under the IRB approach   | -  | ı  |  |
| 13       | Gain-on-sale arising from securitization transactions   | 1  |  |  |
| 14       | Gains and losses due to changes in own credit risk on fair valued liabilities   | 1,302  | -  | (1)+(3)  |
| 15       | Defined benefit pension fund net assets (net of associated deferred tax liabilities)  | -  | -  |  |
| 16       | Investments in own CET1 capital instruments (if not already netted off paid-in capital on reported balance sheet)   | -  | -  |  |
| 17       | Reciprocal cross-holdings in CET1 capital instruments   | -  | -  |  |
| 18       | Insignificant capital investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)   | -  | -  |  |
| 19       | Significant capital investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)     | -  | -  |  |
| 20       | Mortgage servicing rights (amount above 10% threshold)  | Not applicable   |  |  |
| 21       | Deferred tax assets arising from temporary differences (amount above 10%  |  |  |  |
|          | threshold, net of related tax liability)  | Not applicable   |  |  |
| 22       | Amount exceeding the 15% threshold  | Not applicable   |  |  |
|          | of which: significant investments in the common stock of financial sector entities  | Not applicable   |  |  |
| 24<br>25 | of which: mortgage servicing rights of which: deferred tax assets arising from temporary differences  | Not applicable Not applicable  |  |  |
| 26       | National specific regulatory adjustments applied to CET1 capital  | 1,633,895  |  |  |
|          | Cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties)  | 1,308,504  |  | (6)+(7)  |
|          | Regulatory reserve for general banking risks  | 325,391  |  | (9)  |
| 26c      | Securitization exposures specified in a notice given by the Monetary Authority  | -  |  |  |
| 26d      | Cumulative losses below depreciated cost arising from the institution's holdings of   |  |  |  |
| 00       | land and buildings  | -  |  |  |
| 26e      | Capital shortfall of regulated non-bank subsidiaries  Capital investment in a connected company which is a commercial entity (amount  | -  | -  |  |
| 26f      | 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   | 1,661,498  |  |  |
|          | CET1 capital  | 5,919,837  |  |  |



|     |  | At 31  | December 20  | 17   |
|-----|--|--|--|--|
|     |  | Component of regulatory capital reported by bank | Amounts<br>subject to<br>pre-Basel III<br>treatment*<br>HK\$'000 | Cross<br>reference to<br>regulatory<br>scope<br>consolidated<br>balance<br>sheet |
|     | AT1 capital: instruments   |  |  |  |
| 30  | Qualifying AT1 capital instruments plus any related share premium  | 1,937,712  |  | (11)   |
| 31  | of which: classified as equity under applicable accounting standards   | 1,937,712  |  |  |
| 32  | of which: classified as liabilities under applicable accounting standards  | -  |  |  |
| 33  | Capital instruments subject to phase out arrangements from AT1 capital   | -  |  |  |
| 34  | AT1 capital instruments issued by consolidated bank subsidiaries and held by   |  |  |  |
|     | third parties (amount allowed in AT1 capital of the consolidation group)   | -  |  |  |
| 35  | of which: AT1 capital instruments issued by subsidiaries subject to phase out  |  |  |  |
|     | arrangements   |  |  |  |
| 36  | AT1 capital before regulatory deductions   | 1,937,712  |  |  |
|     | AT1 capital: regulatory deductions   |  |  |  |
| 37  | Investments in own AT1 capital instruments   | -  | -  |  |
|     | Reciprocal cross-holdings in AT1 capital instruments   | -  | -  |  |
|     | Insignificant capital investments in AT1 capital instruments issued by financial   |  |  |  |
|     | sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)  | _  | -  |  |
| 40  | Significant capital investments in AT1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation  | _  | _  |  |
| 41  | National specific regulatory adjustments applied to AT1 capital  |  |  |  |
|     | Portion of deductions applied 50:50 to core capital and supplementary capital based on pre-Basel III treatment which, during transitional period, remain   | _  |  |  |
| i   | subject to deduction from Tier 1 capital of which: Excess of total EL amount over total eligible provisions under the IRB  | -  |  |  |
|     | approach   | -  |  |  |
| !!  | of which: Capital shortfall of regulated non-bank subsidiaries   | -  |  |  |
| iii | of which: Investments in own CET1 capital instruments  | -  |  |  |
| iv  | of which: Reciprocal cross holdings in CET1 capital instruments issued by financial sector entities  | -  |  |  |
| V   | of which: Capital investment in a connected company which is a commercial entity (amount above 15% of the reporting institution's capital base)  | -  |  |  |
| vi  | of which: Insignificant capital investments in CET1 capital instruments, AT1 capital instruments and Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation | _  |  |  |
| vii | of which: Significant capital investments in CET1 capital instruments, AT1 capital instruments and Tier 2 capital instruments issued by financial sector entities  |  |  |  |
| 42  | that are outside the scope of regulatory consolidation  Regulatory deductions applied to AT1 capital due to insufficient Tier 2 capital to   | -  |  |  |
|     | cover deductions   | -  |  |  |
| 43  | Total regulatory deductions to AT1 capital   | -  |  |  |
| 44  | AT1 capital  | 1,937,712  |  |  |
| 45  | Tier 1 capital (Tier 1 = CET1 + AT1)   | 7,857,549  |  |  |
| ۲   | Tier 2 capital: instruments and provisions   | .,55.,540  |  |  |
| 46  | Qualifying Tier 2 capital instruments plus any related share premium   | _  |  |  |
| 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  | _  |  |  |
| 40  | third parties (amount allowed in Tier 2 capital of the consolidation group)  | _  |  |  |
| 49  | of which: capital instruments issued by subsidiaries subject to phase out  | _  |  |  |
| 49  | arrangements   | _  |  |  |
| 50  | Collective impairment allowances and regulatory reserve for general banking  | _  |  | Not  |
|     | risks eligible for inclusion in Tier 2 capital  Tier 2 capital before regulatory deductions  | 263,415  |  | applicable   |
| 51  | Ther 2 capital perore regulatory deductions  | 263,415  |  |  |



