

Supplementary Notes on the Financial Statements (continued)**Contents**

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Supplementary Notes on the Financial Statements (continued)

Introduction

The information contained in this document is for The Hongkong and Shanghai Banking Corporation Limited ('the Bank') and its subsidiaries (together 'the group'). It is supplementary to and should be read in conjunction with the *Annual Report and Accounts 2014*. The Annual Report and Accounts and these Supplementary Notes, taken together, comply with the Banking (Disclosure) Rules made under section 60A of the Banking Ordinance, as amended by the Banking (Disclosure) (Amendment) Rules 2013. They also serve to comply with the disclosures on remuneration as required by the Hong Kong Monetary Authority ('HKMA') Supervisory Policy Manual CG-5 'Guideline on a Sound Remuneration System'.

References to 'HSBC', 'the Group' or 'the HSBC Group' within this document mean HSBC Holdings plc together with its subsidiaries. Within this document the Hong Kong Special Administrative Region of the People's Republic of China is referred to as 'Hong Kong'. The abbreviations 'HK\$m' and 'HK\$bn' represent millions and billions (thousands of millions) of Hong Kong dollars respectively.

While the Supplementary Notes are not required to be externally audited, the document has been verified internally in accordance with the group's policies on disclosure and its financial reporting and governance processes.

1 Basis of preparation

- a The approaches used in calculating the group's regulatory capital or capital charge are in accordance with the Banking (Capital) Rules. The group uses the advanced internal ratings-based approach to calculate its credit risk for the majority of its non-securitisation exposures and the internal ratings-based (securitisation) approach to determine credit risk for its banking book securitisation exposures. For market risk, the group uses an internal models approach to calculate its general market risk for the risk categories of interest rate and foreign exchange (including gold) exposures, and equity exposures. The group also uses an internal models approach to calculate its market risk in respect of specific risk for interest rate exposures and equity exposures. The group uses the standardised (market risk) approach for calculating other market risk positions as well as trading book securitisation exposures, and the standardised (operational risk) approach to calculate its operational risk.

- b Except where indicated otherwise, the financial information contained in these Supplementary Notes has been prepared on a consolidated basis. The basis of consolidation for regulatory purposes is different from that for accounting purposes. Information regarding subsidiaries that are not included in the consolidation for regulatory purposes is set out in note 20.

- c The accounting policies applied in preparing these Supplementary Notes are the same as those applied in preparing the consolidated financial statements for the year ended 31 December 2014, as set out in note 3 on the financial statements in the *Annual Report and Accounts 2014*.

- d Certain comparative figures in these Supplementary Notes have been re-presented to conform to the current period's presentation. For details of these changes in presentation, see note 1c on the financial statements in the *Annual Report and Accounts 2014*.

Supplementary Notes on the Financial Statements (continued)

2 Credit risk capital requirements

The group uses the advanced internal ratings-based ('IRBA') approach to calculate its credit risk for the majority of its non-securitisation exposures. The remainder of its credit risk for non-securitisation exposures was assessed using the standardised (credit risk) approach.

The table below shows the capital requirements for credit risk for each class and subclass of non-securitisation exposures as specified in the Banking (Capital) Rules. Capital requirement means the amount of capital required to be held for that risk based on its risk-weighted amount multiplied by 8%.

	At 31 December	
	2014 HK\$m	2013 HK\$m
Capital required for exposures under the IRB approach		
Corporate exposures		
Specialised lending under the supervisory slotting criteria approach		
- Project finance	1,052	874
- Object finance	80	79
- Commodities finance	118	170
- Income-producing real estate	2,601	3,078
Small-and-medium sized corporates	20,443	17,239
Other corporates	71,049	61,202
Sovereign exposures		
Sovereigns	12,998	12,772
Multilateral Development Banks	264	-
Bank exposures		
Banks	16,406	15,660
Securities firms	350	468
Retail exposures		
Residential mortgages		
- Individuals	5,458	4,594
- Property- holding shell companies	217	224
Qualifying revolving retail exposures	4,409	3,688
Small business retail exposures	14	15
Other retail exposures to individuals	794	814
Equity Exposures		
Equity exposures under the simple risk-weighted method	1,502	4,058
Other equity exposures	8,876	7,476
Other exposures		
Cash items	90	61
Other items	9,672	9,572
Total for the IRB approach	156,393	142,044
Capital required for exposures under the standardised (credit risk) approach		
Sovereign exposures	32	43
Public sector entity exposures	710	638
Bank exposures	116	292
Securities firm exposures	3	5
Corporate exposures	9,197	6,420
Regulatory retail exposures	4,465	4,257
Residential mortgage loans	3,297	3,675
Other exposures which are not past due exposures	565	1,145
Past due exposures	313	365
Off-balance sheet exposures other than OTC derivative transactions and credit derivative contracts ...	1,277	914
OTC derivative transactions and credit derivative contracts	512	418
Total for the standardised (credit risk) approach	20,487	18,172
Capital required for Central Counterparties (CCP)	675	1,040
Capital required for Credit Valuation Adjustment (CVA)	6,485	6,617
Total	184,040	167,873

Supplementary Notes on the Financial Statements (continued)**3 Summary of risk-weighted assets**

The group's total risk-weighted assets are summarised as follows:

	At 31 December	
	2014 HK\$m	2013 HK\$m
Credit risk (including counterparty credit risk)		
Standardised (credit risk) approach	255,297	226,698
Internal ratings-based approach	1,925,144	1,747,206
Exposures to Central Counterparties (CCP)	8,435	12,999
Credit Valuation Adjustment (CVA)	81,061	82,716
Internal ratings-based (securitisation) approach	4,453	4,250
	2,274,390	2,073,869
Market risk	143,199	134,035
Operational risk	290,342	274,450
	2,707,931	2,482,354

4 Credit risk under the internal ratings-based approach**a The internal ratings system and its risk components****Nature of exposures within each internal ratings-based ('IRB') class**

The group uses the advanced IRB approach for the majority of its business under the approval granted by the Hong Kong Monetary Authority ('HKMA'). This includes the following major classes of non-securitisation exposures:

- Corporate exposures including exposures to global and local large corporates, middle-market corporates, non-bank financial institutions and specialised lending.
- Sovereign exposures including exposures to central governments, central monetary institutions, multilateral development banks and relevant international organisations.
- Bank exposures including exposures to banks and regulated securities firms.
- Retail exposures including residential mortgages, qualifying revolving retail exposures and other retail exposures.
- Equity exposures.
- Other exposures including cash items and other assets.

Measurement and monitoring – risk rating systems

Exposure to credit risk arises from a very wide range of customers and product types, and the risk rating systems in place to measure and monitor these risks are correspondingly diverse.

