



創興銀行有限公司
Chong Hing Bank Limited
(Incorporated in Hong Kong with limited liability)

REGULATORY DISCLOSURES

FOR THE YEAR ENDED
31 December 2017

Table of contents

Key ratios.....	2
Part I : Overview of risk management and RWA	
OVA: Overview of risk management.....	3
OV1: Overview of RWA.....	4
Part II : Linkages between financial statements and regulatory exposures	
LI1: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories.....	5
LI2: Main sources of differences between regulatory exposure amounts and carrying values in financial statements.....	6
LIA: Explanations of differences between accounting and regulatory exposure amounts.....	5-6
Systems and controls applied to assets valuation.....	7
Part III : Credit risk for non-securitization exposures	
CRA: General information about credit risk.....	8
CR1: Credit quality of exposures.....	9
CR2: Changes in defaulted loans and debt securities.....	10
CRB: Additional disclosure related to credit quality of exposures.....	11-15
CRC: Qualitative disclosures related to credit risk mitigation.....	16
CR3: Overview of recognized credit risk mitigation.....	17
CRD: Qualitative disclosures on use of ECAI ratings under STC approach.....	18
CR4: Credit risk exposures and effects of recognized credit risk mitigation – for STC approach.....	19
CR5: Credit risk exposures by asset classes and by risk weights – for STC approach.....	20
Part IV : Counterparty credit risk	
CCRA: Qualitative disclosures related to counterparty credit risk (including those arising from clearing through CCPs).....	21
CCR1: Analysis of counterparty default risk exposures (other than those to CCPs) by approaches.....	22
CCR2: CVA capital charge.....	23
CCR3: Counterparty default risk exposures (other than those to CCPs) by asset classes and by risk weights – for STC approach.....	24
CCR5: Composition of collateral for counterparty default risk exposures (including those for contracts or transactions cleared through CCPs).....	25
CCR8: Exposures to CCPs.....	26
Part VI : Market risk	
MRA: Qualitative disclosures related to market risk.....	27
MR1: Market risk under STM approach.....	28
Abbreviations.....	29

REGULATORY DISCLOSURES

The following Pillar 3 disclosures are prepared on a consolidated basis of calculating the capital adequacy ratios.

Key Ratios

1 Capital Adequacy Ratios

The capital adequacy ratios as at 31 December 2017 and 31 December 2016 were compiled in accordance with the Banking (Capital) Rules issued by the HKMA.

In HK\$'000	As at 31 December 2017	As at 31 December 2016
Capital		
Common Equity Tier 1	13,127,134	11,621,179
Tier 1	15,439,164	13,933,209
Total	20,435,557	16,060,068
Total RWA	116,122,468	98,395,474
Capital Adequacy Ratios		
Common Equity Tier 1	11.30%	11.81%
Tier 1	13.30%	14.16%
Total	17.60%	16.32%

2 Leverage Ratio

The leverage ratio as at 31 December 2017 and 31 December 2016 were compiled in accordance with the Leverage Ratio Framework issued by the HKMA.

In HK\$'000	As at 31 December 2017	As at 31 December 2016
Capital and Total exposures		
Tier 1 capital	15,439,164	13,933,209
Total exposures	174,405,580	145,613,586
Leverage Ratio	8.85%	9.57%

Part I : Overview of risk management and RWA

OVA: Overview of risk management

Risk management is an integral part of our business planning process. The Group has established a robust risk governance framework to ensure appropriate oversight of and accountability for effective risk management across all three lines of defence.

Under the risk governance framework, the Board of Directors has the ultimate responsibility for an effective management of risk. The Board of Directors, directly and through delegation to various committees, approves the risk appetite, oversees the establishment of robust enterprise wide risk management policies and processes, and sets risk limits to guide risk-taking within the Group.

The Group recognises that a sound risk culture is a fundamental requirement of an effective risk management framework. The foundations of our risk culture are the principles of (C) Customer, (H) Highland, (B) Best Staff Behaviour and (C) Compliance. Staffs are made aware that these principles are expected to form the basis of all day-to-day behaviours and actions. The risk culture is further reinforced by our approach to remuneration. Individual awards are based on the compliance or achievement of financial and non-financial objectives that are aligned to the Group's risk appetite and strategy.

The Group's risk management framework consists of its structure, policies, processes and systems. It incorporates active management and monitoring of the principal risks to which the Group is exposed to, including credit risk, market risk, interest rate risk, legal risk, compliance risk, liquidity risk, operational risk, technology risk, strategic risk and reputation risk. It also includes risk culture and conduct risk management frameworks. The assumption of risk is made within a controlled and effective framework that assigns clear roles and responsibilities represented by 'three lines of defence' which are independent from each other:

- The first line of defence is provided by the business units where risks are taken;
- The second line of defence is provided by the risk management and compliance functions that are responsible for overseeing the Group's risk-taking activities and ensuring compliance with laws and regulations;
- The third line of defence is provided by the Internal Audit Division which is responsible for providing assurance on the effectiveness of the Group's risk management framework.

