UNAUDITED SUPPLEMENTARY FINANCIAL INFORMATION

1. Capital charge 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 in this Annual Report.

As a result of the change in the bases of regulatory capital calculation, the amounts shown below are not directly comparable.

The financial information contained in these supplementary notes has been prepared on a consolidated basis that comprises the positions of BOCHK and certain subsidiaries specified by the HKMA for its regulatory purposes and in accordance with the Banking (Capital) Rules. Subsidiaries that are not included in the consolidation for regulatory purposes in respect of calculation of capital adequacy ratio are denoted in "Appendix – Subsidiaries of the Company" on pages 265 to 268.

The table below summarises the capital requirements and capital charge calculated by applying 8% on the risk-weighted amounts, computed on the same consolidation basis for credit, market, and operational risks.

	2011 **HK$'m**	2010 HK$'m
Credit risk	**46,341**	51,859
Market risk	**1,625**	1,466
Operational risk	**4,065**	3,832
	52,031	57,157

For detail of capital management and capital adequacy ratio of the Group, please refer to Note 4.5 to the Financial Statements in this Annual Report.

2. Capital requirements for credit risk

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

	2011 HK$'m	2010 HK$'m
Capital required for exposures under the IRB approach		
Corporate		
Specialised lending under supervisory slotting criteria approach		
– Project finance	**223**	–
Small-and-medium sized corporate	**3,625**	–
Other corporates	**24,054**	–
Bank		
Banks	**9,913**	–
Securities firms	**7**	–
Retail		
Residential mortgages		
– Individuals	**702**	–
– Property-holding shell companies	**46**	–
Qualifying revolving retail	**779**	–
Small business retail	**86**	–
Other retail to individuals	**409**	–
Others		
Cash items	**–**	–
Other items	**4,870**	–
Securitisation	**22**	–
Total capital requirements for exposures under the IRB approach	**44,736**	–
Capital required for exposures under the standardised (credit risk) approach		
On-balance sheet exposures		
Sovereign	**94**	118
Public sector entity	**36**	320
Multilateral development bank	**–**	–
Bank	**3**	8,620
Securities firm	**–**	17
Corporate	**779**	28,628
Regulatory retail	**271**	1,762
Residential mortgage loans	**173**	5,213
Other exposures which are not past due	**76**	3,646
Past due exposures	**2**	45
Off-balance sheet exposures		
Off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts	**162**	3,063
OTC derivative transactions	**9**	356
Securitisation	**–**	71
Total capital requirements for exposures under the standardised (credit risk) approach	**1,605**	51,859
Total capital requirements for credit risk exposures	**46,341**	51,859

UNAUDITED SUPPLEMENTARY FINANCIAL INFORMATION

3. Credit risk under the internal ratings-based approach

3.1 The internal rating systems and risk components

The Group adopts the foundation internal ratings-based approach ("FIRB") 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 different capital calculation approaches to each asset class.

Classes and sub-classes of exposures by capital calculation approach are as below:

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 corporate	FIRB Approach
	Other corporate	FIRB Approach
Sovereign exposures	Sovereigns	Standardised (credit risk) Approach
	Sovereign foreign public sector entities	
	Multilateral development banks	
Bank exposures	Banks	FIRB Approach
	Securities firms	FIRB Approach
	Public sector entities (excluding sovereign foreign public sectors entities)	Standardised (credit risk) Approach
Retail exposures	Residential mortgages to individuals	Retail IRB Approach
	Residential mortgages to property-holding shell companies	
	Qualifying revolving retail	
	Small business retail	
	Other retail to individuals	
Equity exposures		Standardised (credit risk) Approach
Other exposures	Cash items	Specific Risk-weight Approach
	Other items	

UNAUDITED SUPPLEMENTARY FINANCIAL INFORMATION

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 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 reflects exclusively the risk of borrower default and the facility rating reflects transaction specific factors that affect the loss severity in the case of borrower default. Expected Losses are also calculated in the retail IRB portfolios to reflect the risk of loss in credit transactions.