Credit risk exposures are generally measured and managed in portfolios of either distinct customer types or product categories. Risk rating systems for the former are designed to assess the default risk of, and loss severity associated with, customers who are typically managed as individual relationships; these rating systems tend to have a higher subjective content. Risk rating systems for the latter are generally more analytical, applying techniques such as behavioural analysis across product portfolios comprising large numbers of homogeneous transactions.

A fundamental principle of the group's policy and approach is that analytical risk rating systems and scorecards are decision tools facilitating management, serving ultimately judgemental decisions for which individual approvers are accountable. In the case of automated decision making processes, accountability rests with those responsible for the parameters built into those processes/systems and the controls surrounding their use. For distinct customers, the credit process requires at least annual review of facility limits granted. Review may be more frequent, as required by circumstances.

Supplementary Notes on the Financial Statements (continued)

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

Group standards govern the process through which risk rating systems are initially developed, judged fit for purpose, approved and implemented; the conditions under which individual approvers can override analytical risk model outcomes; and the process of model performance monitoring and reporting. There is emphasis on an effective dialogue between business lines and risk management, appropriate independence of decision-takers, and a good understanding and robust reflection on the part of senior management.

Like other facets of risk management, analytical risk rating systems are not static and are subject to review and modification in the light of the changing environment and the greater availability and quality of data. Structured processes and metrics are in place to capture relevant data and feed it into continuous model improvement.

Application of IRB parameters

The group's credit risk rating framework incorporates the probability of default ('PD') of a borrower and the loss severity, expressed in terms of exposure at default ('EAD') and loss given default ('LGD'). These measures are used to calculate both expected loss ('EL') and capital requirements, subject to any floors required by the HKMA. They are also used in conjunction with other inputs to inform rating assessments for the purpose of credit approval and many other risk management decisions.

The narrative explanations that follow relate to the IRB advanced approaches, that is, IRB advanced for distinct customers and retail IRB for the portfolio-managed retail business.

Wholesale business

PD for wholesale customer segments (Central Governments and Central Banks (sovereigns), Institutions, Corporates) is estimated using a Customer Risk Rating ('CRR') scale of 23 grades, of which 21 are non-default grades representing varying degrees of strength of financial condition and two are default grades. A score generated by a model for the individual borrower type is mapped to the corresponding CRR. The process through which this, or a judgementally amended CRR, is then recommended to and reviewed by a credit approver takes into account all additional information relevant to the risk rating determination, including external ratings where available. The approved CRR is mapped to a PD value range of which the 'mid-point' is used in the regulatory capital calculation. PD models are developed where the risk profile of corporate borrowers is specific to a country and sector. For illustration purpose, the CRR is also mapped to external ratings of Standard and Poor's ('S&P'), though we also benchmark against other agencies' ratings in an equivalent manner.

LGD and EAD estimation for the wholesale business is subject to a Group framework of basic principles. EAD is estimated to a 12-month horizon and broadly represents the current exposure plus an estimate for future increases in exposure, taking into account such factors as available but undrawn facilities and the crystallisation of contingent exposures, post-default. LGD focuses on the facility and collateral structure, involving factors like facility priority/seniority, the type and value of collateral, type of client and regional variances in experience, and is expressed as a percentage of EAD.

The group uses the supervisory slotting criteria approach in rating its specialised lending exposures. Under this approach, ratings are determined by considering both the borrower and the transaction risk characteristics.

Retail business

The wide range of application and behavioural models used in the management of retail portfolios has been supplemented with models to derive the measures of PD, EAD and LGD required for Basel II. For management information and reporting purposes, retail portfolios are segmented according to local, analytically derived PD bands, in 7 composite PD grades, facilitating comparability across the group's retail customer segments, business lines and product types.

Supplementary Notes on the Financial Statements (continued)

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

Model governance

Model governance of group risk rating models, including development, validation and monitoring, are under the general oversight of the Wholesale Credit and Market Risk ('WCMR') Model Oversight Committee ('MOC') and Retail Banking and Wealth Management Risk ('RBWMR') MOC. Both the WCMR MOC and RBWMR MOC are under the oversight of the Group MOC and are accountable to the group Risk Management Committee.

Internal Audit, or a comparable independent credit quality assurance unit, conducts regular reviews of the risk rating model application by the global businesses.

Use of internal estimates

Internal risk parameters derived from applying the IRB approach are not only employed in the calculation of risk-weighted assets ('RWAs') for the purpose of determining regulatory capital requirements, but also in many other contexts within risk management and business processes, including:

- **credit approval and monitoring:** IRB models, scorecards and other methodologies are valuable tools deployed in the assessment of customer and portfolio risk in lending decisions, including the use of CRR grades within watch-list processes and other enhanced monitoring procedures;
- **risk appetite:** IRB measures are an important element of risk appetite definition at customer, sector and portfolio levels, and in the implementation of the Group risk appetite framework, for instance in subsidiaries' operating plans and the calculation of remuneration through the assessment of performance;
- **portfolio management:** regular reports to the Board, Audit Committee and Risk Committee contain analyses of risk exposures, e.g. by customer segment and quality grade, employing IRB metrics;
- **pricing:** IRB risk parameters are used in wholesale pricing tools when considering new transactions and annual reviews; and
- **economic capital:** IRB measures provide customer risk components for the economic capital model that has been implemented across the group to improve the consistent analysis of economic returns, help determine which customers, business units and products add greatest value, and drive higher returns through effective economic capital allocation.

Supplementary Notes on the Financial Statements (continued)**4 Credit risk under the internal ratings-based approach** (continued)**b Exposures by IRB calculation approach**

The following shows the group's exposures (including the EAD of on-balance sheet exposures and off-balance sheet exposures) by each IRB calculation approach:

	Advanced IRB approach HK\$m	Supervisory slotting criteria approach HK\$m	Retail IRB approach HK\$m	Total exposures HK\$m
At 31 December 2014				
Corporate exposures	1,979,076	69,437	–	2,048,513
Sovereign exposures	1,333,386	–	–	1,333,386
Bank exposures	895,506	–	–	895,506
Retail exposures				
- Residential mortgages to individuals and property-holding shell companies	–	–	683,750	683,750
- Qualifying revolving retail exposures	–	–	211,730	211,730
- Other retail exposures to individuals and small business retail exposures	–	–	52,399	52,399
At 31 December 2013				
Corporate exposures	1,766,810	78,261	–	1,845,071
Sovereign exposures	1,256,246	–	–	1,256,246
Bank exposures	1,027,098	–	–	1,027,098
Retail exposures				
- Residential mortgages to individuals and property-holding shell companies	–	–	670,260	670,260
- Qualifying revolving retail exposures	–	–	196,171	196,171
- Other retail exposures to individuals and small business retail exposures	–	–	51,089	51,089

The corporate, sovereign and bank exposures reported under the IRBA approach as at 31 December 2014 include amounts of HK\$103,288m, HK\$5,526m and HK\$204,644m respectively (31 December 2013: HK\$82,787m, HK\$4,239m and HK\$219,147m respectively) that are subject to supervisory estimates. In addition, equity exposures of HK\$4,519m (31 December 2013: HK\$11,965m) reported under the simple risk-weighted method and amounts reported under the Supervisory Slotting Criteria approach are subject to supervisory estimates.

c Exposures covered by recognised guarantees or recognised credit derivative contracts

The following shows the group's exposures¹ (after the effect of any on-balance sheet or off-balance sheet recognised netting) which are covered by recognised guarantees or recognised credit derivative contracts after the application of haircuts required under the Banking (Capital) Rules. These exposures exclude securities financing transactions and derivative contracts.

