Unaudited Supplementary Financial Information

1. Regulatory capital for credit, market and operational risks

The bases of regulatory capital calculation for credit risk, market risk and operational risk are described in Note 4.5 to the Financial Statements.

Sections 1 to 9 of the supplementary financial information have been prepared on a consolidated basis for regulatory purposes. The basis of regulatory consolidation is set out in Note 4.5(A) to the Financial Statements.

The table below summarises the regulatory capital computed on the same consolidation basis for credit, market, and operational risks.

	2015 **HK$'m**	2014 HK$'m
Credit risk	**69,906**	66,708
Market risk	**1,683**	1,546
Operational risk	**6,170**	5,664
	77,759	73,918

For details of capital management and capital ratios of the Group, please refer to Note 4.5 to the Financial Statements.

2. Capital requirements for credit risk

The tables below show the capital requirements for each class and subclass of credit risk exposures as specified in the Banking (Capital) Rules.

	2015 HK$'m	2014 HK$'m
Capital required for exposures under the IRB approach		
Corporate		
Specialised lending under supervisory slotting criteria approach		
– Project finance	**62**	120
Small-and-medium sized corporates	**4,355**	4,080
Other corporates	**35,414**	31,703
Bank		
Banks	**14,150**	17,873
Securities firms	**49**	37
Retail		
Residential mortgages		
– Individuals	**2,586**	1,617
– Property-holding shell companies	**90**	59
Qualifying revolving retail	**1,041**	974
Other retail to individuals	**668**	645
Small business retail	**73**	86
Others		
Cash items	**–**	–
Other items	**6,640**	6,354
Securitisation	**3**	5
Credit valuation adjustment	**597**	407
Total capital requirements for exposures under the IRB approach	**65,728**	63,960
Capital required for exposures under the standardised (credit risk) approach		
On-balance sheet exposures		
Sovereigns	**1,302**	34
Public sector entities	**97**	63
Banks	**9**	117
Corporates	**934**	903
Regulatory retail	**674**	607
Residential mortgage loans	**487**	448
Other exposures which are not past due	**322**	308
Past due exposures	**11**	10
Off-balance sheet exposures		
Off-balance sheet exposures other than securities financing transactions and derivative contracts	**310**	232
Securities financing transactions and derivative contracts	**32**	26
Securitisation	**–**	–
Total capital requirements for exposures under the standardised (credit risk) approach	**4,178**	2,748
Total capital requirements for credit risk exposures	**69,906**	66,708

3. Credit risk under the internal ratings-based approach

3.1 The internal rating systems and risk components

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	

3. Credit risk under the internal ratings-based approach (continued)

3.1 The internal rating systems and risk components (continued)

(A) The structure of internal rating systems and the relationship between internal ratings and external ratings

The Group's internal rating system is a two dimensional rating system that provides separate assessment of borrower and transaction characteristics. For corporate and bank portfolios, the obligor rating dimension reflects exclusively the risk of borrower default and the facility rating dimension reflects transaction specific factors that affect the loss severity in the case of borrower default.

The Group developed 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.

In the process of obligor rating assignment, variables of latest financial performance, management quality, industry risks, group connection and negative warning signals of each obligor are assessed as critical factors to predict borrower's ability and willingness to meet with the contractual obligations under different economic conditions.

The obligors for corporate and bank, and retail PD pools are assigned into eight broad obligor ratings including seven grades for non-defaulted obligors with sub-divisions into 26 minor credit grades and one for defaulted obligors. In the supervisory slotting criteria approach for the project finance exposures, there are four grades for non-defaulted borrowers and one for defaulted borrowers in accordance with the HKMA guidance. The estimates for retail IRB portfolios are pooled by nature of obligors, facility types, collateral types and delinquency status into different PD, EAD and LGD pools. This pooling process provides the basis of accurate and consistent estimation for PD, LGD and EAD at the pool level for exposures arising from residential mortgages to both individuals and property-holding shell companies, qualifying revolving retail exposures and other retail exposures to individuals and small business retail exposures. All credit transactions for corporates and banks are assigned facility ratings (in terms of LGD) in accordance with the HKMA guidance. LGD estimates multiplied by the PD estimates produce the expected loss ("EL") estimates, which are used to assess credit risk quantitatively.

3. Credit risk under the internal ratings-based approach (continued)

3.1 The internal rating systems and risk components (continued)

(A) The structure of internal rating systems and the relationship between internal ratings and external ratings (continued)

For each internal rating, the equivalent external rating in terms of default risk is as below:

Internal Credit Grades	Definition of Internal Ratings	Standard & Poor's Equivalent
1	The obligors in grades "1" and "2" have extremely low default risk.	AAA
2	The obligor's capacity to meet its financial commitment on the obligation is extremely strong.	AA+
		AA
		AA-
3	The obligors in grade "3" have low default risk but are somewhat susceptible to the adverse effects of changes in circumstances and economic conditions. However, the obligor's capacity to meet its financial commitment on the obligation is very strong.	A+
		A
		A-
4	The obligors in grade "4" have relatively low default risk and are currently under adequate protection. However, adverse economic conditions or changing circumstances are likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.	BBB+
		BBB
		BBB-
5	The obligors in grade "5" have medium default risk which are less vulnerable to nonpayment than other speculative obligors. However, they face major ongoing uncertainties or exposure to adverse business, financial, or economic conditions which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.	BB+
		BB
		BB-
6	The obligors in grade "6" have significant to very high default risk and are vulnerable to nonpayment. The obligors currently and in the near term have the capacity to meet its financial commitment on the obligation but adverse business, financial, or economic conditions will very likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation.	B+
		B
		B-
7	The obligors in grade "7" have very high default risk and are currently quite vulnerable to nonpayment. The obligors' ability to meet their financial commitment and obligation are dependent upon favorable business, financial, and economic conditions. In the event of adverse business, financial, or economic conditions, these obligors are not likely to have the capacity to meet its financial commitment on the obligation.	CCC
		CC
		C
8	Obligors rated "8" are in payment default.	D

3. Credit risk under the internal ratings-based approach (continued)

3.1 The internal rating systems and risk components (continued)

(B) Use of internal estimates

Besides using PD estimates for regulatory capital calculation in corporate and bank exposures, the Group uses the PD together with the LGD and EAD estimates in the credit approval, credit monitoring, reporting and analysis of credit risk information, etc., for the purpose of strengthening the daily management on all credit related matters.