The Group's risk management policies are designed to identify and analyze these risks, to set appropriate risk limits and controls, and to monitor the risks and adhere to limits by means of reliable and up-to-date information systems. The Group regularly reviews its risk management policies and systems to reflect changes in markets, products and emerging best practice.

Risk management reports, including exposure and position information for major risk areas prepared by relevant business and functional units, are provided to the Asset and Liability Management Committee ("ALCO"), the Risk Management Committee ("RMC"), the Executive Committee ("EXCO") and the Risk Committee, and ultimately to the Board for oversight and monitoring of the respective types of risks on an ongoing basis. The Group, through various committees, determines the risk reporting requirements that best suit the business.

The Group supplements the analysis of various types of risks with stress-testing. Various stress testing methodologies including sensitivity tests, scenario analyses and reverse stress testing are adopted. The stress-test results are regularly reviewed by the ALCO and the RMC, approved by the EXCO and reported to the Board.

Model governance is under the oversight of the Model Governance Committee, which reports into the RMC. The Model Governance Committee oversees model development and validation process, and advises RMC on any major model related issues faced by the Group.

Part I : Overview of risk management and RWA
OV1: Overview of RWA

The following table sets out the RWA by risk types and the corresponding minimum capital requirements(i.e. 8% of RWA), as required by the HKMA.

		(a)	(b)	(c)
		RWA		Minimum capital requirements
		As at 31 December 2017	As at 30 September 2017	As at 31 December 2017
In HK\$'000				
1	Credit risk for non-securitization exposures	107,413,891	105,804,809	8,593,111
2	<i>Of which STC approach</i>	107,413,891	105,804,809	8,593,111
4	Counterparty credit risk	1,639,068	1,725,986	131,125
5a	<i>Of which CEM</i>	867,563	866,793	69,405
16	Market risk	1,820,150	1,011,438	145,612
17	<i>Of which STM approach</i>	1,820,150	1,011,438	145,612
19	Operational risk	4,839,663	4,633,563	387,173
20	<i>Of which BIA approach</i>	4,839,663	4,633,563	387,173
23	Amounts below the thresholds for deduction (subject to 250% RW)	535,173	535,173	42,814
24a	Deduction to RWA	125,477	121,578	10,038
24c	<i>Of which portion of cumulative fair value gains arising from the revaluation of land and buildings which is not included in Tier 2 Capital</i>	125,477	121,578	10,038
25	Total	116,122,468	113,589,391	9,289,797

Total RWAs increased by HK\$2.5bn since last quarter. Credit risk RWA for non-securitisation exposures was the main contributor and the key driver for the increase was the increase in loans to corporates.

Part II: Linkages between financial statements and regulatory exposures

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

In HKD'000	As at 31 December 2017						
	(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 framework	subject to counterparty credit risk framework	subject to the securitization framework	subject to market risk framework	not subject to capital requirements or subject to deduction from capital
Assets							
Cash and short-term funds	25,164,641	25,156,973	25,156,973	-	-	-	-
Placements with banks maturing between one to twelve months	6,359,004	6,347,359	6,347,359	-	-	-	-
Derivative financial instruments	556,793	556,793	-	556,793	-	556,793	-
Investment in securities	39,153,501	39,088,758	39,088,758	-	-	-	-
Advances and other accounts	90,949,787	90,550,229	89,672,629	849,904	-	-	27,696
Investments in subsidiaries	-	192,569	192,569	-	-	-	-
Amounts due from subsidiaries	-	188,761	188,761	-	-	-	-
Interests in associates	301,337	20,000	20,000	-	-	-	-
Investment properties	298,765	298,765	298,765	-	-	-	-
Property and equipment	590,746	585,367	585,367	-	-	-	-
Prepaid lease payments for land	2,134	2,134	2,134	-	-	-	-
Intangible assets	370,406	314,038	-	-	-	-	314,038
Total assets	163,747,114	163,301,746	161,553,315	1,406,697	-	556,793	341,734
Liabilities							
Deposits and balances of banks	3,051,932	3,051,932	-	-	-	-	3,051,932
Financial assets sold under repurchase agreements	12,002,989	12,002,989	-	-	-	-	12,002,989
Deposits from customers	118,758,674	118,841,330	-	-	-	-	118,841,330
Amounts due to subsidiaries	-	557,473	-	-	-	-	557,473
Certificates of deposit	3,217,451	3,217,451	-	-	-	-	3,217,451
Derivative financial instruments	882,279	882,279	-	-	-	882,279	-
Other accounts and accruals	1,577,588	1,113,271	-	-	-	-	1,113,271
Current tax liabilities	434,818	429,614	-	-	-	-	429,614
Debt securities issued	1,796,069	1,796,069	-	-	-	-	1,796,069
Loan capital	4,541,380	4,541,380	-	-	-	-	4,541,380
Deferred tax liabilities	50,136	47,343	-	-	-	-	47,343
Total liabilities	146,313,316	146,481,131	-	-	-	882,279	145,598,852

Difference between the carrying values as reported in published financial statements and carrying values under scope of regulatory consolidation was due to investments in entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation.