	At 31 December	
	2014 HK\$m	2013 HK\$m (Re-presented) ²
Corporate exposures	456,147	458,234
Sovereign exposures	–	633
Bank exposures	9,953	14,949
Retail exposures	37,532	37,075
	503,632	510,891

¹ This includes EAD of on-balance sheet and off-balance sheet exposures.

² Comparatives have been re-presented to align with treatment applied in 2014, including exposures which are covered by collateral and guarantee under CRR substitution at the same time.

Supplementary Notes on the Financial Statements (continued)

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

d Risk assessment for exposures under IRB approach

The EADs, PDs and LGDs disclosed below in respect of corporate, sovereign and bank exposures have taken into account the effect of recognised collateral, recognised netting, recognised guarantees and recognised credit derivative contracts.

Corporate exposures (other than specialised lending) – analysis by obligor grade

	CRR	PD range %	Exposure at default HK\$m	Exposure- weighted average PD %	Exposure- weighted average LGD %	Exposure- weighted average risk-weight %	RWAs HK\$m	Mapped External Rating
At 31 December 2014								
Default risk								
Minimal	0.1	0.000 to 0.010	–	–	–	–	–	
	1.1	0.011 to 0.028	12,062	0.03	49.2	15	1,799	AAA to AA
	1.2	0.029 to 0.053	106,127	0.04	40.4	12	12,826	AA-
Low	2.1	0.054 to 0.095	223,868	0.07	45.0	22	49,698	A+ to A
	2.2	0.096 to 0.169	290,066	0.13	46.6	34	97,974	A-
Satisfactory	3.1	0.170 to 0.285	286,425	0.22	43.2	41	116,675	BBB+
	3.2	0.286 to 0.483	241,646	0.37	44.9	56	136,052	BBB
	3.3	0.484 to 0.740	223,324	0.63	43.3	70	156,068	BBB-
Fair	4.1	0.741 to 1.022	117,443	0.87	43.0	78	91,661	BB+
	4.2	1.023 to 1.407	122,674	1.20	42.5	86	105,679	BB
	4.3	1.408 to 1.927	136,632	1.65	40.8	92	126,151	BB-
Moderate	5.1	1.928 to 2.620	86,644	2.25	39.0	98	85,038	BB-
	5.2	2.621 to 3.579	49,456	3.05	45.7	124	61,121	B+
	5.3	3.580 to 4.914	44,381	4.20	43.6	132	58,473	B
Significant	6.1	4.915 to 6.718	12,591	5.75	42.9	144	18,084	B-
	6.2	6.719 to 8.860	7,328	7.85	50.3	195	14,257	B-
High	7.1	8.861 to 11.402	2,606	10.00	36.7	154	4,023	CCC+
	7.2	11.403 to 15.000	1,923	13.00	41.9	199	3,833	CCC+
Special management	8.1	15.001 to 22.000	1,262	19.00	37.2	200	2,524	CCC
	8.2	22.001 to 50.000	–	–	–	–	–	CCC- to CC
	8.3	50.001 to 99.999	1,184	75.00	48.5	144	1,705	C
Default	9/10	100.000	11,434	100.00	45.3	–	–	Default
			1,979,076				1,143,641	

Supplementary Notes on the Financial Statements (continued)**4 Credit risk under the internal ratings-based approach** (continued)**d Risk assessment for exposures under IRB approach**

Corporate exposures (other than specialised lending) – analysis by obligor grade

	CRR	PD range %	Exposure at default HK\$m	Exposure- weighted average PD %	Exposure- weighted average LGD %	Exposure- weighted average risk-weight %	RWAs HK\$m	Mapped External Rating
At 31 December 2013								
Default risk								
Minimal	0.1	0.000 to 0.010	–	–	–	–	–	
	1.1	0.011 to 0.028	11,859	0.03	41.3	11	1,344	AAA to AA-
	1.2	0.029 to 0.053	79,462	0.04	46.0	14	10,996	A+
Low	2.1	0.054 to 0.095	223,691	0.07	40.8	20	43,991	A
	2.2	0.096 to 0.169	282,074	0.13	44.5	32	88,916	A-
Satisfactory	3.1	0.170 to 0.285	243,358	0.22	43.4	40	96,144	BBB+
	3.2	0.286 to 0.483	210,819	0.37	44.9	55	116,183	BBB to BBB-
	3.3	0.484 to 0.740	177,356	0.63	42.8	68	120,337	BBB-
Fair	4.1	0.741 to 1.022	90,906	0.87	43.9	77	69,843	BB+
	4.2	1.023 to 1.407	112,938	1.20	41.7	86	96,786	BB
	4.3	1.408 to 1.927	111,622	1.65	38.5	86	95,473	BB-
Moderate	5.1	1.928 to 2.620	77,347	2.25	38.1	96	74,448	BB-
	5.2	2.621 to 3.579	64,776	3.05	41.1	112	72,243	B+
	5.3	3.580 to 4.914	46,331	4.20	38.0	116	53,869	B+
Significant	6.1	4.915 to 6.718	12,199	5.75	40.7	136	16,591	B
	6.2	6.719 to 8.860	8,249	7.85	41.9	166	13,664	B-
High	7.1	8.861 to 11.402	1,619	10.00	49.6	213	3,453	B-
	7.2	11.403 to 15.000	1,447	13.00	40.0	191	2,762	CCC+
Special management	8.1	15.001 to 22.000	1,234	19.00	44.6	243	3,000	CCC
	8.2	22.001 to 50.000	2	36.00	87.1	485	10	CCC-
	8.3	50.001 to 99.999	299	75.00	53.0	157	469	CC to C
Default	9/10	100.000	9,222	100.00	48.6	–	–	Default
			<u>1,766,810</u>				<u>980,522</u>	

Supplementary Notes on the Financial Statements (continued)**4 Credit risk under the internal ratings-based approach** (continued)**d Risk assessment for exposures under IRB approach** (continued)