|     |  | At 31   | December 20  | 17   |
|-----|--|---|--|--|
|     |  | Component of regulatory capital reported by bank HK\$'000 | Amounts<br>subject to<br>pre-Basel III<br>treatment*<br>HK\$'000 | Cross<br>reference to<br>regulatory<br>scope<br>consolidated<br>balance<br>sheet |
|     | Tier 2 capital: regulatory deductions  |   |  |  |
|     | Investments in own Tier 2 capital instruments  | -   | -  |  |
| 53  | Reciprocal cross-holdings in Tier 2 capital instruments  |   | -  |  |
|     | Insignificant capital investments in Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)                                    | -   | -  |  |
| 55  | Significant capital investments in Tier 2 capital instruments issued by financial  |   |  |  |
|     | sector entities that are outside the scope of regulatory consolidation   | -   | -  |  |
| 56  | National specific regulatory adjustments applied to Tier 2 capital   | (588,827)   |  |  |
| 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  | (588,827)   |  | [(6)+(7)]<br>*45%  |
| 56b | Portion of deductions applied 50:50 to core capital and supplementary capital based on pre-Basel III treatment which, during transitional period, remain subject to deduction from Tier 2 capital                          | _   |  |  |
|     | of which: Excess of total EL amount over total eligible provisions under the IRB approach  | -   |  |  |
|     | of which: Capital shortfall of regulated non-bank subsidiaries   | -   |  |  |
|     | of which: Investments in own CET1 capital instruments  | -   |  |  |
| iv  | of which: Reciprocal cross holdings in CET1 capital instruments issued by financial sector entities  | -   |  |  |
|     | of which: Capital investment in a connected company which is a commercial entity (amount above 15% of the reporting institution's capital base)  | -   |  |  |
|     | of which: Insignificant capital investments in CET1 capital instruments, AT1 capital instruments and Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation | _   |  |  |
|     | of which: Significant capital investments in CET1 capital instruments, AT1 capital instruments and Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation   | -   |  |  |
| 57  | Total regulatory deductions to Tier 2 capital  | (588,827)   |  |  |
|     | Tier 2 capital   | 852,242   |  |  |
|     | Total capital (Total capital = Tier 1 + Tier 2)  | 8,709,791   |  |  |