The corporate and bank borrowers are assigned into eight broad obligor ratings including seven grades for non-defaulted obligors with sub-divisions into 26 minor credit grades and one grade for defaulted obligors. All credit transactions for corporates and banks are assigned into 21 facility grades. 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 Group uses internal rating system to assess the borrower's likelihood of default for all IRB portfolios. Probability of default ("PD") is measured to reflect the risk of borrower default over a one-year period. A borrower rating means a category of credit-worthiness to which borrowers are assigned on the basis of a specified and distinct set of rating criteria, from which estimates of PD are derived.

In the process of obligor rating assignment, variables of latest financial performance, management quality, industry risks and group connection of each obligor are assessed as critical factors to predict borrower's ability and willingness to meet with the contractually obligations under different economic conditions. The internal rating tools employ statistical and analytical techniques for the final rating assignment.

The Group developed statistical models to provide own estimated PD, loss given default ("LGD") and exposure at default ("EAD") 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. The PD reflects the risk of borrower default over a one-year period, while the EAD and LGD estimates reflect the loss severity of its credit exposures. Each of retail exposures is pooled by nature of obligors, facility types, collateral types and delinquency status. This grouping process provides the basis of accurate and consistent estimation for PD, LGD and EAD at the pool level.

UNAUDITED SUPPLEMENTARY FINANCIAL INFORMATION

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	1A	The obligors in grades 1A, 2A, 2B and 2C have extremely low default risk. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.	AAA
2	2A		AA+
	2B		AA
	2C		AA-
3	3A	The obligors in grades 3A, 3B and 3C 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+
	3B		A
	3C		A-
4	4A	The obligors in grades 4A, 4B and 4C 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+
	4B		BBB
	4C		BBB-
5	5A	The obligors in grades 5A, 5B, 5C, 5D, 5E and 5F 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+
	5B		BB+
	5C		BB
	5D		BB
	5E		BB-
	5F		BB-
6	6A	The obligors in grades 6A, 6B, 6C, 6D, 6E, 6F and 6G have high default risk and are vulnerable to nonpayment. The obligors currently 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+
	6B		B+
	6C		B
	6D		B
	6E		B-
	6F		B-
	6G		B-
7	7A	The obligors in grades 7A, 7B and 7C 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, or 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
	7B		CC
	7C		C
8	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

The estimates of risk components derived from applying the IRB approach are not only used in the calculation of regulatory capital, but also in many other areas including credit approval, credit monitoring, reporting and analysis of credit risk information, etc.

(C) Process of managing and recognising credit risk mitigation

For those collaterals 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 credit exposures adopting FIRB approach for capital calculation purpose, the recognised eligible guarantees include the guarantees provided by banks and securities firms with a lower risk weights than the counterparty, and corporate with internal credit ratings which is equivalent to external credit rating A– or above. The Group takes into account the credit risk mitigation effect of recognised collaterals through its determination of the net credit exposures and the effective LGD.

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

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, the Group has not used any recognised credit derivative contracts, on- or off-balance sheet recognised netting for credit risk mitigation yet.

(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 estimation processes for the risk components.

All of IRB risk measurement models are approved by RC of the Board at the recommendation of the Group's designated Basel II Implementation Steering Committee ("SC"). The SC supervises the use of these internal rating models for risk identification and assessments in the Bank's day-to-day credit decisions.

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

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)

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

The performance of internal rating system is 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 (including model maintenance unit and validation unit) and internal audit. 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 based on both qualitative and quantitative analysis. Model acceptance standards are established to ensure the discriminatory power, accuracy and stability of the rating systems. Reviews of rating models are triggered if the performance of a model deteriorates materially against predetermined tolerant limits.

The obligor rating assignment 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 process is designed to allow the credit analyst to include any other relevant credit information that has not yet been captured in the rating process. The overrides are unlimited in terms of downgrades, for reasons of conservatism and prudential consideration. Overrides to better grades (upgrades) are, however, more confined. All upgrades will be limited to a maximum of two sub-grades with 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 maximum limit of 10% of rating cases for overrides. The use of overrides and override reasons are analysed as part of rating system performance review.