Corporate exposures (specialised lending) – analysis by supervisory rating grade

	At 31 December 2014		At 31 December 2013	
	Exposure at default HK\$m	Exposure- weighted average risk- weight %	Exposure at default HK\$m	Exposure- weighted average risk- weight %
Strong	55,077	60	63,831	61
Good	10,524	82	11,901	85
Satisfactory	2,397	122	2,063	122
Weak	1,240	265	351	265
Default	199	–	115	–
	69,437		78,261	

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

Supplementary Notes on the Financial Statements (continued)

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

d Risk assessment for exposures under IRB approach (continued)

Sovereign exposures – analysis by obligor grade

	CRR	PD range %	Exposure at default HK\$m	Exposure- weighted average PD %	Exposure- weighted average LGD %	Exposure- weighted average risk-weight %	RWAs HK\$m	Mapped External Rating
At 31 December 2014								
Default risk								
Minimal	0.1	0.000 to 0.010	252,045	0.01	45.0	5	12,811	AAA
	1.1	0.011 to 0.028	412,987	0.02	13.0	2	7,610	AA+ to AA
	1.2	0.029 to 0.053	307,399	0.04	45.2	11	33,040	AA- to A+
Low	2.1	0.054 to 0.095	222,202	0.07	45.0	18	39,049	A
	2.2	0.096 to 0.169	26,625	0.13	45.0	25	6,669	A-
Satisfactory	3.1	0.170 to 0.285	65,395	0.22	45.0	44	28,732	BBB+
	3.2	0.286 to 0.483	16,647	0.37	45.0	49	8,175	BBB
	3.3	0.484 to 0.740	3,922	0.63	45.0	64	2,521	BBB-
Fair	4.1	0.741 to 1.022	9,507	0.87	45.0	78	7,434	BB+
	4.2	1.023 to 1.407	2,414	1.20	45.0	105	2,537	BB
	4.3	1.408 to 1.927	–	–	–	–	–	BB-
Moderate	5.1	1.928 to 2.620	6,550	2.25	45.0	109	7,127	BB-
	5.2	2.621 to 3.579	5,674	3.05	45.0	124	7,044	B+
	5.3	3.580 to 4.914	1,290	4.20	45.0	132	1,704	B
Significant	6.1	4.915 to 6.718	729	5.75	45.0	182	1,328	B
	6.2	6.719 to 8.860	–	–	–	–	–	B-
High	7.1	8.861 to 11.402	–	–	–	–	–	CCC+
	7.2	11.403 to 15.000	–	–	–	–	–	CCC+
Special management	8.1	15.001 to 22.000	–	–	–	–	–	CCC+
	8.2	22.001 to 50.000	–	–	–	–	–	CCC+
	8.3	50.001 to 99.999	–	–	–	–	–	CCC to C
Default	9/10	100.000	–	–	–	–	–	Default
			<u>1,333,386</u>				<u>165,781</u>	

Supplementary Notes on the Financial Statements (continued)**4 Credit risk under the internal ratings-based approach** (continued)**d Risk assessment for exposures under IRB approach** (continued)

Sovereign exposures – analysis by obligor grade

	CRR	PD range %	Exposure at default HK\$m	Exposure- weighted average PD %	Exposure- weighted average LGD %	Exposure- weighted average risk-weight %	RWAs HK\$m	Mapped External Rating
At 31 December 2013								
Default risk								
Minimal	0.1	0.000 to 0.010	215,766	0.01	43.9	4	8,578	AAA to AA+
	1.1	0.011 to 0.028	432,720	0.02	45.0	6	25,419	AA to AA-
	1.2	0.029 to 0.053	180,639	0.04	44.0	11	18,985	A+
Low	2.1	0.054 to 0.095	309,320	0.07	44.8	16	49,711	A
	2.2	0.096 to 0.169	61,677	0.13	44.2	30	18,670	A-
Satisfactory	3.1	0.170 to 0.285	12,647	0.22	45.0	40	5,062	BBB+
	3.2	0.286 to 0.483	21,218	0.37	45.0	47	9,981	BBB to BBB-
	3.3	0.484 to 0.740	2,434	0.63	45.0	67	1,622	BBB-
Fair	4.1	0.741 to 1.022	8,157	0.87	45.0	84	6,892	BB+
	4.2	1.023 to 1.407	1,918	1.20	45.0	99	1,902	BB
	4.3	1.408 to 1.927	–	–	–	–	–	BB-
Moderate	5.1	1.928 to 2.620	–	–	–	–	–	BB-
	5.2	2.621 to 3.579	6,766	3.05	45.0	125	8,425	B+
	5.3	3.580 to 4.914	2,016	4.20	44.4	132	2,668	B+
Significant	6.1	4.915 to 6.718	968	5.75	45.0	179	1,731	B
	6.2	6.719 to 8.860	–	–	–	–	–	B-
High	7.1	8.861 to 11.402	–	–	–	–	–	B-
	7.2	11.403 to 15.000	–	–	–	–	–	CCC+
Special management	8.1	15.001 to 22.000	–	–	–	–	–	CCC
	8.2	22.001 to 50.000	–	–	–	–	–	CCC-
	8.3	50.001 to 99.999	–	–	–	–	–	CC to C
Default	9/10	100.000	–	–	–	–	–	Default
			<u>1,256,246</u>				<u>159,646</u>	

Supplementary Notes on the Financial Statements (continued)

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

d Risk assessment for exposures under IRB approach (continued)

Bank exposures – analysis by obligor grade

	CRR	PD range %	Exposure at default HK\$m	Exposure- weighted average PD %	Exposure- weighted average LGD %	Exposure- weighted average risk-weight %	RWAs HK\$m	Mapped External Rating
At 31 December 2014								
Default risk								
Minimal	0.1	0.000 to 0.010	18,633	0.03	36.6	13	2,514	AAA
	1.1	0.011 to 0.028	94,602	0.03	40.1	11	10,538	AA+ to AA
	1.2	0.029 to 0.053	156,802	0.04	33.5	11	17,920	AA-
Low	2.1	0.054 to 0.095	413,612	0.07	40.2	19	78,543	A+ to A
	2.2	0.096 to 0.169	84,794	0.13	41.9	32	26,987	A-
Satisfactory	3.1	0.170 to 0.285	59,331	0.22	43.0	42	25,009	BBB+
	3.2	0.286 to 0.483	41,839	0.37	42.9	55	22,858	BBB
	3.3	0.484 to 0.740	12,543	0.63	42.0	64	7,974	BBB-
Fair	4.1	0.741 to 1.022	2,006	0.87	51.4	86	1,728	BB+
	4.2	1.023 to 1.407	2,275	1.20	46.9	87	1,982	BB
	4.3	1.408 to 1.927	1,498	1.65	44.4	94	1,402	BB-
Moderate	5.1	1.928 to 2.620	436	2.25	47.6	126	552	BB-
	5.2	2.621 to 3.579	713	3.05	52.3	151	1,076	B+
	5.3	3.580 to 4.914	1,450	4.20	61.8	172	2,497	B
Significant	6.1	4.915 to 6.718	2,120	5.75	78.2	241	5,112	B-
	6.2	6.719 to 8.860	2,427	7.85	19.9	75	1,808	B-
High	7.1	8.861 to 11.402	250	10.00	78.4	309	773	CCC+
	7.2	11.403 to 15.000	44	13.00	72.4	332	146	CCC+
Special management	8.1	15.001 to 22.000	6	19.00	89.8	451	28	CCC
	8.2	22.001 to 50.000	–	–	–	–	–	CCC- to CC
	8.3	50.001 to 99.999	–	–	–	–	–	C
Default	9/10	100.000	<u>125</u>	100.00	61.9	–	<u>–</u>	Default
			895,506				209,447	