|          |  | At 31 Decen  | nber 2017  |
|----------|--|--|--|
|          |  | Component of<br>regulatory<br>capital<br>reported by<br>bank<br>HK\$'000 | Amounts<br>subject to<br>pre-Basel III<br>treatment*<br>HK\$'000 |
| 59a      | Deduction items under Basel III which during transitional period remain subject to risk-weighting, based on pre-Basel III treatment  | -  |  |
| i        | of which: Mortgage servicing rights  | -  |  |
| II       | of which: Defined benefit pension fund net assets  | -  |  |
| iii      | of which: Investments in own CET1 capital instruments, AT1 capital instruments and Tier 2 capital instruments  | -  |  |
| iv       | of which: Capital investment in a connected company which is a commercial entity   | -  |  |
| V        | of which: Insignificant capital investments in CET1 capital instruments, AT1 capital instruments and Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation   | -  |  |
| vi       | of which: Significant capital investments in CET1 capital instruments, AT1 capital instruments and Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation   | -  |  |
| 60       | Total risk weighted assets   | 44,044,451   |  |
|          | Capital ratios (as a percentage of risk weighted assets)   |  |  |
| 61       | CET1 capital ratio   | 13.44%   |  |
| 62       | Tier 1 capital ratio   | 17.84%   |  |
| 63       | Total capital ratio  | 19.78%   |  |
| 64       | Institution specific buffer requirement (minimum CET1 capital requirement as specified in s.3A, or s.3B, as the case requires, of the BCR plus capital conservation buffer plus countercyclical  |  |  |
|          | buffer requirements plus G-SIB or D-SIB requirements)  | 6.743%   |  |
| 65       | of which: capital conservation buffer requirement  | 1.250%   |  |
| 66       | of which: bank specific countercyclical buffer requirement   | 0.993%   |  |
| 67       | of which: G-SIB or D-SIB buffer requirement  | 0.000%   |  |
| 68       | CET1 capital surplus over the minimum CET1 requirement and any CET1 capital used to meet the Tier 1 and Total capital requirement under s.3A, or s.3B, as the case requires, of the BCR  | 8.940%   |  |
|          | National minima (if different from Basel 3 minimum)  |  |  |
| 69       | National CET1 minimum ratio  | Not applicable   |  |
| 70       | National Tier 1 minimum ratio  | Not applicable   |  |
| 71       | National Total capital minimum ratio   | Not applicable   |  |
| 72       | Amounts below the thresholds for deduction (before risk weighting)  Insignificant capital investments in CET1 capital instruments, AT1 capital instruments and Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation | 14,168   |  |
| 73       | Significant capital investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation   | 15,701   |  |
| 74       | Mortgage servicing rights (net of related tax liability)   | Not applicable   |  |
| 75       | Deferred tax assets arising from temporary differences (net of related tax liability)  | Not applicable   |  |
| 76       | Applicable caps on the inclusion of provisions in Tier 2 capital  Provisions eligible for inclusion in Tier 2 in respect of exposures subject to the basic approach and the standardized (credit risk) approach (prior to application of cap)  |  |  |
| 77       | Cap on inclusion of provisions in Tier 2 under the basic approach and the standardized (credit risk) approach  | 21,120   |  |
| 78       | Provisions eligible for inclusion in Tier 2 in respect of exposures subject to the IRB approach (prior to application of cap)  |  |  |
| 79       | Cap for inclusion of provisions in Tier 2 under the IRB approach   | 242,295  |  |
|          | Capital instruments subject to phase-out arrangements  |  |  |
| 80       | Current cap on CET1 capital instruments subject to phase out arrangements  | Not applicable   |  |
| 81       | Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)  | Not applicable   |  |
| 82       | Current cap on AT1 capital instruments subject to phase out arrangements   | -  |  |
| 83<br>84 | Amount excluded from AT1 capital due to cap (excess over cap after redemptions and maturities)  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)  | -  |  |

<sup>\*</sup> This refers to the position under the Banking (Capital) Rules in force on 31 December 2012.



#### 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:

| Row<br>No. | Description  | Hong Kong basis | Basel III<br>basis |
|------------|--|-----------------|--------------------|
|            |  | HK\$'000        | HK\$'000           |
| 9          | Other intangible assets (net of associated deferred tax liability) | -               | -                  |

#### 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, 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 deferred tax liabilities | 19,911 | - |
|----|---|--------|---|
|----|---|--------|---|

#### Explanation

As set out in paragraphs 69 and 87 of the Basel III text issued by the Basel Committee (December 2010), DTAs that rely on future profitability 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 and other credit exposures to connected companies) under Basel III.

# Insignificant capital 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 capital 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 Monetary Authority 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 Al's connected companies which were subject to deduction under the Hong Kong approach.



#### Regulatory capital (continued)

| Row |   | Hong Kong | Basel III |
|-----|---|-----------|-----------|
| No. | Description   | basis     | basis     |
|     |   | HK\$'000  | HK\$'000  |
|     | Significant capital 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 capital 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 Monetary Authority 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 Al's connected companies which were subject to deduction under the Hong Kong approach.

39 Insignificant capital investments in AT1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)

#### **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 capital 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 Al's connected companies which were subject to deduction under the Hong Kong approach.

54 Insignificant capital investments in Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)

#### **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 capital investments in Tier 2 capital instruments 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 Al's connected companies which were subject to deduction under the Hong Kong approach.

#### Remarks:

The amount of the 10% / 15% thresholds mentioned above is calculated based on the amount of CET1 capital determined under the Banking (Capital) Rules.