(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 in this Annual Report.

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

3.2 Exposures by IRB calculation approach

The table below shows 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.

	2011				
	Foundation IRB 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	540,672	2,875	–	–	543,547
Bank	438,956	–	–	–	438,956
Retail					
Residential mortgages to individuals and property-holding shell companies	–	–	193,566	–	193,566
Qualifying revolving retail exposures	–	–	50,856	–	50,856
Other retail exposures to individuals and small business retail exposures	–	–	30,899	–	30,899
Others	–	–	–	133,623	133,623
Total	979,628	2,875	275,321	133,623	1,391,447

3.3 Exposures subject to supervisory estimates under the IRB approach

By definition, amounts reported under the supervisory slotting criteria approach continue to be subject to supervisory estimates. The table below shows the total EAD of the Group's exposures subject to supervisory estimates under the use of IRB approach.

	2011 HK$'m
Corporate	543,547
Bank	438,956
Others	133,623
	1,116,126

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

3.4 Exposures by credit risk mitigation used

(A) Exposures covered by recognised collateral

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 collateral after the application of haircuts required under the Banking (Capital) Rules. These exposures exclude OTC derivative transactions and repo-style transactions.

	2011 HK$'m
Corporate	**89,764**
Bank	**318**
Others	**–**
	90,082

(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 OTC derivative transactions and repo-style transactions.

	2011 HK$'m
Corporate	**18,660**
Bank	**20,360**
Retail	**–**
Others	**–**
	39,020

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 2011.

The EAD and PD disclosed below in respect of corporate and bank exposures have taken into account the effect of recognised netting and recognised guarantees.

For definition of each obligor grade, please refer to page 242.

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

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

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

	2011		
Internal Credit Grades	**Exposure at default HK$'m**	**Exposure-weighted average risk-weight %**	**Exposure-weighted average PD %**
Grade 1	–	–	–
Grade 2	17,031	15.25	0.03
Grade 3	145,987	24.55	0.07
Grade 4	128,251	43.87	0.25
Grade 5	183,532	82.03	1.23
Grade 6	62,308	118.60	5.34
Grade 7	2,982	205.70	21.13
Grade 8/Default	581	193.31	100.00
	540,672		

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

	2011	
Supervisory Rating Grades	**Exposure at default HK$'m**	**Exposure-weighted average risk-weight %**
Strong	243	70.00
Good	2,001	83.13
Satisfactory	577	115.00
Weak	54	250.00
Default	–	–
	2,875	

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

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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

	2011		
Internal Credit Grades	Exposure at default HK$'m	Exposure-weighted average risk-weight %	Exposure-weighted average PD %
Grade 1	–	–	–
Grade 2	56,964	16.54	0.04
Grade 3	296,602	23.87	0.07
Grade 4	81,028	41.91	0.20
Grade 5	4,348	64.55	0.75
Grade 6	14	23.68	7.46
Grade 7	–	–	–
Grade 8/Default	–	–	–
	438,956		

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 2011.

Residential mortgages

	2011 HK$'m
Up to 1%	192,602
>1%	850
Default	114
	193,566

Qualifying revolving retail

	2011 HK$'m
Up to 10%	50,218
>10%	620
Default	18
	50,856

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

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

Other retail

	2011 HK$'m
Up to 2%	19,390
>2%	479
Default	83
	19,952

Small business retail

	2011 HK$'m
Up to 1%	10,676
>1%	218
Default	53
	10,947

3.7 Analysis of actual loss and estimates

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

	2011 HK$'m
Corporate	(12)
Bank	3
Residential mortgages to individuals and property-holding shell companies	–
Qualifying revolving retail	93
Other retail to individuals	27
Small business retail	8
	119

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 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 2010 HK$'m
Corporate	2,539
Bank	149
Residential mortgages to individuals and property-holding shell companies	97
Qualifying revolving retail	268
Other retail to individuals	126
Small business retail	33
	3,212

The table below sets out the actual default rate for the year 2011 compared against the estimated PD at 31 December 2010 of the respective portfolio.