(C) Process of managing and recognising credit risk mitigation

For collateral recognised under capital management, the Group has well-defined policies and procedures for collateral valuation and management which are compliant with the operational requirements for recognised collateral of credit risk mitigation as stated in the Banking (Capital) Rules.

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

For retail 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 collateral for calculating the risk exposures.

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 recognised credit derivative contracts for credit risk mitigation.

(D) The control mechanisms used for internal rating systems

The Group has established a comprehensive control mechanism to ensure the integrity, accuracy and consistency of the rating systems including the processes for using the risk components in the day-to-day business to assess credit risk.

All of IRB risk models are approved by the RC of the Board on the recommendation of the Asset and Liability Management Committee ("ALCO"). The Management Committee supervises the use of these internal rating models for risk identification and assessments in the Group's credit decisions.

3. Credit risk under the internal ratings-based approach (continued)

3.1 The internal rating systems and risk components (continued)

(D) The control mechanisms used for internal rating systems (continued)

In order to achieve reasonably accurate risk ratings assignment, the Group has established a rating approval process which is independent from the sales and marketing units. Since internal rating is one of the key inputs to credit decision making, a control mechanism is put in place to ensure the integrity, accuracy and consistency of the rating assignment. For the wholesale (corporate and bank) credit portfolio, internal ratings are normally approved by credit officers who are functionally separated from the sales and marketing units. In some cases where the transactions are in small amount and of low credit risk, the credit ratings can be assigned and approved by the sales and marketing units, subject to the periodic post-approval review of ratings by RMD and other credit monitoring units.

The rating assignment and risk quantification process of retail portfolio are highly automated. As an integral part of the daily credit assessment process, the accuracy and completeness of data input for automatic rating assignment are verified by units independent from business development function.

The obligor rating is reviewed at least annually as required by the Group's credit risk policy. When credit events occur to the obligor, rating review is triggered promptly in accordance with the Group's credit risk policy.

Rating override is designed to allow credit analyst to include any other relevant credit information that has not yet been captured by rating models. For reasons of conservatism and prudential considerations, overrides are unlimited in terms of downgrades but more restricted for upgrades. All upgrades will be limited to a maximum of two sub-grades supported by a very narrowly pre-defined list of appropriate reasons. All overrides need to be signed off by a higher level of credit approval authority. The internal rating policy sets a trigger point of 10% overrides on rating cases. The use of overrides and override reasons are analysed as part of performance review on IRB rating models.

The performance of internal rating system is put under ongoing periodic monitoring. The senior management periodically reviews the performance and predictive ability of the internal rating system. The effectiveness of the internal rating system and processes are reviewed by independent control functions. The model maintenance unit conducts assessment on the discriminatory power, accuracy and stability of the rating systems while the validation unit performs comprehensive review of the internal rating system. Internal audit reviews the internal rating system and the operations of the related credit risk control units. The results of the review are reported to the Board and senior management regularly.

A model validation team which is independent from the model development unit and rating assignment units, conducts periodic model validations using both qualitative and quantitative analysis. Model acceptance standards are established to ensure the discriminatory power, accuracy and stability of the rating systems meet regulatory and management requirements. Review of a rating model will be triggered if the performance of the model deteriorates materially against pre-determined tolerance limit.

(E) Approach for determining provisions

The approach in determining provisions is in line with the Group's accounting policies. For details, please refer to Note 2.14 "Impairment of financial assets" to the Financial Statements.

3. Credit risk under the internal ratings-based approach (continued)

3.2 Exposures by IRB calculation approach

The tables below show the Group's exposures other than securitisation exposures (including the EAD of on-balance sheet exposures and off-balance sheet exposures) by each IRB calculation approach.

	2015				
	FIRB Approach HK$'m	**Supervisory Slotting Criteria Approach HK$'m**	**Retail IRB Approach HK$'m**	**Specific Risk-weight Approach HK$'m**	**Total exposures HK$'m**
Corporate	**891,708**	**971**	**–**	**–**	**892,679**
Bank	**566,726**	**–**	**–**	**–**	**566,726**
Retail					
Residential mortgages to individuals and property-holding shell companies	**–**	**–**	**239,873**	**–**	**239,873**
Qualifying revolving retail	**–**	**–**	**71,276**	**–**	**71,276**
Other retail to individuals	**–**	**–**	**39,747**	**–**	**39,747**
Small business retail	**–**	**–**	**8,483**	**–**	**8,483**
Others	**–**	**–**	**–**	**203,613**	**203,613**
	1,458,434	**971**	**359,379**	**203,613**	**2,022,397**

	2014				
	FIRB Approach HK$'m	Supervisory Slotting Criteria Approach HK$'m	Retail IRB Approach HK$'m	Specific Risk-weight Approach HK$'m	Total exposures HK$'m
Corporate	800,429	1,544	–	–	801,973
Bank	627,768	–	–	–	627,768
Retail					
Residential mortgages to individuals and property-holding shell companies	–	–	223,642	–	223,642
Qualifying revolving retail	–	–	63,730	–	63,730
Other retail to individuals	–	–	34,470	–	34,470
Small business retail	–	–	8,943	–	8,943
Others	–	–	–	188,596	188,596
	1,428,197	1,544	330,785	188,596	1,949,122

3. Credit risk under the internal ratings-based approach (continued)

3.3 Exposures subject to supervisory estimates under the IRB approach

The table below shows the total EAD of the Group's exposures subject to supervisory estimates under the use of IRB approach (including the specialised lending subject to the supervisory slotting criteria approach).