Supplementary Notes on the Financial Statements (continued)

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

d Risk assessment for exposures under IRB approach (continued)

Bank exposures – analysis by obligor grade

	CRR	PD range %	Exposure at default HK\$M	Exposure- weighted average PD %	Exposure- weighted average LGD %	Exposure- weighted average risk-weight %	RWAs HK\$M	Mapped External Rating
At 31 December 2013								
Default risk								
Minimal	0.1	0.000 to 0.010	18,539	0.03	30.8	9	1,736	AAA to AA+
	1.1	0.011 to 0.028	92,983	0.03	28.2	8	7,267	AA to AA-
	1.2	0.029 to 0.053	164,835	0.04	25.4	9	15,053	A+
Low	2.1	0.054 to 0.095	458,890	0.07	31.5	15	67,263	A
	2.2	0.096 to 0.169	99,200	0.13	33.1	24	23,929	A-
Satisfactory	3.1	0.170 to 0.285	71,782	0.22	32.6	31	22,133	BBB+
	3.2	0.286 to 0.483	79,998	0.37	33.5	43	34,574	BBB to BBB-
	3.3	0.484 to 0.740	15,803	0.63	26.5	42	6,659	BBB-
Fair	4.1	0.741 to 1.022	10,024	0.87	37.2	65	6,515	BB+
	4.2	1.023 to 1.407	6,731	1.20	36.7	76	5,115	BB
	4.3	1.408 to 1.927	905	1.65	41.5	91	823	BB-
Moderate	5.1	1.928 to 2.620	1,385	2.25	37.3	101	1,401	BB-
	5.2	2.621 to 3.579	647	3.05	26.7	84	544	B+
	5.3	3.580 to 4.914	860	4.20	38.1	106	915	B+
Significant	6.1	4.915 to 6.718	910	5.75	73.7	232	2,114	B
	6.2	6.719 to 8.860	787	7.85	71.1	259	2,035	B-
High	7.1	8.861 to 11.402	2,586	10.00	30.6	124	3,205	B-
	7.2	11.403 to 15.000	93	13.00	63.8	291	271	CCC+
Special management	8.1	15.001 to 22.000	–	–	–	–	–	CCC
	8.2	22.001 to 50.000	–	–	–	–	–	CCC-
	8.3	50.001 to 99.999	16	75.00	87.0	249	39	CC to C
Default	9/10	100.000	124	100.00	62.0	–	–	Default
			<u>1,027,098</u>				<u>201,591</u>	

Supplementary Notes on the Financial Statements (continued)

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

d Risk assessment for exposures under IRB approach (continued)

Retail exposures – analysis by internal PD grade

	PD range %	Exposure at default HK\$m	Exposure- weighted average PD %	Exposure- weighted average LGD %	Exposure- weighted average risk-weight %	RWAs HK\$m
At 31 December 2014						
Residential mortgages						
Band 1	0.000 to 0.483	477,242	0.14	11.6	6	27,698
Band 2	0.484 to 1.022	103,963	0.68	15.9	17	17,448
Band 3	1.023 to 4.914	79,696	1.91	10.3	20	16,286
Band 4	4.915 to 8.860	12,340	5.06	10.4	37	4,555
Band 5	8.861 to 15.000	8,265	12.90	11.3	60	4,950
Band 6	15.000 to 50.000	8	30.15	10.0	62	5
Band 7	50.001 to 100.000	2,236	100.00	15.3	–	–
		<u>683,750</u>				<u>70,942</u>
Qualifying revolving retail exposures						
Band 1	0.000 to 0.483	149,619	0.13	101.7	8	11,643
Band 2	0.484 to 1.022	23,472	0.68	97.8	29	6,916
Band 3	1.023 to 4.914	29,310	2.14	95.8	67	19,556
Band 4	4.915 to 8.860	5,334	6.70	96.0	149	7,940
Band 5	8.861 to 15.000	1,396	11.52	97.9	209	2,911
Band 6	15.000 to 50.000	2,246	21.47	93.9	261	5,871
Band 7	50.001 to 100.000	353	90.07	92.9	77	272
		<u>211,730</u>				<u>55,109</u>
Other retail exposures						
Band 1	0.000 to 0.483	36,584	0.17	13.2	7	2,400
Band 2	0.484 to 1.022	5,909	0.69	19.4	16	947
Band 3	1.023 to 4.914	8,148	2.83	39.7	57	4,655
Band 4	4.915 to 8.860	676	6.83	81.7	133	900
Band 5	8.861 to 15.000	451	11.43	75.3	141	633
Band 6	15.000 to 50.000	265	24.65	85.6	212	563
Band 7	50.001 to 100.000	366	99.95	71.1	–	1
		<u>52,399</u>				<u>10,099</u>
Total retail						
Band 1	0.000 to 0.483	663,445	0.14	32.0	6	41,741
Band 2	0.484 to 1.022	133,344	0.68	30.5	19	25,311
Band 3	1.023 to 4.914	117,154	2.03	33.7	35	40,497
Band 4	4.915 to 8.860	18,350	5.60	37.9	73	13,395
Band 5	8.861 to 15.000	10,112	12.64	26.1	84	8,494
Band 6	15.000 to 50.000	2,519	21.83	92.8	256	6,439
Band 7	50.001 to 100.000	2,955	98.81	31.5	9	273
		<u>947,879</u>				<u>136,150</u>

Supplementary Notes on the Financial Statements (continued)

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

d Risk assessment for exposures under IRB approach (continued)