#### Abbreviations:

CET1: Common Equity Tier 1
AT1: Additional Tier 1



## **Capital instruments**

|          | la   | CET1 Capital<br>Ordinary shares               | USD Non-<br>Cumulative<br>Subordinated<br>Additional Tier 1<br>Capital Securities   |
|----------|--|---|---|
| 1        | Issuer   | Chiyu Banking<br>Corporation Limited          | Chiyu Banking<br>Corporation Limited  |
| 2        | Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)                                   | Not applicable                                | XS1720307344  |
| 3        | Governing law(s) of the instrument   | Hong Kong law                                 | The Capital Securities are governed by and shall be construed in accordance with English Law, except that the subordination provisions are governed by and shall be construed in accordance with Hong Kong law. |
|          | Regulatory treatment   |   |   |
| 5        | Transitional Basel III rules <sup>#</sup> Post-transitional Basel III rules <sup>+</sup>                           | Not applicable Common Equity Tier 1           | Not applicable Additional Tier 1  |
| 6        | Eligible at solo/group/group & solo  | Solo  | Solo  |
| 7        | Instrument type (types to be specified by each jurisdiction)   | Ordinary shares                               | Additional Tier 1 capital instruments   |
| 8        | Amount recognised in regulatory capital (Currency in million, as of most recent reporting date)                    | HK\$300m<br>(as of 31 December<br>2017)       | HK\$1,938m<br>(as of 31 December<br>2017)   |
| 9        | Par value of instrument  | No par value (refer to Note 1 for details)    | US\$250m  |
| 10       | Accounting classification  | Shareholders' equity                          | Equity instruments  |
| 11       | Original date of issuance  | 10 July 1947 (refer to<br>Note 2 for details) | 29 November 2017  |
| 12       | Perpetual or dated   | Perpetual                                     | Perpetual   |
| 13<br>14 | Original maturity date   | No maturity No                                | Not applicable<br>Yes   |
| 15       | Issuer call subject to prior supervisory approval  Optional call date, contingent call dates and redemption amount | Not applicable                                | First call date: 29<br>November 2022<br>(Redemption in whole<br>at 100%)  |
| 16       | Subsequent call dates, if applicable   | Not applicable                                | Any distribution payment date thereafter  |
|          | Coupons / dividends  |   |   |
| 17       | Fixed or floating dividend/coupon  | Floating                                      | Fixed   |
| 18       | Coupon rate and any related index  Existence of a dividend stopper   | Not applicable                                | Year 1-5: 5.25% per annum payable semi-annually in arrear; Year 5 onwards: resettable on year 5 and every 5 years thereafter at then prevailing 5-year US Treasury yield plus a fixed initial spread Yes        |
| 20       | Fully discretionary, partially discretionary or mandatory  | Fully discretionary                           | Fully discretionary   |
| 21       | Existence of step up or other incentive to redeem  | No  | No  |
| 22       | Noncumulative or cumulative  | Noncumulative                                 | Noncumulative   |
| 23       | Convertible or non-convertible   | Non-convertible                               | Non-convertible   |
| 24       | If convertible, conversion trigger(s)  | Not applicable                                | Not applicable  |
| 25       | If convertible, fully or partially   | Not applicable                                | Not applicable  |
| 26       | If convertible, conversion rate  | Not applicable                                | Not applicable  |



### **Capital instruments (continued)**

| 27 | If convertible, mandatory or optional conversion                       | Not applicable | Not applicable        |
|----|--|----------------|-----------------------|
| 28 | If convertible, specify instrument type convertible into               | Not applicable | Not applicable        |
| 29 | If convertible, specify issuer of instrument it converts into          | Not applicable | Not applicable        |
| 30 | Write-down feature   | No             | Yes                   |
| 31 | If write-down, write-down trigger(s)                                   | Not applicable | Upon the              |
|    |  |                | occurrence of a       |
|    |  |                | Non-Viability Event   |
| 32 | If write-down, full or partial   | Not applicable | Full or Partial       |
| 33 | If write-down, permanent or temporary                                  | Not applicable | Permanent             |
| 34 | If temporary write-down, description of write-up mechanism             | Not applicable | Not Applicable        |
| 35 | Position in subordination hierarchy in liquidation (specify instrument | Not applicable | Depositors, bank's    |
|    | type immediately senior to instrument)                                 |                | unsubordinated        |
|    |  |                | creditors, creditors  |
|    |  |                | of Tier 2 capital and |
|    |  |                | all other             |
|    |  |                | subordinated          |
|    |  |                | indebtedness of the   |
|    |  |                | bank stated to rank   |
|    |  |                | senior to the Capital |
|    |  |                | Securities.           |
| 36 | Non-compliant transitioned features                                    | No             | No                    |
| 37 | If yes, specify non-compliant features                                 | Not applicable | Not Applicable        |

#### Footnote

Note 1: Pursuant to the Hong Kong Companies Ordinance (Chapter 622) which has commenced operation on 3 March 2014, all shares issued by a company incorporated in Hong Kong before, on and after that commencement date shall have no par value and the relevant concept of authorised share capital is abolished.

#### Note 2:

- Several issuance of ordinary share had been made since the first issuance. Last issuance was on 31 December 1986.
- The concepts of par value for shares and authorised share capital have been abolished following the commencement of the Hong Kong Companies Ordinance (Chapter 622) as mentioned in Note 1.