	2015 HK$'m	2014 HK$'m
Corporate	**892,679**	801,973
Bank	**566,726**	627,768
Others	**203,613**	188,596
	1,663,018	1,618,337

3.4 Exposures covered by credit risk mitigation used

(A) Exposures covered by recognised collateral

The table below shows the Group's exposures under the use of FIRB approach (after the effect of any on-balance sheet or off-balance sheet recognised netting) which are covered by recognised collateral after the application of haircuts required under the Banking (Capital) Rules. These exposures exclude securities financing transactions and derivative contracts.

	2015 HK$'m	2014 HK$'m
Corporate	**118,423**	121,573
Bank	**1,465**	767
	119,888	122,340

(B) Exposures covered by recognised guarantees

The table below shows the Group's exposures (after the effect of any on-balance sheet or off-balance sheet recognised netting) which are covered by recognised guarantees after the application of haircuts required under the Banking (Capital) Rules. These exposures exclude securities financing transactions and derivative contracts.

	2015 HK$'m	2014 HK$'m
Corporate	**235,563**	208,630
Bank	**32,615**	31,102
	268,178	239,732

3. Credit risk under the internal ratings-based approach (continued)

3.5 Risk assessment for corporate and bank exposures under IRB approach

The tables below detail the Group's total EAD of corporate and bank exposures by exposure-weighted average risk-weight and exposure-weighted average PD for each obligor grade as at 31 December.

The EAD and PD disclosed below in respect of corporate and bank exposures have taken into account the effect of recognised collateral, recognised netting and recognised guarantees. The Group did not have any recognised credit derivative contracts.

For definition of each obligor grade, please refer to page 275.

(A) Corporate exposures (other than specialised lending under supervisory slotting criteria approach)

	2015		
Internal Credit Grades	**Exposure at default HK$'m**	**Exposure-weighted average risk-weight %**	**Exposure-weighted average PD %**
Grade 1	**–**	**–**	**–**
Grade 2	**28,624**	**18.25**	**0.03**
Grade 3	**220,625**	**25.68**	**0.07**
Grade 4	**337,047**	**43.91**	**0.23**
Grade 5	**249,264**	**79.84**	**1.04**
Grade 6	**53,576**	**107.35**	**5.12**
Grade 7	**331**	**200.23**	**29.65**
Grade 8/Default	**2,241**	**81.96**	**100.00**
	891,708		

	2014		
Internal Credit Grades	Exposure at default HK$'m	Exposure-weighted average risk-weight %	Exposure-weighted average PD %
Grade 1	–	–	–
Grade 2	26,578	20.37	0.04
Grade 3	219,636	25.95	0.07
Grade 4	280,591	44.02	0.23
Grade 5	207,055	78.06	1.07
Grade 6	60,994	113.16	4.40
Grade 7	3,443	73.00	22.47
Grade 8/Default	2,132	132.96	100.00
	800,429		

3. Credit risk under the internal ratings-based approach (continued)

3.5 Risk assessment for corporate and bank exposures under IRB approach (continued)

(B) Corporate exposures (specialised lending under supervisory slotting criteria approach)

	2015		2014	
Supervisory Rating Grades	Exposure at default HK$'m	Exposure-weighted average risk-weight %	Exposure at default HK$'m	Exposure-weighted average risk-weight %
Strong	444	60.96	506	60.17
Good	527	88.30	312	86.96
Satisfactory	–	–	726	115.00
Weak	–	–	–	–
Default	–	–	–	–
	971		1,544	

The supervisory rating grades and risk-weights of specialised lending are determined in accordance with section 158 of the Banking (Capital) Rules.

(C) Bank exposures

	2015		
Internal Credit Grades	Exposure at default HK$'m	Exposure-weighted average risk-weight %	Exposure-weighted average PD %
Grade 1	–	–	–
Grade 2	106,191	20.77	0.04
Grade 3	390,155	27.74	0.05
Grade 4	65,903	51.66	0.20
Grade 5	4,392	68.50	0.78
Grade 6	85	140.91	5.66
Grade 7	–	–	–
Grade 8/Default	–	–	–
	566,726		

3. Credit risk under the internal ratings-based approach (continued)

3.5 Risk assessment for corporate and bank exposures under IRB approach (continued)

(C) Bank exposures (continued)

Internal Credit Grades	2014 Exposure at default HK$'m	 Exposure-weighted average risk-weight %	 Exposure-weighted average PD %
Grade 1	–	–	–
Grade 2	76,217	21.62	0.04
Grade 3	439,499	29.52	0.06
Grade 4	105,085	57.12	0.22
Grade 5	6,908	70.52	0.74
Grade 6	59	133.77	5.84
Grade 7	–	–	–
Grade 8/Default	–	–	–
	627,768		

3.6 Risk assessment for retail exposures under IRB approach

The tables below show breakdown of retail exposures on a pool basis by expected loss percentage (EL%) range as at 31 December.

Residential mortgages

	2015 HK$'m	2014 HK$'m
Up to 1%	**238,766**	222,319
>1%	**1,025**	1,218
Default	**82**	105
	239,873	223,642

Qualifying revolving retail

	2015 HK$'m	2014 HK$'m
Up to 10%	**70,627**	63,055
>10%	**607**	644
Default	**42**	31
	71,276	63,730

3. Credit risk under the internal ratings-based approach (continued)

3.6 Risk assessment for retail exposures under IRB approach (continued)

Other retail to individuals

	2015 HK$'m	2014 HK$'m
Up to 2%	**39,188**	34,055
>2%	**466**	323
Default	**93**	92
	39,747	34,470

Small business retail

	2015 HK$'m	2014 HK$'m
Up to 1%	**8,225**	8,591
>1%	**191**	290
Default	**67**	62
	8,483	8,943

3.7 Analysis of actual loss and estimates

The table below shows the actual losses broken down by class of risk exposure, which represent the net charges (including write-offs and individually assessed impairment allowances) made by each class of exposures under the internal ratings-based approach for the year.