The amount of carrying values under scope of regulatory consolidation does not equal to the sum of values in columns (c) to (g) because derivative financial instruments is subject to both counterparty credit risk and market risk.

Part II: Linkages between financial statements and regulatory exposures

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

		As at 31 December 2017				
		(a)	(b)	(c)	(d)	(e)
In HKD'000	Total	Items subject to:				
		credit risk framework	securitization framework	counterparty credit risk framework	market risk framework	
1	Assets carrying value amount under scope of regulatory consolidation	162,960,012	161,553,315	-	1,406,697	556,793
2	Liabilities carrying value amount under regulatory scope of consolidation	(882,279)	-	-	-	(882,279)
3	Total net amount under regulatory scope of consolidation	162,077,733	161,553,315	-	1,406,697	(325,486)
4	Off-balance sheet amounts	38,121,926	6,147,013	-	-	-
5	Potential future exposures	1,902,773	-	-	1,902,773	-
6	Differences due to consideration of provisions	329,640	329,640	-	-	-
7	Differences due to securities financing transactions	1,719,755	-	-	1,719,755	-
8	Differences due to specific regulatory adjustments and other differences	(1,044,140)	(1,044,140)	-	-	-
9	Exposure amounts considered for regulatory purposes	203,107,687	166,985,828	-	5,029,225	(325,486)

The differences between assets carrying value amounts under scope of regulatory consolidation and regulatory exposure amounts were mainly due to the off-balance sheet exposures including contingent liabilities and commitments, potential future exposures for derivatives, consideration of provisions, securities financing transactions and specific regulatory adjustments.

Part II: Linkages between financial statements and regulatory exposures

LIA :Systems and controls applied to assets valuation

The Group has established and maintains adequate systems and sufficient controls to give regulators the confidence that the valuation practices are prudent and reliable. Our valuation policy stipulates the valuation process and method in determining the fair value of all products and assessment of valuation uncertainty and adjustment if necessary.

The objective of fair value measurement is to arrive at the price at which an orderly transaction would take place between market participants at the measurement date. A forced liquidation or distressed sale at the measurement date is not an orderly transaction.

The fair values of debt securities classified as available-for-sale securities, certificates of deposit and other debt securities classified as held-to-maturity securities and loan capital are determined based on indicative prices provided by the dealers and brokers. In addition, the Group makes comparison of the indicative prices with the prices obtained from pricing service providers and other service providers to substantiate the indicative prices of the debt securities. The objective of valuation models is to arrive at a fair value estimation that reflects the price of the financial instrument at the reporting date, which would have been determined by market participants acting at arm's length.

The fair values of foreign currency forward contracts are measured by comparing the contracted forward rates and the quoted forward exchange rates, which are observable at the end of the reporting period.

The fair values of interest rate swaps and cross-currency interest rate swaps are measured by the present value of future cash flows estimated and discounted based on the applicable yield curves derived from quoted interest rates, which are observable at the end of the reporting period.

Independent Price Verification

As part of the control process, all market prices or model inputs used in the valuation process are price tested independently on a monthly basis. Fair values of financial instruments are determined with reference to external quoted market prices or observable model inputs and validated against multiple pricing sources whenever appropriate.

For fixed income products such as bond and bills, we follow a strict pricing rule which use Bloomberg Valuation pricing service (BVAL), Bloomberg Generic (BGN), broker quotes and custodian price in the order of priority. In addition, BVAL score is used to determine its reliability. For vanilla OTC interest rate and FX products such as swaps and FX forwards, we also use third party quotes and its sensitivities (i.e. rho risk) to calculate the independent price verification (IPV) variance.

In general, the Group measures fair values using the following hierarchy of methods:

Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Valuation adjustments

Prices from active markets are most representative of fair values and are to be used generally without adjustments. The circumstances that give rise to valuation adjustments include:

- Inaccuracies identified by IPV; or
- Bid offer adjustment or liquidity adjustment; or
- Model risk adjustment.

All the debt securities are adjusted to bid side to reflect the bid offer spreads that will need to be taken into account when the position is hedged or liquidated. For all the other interest rate and FX products, they are tested against the mid-price and a bid-offer impact is calculated and adjusted if they are above the material threshold.

For illiquid bonds, we will consider price observability and liquidity in the market. This includes BVAL scoring and also comparison of size of holdings against issue size (eg, private placement).

There is no model risk adjustment as all products are vanilla structure.

Part III : Credit risk for non-securitization exposures

CRA: General information about credit risk

Credit risk is the risk that a borrower or counterparty failing to meet its contractual obligations. Credit risk exists not only in trading book and banking book, but also from on- and off-balance sheet transactions. It includes the risk of Loan or Loan Equivalent, as well as the pre-settlement and settlement risk which arises principally from lending, trade finance and treasury businesses.

The Group has established policies, procedures, credit & risk appetites profile and modeling to identify, measure, assess, monitor, control, and report on credit risk. The development of above guidelines is based on significant level of review of business activities and strategies of the Group and covers identified material risks, both financial and non-financial and in line with the requirement from regulatory guidelines and statutory requirements. These guidelines are reviewed and enhanced regularly in response to market changes, statutory requirements and effectiveness of risk management processes.