<sup>\*\*</sup>Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules

<sup>\*</sup> Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H of the Banking (Capital) Rules



## Countercyclical capital buffer ("CCyB") ratio

Geographical breakdown of risk-weighted amounts (RWA) in relation to private sector credit exposures

|    |                |  | At 31 December 2017                         |            |             |  |
|----|----------------|--|---|------------|-------------|--|
|    | Jurisdiction   | Applicable<br>JCCyB<br>ratio in effect | Total RWA used in computation of CCyB ratio | CCyB ratio | CCyB amount |  |
|    |                | %                                      | HK\$'000                                    | %          | HK\$'000    |  |
| 1  | Hong Kong SAR  | 1.250                                  | % 24,096,093                                |            |             |  |
| 2  | China          | 0.000                                  | % 3,763,370                                 |            |             |  |
| 3  | Australia      | 0.000                                  | % 568,485                                   |            |             |  |
| 4  | Bermuda        | 0.000                                  | % 142,909                                   |            |             |  |
| 5  | Cayman Islands | 0.000                                  | % 541,637                                   |            |             |  |
| 6  | Chinese Taipei | 0.000                                  | % 29,388                                    |            |             |  |
| 7  | Macau SAR      | 0.000                                  | % 435,255                                   |            |             |  |
| 8  | Singapore      | 0.000                                  | % 6,544                                     |            |             |  |
| 9  | United States  | 0.000                                  | % 87,568                                    |            |             |  |
| 10 | West Indies UK | 0.000                                  | % 672,130                                   |            |             |  |
| 11 |                |  |   |            |             |  |
| 12 |                |  |   |            |             |  |
| 13 |                |  |   |            |             |  |
| 14 |                |  |   |            |             |  |
| 15 |                |  |   |            |             |  |
| 16 |                |  |   |            |             |  |
| 17 |                |  |   |            |             |  |
| 18 |                |  |   |            |             |  |
| 19 |                |  |   |            |             |  |
| 20 |                |  |   |            |             |  |
| 21 |                |  |   |            |             |  |
| 22 |                |  |   |            |             |  |
| 23 |                |  |   |            |             |  |
| 24 |                |  |   |            |             |  |
| 25 |                |  |   |            |             |  |
| 26 |                |  |   |            |             |  |
| 27 |                |  |   |            |             |  |
|    |                | Total                                  | 30,343,379                                  | 0.993%     | 301,201     |  |



# Leverage ratio disclosures

## Leverage ratio

|    |  | At 31 December 2017 |
|----|--|---------------------|
|    |  | HK\$'000            |
|    | On-balance sheet exposures   |                     |
| 1  | On-balance sheet items (excluding derivatives and SFTs, but including collateral)  | 84,135,186          |
| 2  | Less: Asset amounts deducted in determining Basel III Tier 1 capital   | (1,660,595)         |
| 3  | Total on-balance sheet exposures (excluding derivatives and SFTs)  | 82,474,591          |
|    | Derivative exposures   |                     |
| 4  | Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)                               | 109,775             |
| 5  | Add-on amounts for PFE associated with all derivatives transactions  | 83,242              |
| 6  | Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework | -                   |
| 7  | Less: Deductions of receivables assets for cash variation margin provided in derivatives transactions                                    | -                   |
| 8  | Less: Exempted CCP leg of client-cleared trade exposures   | =                   |
| 9  | Adjusted effective notional amount of written credit derivatives   | =                   |
| 10 | Less: Adjusted effective notional offsets and add-on deductions for written credit derivatives   | =                   |
| 11 | Total derivative exposures   | 193,017             |
|    | Securities financing transaction exposures   |                     |
| 12 | Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions                                     | _                   |
| 13 | Less: Netted amounts of cash payables and cash receivables of gross SFT assets   | -                   |
| 14 | CCR exposure for SFT assets  | -                   |
| 15 | Agent transaction exposures  | -                   |
| 16 | Total securities financing transaction exposures   | -                   |
|    | Other off-balance sheet exposures  |                     |
| 17 | Off-balance sheet exposure at gross notional amount  | 10,995,558          |
| 18 | Less: Adjustments for conversion to credit equivalent amounts  | (8,751,710)         |
| 19 | Off-balance sheet items  | 2,243,848           |
|    | Capital and total exposures  |                     |
| 20 | Tier 1 capital   | 7,857,549           |
| 21 | Total exposures  | 84,911,456          |
|    | Leverage ratio   |                     |
| 22 | Basel III leverage ratio   | 9.25%               |

# Summary comparison table

|   |  | At 31 December 2017 |
|---|--|---------------------|
|   |  | HK\$'000            |
| 1 | Total consolidated assets as per published financial statements  | 84,088,931          |
| 2 | Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation | (932)               |
| 3 | Adjustment for fiduciary assets recognised on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure               | -                   |
| 4 | Adjustments for derivative financial instruments   | 63,871              |
| 5 | Adjustment for securities financing transactions (i.e. repos and similar secured lending)  | -                   |
| 6 | Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-   |                     |
|   | balance sheet exposures)   | 2,243,848           |
| 7 | Other adjustments  | (1,484,262)         |
| 8 | Leverage ratio exposure  | 84,911,456          |