	2015 HK$'m	2014 HK$'m
Corporate	**1,340**	723
Bank	**–**	–
Residential mortgages to individuals and property-holding shell companies	**–**	1
Qualifying revolving retail	**186**	177
Other retail to individuals	**16**	7
Small business retail	**26**	19
	1,568	927

Increase in the loan impairment charge of corporate exposures was mainly due to the downgrade of few corporate loans in 2015.

3. Credit risk under the internal ratings-based approach (continued)

3.7 Analysis of actual loss and estimates (continued)

The table below shows the expected loss broken down by class of risk exposure, which is the estimated loss likely to be incurred arising from the potential default of the obligors in respect of the exposure over a one-year period.

	Expected loss at 31 December 2014 HK$'m	Expected loss at 31 December 2013 HK$'m
Corporate	**3,322**	4,121
Bank	**256**	226
Residential mortgages to individuals and property-holding shell companies	**132**	110
Qualifying revolving retail	**376**	334
Other retail to individuals	**100**	96
Small business retail	**50**	46
	4,236	4,933

The tables below set out the actual default rate compared against the estimated PD of the respective portfolio.

	Actual default rate during 2015 %	**Estimated PD at 31 December 2014 %**
Corporate	**0.73**	**1.75**
Bank	**–**	**0.44**
Residential mortgages to individuals and property-holding shell companies	**0.05**	**0.65**
Qualifying revolving retail	**0.17**	**0.55**
Other retail to individuals	**0.56**	**1.50**
Small business retail	**0.64**	**1.24**

	Actual default rate during 2014 %	Estimated PD at 31 December 2013 %
Corporate	0.56	1.82
Bank	–	0.45
Residential mortgages to individuals and property-holding shell companies	0.05	0.60
Qualifying revolving retail	0.17	0.54
Other retail to individuals	0.51	1.53
Small business retail	0.53	1.23

3. Credit risk under the internal ratings-based approach (continued)

3.7 Analysis of actual loss and estimates (continued)

It should be noted that expected loss and actual loss are measured and calculated using different methodologies compliant with relevant regulatory and accounting standards, which therefore may not be directly comparable. The limitation arises mainly from the fundamental differences in the definition of "loss". The expected loss under Basel Accord which estimates the economic loss arising from the potential default of the obligor by taking into account the time value of money and including the direct and indirect costs associated with the recoveries on the credit exposures during the workout process, while actual loss is the net charge of individually assessed impairment allowances and write-offs made during the year in accordance with the accounting standards.

The actual default rate is measured by using the number of obligors (for wholesale exposures) or number of accounts (for retail exposures) defaulted whereas the estimated PD is an estimate of the long run average default rate over an economic cycle and is the estimated one-year forward-looking PD from the date of rating assignment.

Hence, actual default rate in a particular year ("point-in-time") will typically differ from the estimated PD which is the "through-the-cycle" estimates as economies move above or below the cyclical norms.

The estimated PD is more conservative than the actual default rate for all asset classes.

4. Credit risk under the standardised (credit risk) approach

4.1 Use of ratings from External Credit Assessment Institutions ("ECAI")

The Group adopts STC approach based on external credit rating to determine the risk weight of the small residual credit exposures that was approved by the HKMA to be exempted from FIRB approach and the following asset classes of exposures:

– Sovereign

– Public sector entity

– Multilateral development bank

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 recognised by the Group include Standard & Poor's, Moody's and Fitch.

4.2 Credit risk mitigation

For credit exposures adopting STC approach, the main types of recognised collateral 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.

4. Credit risk under the standardised (credit risk) approach (continued)

4.3 Credit risk exposures other than securitisation exposures under the standardised (credit risk) approach

	2015						
		Exposures after CRM*		Risk-weighted amount			
	Total exposures HK$'m	Rated HK$'m	Unrated HK$'m	Rated HK$'m	Unrated HK$'m	Total exposures covered by recognised collateral HK$'m	Total exposures covered by recognised guarantees HK$'m
On-balance sheet exposures							
Sovereigns	301,750	301,991	–	16,274	–	–	–
Public sector entities	25,571	25,662	–	1,212	–	–	240
Multilateral development banks	35,333	35,333	–	–	–	–	–
Banks	553	551	2	111	–	–	–
Corporates	14,167	2,471	9,502	2,176	9,502	2,193	–
Regulatory retail	11,722	–	11,240	–	8,430	482	–
Residential mortgage loans	12,500	–	12,169	–	6,085	–	331
Other exposures which are not past due	5,195	–	2,543	–	4,019	2,652	–
Past due exposures	102	–	102	–	135	34	–
Total on-balance sheet exposures	406,893	366,008	35,558	19,773	28,171	5,361	571
Off-balance sheet exposures							
Off-balance sheet exposures other than securities financing transactions and derivative contracts	6,455	3,008	3,447	517	3,361	–	702
Securities financing transactions and derivative contracts	532	104	428	18	388	1	–
Total off-balance sheet exposures	6,987	3,112	3,875	535	3,749	1	702
Total non-securitisation exposures	413,880	369,120	39,433	20,308	31,920	5,362	1,273
Exposures that are risk-weighted at 1,250%	–						