	Actual default rate during 2011 %	Estimated PD at 31 December 2010 %
Corporate	0.37	1.73
Bank	0.22	0.44
Residential mortgages to individuals and property-holding shell companies	0.03	0.69
Qualifying revolving retail	0.18	0.60
Other retail to individuals	0.72	1.86
Small business retail	0.48	1.40

It should be noted that actual loss and expected loss are measured and calculated using different methodologies compliant to relevant regulatory and accounting standards, which are therefore not directly comparable. The limitation arises mainly from the fundamental differences in the definition of "loss". The expected loss under Basel II 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, while actual loss is the net individually assessed impairment charges and write-offs made during the year in accordance with the accounting standards.

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

3.7 Analysis of actual loss and estimates (continued)

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

Hence, actual PD 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 Ratings from External Credit Assessment Institutions ("ECAI")

The ECAIs recognised by the Group include Standard & Poor's, Moody's and Fitch. The Group continues to adopt standardised (credit risk) ("STC") approach based on external rating to determine the risk weight of 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 the banking book in accordance with Part 4 of the Banking (Capital) Rules.

4.2 Credit risk mitigation

For credit exposures adopting STC approach, the main types of recognised collaterals include cash deposits, debt securities and shares 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 includes the guarantee given by sovereigns, public sector entities, multilateral development banks with a lower risk weight than the counterparty, and corporate with external rating of A– or above.

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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

	2011						
	Total Exposures HK$'m	Exposures after CRM* Rated HK$'m	Exposures after CRM* Unrated HK$'m	Risk-weighted amount Rated HK$'m	Risk-weighted amount Unrated HK$'m	Total exposures covered by recognised collateral HK$'m	Total exposures covered by recognised guarantees or recognised credit derivative contracts HK$'m
On-balance sheet exposures							
Sovereign	285,206	290,546	–	1,172	–	–	–
Public sector entity	23,204	23,020	–	448	–	–	193
Multilateral development bank	22,491	22,491	–	–	–	–	–
Bank	210	210	–	43	–	–	–
Securities firm	–	–	–	–	–	–	–
Corporate	18,268	6,188	6,615	3,118	6,615	318	5,147
Regulatory retail	4,644	–	4,514	–	3,385	130	–
Residential mortgage loans	4,346	–	4,337	–	2,168	–	9
Other exposures which are not past due	1,078	–	946	–	946	132	–
Past due exposures	15	–	15	–	23	–	–
Total for on-balance sheet exposures	359,462	342,455	16,427	4,781	13,137	580	5,349
Off-balance sheet exposures							
Off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts	3,871	1,954	1,917	226	1,797	556	218
OTC derivative transactions	177	58	119	1	117	–	–
Total for off-balance sheet exposures	4,048	2,012	2,036	227	1,914	556	218
Total for non-securitisation exposures	363,510	344,467	18,463	5,008	15,051	1,136	5,567
Exposures deducted from Core Capital or Supplementary Capital	84						

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)

	2010						
		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 or recognised credit derivative contracts HK$'m
On-balance sheet exposures							
Sovereign	418,944	431,867	–	1,483	–	–	–
Public sector entity	18,731	35,726	–	3,995	–	–	190
Multilateral development bank	29,849	29,849	–	–	–	–	–
Bank	307,558	303,090	28,248	97,518	10,233	–	–
Securities firm	517	–	420	–	210	146	–
Corporate	445,600	90,389	309,145	48,713	309,145	12,222	47,713
Cash items	54,262	–	54,262	–	–	–	–
Regulatory retail	33,379	–	29,369	–	22,027	1,290	2,683
Residential mortgage loans	182,567	–	165,334	–	65,164	49	17,184
Other exposures which are not past due	46,407	–	45,571	–	45,571	835	–
Past due exposures	449	–	449	–	560	162	25
Total for on-balance sheet exposures	1,538,263	890,921	632,798	151,709	452,910	14,704	67,795
Off-balance sheet exposures							
Off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts	41,920	7,552	34,368	4,477	33,809	7,062	8,537
OTC derivative transactions	9,910	7,619	2,291	2,345	2,104	–	–
Total for off-balance sheet exposures	51,830	15,171	36,659	6,822	35,913	7,062	8,537
Total for non-securitisation exposures	1,590,093	906,092	669,457	158,531	488,823	21,766	76,332
Exposures deducted from Core Capital or Supplementary Capital	38						