The Group has established the following process and mechanism for managing credit risk:

- Risk appetite to commensurate with the Group's strategic direction, financial capacity, business complexity and regulatory requirements. Risk appetite must take into account differing views at a strategic, tactical and operational level;
- Credit appetite indicates the target market segment that business units should focus on;
- Credit authorities structure sets out the level of credit authority required for approval, disbursement, credit control as well as requirement of exceptional approval;
- Credit risk related committees, different aspects of credit risk issues which including but not limited to portfolio management, business strategy, modeling and new product are reported and discussed in various committees including Board of Directors, Risk committee and Executive committee.

The Credit Risk Management Division is responsible for implementing the credit risk strategy approved by the Executive Committee and developing policies and procedure for identifying, measuring, monitoring and controlling credit risk in all the Group's credit activities and at both the individual credit and portfolio levels. All extensions of credit must be made on an arm's-length basis, in particular, to connected parties.

Part III : Credit risk for non-securitization exposures
CR1: Credit quality of exposures

		As at 31 December 2017			
		(a)	(b)	(c)	(d)
		Gross carrying amounts of		Allowances / impairments	Net values
		Defaulted exposures	Non-defaulted exposures		
In HK\$'000					
1	Loans	512,271	115,620,377	724,032	115,408,616
2	Debt securities	-	43,445,921	629	43,445,292
3	Off-balance sheet exposures	-	14,324,003	-	14,324,003
4	Total	512,271	173,390,301	724,661	173,177,911

The Group identifies the exposures as "default" if the exposure is past due for more than 90 days or has been rescheduled.

Loans included balances with banks, loans and advances to customers and balances with central banks.

Debt securities included available-for-sale securities, held-to-maturity securities, exchange fund bills, retail bonds and loan and receivable securities.

Off-balance sheet exposures included direct credit substitutes, trade-related contingencies, forward asset purchases and irrecoverable loans commitment.

Part III : Credit risk for non-securitization exposures
CR2: Changes in defaulted loans and debt securities

In HK\$'000		As at 31 December 2017
		(a)
		Amount
1	Defaulted loans and debt securities at end of the previous reporting period (30 Jun 2017)	135,755
2	Loans and debt securities that have defaulted since the last reporting period	450,688
3	Returned to non-defaulted status	(70,797)
4	Amounts written off	(348)
5	Other changes	(3,027)
6	Defaulted loans and debt securities at end of the current reporting period (31 Dec 2017)	512,271

Part III : Credit risk for non-securitization exposures**CRB: Additional disclosure related to credit quality of exposures**

Impaired loans and advances are those loans and advances that are required to have individual impairment allowances.

Loans and advances that are overdue for over 3 months are defined as past due. Non-performing loans represent advances which are either classified as “substandard”, “doubtful” or “loss” under the Group’s classification of loan quality. The occurrence of loss event(s) may not necessarily result in impairment loss where the advances are fully collateralized. While such advances are of “substandard” or lower grades, they are regarded as not being impaired.

Impairment allowances on individually assessed accounts are determined by an evaluation of the incurred losses at the end of the reporting period on a case-by-case basis, and are applied to all individually significant accounts. The assessment normally encompasses the fair value of collateral held and the anticipated receipts for that individual account.

Rescheduled assets are loans where concessions have been made to a customer on interest or principal such that the loans are rendered on "non-commercial" terms to the Group.

Part III : Credit risk for non-securitization exposures
CRB : Additional disclosure related to credit quality of exposures
Credit risk exposure by geographical area, industry and residual maturity

	As at 31 December 2017 In HK\$'000
Geographical area	
Hong Kong SAR	104,463,549
Mainland China	50,137,637
Macau SAR	6,068,323
United States	5,751,742
Canada	2,476,360
Others	5,004,961
Total	173,902,572
	As at 31 December 2017 In HK\$'000
Industry	
Bank	35,779,407
Official sector	17,646,203
Non-bank private sector	
Property development	18,065,887
Property investment	9,216,207
Financial concerns	25,127,704
Stockbrokers	3,128,648
Wholesale and retail trade	4,671,576
Manufacturing	2,862,232
Transport and transport equipment	1,703,166
Recreational activities	84,994
Information technology	2,479,676
Trade finance	3,362,278
Individuals	14,377,531
Hotels, boarding house and catering	4,794,596
Electricity and gas	482,772
Civil engineering works	721,248
Others	29,398,447
Total	173,902,572
	As at 31 December 2017 In HK\$'000
Residual Maturity	
Less than 1 year	83,745,115
1 to 2 Years	12,471,615
More than 2 Year	77,685,842
Total	173,902,572

Part III : Credit risk for non-securitization exposures
CRB : Additional disclosure related to credit quality of exposures
Impaired exposures and related allowances and write-offs by geographical area and industry