Retail exposures – analysis by internal PD grade

	PD range %	Exposure at default HK\$m	Exposure- weighted average PD %	Exposure- weighted average LGD %	Exposure- weighted average risk-weight %	RWAs HK\$m
At 31 December 2013						
Residential mortgages						
Band 1	0.000 to 0.483	472,939	0.14	11.8	4	20,756
Band 2	0.484 to 1.022	106,926	0.65	15.9	15	16,380
Band 3	1.023 to 4.914	78,473	2.27	10.2	22	17,197
Band 4	4.915 to 8.860	1,658	5.44	14.4	52	867
Band 5	8.861 to 15.000	7,890	13.23	11.9	64	5,009
Band 6	15.000 to 50.000	14	31.50	10.0	62	9
Band 7	50.001 to 100.000	2,360	100.00	16.4	–	–
		<u>670,260</u>				<u>60,218</u>
Qualifying revolving retail exposures						
Band 1	0.000 to 0.483	140,748	0.13	102.1	7	10,325
Band 2	0.484 to 1.022	23,182	0.68	97.5	29	6,810
Band 3	1.023 to 4.914	25,376	2.09	95.1	65	16,501
Band 4	4.915 to 8.860	4,102	6.78	96.4	151	6,186
Band 5	8.861 to 15.000	1,162	11.31	89.9	190	2,206
Band 6	15.000 to 50.000	1,506	25.68	88.7	260	3,913
Band 7	50.001 to 100.000	95	77.75	90.0	16	154
		<u>196,171</u>				<u>46,095</u>
Other retail exposures						
Band 1	0.000 to 0.483	36,523	0.17	14.9	8	2,896
Band 2	0.484 to 1.022	5,538	0.68	16.3	13	739
Band 3	1.023 to 4.914	7,186	2.67	49.1	71	5,072
Band 4	4.915 to 8.860	836	6.10	50.9	83	691
Band 5	8.861 to 15.000	407	11.75	71.7	134	545
Band 6	15.000 to 50.000	198	23.79	87.0	213	423
Band 7	50.001 to 100.000	401	100.00	69.6	–	–
		<u>51,089</u>				<u>10,366</u>
Total retail						
Band 1	0.000 to 0.483	650,210	0.14	31.5	5	33,977
Band 2	0.484 to 1.022	135,646	0.66	29.9	18	23,929
Band 3	1.023 to 4.914	111,035	2.26	32.1	35	38,770
Band 4	4.915 to 8.860	6,596	6.35	70.0	117	7,744
Band 5	8.861 to 15.000	9,459	12.93	24.0	82	7,760
Band 6	15.000 to 50.000	1,718	25.51	87.8	253	4,345
Band 7	50.001 to 100.000	2,856	99.26	26.4	5	154
		<u>917,520</u>				<u>116,679</u>

Supplementary Notes on the Financial Statements (continued)**4 Credit risk under the internal ratings-based approach** (continued)**d Risk assessment for exposures under IRB approach** (continued)

Undrawn commitments

The following shows the amount of undrawn commitments and exposure-weighted average EAD for corporate, sovereign and bank exposures:

	At 31 December 2014		At 31 December 2013	
	Undrawn commitments HK\$m	Exposure-weighted average EAD HK\$m	Undrawn commitments HK\$m	Exposure-weighted average EAD HK\$m
Corporate exposures	989,449	274,491	892,305	244,623
Sovereign exposures	964	285	856	252
Bank exposures	17,108	2,892	13,625	2,416
	1,007,521	277,668	906,786	247,291

e IRB expected loss and impairment charges

The following table compares actual outcomes for the year against the risk elements estimated at the beginning of the year.

	PD		LGD		EAD	
	Actual %	Projected %	Actual %	Projected %	Actual %	Projected %
At 31 December 2014						
Sovereign	0.00	0.26	0.00	44.27	0.00	100.12
Bank	0.00	0.81	0.00	30.24	0.00	96.86
Corporate	0.45	0.97	17.20	42.69	53.34	67.43
Residential mortgages	0.74	0.91	9.54	13.34	92.86	112.17
Qualifying revolving retail	0.45	0.66	80.49	85.87	87.67	90.02
Other retail	1.28	1.55	57.16	72.14	69.48	88.28
At 31 December 2013						
Sovereign	0.00	0.28	0.00	19.20	0.00	100.00
Bank	0.01	0.88	0.00	31.10	0.00	95.00
Corporate	0.40	1.05	17.20	43.70	60.00	66.00
Residential mortgages	0.70	0.95	4.50	12.40	98.76	114.29
Qualifying revolving retail	0.43	0.68	85.92	92.79	90.29	92.07
Other retail	1.20	1.29	57.87	73.49	62.75	79.92

The difference between actual PD and projected PD is driven by the difference in the time horizon used to calculate actual and estimated default rates. The actual default rate represents the actual number of borrower or account defaults during the year, whereas the projected PD is based on internally developed models built on long-run default experience.

The group measures actual LGD by calculating the economic loss incurred by the defaults, whereas projected LGD is based on an internally developed model built on loss experience in downturn conditions. For wholesale classes, due to the different calculation methodologies and the portfolio mix between the default population and the overall book, actual and projected results can differ. In general, the projected LGD was more conservative than actual LGD across asset classes.

The group measures actual EAD by comparing the realised credit exposure of the defaulted counterparties in 2014 against the limits one year prior to default. The projected EAD is based on an internally developed model built on long run default experience.

Supplementary Notes on the Financial Statements (continued)**4 Credit risk under the internal ratings-based approach** (continued)**e IRB expected loss and impairment charges** (continued)

The following table sets out, for each IRB exposure class, the expected loss (EL) and the actual loss experience reflected in impairment charge. EL is the estimated loss likely to be incurred arising from the potential default of the obligator in respect of the exposure over a one-year period. Impairment charges are the net charge for actual losses for each IRB class made during the year.

	As at 31 December 2014		As at 31 December 2013	
	Expected loss at 1 Jan HK\$m	Impairment charge for the year HK\$m	Expected loss at 1 Jan HK\$m	Impairment charge for the year HK\$m
Sovereign	462	–	342	–
Bank	698	–	699	–
Corporate	10,848	2,315	9,795	809
Residential mortgages	890	–	1,038	(52)
Qualifying revolving retail	1,622	722	1,551	663
Other retail	500	177	512	172
	15,020	3,214	13,937	1,592

The impairment charges for corporates increased in 2014 due to a few material impairments made in Hong Kong, China, Australia and Indonesia. It should be noted that impairment charges and EL are measured using different methodologies which are not directly comparable. In general, EL is greater than impairment charges for each IRB class. The limitation arises from the fundamental differences in the definition of ‘loss’ under the accounting standards which determine impairment charges by reflecting the current circumstances and specific cashflow expectations of a customer, and the Basel III framework which determines the regulatory EL calculation on a forward looking basis using modelled estimates.