4. Credit risk under the standardised (credit risk) approach (continued)

4.3 Credit risk exposures other than securitisation exposures under the standardised (credit risk) approach (continued)

	2014						
		Exposures after CRM*		Risk-weighted amount			
	Total exposures HK$'m	Rated HK$'m	Unrated HK$'m	Rated HK$'m	Unrated HK$'m	Total exposures covered by recognised collateral HK$'m	Total exposures covered by recognised guarantees HK$'m
On-balance sheet exposures							
Sovereigns	175,401	175,594	–	427	–	–	–
Public sector entities	23,255	23,262	–	790	–	–	193
Multilateral development banks	19,026	19,026	–	–	–	–	–
Banks	6,732	532	6,200	107	1,352	–	–
Securities firms	1	–	1	–	–	–	–
Corporates	16,508	317	11,131	159	11,131	5,059	1
Regulatory retail	10,388	–	10,113	–	7,586	275	–
Residential mortgage loans	11,404	–	11,205	–	5,602	–	199
Other exposures which are not past due	8,037	–	3,009	–	3,849	5,028	–
Past due exposures	87	–	87	–	123	13	–
Total on-balance sheet exposures	270,839	218,731	41,746	1,483	29,643	10,375	393
Off-balance sheet exposures							
Off-balance sheet exposures other than securities financing transactions and derivative contracts	4,250	1,515	2,735	219	2,679	–	460
Securities financing transactions and derivative contracts	399	26	373	2	324	11	–
Total off-balance sheet exposures	4,649	1,541	3,108	221	3,003	11	460
Total non-securitisation exposures	275,488	220,272	44,854	1,704	32,646	10,386	853
Exposures that are risk-weighted at 1,250%	–						

* Recognised credit risk mitigation satisfying the requirements and conditions set out in the Banking (Capital) Rules.

5. Counterparty credit risk-related exposures

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. The Group monitors the risk exposure due to fluctuations in the market by using the current exposure and the potential exposure value of the transactions. 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.

The Group establishes prudent eligibility criteria and haircut policy of debt securities being pledged as collateral for securities financing transactions.

The Group formulates policy for classification of credit assets according to the PD of counterparties and the period of overdue. If there is objective evidence that an impairment loss has been incurred, impairment allowance will be provided according to HKFRS and regulatory requirements.

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 and monitoring measures have been formulated for those counterparties identified by stress testing that would be exposed to potential general wrong-way risk.

5. Counterparty credit risk-related exposures (continued)

5.1 Counterparty credit risk exposures under the internal ratings-based approach

The following table summarises the Group's exposures to counterparty credit risk arising from securities financing transactions and derivative contracts calculated using the Current Exposure Method. There is no effect of valid cross-product netting agreements on these exposures.

	2015		2014	
	Securities financing transactions HK$'m	**Derivative contracts HK$'m**	Securities financing transactions HK$'m	Derivative contracts HK$'m
Gross total positive fair value		**29,657**		19,433
Default risk exposures after the effect of valid bilateral netting agreements	**12,808**	**46,036**	6,604	29,482
Less: Value of recognised collateral				
– Debt securities	**(489)**	**–**	–	–
– Others	**(9,104)**	**(1,308)**	(5,813)	(2,167)
Default risk exposures after the effect of valid bilateral netting agreements net of recognised collateral	**3,215**	**44,728**	791	27,315
Default risk exposures by counterparty type				
Corporate	**518**	**2,266**	–	1,306
Bank	**12,290**	**43,770**	6,604	28,176
	12,808	**46,036**	6,604	29,482
Risk-weighted amounts by counterparty type				
Corporate	**50**	**1,272**	–	1,106
Bank	**893**	**11,782**	300	7,313
	943	**13,054**	300	8,419
Notional amounts of recognised credit derivative contracts that provide credit protection	**–**	**–**	–	–

5. Counterparty credit risk-related exposures (continued)

5.2 Counterparty credit risk exposures under the standardised (credit risk) approach

The following table summarises the Group's exposures to counterparty credit risk arising from derivative contracts calculated using the Current Exposure Method. There is no effect of valid cross-product netting agreements on these exposures.

	2015		2014	
	Securities financing transactions HK$'m	**Derivative contracts HK$'m**	Securities financing transactions HK$'m	Derivative contracts HK$'m
Gross total positive fair value		**14,098**		13,926
Default risk exposures after the effect of valid bilateral netting agreements	**–**	**532**	–	399
Less: Value of recognised collateral				
– Debt securities	**–**	**–**	–	–
– Others	**–**	**–**	–	–
Default risk exposures after the effect of valid bilateral netting agreements net of recognised collateral	**–**	**532**	–	399
Default risk exposures by counterparty type				
Sovereigns	**–**	**105**	–	29
Public sector entities	**–**	**6**	–	–
Corporates	**–**	**215**	–	85
Regulatory retail	**–**	**132**	–	190
Other exposures which are not past due	**–**	**74**	–	95
Past due exposures	**–**	**–**	–	–
	–	**532**	–	399
Risk-weighted amounts by counterparty type				
Sovereigns	**–**	**17**	–	2
Public sector entities	**–**	**1**	–	–
Corporates	**–**	**215**	–	86
Regulatory retail	**–**	**99**	–	142
Other exposures which are not past due	**–**	**74**	–	95
Past due exposures	**–**	**–**	–	1
	–	**406**	–	326
Notional amounts of recognised credit derivative contracts that provide credit protection	**–**	**–**	–	–

5. Counterparty credit risk-related exposures (continued)

5.3 Credit derivative contracts which create exposures to counterparty credit risk

The notional amounts of credit derivative contracts which create exposures to counterparty credit risk are shown as follows:

	2015 HK$'m	2014 HK$'m
Used for credit portfolio		
Credit default swaps		
Protection bought	–	–
Protection sold	–	78

6. Assets securitisation

The Group adopts the ratings-based method under IRB approach to calculate the credit risk for securitisation exposures as an investing institution. Since this approach employs mapping of external credit ratings for risk weights calculations, the Group adopts the three ECAIs (Standard & Poor's, Moody's and Fitch) recognised by the HKMA for this purpose.