	As at 31 December 2017 In HK\$'000
Gross impaired loans	398,100
Less: Impairment allowances under individual assessment	(394,393)
Net impaired loans	<u>3,707</u>

	As at 31 December 2017 In HK\$'000
Geographical area	
Hong Kong	246,453
Mainland China	149,859
Macau	<u>1,788</u>
	<u>398,100</u>

	As at 31 December 2017 In HK\$'000
Industry	
Loans for use in Hong Kong	
Industrial, commercial and financial	
Financial concerns	200,000
Wholesale and retail trade	9,670
Manufacturing	3,380
Others	9,165
Individuals	
Credit card advances	603
Others	<u>1,102</u>
	223,920
Trade finance	22,533
Loans for use outside Hong Kong	<u>151,647</u>
	<u>398,100</u>

Part III : Credit risk for non-securitization exposures

CRB : Additional disclosure related to credit quality of exposures

Aging analysis of accounting past due exposures

	As at 31 December 2017 Gross amount of advances In HK\$'000
Advances overdue for	
- 6 months or less but over 3 months	12,656
- 1 year or less but over 6 months	432,113
- Over 1 year	54,680
Total overdue advances	<u>499,449</u>
Rescheduled advances	<u>18,353</u>
Individual impairment allowances made in respect of overdue loans and advances	<u>388,641</u>

Part III : Credit risk for non-securitization exposures

CRB : Additional disclosure related to credit quality of exposures

Breakdown of restructured exposures

	As at 31 December 2017 In HK\$'000
Restructured exposures	
Impaired	7,472
Not impaired	10,881
Total	<u>18,353</u>

Part III : Credit risk for non-securitization exposures

CRC: Qualitative disclosures related to credit risk mitigation

Collateral and guarantee

For credit risk mitigation, obtaining collateral and guarantee is one of the ways to mitigate risk in loan agreement, however, the Group only considers collateral and guarantee as secondary source of repayment at borrower's default, the primary consideration of credit risk assessment is customers' financial strength and repayment capability, this has been re-emphasized in the Group's collateral policy that credit assessment will not only rely on the types and value of collateral obtained from customers. The policy also provides the criteria of accepting a collateral type so that the Group's collateral should be marketable, tradable, enforceable, controllable and manageable. Regular valuation of collateral is required to ensure the value assigned to the collateral at the time of initial valuation remains current. Except specific retail facilities which should be under portfolio review, all collateral should be revalued at least once a year. The frequency of revaluation depends on the extent to which the Group is relying on the collateral for repayment as well as type of collateral or market condition. To avoid concentration risk, except deposit, each individual collateral type is monitored to avoid relying on single collateral issuer or type.

Guarantee from personal or corporate guarantors can also be accepted in order to mitigate risk, however guarantees is not regarded as collateral and the facilities covered by them should be regarded as unsecured, unless the guarantees are issued by the Government related party or the central bank of a country without repayment difficulties, an AI or an overseas incorporated bank which is under adequate supervision, whether to accept such guarantee subject to approvers' judgment and regulatory compliance. The guarantee should be legally enforceable and able to directly claim on guarantor unconditionally and irrevocably.

For customers with exposure in derivatives, they are required to sign market-standard documents in which in the event of a default, its credit exposure is reduced by master-netting arrangements where the Group is allowed to offset what the Group owes to a counterparty against what is due from that counterparty in a jurisdiction where the netting is eligible.

Forced-sales value

The Forced-sales value is the estimated value of collateral that to be repossessed in short period of time. It may put the Group in an unfavorable selling position to repossess the collateral with an unfavorable price. Forced-sales value is used for estimating individual impairment allowance.

Part III : Credit risk for non-securitization exposures
CR3: Overview of recognized credit risk mitigation

		As at 31 December 2017				
		(a)	(b1)	(b)	(d)	(f)
		Exposures unsecured: carrying amount	Exposures to be secured	Exposures secured by recognized collateral	Exposures secured by recognized guarantees	Exposures secured by recognized credit derivative contracts
In HK\$'000						
1	Loans	110,584,794	4,823,822	3,527,701	1,296,121	-
2	Debt securities	43,445,292	-	-	-	-
3	Total	154,030,086	4,823,822	3,527,701	1,296,121	-
4	Of which defaulted	403,848	108,423	108,423	-	-

Part III : Credit risk for non-securitization exposures

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

The Group uses credit rating from Moody's Investors Service to determine the risk-weight of the following exposure classes for credit risk under STC approach according to Part 4 of the Banking (Capital) Rules:

- (i) Sovereign exposures
- (ii) Public sector entity exposures
- (iii) Bank exposures
- (iv) Securities firm exposures
- (v) Corporate exposures
- (vi) Collective investment scheme exposures

Where an exposure under exposure classes (i) to (v) does not have an ECAI issue specific rating and the person to whom the Group has the exposure has an ECAI issuer rating but does not have a long-term ECAI issue specific rating assigned to a debt obligation issued or undertaken by the person:

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

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

Part III : Credit risk for non-securitization exposures
CR4: Credit risk exposures and effects of recognized credit risk mitigation - for STC approach