* 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 over-the-counter ("OTC") derivative transactions, repo-style transactions both in trading and banking book is subject to the same risk management framework as mentioned in Note 4 to the Financial Statements in this Annual Report. The Group establishes credit limit through formal credit approval procedures to control the pre-settlement credit risk arising from OTC derivatives transactions and settlement limit to control the settlement risk arising from foreign exchange-related transactions 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 credit risk management units.

Currently, the Group uses the Current Exposure Method to measure and monitor the counterparty credit exposures, which comprises current exposures and potential future exposures.

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

The Group formulates policy for classification of credit assets according to the PD of individual counterparty 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.

5. Counterparty credit risk-related exposures (continued)

5.1 Counterparty credit risk exposures

The following tables summarise the Group's exposures to counterparty credit risk arising from OTC derivative and repo-style transactions.

(A) Counterparty credit risk exposures under the internal ratings-based approach

	2011 HK$'m
OTC derivative:	
Gross total positive fair value	7,435
Credit equivalent amounts	14,680
Less: Value of recognised collateral by type	
– debt securities	–
– others	–
Net credit equivalent amounts	14,680
Exposure at default by counterparty type	
Corporate	1,521
Banks	13,159
Retail	–
Others	–
	14,680
Risk weighted amounts by counterparty type	
Corporate	1,402
Banks	2,906
Retail	–
Others	–
	4,308
Repo-style transactions:	
Net credit exposures	3,488
Exposure at default by counterparty type	
Corporate	–
Banks	3,488
Retail	–
Others	–
	3,488
Risk weighted amounts by counterparty type	
Corporate	–
Banks	1,852
Retail	–
Others	–
	1,852

5. Counterparty credit risk-related exposures (continued)

5.1 Counterparty credit risk exposures (continued)

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

	2011 HK$'m	2010 HK$'m
OTC derivative:		
Gross total positive fair value	**83**	3,715
Credit equivalent amounts	**177**	9,910
Less: Value of recognised collateral by type		
– debt securities	**–**	–
– others	**–**	–
Net credit equivalent amounts	**177**	9,910
Credit equivalent amounts net of recognised collateral by counterparty type		
Sovereign	**57**	–
Public sector entity	**–**	–
Bank	**2**	7,992
Corporate	**107**	1,917
Regulatory retail	**6**	–
Other exposures which are not past due exposures	**5**	1
Past due exposures	**–**	–
	177	9,910
Risk weighted amounts by counterparty type		
Sovereign	**–**	–
Public sector entity	**–**	–
Bank	**1**	2,531
Corporate	**107**	1,917
Regulatory retail	**5**	–
Other exposures which are not past due exposures	**5**	1
Past due exposures	**–**	–
	118	4,449

5. Counterparty credit risk-related exposures (continued)

5.1 Counterparty credit risk exposures (continued)

(B) Counterparty credit risk exposures under the standardised (credit risk) approach (continued)

	2010 HK$'m
Repo-style transactions:	
Net credit exposures	1,650
Net credit exposures net of recognised collateral by counterparty type	
Sovereign	–
Public sector entity	–
Bank	1,650
Corporate	–
Regulatory retail	–
Other exposures which are not past due exposures	–
Past due exposures	–
	1,650
Risk weighted amounts by counterparty type	
Sovereign	–
Public sector entity	–
Bank	825
Corporate	–
Regulatory retail	–
Other exposures which are not past due exposures	–
Past due exposures	–
	825

There are no outstanding repo-style transactions under the standardised (credit risk) approach as at 31 December 2011.

There is no effect of valid bilateral netting agreement on the credit equivalent amounts of the derivative transactions as at 31 December 2011 (2010: Nil).