The Group monitors the risks inherent in its securitisation assets and re-securitisation assets on an ongoing basis. The external credit ratings, assessment of the underlying assets and market prices are used for managing credit risk associated with the investment. For interest rate risk in its banking book, control measures for asset backed securities and mortgage backed securities include, but not limited to AFS EV and PVBP.

The Group had no outstanding exposures that are held with the intention of transferring exposures booked in the banking book and trading book into securitisation transactions as at 31 December 2015 (2014: Nil).

Securitisation exposures arising from the Group's investing activities are analysed as follows:

6.1 Securitisation exposures

	2015		2014	
	Banking book HK$'m	**Trading book HK$'m**	Banking book HK$'m	Trading book HK$'m
On-balance sheet exposures				
Residential mortgage loans	**171**	**–**	394	–
Student loans	**–**	**–**	19	–
	171	**–**	413	–
Off-balance sheet exposures	**–**	**–**	–	–

Reduction in securitisation exposures was due to repayments of principal.

There were no securitisation transactions in trading book subject to the IMM approach as at 31 December 2015 (2014: Nil).

There were no securitisation exposures that the Group has allocated a risk-weight of 1,250% as at 31 December 2015 (2014: Nil).

The Group did not have credit risk mitigations which are treated as part of securitisation transactions as at 31 December 2015 (2014: Nil).

There were no re-securitisation exposures as at 31 December 2015 (2014: Nil).

6. Assets securitisation (continued)

6.2 Breakdown by risk-weights of the securitisation exposures (excluding re-securitisation exposures) under internal ratings-based (securitisation) approach

	2015		2014	
	Securitisation exposures HK$'m	Capital requirements HK$'m	Securitisation exposures HK$'m	Capital requirements HK$'m
7%	66	–	244	1
8%	15	–	32	–
10%	2	–	11	–
12%	43	1	67	1
15%	–	–	–	–
18%	–	–	–	–
20%	12	–	–	–
25%	–	–	–	–
35%	–	–	18	1
50%	–	–	–	–
60%	24	1	29	1
75%	–	–	–	–
100%	9	1	12	1
250%	–	–	–	–
425%	–	–	–	–
650%	–	–	–	–
Deducted from capital	–	–	–	–
	171	3	413	5

Reduction in securitisation exposures and capital requirements were due to repayments of principal.

6.3 Summary of accounting policies for securitisation exposures

The Group held certain securitised debt securities at the end of the reporting period. They are classified and measured for accounting purpose in accordance with the Group's accounting policies as outlined in Note 2.8 "Financial assets", 2.11 "Recognition and derecognition of financial instruments", 2.12 "Fair value measurement" and 2.14 "Impairment of financial assets" to the Financial Statements. For those investments measured at fair value, further details on their valuation are outlined in Note 5.1 "Financial instruments measured at fair value" to the Financial Statements.

7. Capital charge for market risk

	2015 HK$'m	2014 HK$'m
Under the standardised (market risk) approach		
Foreign exchange exposures (net)	**–**	–
Interest rate exposures		
– Non-securitisation exposure	**230**	191
Commodity exposures	**19**	7
Equity exposures	**1**	1
Under the internal models approach		
General foreign exchange and interest rate exposures	**1,433**	1,347
Capital charge for market risk	**1,683**	1,546

Market risk regulatory capital charge is calculated under the Banking (Capital) (Amendment) Rules 2011 to incorporate capital charge for stressed VAR. The following table sets out the IMM VAR and stressed VAR[1] for the general market risk exposure calculated under the IMM approach of the Group.

	Year	At 31 December HK$'m	Minimum for the year HK$'m	Maximum for the year HK$'m	Average for the year HK$'m
IMM VAR for foreign exchange and interest rate risk	2015	37.4	34.7	155.3	71.6
	2014	95.8	48.8	122.4	81.3
IMM VAR for foreign exchange risk	2015	27.9	25.8	77.7	36.2
	2014	30.0	23.2	69.2	39.4
IMM VAR for interest rate risk	2015	42.5	28.3	134.7	69.1
	2014	94.5	50.6	117.1	82.7
Stressed VAR for foreign exchange and interest rate risk	2015	380.5	246.7	593.0	381.3
	2014	298.8	154.6	491.2	327.0
Stressed VAR for foreign exchange risk	2015	97.1	46.5	139.6	75.6
	2014	70.6	50.5	222.8	99.1
Stressed VAR for interest rate risk	2015	414.1	259.8	618.0	377.0
	2014	274.5	176.4	441.7	336.5

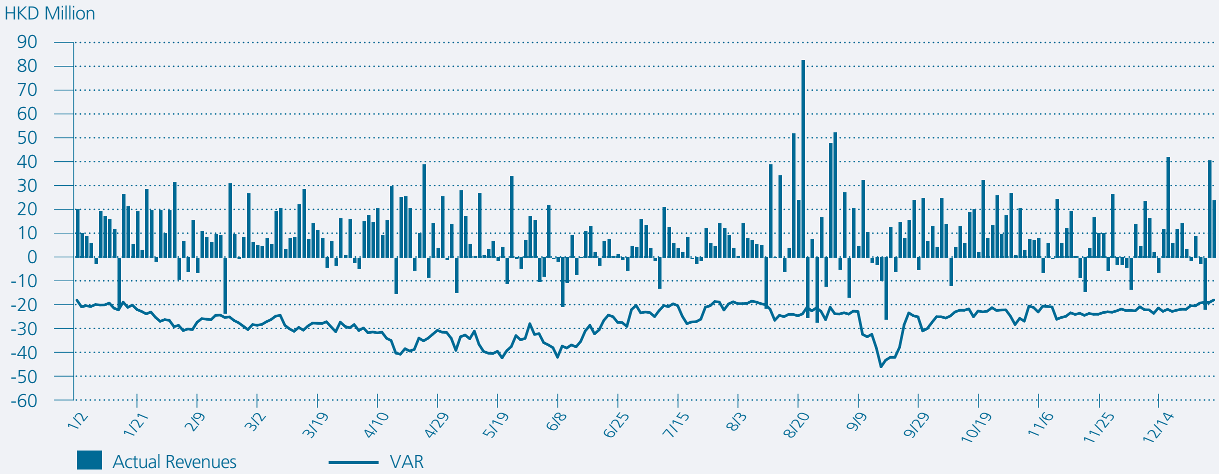
Note:

1. 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.