5 Credit risk under the standardised (credit risk) approach**a Application of the standardised approach**

The standardised (credit risk) approach is applied where exposures do not qualify for use of an IRB approach and/or where an exemption from IRB has been granted. The standardised (credit risk) approach requires banks to use risk assessments prepared by External Credit Assessment Institutions (‘ECAI’) to determine the risk weightings applied to rated counterparties.

ECAI risk assessments are used within the group as part of the determination of risk weightings for the following classes of exposure:

- Public sector entity exposures;
- Bank or corporate exposures (those without an internal CRR); and
- Collective investment scheme exposures.

The group uses external credit ratings from the following ECAIs:

- Fitch Ratings;
- Moody’s Investors Service; and
- Standard & Poor’s Ratings Services.

The group determines ECAI issuer ratings or ECAI issue-specific ratings in the banking book in a process consistent with Part 4 of the Banking (Capital) Rules.

All other exposure classes are assigned risk weightings as prescribed in the HKMA’s Banking (Capital) Rules.

5 Credit risk under the standardised (credit risk) approach (continued)

b Credit risk exposures under the standardised (credit risk) approach

At 31 December 2014	Total exposures ¹ HK\$m	Exposures after recognised credit risk mitigation ²			Risk-weighted amounts			Total exposures covered by recognised collateral HK\$m	Total exposures covered by recognised guarantees or recognised credit derivative contracts HK\$m
		Rated HK\$m	Unrated HK\$m	Total HK\$m	Rated HK\$m	Unrated HK\$m	Total HK\$m		
Assets									
On-balance sheet									
Sovereign	4,152	16,608	–	16,608	395	–	395	–	–
Public sector entity	65,613	55,660	–	55,660	8,877	–	8,877	61	10,397
Bank	1,666	1,032	1,230	2,262	489	960	1,449	–	–
Securities firm	79	–	79	79	–	39	39	–	–
Corporate	164,532	3,965	111,870	115,835	3,334	111,625	114,959	46,201	3,202
Cash items	399	–	399	399	–	–	–	–	–
Regulatory retail	79,973	–	74,421	74,421	–	55,816	55,816	4,891	660
Residential mortgage loan	85,774	–	85,699	85,699	–	41,215	41,215	72	2
Other exposures which are not past due exposures	44,116	–	7,064	7,064	–	7,064	7,064	37,052	–
Past due exposures	2,809	309	2,500	2,809	211	3,698	3,909	241	101
Total on-balance sheet	449,113	77,574	283,262	360,836	13,306	220,417	233,723	88,518	14,362
Off-balance sheet									
Off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts	25,228	2,125	16,978	19,103	791	15,167	15,958	6,125	557
Derivative contracts and securities financing transactions	12,082	3,800	5,729	9,529	680	5,726	6,406	2,553	–
Total off-balance sheet	37,310	5,925	22,707	28,632	1,471	20,893	22,364	8,678	557
Total	486,423	83,499	305,969	389,468	14,777	241,310	256,087	97,196	14,919
Exposures risk-weighted at 1,250%	–								

5 Credit risk under the standardised (credit risk) approach (continued)

b Credit risk exposures under the standardised (credit risk) approach (continued)

	Total exposures ¹ HK\$m	Exposures after recognised credit risk mitigation ²			Risk-weighted amounts			Total exposures covered by recognised collateral HK\$m	Total exposures covered by recognised guarantees or recognised credit derivative contracts HK\$m
		Rated HK\$m	Unrated HK\$m	Total HK\$m	Rated HK\$m	Unrated HK\$m	Total HK\$m		
At 31 December 2013									
Assets									
On-balance sheet									
Sovereign	3,534	23,713	–	23,713	533	–	533	–	53
Public sector entity	70,135	55,994	–	55,994	7,970	–	7,970	126	14,448
Multilateral development bank	47,218	47,218	–	47,218	–	–	–	–	–
Bank	7,585	1,774	7,895	9,669	694	2,954	3,648	3	–
Securities firm	130	–	130	130	–	65	65	–	–
Corporate	124,675	2,262	78,077	80,339	2,098	78,148	80,246	37,578	7,042
Cash items	455	–	455	455	–	–	–	–	–
Regulatory retail	77,229	–	70,950	70,950	–	53,212	53,212	4,870	1,408
Residential mortgage loan	89,805	–	89,729	89,729	–	45,936	45,936	75	2
Other exposures which are not past due exposures	45,798	–	14,315	14,315	–	14,315	14,315	31,399	83
Past due exposures	3,209	249	2,960	3,209	180	4,388	4,568	200	76
Total on-balance sheet	469,773	131,210	264,511	395,721	11,475	199,018	210,493	74,251	23,112
Off-balance sheet									
Off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts	22,341	1,946	12,756	14,702	547	10,883	11,430	7,640	1,718
Derivative contracts and securities financing transactions	12,590	5,565	4,229	9,794	1,112	4,119	5,231	2,796	–
Total off-balance sheet	34,931	7,511	16,985	24,496	1,659	15,002	16,661	10,436	1,718
Total	504,704	138,721	281,496	420,217	13,134	214,020	227,154	84,687	24,830
Exposures risk-weighted at 1,250%	–								

1 Total exposures are the principal amounts for on-balance sheet exposures, or the credit equivalent amount or default exposure for off-balance sheet exposures, as applicable, net of individually assessed impairment allowances.

2 Exposures covered by recognised guarantees or recognised credit derivative contracts are reclassified after credit risk mitigation to reflect the exposures to the credit protection providers.

Supplementary Notes on the Financial Statements (continued)

6 Counterparty credit risk-related exposures

- a** Counterparty credit risk arises from securities financing transactions and derivative contracts. It is calculated in both the trading and non-trading books, and is the risk that counterparty to a transaction may default before completing the satisfactory settlement of the transaction. Following the implementation of Basel III on 1 January 2013, changes have been introduced to the capital treatment of counterparty credit risk exposures, which expanded the scope of transactions for which counterparty credit risk needs to be considered as well as amending the capital calculation.

In respect of the group's counterparty credit risk exposures arising from these transactions, all credit limits are established in advance of transactions. Credit and settlement risk is captured, monitored and reported in accordance with group risk methodologies. Credit exposures are divided into two categories: (1) exposure measures in book or market value terms depending on the product involved; and (2) exposure measures on the basis of 95 percentile potential worst case loss estimates. These methods of calculating credit exposure apply to all counterparties and differences in credit quality are reflected in the size of the limits.

The group adopts the current exposure method to determine its exposures to counterparty credit risk to OTC derivative transactions and credit derivative contracts.

Collateral arrangements

The policy for secured collateral on derivatives is guided by the group's internal Best Practice Guidelines ensuring that the due diligence necessary to understand the effectiveness of netting and collateralisation by jurisdiction, counterparty, product and agreement type is assessed and that due-diligence standards are consistently applied.