There are no outstanding credit derivative contracts as at 31 December 2011 and 2010.

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6. Assets securitisation

The Group has not acted as an originating institution for the issuance of securitisation transactions business during the year. Securitisation exposures arising from the Group's investing activities, and the related exposures are residential mortgage loans, commercial mortgage loans and student loans.

As an investing institution, the Group has adopted the IRB approach to calculate the credit risk for asset securitisations in 2011. In prior years, the Group adopted the standardised (securitisation) approach to calculate the credit risk for securitisation exposures.

The ECAIs used by the Group include Standard & Poor's, Moody's and Fitch.

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

6.1 Securitisation exposures

	2011 HK$'m	2010 HK$'m
Residential mortgage loans	**1,780**	2,783
Commercial mortgage loans	**5**	82
Student loans	**467**	850
	2,252	3,715

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

	2011		
	Securitisation exposures HK$'m	**Risk-weighted amount HK$'m**	**Capital requirements HK$'m**
7%	**1,817**	**134**	**11**
8%	**61**	**5**	**1**
10%	**111**	**12**	**1**
12%	**100**	**13**	**1**
35%	**34**	**13**	**1**
60%	**105**	**67**	**5**
100%	**24**	**26**	**2**
Deducted from capital	**–**	**–**	**–**
	2,252	**270**	**22**

6. Assets securitisation (continued)

6.3 Breakdown by class of underlying exposure of the securitisation exposures under standardised (securitisation) approach

	2010		
	Securitisation exposures HK$'m	Risk-weighted amount HK$'m	Capital requirements HK$'m
Residential mortgage loans	2,783	696	56
Commercial mortgage loans	82	16	1
Student loans	850	170	14
	3,715	882	71

There is no securitisation exposures deducted from core capital and supplementary capital as at 31 December 2011 and 2010.

During the year, the Group has no credit derivative contracts which are treated as part of synthetic securitisation transactions (2010: Nil).

7. Capital requirements for market risk

	2011 HK$'m	2010 HK$'m
Under the standardised (market risk) approach		
Foreign exchange exposures (net)	**432**	445
Interest rate exposures	**240**	994
Equity exposures	**36**	22
Commodity exposures	**9**	5
Under the internal models approach		
General foreign exchange and interest rate exposures	**908**	–
Capital charge for market risk	**1,625**	1,466

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8. Capital requirements for operational risk

	2011 **HK$'m**	2010 HK$'m
Capital charge for operational risk	**4,065**	3,832

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, jointly controlled entities or subsidiaries, are classified as available-for-sale securities and are reported in the balance sheet as investments in securities.

For equity exposures in banking book other than associates, jointly controlled entities or subsidiaries, the Group applies the same accounting treatment and valuation methodologies as detailed in the Notes 2.8(4) and 2.11 to the Financial Statements. If additional investment is made subsequently such that an investee becomes an associate, jointly controlled entity 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:

	2011 **HK$'m**	2010 HK$'m
Realised gains from sales	**36**	2
Unrealised gains on revaluation recognised in reserves but not through profit or loss	**526**	322
Unrealised gains included in supplementary capital	**237**	145

10. Connected transactions

In 2011, 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.

The transactions fell into the following two categories:

1. exempted transactions entered into in the usual course of business and under normal commercial terms. Such transactions were exempted from disclosure and independent shareholder approval by virtue of Rules 14A.31, 14A.33 and 14A.65 of the Listing Rules;

2. certain regular banking transactions entered into on a continual basis which are subject to the announcement requirement throughout the year. On 30 December 2010 the Company made an announcement (the "Announcement") in accordance with Rule 14A.47 of the Listing Rules, and has got the approval from the independent shareholders on 25 May 2011. 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 2011-2013. These transactions were conducted in the ordinary course of its business and on normal commercial terms. 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.