# Liquidity information disclosures

# Liquidity coverage ratio

|                  | R) and related components set out in this  |
|------------------|--|
| abl              |  |
| Bas              | is of disclosure: unconsolidated   |
|                  |  |
|                  |  |
| _                | LUCUL QUALITY LIQUID ACCETO  |
| Α                | HIGH QUALITY LIQUID ASSETS   |
| 1                | Total high quality liquid assets (HQLA)  |
| <u>B.</u>        | CASH OUTFLOWS  |
| 2                | Retail deposits and small business funding, of which:                                    |
| 3                | Stable retail deposits and stable small  |
| •                |  |
| 4                | Less stable retail deposits and less stable  |
|                  | small business funding   |
| 5                | Retail term deposits and small business term   |
| 6                | funding Unsecured wholesale funding (other than  |
| U                | small business funding) and debt securities  |
|                  | and prescribed instruments issued by the   |
|                  | institution, of which:   |
| 7<br>8           | Operational deposits   |
| 8                | Unsecured wholesale funding (other than  |
|                  | small business funding) not covered in   |
| 9                | Row 7  Debt securities and prescribed instruments  |
| 3                | issued by the institution and redeemable   |
|                  | within the LCR period  |
| 10               | Secured funding transactions (including  |
|                  | securities swap transactions)  |
| 11               | Additional requirements, of which:   |
| 12               | Cash outflows arising from derivative  |
|                  | contracts and other transactions, and additional liquidity needs arising from            |
|                  | related collaterals requirements   |
| 13               | Cash outflows arising from obligations under   |
|                  | structured financing transactions and  |
|                  | repayment of funding obtained from such  |
| 14               | transactions  Potential drawdown of undrawn committed                                    |
| · <del>- +</del> | facilities (including committed credit   |
|                  | facilities and committed liquidity facilities)   |
| 15               | Contractual lending obligations (not otherwise   |
|                  | covered in Section B) and other contractual  |
| 16               | cash outflows Other contingent funding obligations (whether                              |
| 10               | contractual or non-contractual)  |
| 17               | TOTAL CASH OUTFLOWS  |
| C.               | CASH INFLOWS   |
| 18               | Secured lending transactions (including  |
|                  | securities swap transactions)  |
| 19               | Secured and unsecured loans (other than  |
|                  | secured lending transactions covered in Row 18) and operational deposits placed at other |
|                  | financial institutions   |
| 20               | Other cash inflows   |
| 21               | TOTAL CASH INFLOWS   |
| D.               | LIQUIDITY COVERAGE RATIO   |
| 22               | TOTAL HQLA   |
| 23               | TOTAL NET CASH OUTFLOWS  |
|                  | LCR (%)  |

| For the         | quarter      | For the                  | quarter            |
|-----------------|--------------|--------------------------|--------------------|
|                 | cember 2017: | ended 30 September 2017: |                    |
| 73 data         | a points     | 77 data                  | a points           |
| LINIMEIGHTED    | WEIGHTED     | LINIMEIGHTED             | WEIGHTED           |
| UNWEIGHTED      | WEIGHTED     | UNWEIGHTED               | WEIGHTED<br>AMOUNT |
| AMOUNT          | AMOUNT       | AMOUNT                   |                    |
| (Average Value) |              | (Average Value)          |                    |
| HK\$'000        | HK\$'000     | HK\$'000                 | HK\$'000           |
|                 |              |                          |                    |
|                 | 9,615,408    |                          | 8,768,395          |
|                 |              |                          |                    |
|                 |              |                          |                    |
| 36,647,121      | 2,344,220    | 34,971,675               | 2,256,414          |
| 0.001.007       | 272 454      | 0.222.277                | 276.060            |
| 9,081,807       | 272,454      | 9,232,277                | 276,968            |
| 13,787,062      | 1,378,706    | 13,748,910               | 1,374,891          |
| 10,707,002      | 1,070,700    | 10,140,010               | 1,01-1,001         |
| 13,778,252      | 693,060      | 11,990,488               | 604,555            |
| , ,             | ,            | , ,                      | ,                  |
|                 |              |                          |                    |
|                 |              |                          |                    |
| 17,570,470      | 12,780,341   | 15,193,602               | 10,449,254         |
| 3,593,902       | 850,888      | 3,557,763                | 842,358            |
|                 |              |                          |                    |
| 12.076.560      | 11 000 450   | 11 625 020               | 0.606.006          |
| 13,976,568      | 11,929,453   | 11,635,839               | 9,606,896          |
|                 |              |                          |                    |
| _               | _            | _                        | _                  |
|                 |              |                          |                    |
|                 | 510          |                          | 893                |
| 8,086,422       | 1,411,672    | 7,620,816                | 1,267,038          |
|                 |              |                          |                    |
|                 |              |                          |                    |
| 454005          | 454.005      | 447.045                  | 4.47.045           |
| 154,925         | 154,925      | 147,815                  | 147,815            |
|                 |              |                          |                    |
|                 |              |                          |                    |
| -               | -            | -                        | -                  |
|                 |              |                          |                    |
|                 |              |                          |                    |
| 7,931,497       | 1,256,747    | 7,473,001                | 1,119,223          |
|                 |              |                          |                    |
| 050 464         | 050 464      | 600 600                  | 600 600            |
| 853,461         | 853,461      | 680,602                  | 680,602            |
| 2,292,102       | 82,403       | 1,955,035                | 77,226             |
| 2,202,102       | 17,472,607   | 1,000,000                | 14,731,427         |
|                 | ,,           |                          | ,,,,,,,,,          |
|                 |              |                          |                    |
| =               | -            |                          | =                  |
|                 |              |                          |                    |
|                 |              |                          |                    |
| 40.007.0==      | 40.040.000   | 40 404 747               | 7.000.400          |
| 12,897,975      | 10,016,083   | 10,491,715               | 7,903,129          |
| 844,863         | 838,583      | 1,111,717                | 1,109,985          |
| 13,742,838      | 10,854,666   | 11,603,432               | 9,013,114          |
| AD              | JUSTED VALUE | AD                       | JUSTED VALUE       |
|                 | 9,615,408    |                          | 8,768,395          |
|                 | 6,915,203    |                          | 5,720,567          |
|                 | 143.03%      |                          | 156.97%            |
|                 |              |                          |                    |