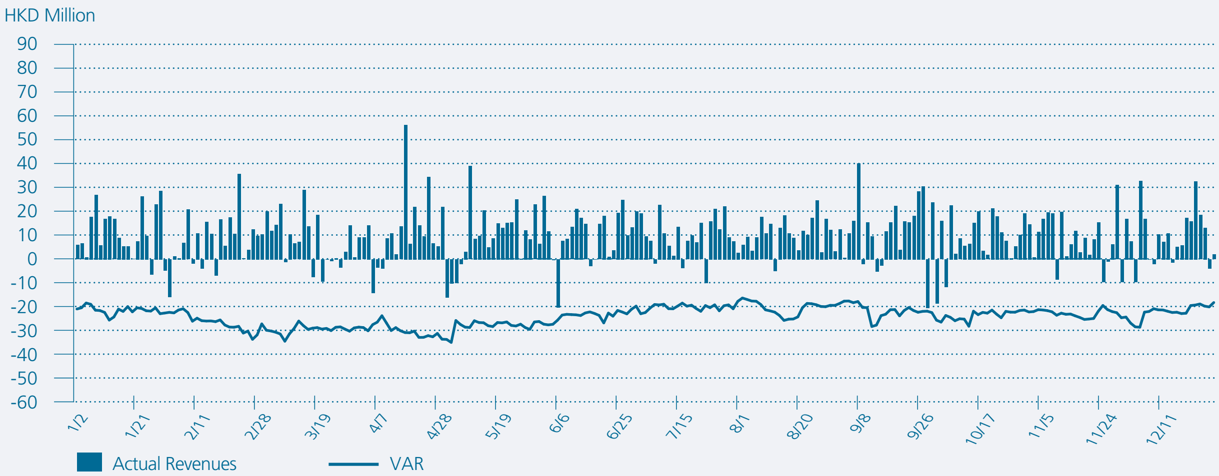
7. Capital charge for market risk (continued)

The graphs below show the regulatory back-testing result of the Group's market risk under IMM approach.

Daily Back-testing in 2015



Daily Back-testing in 2014



There were four actual losses exceeding the VAR for the Group in 2015 as shown in the back-testing results (2014: Nil).

8. Capital charge for operational risk

	2015 HK$'m	2014 HK$'m
Capital charge for operational risk	**6,170**	5,664

The Group uses the standardised (operational risk) approach to calculate its operational risk capital charge.

9. Equity exposures in banking book

Equity holdings in other entities are accounted for in accordance with the underlying intentions of holdings at the inception of acquisition. The classifications for equity holdings taken for relationship and strategic purposes will be separated from those taken for other purposes (including capital appreciation). Investments in equity shares which are intended to be held on a continuing basis, but which do not comprise investments in associates, joint venture or subsidiaries, are classified as available-for-sale securities and are reported in the balance sheet as "Investment in securities".

For equity exposures in banking book other than associates, joint venture or subsidiaries, the Group applies the same accounting treatment and valuation methodologies as detailed in the Notes 2.8(4), 2.11, 2.12 and 2.14 to the Financial Statements, further details on their valuation are outlined in Note 5.1 "Financial instruments measured at fair value" to the Financial Statements. If additional investment is made subsequently such that an investee becomes an associate, joint venture or subsidiary, then the investment is reclassified in accordance with the Group's accounting policies.

Gains or losses related to equity exposures are summarised below:

	2015 HK$'m	2014 HK$'m
Realised gains from sales	**642**	531
Unrealised gains on revaluation recognised in reserves but not through income statement	**160**	778

10. Connected transactions

In 2015, BOCHK, a wholly-owned subsidiary of the Company, and its subsidiaries engaged on a regular basis in the usual course of their business in numerous transactions with BOC and its Associates. As BOC is the Company's controlling shareholder and therefore a connected person of the Company, all such transactions constituted connected transactions for the purposes of the Listing Rules. The Group is subject to the control of the State Council of the PRC Government through China Investment Corporation ("CIC"), its wholly-owned subsidiary Central Huijin Investment Ltd. ("Central Huijin"), and BOC in which Central Huijin has controlling equity interests. Central Huijin is the ultimate controlling shareholder of the Company. Central Huijin has accepted PRC Government's authorisation in carrying out equity investment in core financial enterprises. For the purposes of this report, therefore, Central Huijin and its Associates have not been treated as connected persons to the Company.

10. Connected transactions (continued)

The transactions fell into the following two categories:

1. exempted transactions entered into in the ordinary and usual course of business and under normal commercial terms or better. Such transactions were (1) fully exempted from shareholders' approval, annual review and all disclosure requirements and/or (2) exempted from shareholders' approval requirement by virtue of Rules 14A.76 and 14A.87 to 14A.101 of the Listing Rules;