In HK\$'000		As at 31 December 2017					
		(a)	(b)	(c)	(d)	(e)	(f)
		Exposures pre-CCF and pre-CRM		Exposures post-CCF and post-CRM		RWA and RWA density	
Exposure classes		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
1	Sovereign exposures	18,020,798		18,020,798	-	549,377	3.05%
2	PSE exposures	-	-	534,270	-	106,854	20.00%
2a	Of which: domestic PSEs	-	-	534,270	-	106,854	20.00%
2b	Of which: foreign PSEs	-	-	-	-	-	-
3	Multilateral development bank exposures	-	-	-	-	-	-
4	Bank exposures	36,405,781	-	36,719,314	-	12,192,320	33.20%
5	Securities firm exposures	2,177,115	2,849,583	2,175,416	159,510	1,167,463	50.00%
6	Corporate exposures	84,098,144	32,281,372	80,499,104	5,532,453	80,404,915	93.46%
7	CIS exposures	63,432	-	63,432	-	63,432	100.00%
8	Cash items	435,871	-	3,855,082	330,124	365,570	8.73%
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	354,944	522,427	335,306	14,484	262,343	75.00%
11	Residential mortgage loans	13,818,820	-	13,252,248	-	5,392,679	40.69%
12	Other exposures which are not past due exposures	6,750,408	2,468,544	6,670,340	110,442	6,780,782	100.00%
13	Past due exposures	122,218	-	122,218	-	128,156	104.86%
14	Significant exposures to commercial entities	-	-	-	-	-	-
15	Total	162,247,531	38,121,926	162,247,528	6,147,013	107,413,891	63.79%

Part III : Credit risk for non-securitization exposures
CR5: Credit risk exposures by asset classes and by risk weights - for STC approach

In HK\$'000		As at 31 December 2017										
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(ha)	(i)	(j)
Exposure class	Risk Weight	0%	10%	20%	35%	50%	75%	100%	150%	250%	Others	Total credit risk exposures amount (post CCF and post CRM)
1	Sovereign exposures	15,273,911	-	2,746,887	-	-	-	-	-	-	-	18,020,798
2	PSE exposures	-	-	534,270	-	-	-	-	-	-	-	534,270
2a	Of which: domestic PSEs	-	-	534,270	-	-	-	-	-	-	-	534,270
2b	Of which: foreign PSEs	-	-	-	-	-	-	-	-	-	-	-
3	Multilateral development bank exposures	-	-	-	-	-	-	-	-	-	-	-
4	Bank exposures	-	-	20,557,791	-	16,161,523	-	-	-	-	-	36,719,314
5	Securities firm exposures	-	-	-	-	2,334,926	-	-	-	-	-	2,334,926
6	Corporate exposures	-	-	-	-	11,448,010	-	74,388,821	194,726	-	-	86,031,557
7	CIS exposures	-	-	-	-	-	-	63,432	-	-	-	63,432
8	Cash items	2,358,089	-	1,826,933	-	-	-	184	-	-	-	4,185,206
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	-	-	-	-	-	349,790	-	-	-	-	349,790
11	Residential mortgage loans	-	-	-	12,073,485	-	47,215	1,131,548	-	-	-	13,252,248
12	Other exposures which are not past due exposures	-	-	-	-	-	-	6,780,782	-	-	-	6,780,782
13	Past due exposures	-	-	1,157	-	-	-	107,333	13,728	-	-	122,218
14	Significant exposures to commercial entities	-	-	-	-	-	-	-	-	-	-	-
15	Total	17,632,000	-	25,667,038	12,073,485	29,944,459	397,005	82,472,100	208,454	-	-	168,394,541

Part IV : Counterparty credit risk

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

Counterparty Credit Risk (CCR) means the risk that the counterparty to a transaction may default before the final settlement of the transaction's cash flows. CCR thus involves a bilateral risk of loss to either counterparty to the transaction. Specifically, CCR contains two components:

- Pre-settlement risk, is the risk of loss in the event that the counterparty defaults on an agreed transaction prior to settlement and the replacement cost of the contract in the market is less favorable than the contract price;
- Settlement risk, is the risk of loss due to the counterparty's failure to perform its obligation after our Group has performed its obligation under a contract on the settlement date.

CCR applies to OTC derivative, securities financing transaction and long settlement transaction.

The Group has established a set of policies to manage CCR. A cap limit (3% of the Group's total capital or 10% of the Group's net operating profit before provisions) and trigger point for Expected Loss from aggregate CCR exposure to all bank and corporate counterparties are set and subject to review from time to time. Monthly aggregate CCR exposure report will be generated and submitted to relevant committees with attendants including senior management for review.

Transactions with associated specific wrong-way risks are strongly discouraged, such transactions should be treated in clean basis and require prior approval from credit management.

CCR measurement is an integral part of the monitoring of the counterparties' limit utilization. Currently, the Group has adopted the Current Exposure Method to measure its CCR exposures by adding up the current exposure and potential future exposure.