# Liquidity information disclosures

# Liquidity coverage ratio

| (LC              | rage value of the Liquidity Coverage Ratio R) and related components set out in this  |
|------------------|---|
| tabl             |   |
| Bas              | is of disclosure: unconsolidated  |
|                  |   |
|                  |   |
|                  |   |
| Α.               | HIGH QUALITY LIQUID ASSETS  |
| 1                | Total high quality liquid assets (HQLA)   |
| В.               | CASH OUTFLOWS   |
| 2                | Retail deposits and small business funding, of which:                                 |
| 3                | Stable retail deposits and stable small   |
|                  | business funding  Less stable retail deposits and less stable                         |
| 4                | Less stable retail deposits and less stable<br>small business funding                 |
| 5                | Retail term deposits and small business term  |
|                  | funding   |
| 6                | Unsecured wholesale funding (other than   |
|                  | small business funding) and debt securities   |
|                  | and prescribed instruments issued by the institution, of which:                       |
| 7                | Operational deposits  |
| 7<br>8           | Unsecured wholesale funding (other than   |
| 0                | small business funding) not covered in  |
|                  | Row 7   |
| 9                | Debt securities and prescribed instruments  |
|                  | issued by the institution and redeemable  |
| 10               | within the LCR period  Secured funding transactions (including                        |
| 10               | securities swap transactions)   |
| 11               | Additional requirements, of which:  |
| 12               | Cash outflows arising from derivative   |
|                  | contracts and other transactions, and   |
|                  | additional liquidity needs arising from   |
| 13               | related collaterals requirements  Cash outflows arising from obligations under        |
| 13               | structured financing transactions and   |
|                  | repayment of funding obtained from such   |
|                  | transactions  |
| 14               | Potential drawdown of undrawn committed   |
|                  | facilities (including committed credit facilities and committed liquidity facilities) |
| 15               | Contractual lending obligations (not otherwise  |
|                  | covered in Section B) and other contractual   |
|                  | cash outflows   |
| 16               | Other contingent funding obligations (whether   |
| 17               | contractual or non-contractual)   |
| 17<br><b>C</b> . | TOTAL CASH OUTFLOWS  CASH INFLOWS   |
| <b>Մ.</b><br>18  | <u> </u>  |
| 10               | Secured lending transactions (including securities swap transactions)                 |
| 19               | Secured and unsecured loans (other than   |
|                  | secured lending transactions covered in Row   |
|                  | 18) and operational deposits placed at other  |
| 0.0              | financial institutions  |
| 20               | Other cash inflows  |
| 21               | TOTAL CASH INFLOWS  |
| D.               | LIQUIDITY COVERAGE RATIO  |
| 22               | TOTAL HOLA  |
| 23               | TOTAL NET CASH OUTFLOWS   |
| 24               | LCR (%)   |