Type of Transaction	2011 Cap (HK$'m)	2011 Actual Amount (HK$'m)
Information Technology Services	1,000	47
Property Transactions	1,000	129
Bank-note Delivery	1,000	97
Provision of Insurance Cover	1,000	115
Card Services	1,000	101
Custody Business	1,000	32
Call Center Services	1,000	43
Securities Transactions	3,500	319
Fund Distribution Transactions	3,500	35
Insurance Agency	3,500	646
Foreign Exchange Transactions	3,500	106
Trading of Financial Assets	100,000	5,638
Inter-bank Capital Markets	100,000	2,601

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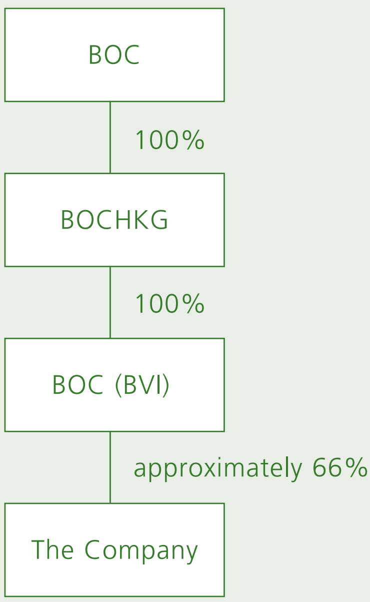
11. Reconciliation between HKFRSs vs IFRS/CAS

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. CAS is the new set of PRC accounting standards that has been effective for annual periods beginning on or after 1 January 2007 for companies publicly listed in PRC. 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 HK GAAP prior to 1 January 2005 and as from 1 January 2005 onwards in accordance with HKFRSs; whereas the consolidated financial information reported to BOC is prepared in accordance with IFRS and CAS respectively. Despite the fact that HKFRSs have converged with IFRS, there is a timing difference in the initial adoption of HKFRSs and IFRS by the Group and by BOC respectively.

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

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 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.

The major differences between HKFRSs and IFRS/CAS, which arise from the difference in measurement basis in IFRS or CAS and the timing difference in the initial adoption of HKFRSs and IFRS relate to the following:

– re-measurement of carrying value of treasury products;

– restatement of carrying value of bank premises;

– deferred taxation impact arising from the above different measurement basis; and

– early adoption of the amendment to HKAS 12.

(a) Re-measurement of carrying value of treasury products

Due to the difference in the timing of first adoption of HKFRSs and IFRS, classification and measurement of certain investment securities under HKFRSs and IFRS were different. Therefore, investment securities were reclassified and re-measured to align with the accounting policies of BOC for the relevant periods. Classification and measurement under IFRS and CAS is basically the same.

(b) Restatement of carrying value of bank premises

The Company has elected for a revaluation basis rather than cost basis to account for bank premises and investment properties under HKFRSs. On the contrary, BOC has elected for the cost convention for bank premises and revaluation basis 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.

(c) Deferred tax adjustments

These represent the deferred tax effect of the aforesaid adjustments.

(d) Early adoption of the amendment to HKAS 12

The Company has early adopted the amendment to HKAS 12 while BOC has not elected to early adopt the amendment under IFRS and CAS. Therefore, adjustments have been made to remove the effects from the early adoption of the amendment to HKAS 12.

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

Profit after tax/net assets reconciliation

HKFRSs vs IFRS/CAS

	Profit after tax		Net assets	
	2011 HK$'m	2010 HK$'m	**2011 HK$'m**	2010 HK$'m
Profit after tax/net assets of BOC Hong Kong (Holdings) Limited prepared under HKFRSs	**20,813**	16,690	**133,183**	118,289
Add: IFRS/CAS adjustments				
Re-measurement of carrying value of treasury products	**(27)**	(35)	**–**	(3)
Restatement of carrying value of bank premises	**488**	323	**(26,124)**	(17,726)
Deferred tax adjustments	**(33)**	(44)	**4,305**	2,931
Effect of early adoption of HKAS 12 (Amendment)	**(323)**	(153)	**(1,778)**	(1,449)
Profit after tax/net assets of BOC Hong Kong (Holdings) Limited prepared under IFRS/CAS	**20,918**	16,781	**109,586**	102,042