2. certain continuing connected transactions conducted pursuant to the Services and Relationship Agreement entered into among, inter alia, the Company and BOC dated 6 July 2002 (as amended and supplemented from time to time, which has been amended for a period of three years commencing 1 January 2014), whereas BOC has agreed to, and agreed to procure its Associates to, enter into all future arrangements with the Group on an arm's length basis, on normal commercial terms and at rates no less favourable than those offered to independent third parties, in relation to certain areas including, among others, information technology services, training services, physical bullion agency services, correspondent banking arrangements, treasury transactions, provision of insurance and syndicated loans, and the Company has agreed to, and agreed to procure its subsidiaries to, enter into all future arrangements on the same basis, provided that the rates offered by the Group to BOC and its Associates will be no more favourable than those offered to independent third parties. The Services and Relationship Agreement is also amended to allow (i) for the provision of call center services, cash management services and card services and other related business between BOC or its Associates and the Group; and (ii) the Group to provide and receive various information technology services to and from BOC's worldwide branches and subsidiaries. On 10 December 2013 the Company made an announcement (the "Announcement") in accordance with Rule 14A.47 (1 July 2014 revised to 14A.35 and 14A.64) of the Listing Rules, and has got the approval from the independent shareholders on 11 June 2014. The Announcement listed those continuing connected transactions that exceeded the de minimus threshold and set out caps in respect of such transactions for the three years 2014-2016. These transactions were conducted in the ordinary and usual course of its business and on normal commercial terms or better. Details of these continuing connected transactions are set out below and are described in the announcements which may be viewed at the Company's website. The Company has complied with the disclosure requirements in accordance with Chapter 14A of the Listing Rules.

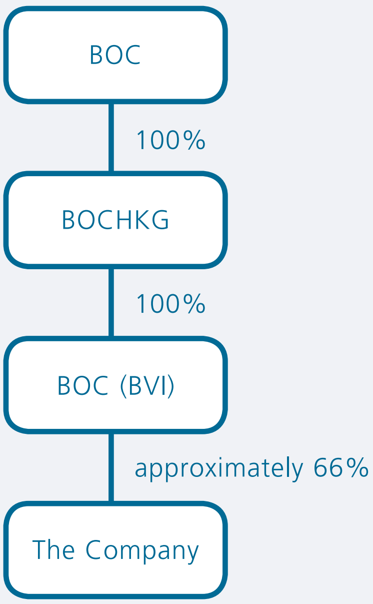
Type of Transaction	2015 Cap (HK$'m)	2015 Actual Amount (HK$'m)
Information Technology Services	**1,000**	**62**
Property Transactions	**1,000**	**164**
Bank-note Delivery	**1,000**	**206**
Provision of Insurance Cover	**1,000**	**171**
Card Services	**1,000**	**195**
Custody Business	**1,000**	**57**
Call Center Services	**1,000**	**67**
Securities Transactions	**7,000**	**351**
Fund Distribution Transactions	**7,000**	**61**
Insurance Agency	**7,000**	**974**
Foreign Exchange Transactions	**7,000**	**354**
Derivatives Transactions	**7,000**	**(116)**
Trading of Financial Assets	**230,000**	**23,798**
Inter-bank Capital Markets	**230,000**	**6,433**

11. Reconciliation between HKFRSs vs IFRS/CAS

The Company understands that BOC, an intermediate holding company as well as controlling shareholder of the Company, will prepare and disclose consolidated financial information in accordance with IFRS and CAS for which the Company and its subsidiaries will form part of the consolidated financial statements. The requirements of CAS have substantially converged with HKFRSs and IFRS.

The consolidated financial information of "BOC Hong Kong Group" for the periods disclosed by BOC in its consolidated financial statements is not the same as the consolidated financial information of the Group for the periods published by the Company pursuant to applicable laws and regulations in Hong Kong. There are two reasons for this.

First, the definitions of "BOC Hong Kong Group" (as adopted by BOC for the purpose of its own financial disclosure) and "Group" (as adopted by the Company in preparing and presenting its consolidated financial information) are different: "BOC Hong Kong Group" refers to BOCHKG and its subsidiaries, whereas "Group" refers to the Company and its subsidiaries (see the below organisation chart). Though there is difference in definitions between "BOC Hong Kong Group" and "Group", their financial results for the periods presented are substantially the same. This is because BOCHKG and BOC (BVI) are holding companies only and have no substantive operations of their own.



Second, the Group has prepared its consolidated financial statements in accordance with HKFRSs; whereas the consolidated financial information reported to BOC is prepared in accordance with IFRS and CAS respectively. There is a difference in the election of subsequent measurement basis of bank premises by the Group and by BOC respectively.

The Board considers that the best way to ensure that shareholders and the investing public understand the material differences between the consolidated financial information of the Group published by the Company on the one hand, and the consolidated financial information of BOC Hong Kong Group disclosed by BOC in its consolidated financial statements on the other hand, is to present reconciliations of the profit after tax/net assets of the Group prepared under HKFRSs to the profit after tax/net assets of the Group prepared under IFRS and CAS respectively for the periods presented.

11. Reconciliation between HKFRSs vs IFRS/CAS (continued)

The major differences which arise from the difference in measurement basis relate to the following:

– restatement of carrying value of bank premises; and

– deferred taxation impact arising from the above different measurement basis.

(a) Restatement of carrying value of bank premises

The Company has elected for a revaluation model rather than cost model to account for bank premises and investment properties under HKFRSs. On the contrary, BOC has elected for the cost model for bank premises and revaluation model for investment properties under IFRS and CAS. Therefore, adjustments have been made to the carrying value of bank premises as well as to re-calculate the depreciation charge and disposal gain/loss under IFRS and CAS.

(b) Deferred tax adjustments

These represent the deferred tax effect of the aforesaid adjustments.

Profit after tax/net assets reconciliation

HKFRSs vs IFRS/CAS

	Profit after tax		Net assets	
	2015 HK$'m	2014 HK$'m	**2015 HK$'m**	2014 HK$'m
Profit after tax/net assets of BOC Hong Kong (Holdings) Limited prepared under HKFRSs	**27,495**	25,105	**197,993**	181,472
Add: IFRS/CAS adjustments				
Restatement of carrying value of bank premises	**1,274**	844	**(42,389)**	(40,388)
Deferred tax adjustments	**(105)**	(91)	**7,104**	6,732
Profit after tax/net assets of BOC Hong Kong (Holdings) Limited prepared under IFRS/CAS	**28,664**	25,858	**162,708**	147,816