| For the quarter                       |            | For the quarter ended 31 March 2017: |            |
|---------------------------------------|------------|--------------------------------------|------------|
| ended 30 June 2017:<br>71 data points |            | 71 data points                       |            |
| 7 T data pointo                       |            |                                      |            |
| UNWEIGHTED                            | WEIGHTED   | UNWEIGHTED                           | WEIGHTED   |
| AMOUNT                                | AMOUNT     | AMOUNT                               | AMOUNT     |
| (Average Value)                       | , ,        | (Average Value)                      | ,          |
| HK\$'000                              | HK\$'000   | HK\$'000                             | HK\$'000   |
| 0.450.400                             |            |                                      | C 20C 400  |
| 6,453,436                             |            | 6,306,422                            |            |
|                                       |            |                                      |            |
| 32,079,467                            | 2,111,223  | 30,255,592                           | 1,982,819  |
| 0.004.070                             | 000 700    | 0.407.400                            | 070.040    |
| 8,991,270                             | 269,738    | 9,107,192                            | 273,216    |
| 13,600,837                            | 1,360,084  | 12,881,791                           | 1,288,179  |
| 10,000,001                            | .,000,00.  | ,00.,.0.                             | 1,200,110  |
| 9,487,360                             | 481,401    | 8,266,609                            | 421,424    |
|                                       |            |                                      |            |
|                                       |            |                                      |            |
| 11,054,695                            | 6,652,234  | 11,758,262                           | 6,993,478  |
| 3,288,187                             | 777,582    | 3,070,401                            | 723,582    |
|                                       |            |                                      |            |
| 7,766,508                             | 5,874,652  | 8,687,861                            | 6,269,896  |
| 1,100,000                             | 0,0: 1,002 | 0,001,001                            | 0,200,000  |
|                                       |            |                                      |            |
| -                                     | -          | -                                    | -          |
|                                       | 116        |                                      | 11         |
| 7,097,492                             | 1,203,038  | 7,054,200                            | 1,200,883  |
|                                       |            |                                      |            |
|                                       |            |                                      |            |
| 146,011                               | 146,011    | 161,040                              | 161,040    |
| ,                                     | ,          | ,                                    | •          |
|                                       |            |                                      |            |
| _                                     | -          | _                                    | -          |
|                                       |            |                                      |            |
| 0.054.404                             | 4 057 000  | 0.000.400                            | 4 000 040  |
| 6,951,481                             | 1,057,028  | 6,893,160                            | 1,039,843  |
|                                       |            |                                      |            |
| 527,466                               | 527,466    | 522,495                              | 522,495    |
| 1.958.277                             | 81.811     | 2,072,164                            | 89,990     |
| 1,930,211                             | 10,575,888 | 2,072,104                            | 10,789,676 |
|                                       | 10,010,000 |                                      | 10,100,010 |
|                                       |            |                                      |            |
| -                                     | =          | -                                    | -          |
|                                       |            |                                      |            |
|                                       |            |                                      |            |
| 7,824,445                             | 5,667,489  | 8,290,687                            | 6,251,831  |
| 893,738                               | 892,356    | 999,569                              | 998,386    |
| 8,718,183                             | 6,559,845  | 9,290,256                            | 7,250,217  |
| ADJUSTED VALUE 6,453,436              |            | ADJUSTED VALUE 6,306,422             |            |
|                                       | 4,031,814  |                                      | 3,550,390  |
|                                       | 177.51%    |                                      | 181.56%    |
|                                       |            |                                      |            |



### Liquidity information disclosures

### Liquidity coverage ratio (continued)

#### Notes:

- The weighted amount of HQLA is to be calculated as the amount after applying the haircuts as required under the Banking (Liquidity) Rules.
- The unweighted amounts of cash inflows and cash outflows are to be calculated as the principal amounts in the calculation of the LCR as required under the Banking (Liquidity) Rules.
- The weighted amounts of cash inflows and cash outflows are to be calculated as the amounts after applying the inflow and outflow rates as required under the Banking (Liquidity) Rules.
- The adjusted value of total HQLA and the total net cash outflows have taken into account any applicable ceiling as required under the Banking (Liquidity) Rules.

In 2017, the Group has maintained a healthy liquidity position. The LCR was sensitive to the asset deployment and the funding structure of the Group. The average LCR of the first, second, third and fourth quarters were 177.51%, 181.56%, 156.97% and 143.03% respectively. The average HKD level 1 HQLA to HKD net cash outflow ratio of 2017 was 512.15%, well above the regulatory requirement of 20%. The ratios have maintained at stable and healthy levels.

The HQLA consists of cash, balances at central banks and high quality marketable securities issued or guaranteed by sovereigns, central banks, public sector entities or multilateral development banks and non-financial corporate debt securities. In 2017, the majority of the HQLA was composed of Level 1 HQLA.

The net cash outflow was mainly from retail and corporate customer deposit which are the Group's primary source of funds, together with deposit and balance from bank and other financial institution. To ensure stable, sufficient and diversified source of funds, the Group actively attracts new deposits, keeps the core deposit and obtains supplementary funding from the interbank market. Other cash outflow, such as commitment, cash outflow under derivative contract and potential collateral requirement, were minimal to the LCR.

Majority of the Group's customer deposits are denominated in HKD, USD and RMB. As the supply of HKD denominated HQLA in the market is relatively limited, the Group swaps surplus HKD funding into USD and other foreign currencies, part of funding are deployed to investment in HQLA.