The Group has developed policy relating to margin and other risk mitigation standards concerning CCR, CCR exposure can be reduced by margin standards including posting and return of collateral, the types of collateral that may be used, and the treatment of collateral by the secured party. Besides, the risk mitigation standards promote legal certainty over the terms of transactions, foster effective CCR management and facilitate timely resolution of disputes.

Any adverse credit change of our customers will trigger ad-hoc review on all their credit facilities. Such trigger event could include but not limited to weakening of customer financial position, downgrade by credit agencies, CDS exceeding certain bps or other idiosyncratic risks to our customer.

An action would be triggered if there is a credit rating downgrade clause in International Swaps and Derivatives Association ("ISDA") Master Agreement or a credit rating downgrade threshold clause in a Credit Support Annexes ("CSA").

Part IV : Counterparty credit risk
CCR1: Analysis of counterparty default risk exposures (other than those to CCPs) by approaches

		As at 31 December 2017				
		(a)	(b)	(c)	(d)	(e)
		Replacement cost (RC)	PFE	Effective EPE	Alpha (α) used for computing default risk	Default risk exposure after CRM
In HK\$'000						
1	CEM	524,485	1,833,340		N/A	2,357,824
2	IMM (CCR) approach			-	-	-
3	Simple Approach (for SFTs)					12,916,553
4	Comprehensive Approach (for SFTs)					-
5	VaR (for SFTs)					-
6	Total					1,186,739

Part IV : Counterparty credit risk
CCR2: CVA capital charge

In HK\$'000		As at 31 December 2017	
		(a)	(b)
		EAD post CRM	RWA
	Netting sets for which CVA capital charge is calculated by the advanced CVA method	-	-
1	(i) VaR (after application of multiplication factor if applicable)		-
2	(ii) Stressed VaR (after application of multiplication factor if applicable)		-
3	Netting sets for which CVA capital charge is calculated by the standardized CVA method	2,357,824	444,738
4	Total	2,357,824	444,738

Part IV : Counterparty credit risk
CCR3: Counterparty default risk exposures (other than those to CCPs) by asset classes and by risk weights - for STC approach

In HK\$'000		As at 31 December 2017										
		(a)	(b)	(c)	(ca)	(d)	(e)	(f)	(g)	(ga)	(h)	(i)
	Risk Weight Exposure class	0%	10%	20%	35%	50%	75%	100%	150%	250%	Others	Total default risk exposure after CRM
1	Sovereign exposures	-	-	-	-	-	-	-	-	-	-	-
2	PSE exposures	-	-	183	-	-	-	-	-	-	-	183
2a	Of which: domestic PSEs	-	-	183	-	-	-	-	-	-	-	183
2b	Of which: foreign PSEs	-	-	-	-	-	-	-	-	-	-	-
3	Multilateral development bank exposures	-	-	-	-	-	-	-	-	-	-	-
4	Bank exposures	11,633,497	-	1,806,632	-	1,061,748	-	-	-	-	-	14,501,877
5	Securities firm exposures	343,640	-	-	-	69,872	-	-	-	-	-	413,512
6	Corporate exposures	-	-	-	-	198,480	-	160,325	-	-	-	358,805
7	CIS exposures	-	-	-	-	-	-	-	-	-	-	-
8	Regulatory retail exposures	-	-	-	-	-	-	-	-	-	-	-
9	Residential mortgage loans	-	-	-	-	-	-	-	-	-	-	-
10	Other exposures which are not past due exposures	-	-	-	-	-	-	-	-	-	-	-
11	Significant exposures to commercial entities	-	-	-	-	-	-	-	-	-	-	-
12	Total	11,977,137	-	1,806,815	-	1,330,100	-	160,325	-	-	-	15,274,377

0 10 20 35 50 75 100 150 250

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

	As at 31 December 2017					
	(a)	(b)	(c)	(d)	(e)	(f)
	Derivative contracts				SFTs	
	Fair value of recognized collateral received		Fair value of posted collateral		Fair value of recognized collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
In HK\$'000						
Cash - domestic currency	-	-	-	308,792	-	-
Cash - other currencies	-	23,988	-	340,943	12,002,989	200,171
Other sovereign debt	-	-	-	-	-	3,542,631
Bank bonds	-	-	-	-	-	1,667,165
Corporate bonds	-	-	-	-	-	8,432,037
Total	-	23,988	-	649,735	12,002,989	13,842,004

Part IV : Counterparty credit risk
CCR8: Exposures to CCPs

In HK\$'000		As at 31 December 2017	
		(a)	(b)
		Exposure after CRM	RWA
1	Exposures of the AI as clearing member or client to qualifying CCPs (total)		7,591
2	Default risk exposures to qualifying CCPs (excluding items disclosed in rows 7 to 10), of which:	166,232	3,325
3	(i) OTC derivative transactions	166,232	3,325
4	(ii) Exchange-traded derivative contracts	-	-
5	(iii) Securities financing transactions	-	-
6	(iv) Netting sets subject to valid cross-product netting agreements	-	-
7	Segregated initial margin	-	
8	Unsegregated initial margin	213,314	4,266
9	Funded default fund contributions	-	-
10	Unfunded default fund contributions	-	-
11	Exposures of the AI as clearing member or client to non-qualifying CCPs (total)		-
12	Default risk exposures to non-qualifying CCPs (excluding items disclosed in rows 17 to 20), of which:	-	-
13	(i) OTC derivative transactions	-	-
14	(ii) Exchange-traded derivative contracts	-	-
15	(iii) Securities financing transactions	-	-
16	(iv) Netting sets subject to valid cross-product netting agreements	-	-
17	Segregated initial margin	-	
18	Unsegregated initial margin	-	-
19	Funded default fund contributions	-	-
20	Unfunded default fund contributions	-	-

Part VI : Market risk

MRA: Qualitative disclosures related to market risk

Market risk is the risk of losses in assets, liabilities and off-balance sheet positions arising from movements in market rates and prices. Market risk exposures are separated into trading portfolios and non-trading portfolios.

Trading portfolios comprise positions arising from market-making and warehousing of customer derived positions. Non-trading portfolios comprise positions that primarily arise from the interest rate risk management of our retail and commercial banking assets and liabilities, financial investments designated as available-for-sale and held-to-maturity, and exposures arising from our daily risk management operations.

The Group has formulated market risk management policy to identify, measure, monitor, control, and report on the market risk, where appropriate, to allocate adequate capital to cover those risks.

Limits are set with reference to the nature, volume of transactions and risk appetite of the Group, and are applied at a granular level to individual trading desks, through increasing levels of aggregation to business lines and legal entities, and ultimately, the Group.

The market risk management policy and control limits are approved by the RMC and are monitored and regularly reviewed to align with market changes, statutory requirements, and best practices in risk management processes.

Market risk is measured in terms of Value at Risk ("VaR"). VaR is a method that computes the potential losses of risk positions as a result of market movement over a specified time horizon and according to a given level of confidence. The Group uses a 99% confidence interval and a one-day time horizon. VaR models allow us to estimate the aggregate portfolio market risk potential loss due to a range of market risk factors and instruments. However, there are limitations to VaR models; for example, past changes in market risk factors may not provide accurate predictions of future market movements, and the risk arising from adverse market events may be understated.

To monitor the Group's vulnerability to unexpected but plausible extreme market risk-related events, the Group also conducts stress testing using scenarios relevant to the current portfolio composition, with measuring how such event would impact the Group financially.

For interest rate exposure, limits are set on the level of mismatch of interest rate repricing that may be undertaken. Interest rate risk is regularly monitored by regular sensitivity analysis of the net re-pricing gap and of different scenarios of pricing bases of assets and liabilities grouped with reference to their next contractual repricing date or maturity date. For trading portfolio, additional limits on interest rate sensitivities (also known as DV01) and stop loss are being enforced on daily basis.

The Group uses derivatives to mitigate market risk caused by price fluctuation in interest rate and foreign exchange rate.

For banking book, the hedge effectiveness process is stipulated in the Treasury Accounting Booking Procedure and the Group's accounting policies which are complied with IFRS requirements. The effectiveness threshold is monitored at inception and on an on-going basis.

Robust internal control process is in place to support our market risk management approach. Market Risk Management Department, an independent risk management unit reporting directly to Chief Risk Officer, monitors and analyses the Group's market risk positions according to the approved limit structure that sets limits for all exposures in all markets. Material breaches of the approved limit structure are communicated monthly to the RMC. The control process is subject to regular review to assess its effectiveness.

Part VI : Market risk
MR1: Market risk under STM approach

		As at 31 December 2017 RWA
In HK\$'000		(a)
	Outright product exposures	
1	Interest rate exposures (general and specific risk)	904,475
2	Equity exposures (general and specific risk)	-
3	Foreign exchange (including gold) exposures	915,675
4	Commodity exposures	-
	Option exposures	
5	Simplified approach	-
6	Delta-plus approach	-
7	Other approach	-
8	Securitization exposures	-
9	Total	1,820,150

Regulatory Disclosures
Abbreviations

Abbreviations

Brief Description

ALCO	Asset and Liability Management Committee
BIA	Basic Indicator Approach
BVAL	Bloomberg Valuation
CCF	Credit Conversion Factor
CCP	Central Counterparty
CCR	Counterparty Credit Risk
CEM	Current Exposure Method
CIS	Collective Investment Scheme
CRM	Credit Risk Mitigation
CVA	Credit Valuation Adjustment
EAD	Exposure At Default
ECAI	External Credit Assessment Institution
EPE	Expected Positive Exposure
EXCO	Executive Committee
HKMA	Hong Kong Monetary Authority
IPV	Independent Price Verification
OTC	Over-The-Counter
PFE	Potential Future Exposure
PSE	Public Sector Entity
RMC	Risk Management Committee
RW	Risk-Weight
RWA	Risk-Weighted Asset/ Risk-Weighted Amount
SFT	Securities Financing Transaction
STC	Standardised (Credit Risk) Approach
STM	Standardised (Market Risk) Approach
VaR	Value At Risk