Credit ratings downgrade

The credit ratings downgrade language in a Master Agreement or Credit Support Annexes defines the series of events that are triggered if the credit rating of the affected party falls below a specified level. The group presently produces a report which identifies the additional collateral requirements where credit ratings downgrade language affects the threshold levels within a collateral agreement.

Under the terms of our current collateral obligations under derivative contracts and based on the positions at 31 December 2014, we estimate that we could be required to post additional collateral of up to HK\$467m (2013: HK\$364m) in the event of a one-notch downgrade in credit ratings, which would increase to HK\$641m (2013: HK\$529m) in the event of a two-notch downgrade.

Wrong-way risk

Wrong-way risk occurs when a counterparty's exposures are adversely correlated with its credit quality. There are two types of wrong-way risk.

- General wrong-way risk occurs when the probability of counterparty default is positively correlated with general risk factors such as where the counterparty is resident and/or incorporated in a higher-risk country and seeks to sell a non-domestic currency in exchange for its home currency.
- Specific wrong-way risk occurs when the exposure to a particular counterparty is positively correlated with the probability of counterparty default such as a reverse repo on the counterparty's own bonds. Group policy sets out that specific wrong-way transactions are approved on a case by case basis.

We use a range of tools to monitor and control wrong-way risk, including requiring the business to obtain prior approval before undertaking wrong-way risk transactions outside pre-agreed guidelines. The regional Traded Risk functions are responsible for the control and the monitoring process. This includes the monthly submission of wrong-way risk information to Group Risk and the Global Market Risk Management Committee.

Supplementary Notes on the Financial Statements (continued)

6 Counterparty credit risk-related exposures (continued)

b Counterparty credit risk exposures under the advanced internal ratings-based approach

	As at 31 December 2014		As at 31 December 2013	
	Derivative contracts ² HK\$m	Securities financing transactions ¹ HK\$m	Derivative contracts ² HK\$m	Securities financing transactions ¹ HK\$m
Gross total positive fair value	368,959	–	366,648	–
Default risk exposures, net of bilateral netting	313,459	28,496	306,173	69,545
Default risk exposures, net of cross-product netting ..	–	–	–	–
Recognised collateral held by type:				
Debt securities	9,054	231,160	5,798	156,413
Others	28,315	66,390	36,423	83,673
	37,369	297,550	42,221	240,086
Default risk exposures, net of recognised collateral held ¹	313,459	28,496	306,173	69,545
Risk-weighted amounts	111,046	2,755	88,324	2,048
Notional amounts of recognised credit derivative contracts which provide credit protection	–	–	–	–

1 At 31 December 2014, the recognised collateral is netted against the default risk exposures for securities financing transactions with or without netting agreement in place. At 31 December 2013, the recognised collateral is netted against the default risk exposure only for securities financing transactions where there is a netting agreement in place.

2 For OTC and credit derivative contracts, the recognised collateral is reflected in the LGD as at 31 December 2014 and 2013.

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

	As at 31 December 2014		As at 31 December 2013	
	Derivative contracts ² HK\$m	Securities financing transactions ¹ HK\$m	Derivative contracts ² HK\$m	Securities financing transactions ¹ HK\$m
Gross total positive fair value	7,717	–	7,123	–
Default risk exposures, net of bilateral netting	11,876	206	12,448	142
Default risk exposures, net of cross-product netting ..	–	–	–	–
Recognised collateral held by type:				
Debt securities	492	–	1,012	1,290
Others	2,373	2,036	2,185	399
	2,865	2,036	3,197	1,689
Default risk exposures, net of recognised collateral held ¹	11,876	206	12,448	142
Risk-weighted amounts	6,212	194	5,105	126
Notional amounts of recognised credit derivative contracts which provide credit protection	–	–	–	–

1 At 31 December 2014, the recognised collateral is netted against the default risk exposures for securities financing transactions with or without netting agreement in place. At 31 December 2013, the recognised collateral is netted against the default risk exposure only for securities financing transactions where there is a netting agreement in place.

2 For OTC and credit derivative contracts, the recognised collateral is reflected in the LGD as at 31 December 2014 and 2013.

Supplementary Notes on the Financial Statements (continued)

6 Counterparty credit risk-related exposures (continued)

d Major classes of exposures under the advanced internal ratings-based approach by counterparty type

	As at 31 December 2014		As at 31 December 2013	
	Derivative contracts ² HK\$m	Securities financing transactions ¹ HK\$m	Derivative contracts ² HK\$m	Securities financing transactions ¹ HK\$m
Notional amounts:				
Sovereigns	491,546	16,249	386,798	22,105
Banks	21,996,213	228,089	21,827,969	166,930
Corporates	3,200,707	67,155	3,068,696	53,759
	25,688,466	311,493	25,283,463	242,794
Default risk exposures¹:				
Sovereigns	5,526	12,993	4,239	22,142
Banks	204,644	13,133	219,147	39,779
Corporates	103,289	2,370	82,787	7,624
	313,459	28,496	306,173	69,545
Risk-weighted amounts:				
Sovereigns	1,089	1,384	1,009	753
Banks	48,792	879	39,198	850
Corporates	61,165	492	48,117	445
	111,046	2,755	88,324	2,048

1 At 31 December 2014, the recognised collateral is netted against the default risk exposures for securities financing transactions with or without netting agreement in place. At 31 December 2013, the recognised collateral is netted against the default risk exposure only for securities financing transactions where there is a netting agreement in place.

2 For OTC and credit derivative contracts, the recognised collateral is reflected in the LGD as at 31 December 2014 and 2013.

e Major classes of exposures under the standardised (credit risk) approach by counterparty type

	As at 31 December 2014		As at 31 December 2013	
	Derivative contracts HK\$m	Securities financing transactions HK\$m	Derivative contracts HK\$m	Securities financing transactions HK\$m
Notional amounts:				
Sovereigns	–	–	18,847	–
Public sector entities	147,764	1,431	126,048	4
Banks	3,991	–	1,156	–
Corporates	136,516	673	169,369	1,657
	288,271	2,104	315,420	1,661
Default risk exposures	11,876	206	12,448	142
Risk-weighted amounts	6,212	194	5,105	126

Supplementary Notes on the Financial Statements (continued)**6 Counterparty credit risk-related exposures** (continued)**f Risk exposures to derivative transactions**

	Contract amount HK\$m	Risk-weighted amount HK\$m	Fair value HK\$m
At 31 December 2014			
Exchange rate contracts			
Forwards	8,920,165	24,204	44,347
Options purchased	707,251	20,469	9,230
Swaps	3,433,804	34,833	38,537
	13,061,220	79,506	92,114
Interest rate contracts			
Forwards	394,241	104	15
Options purchased	136,598	866	1,209
Swaps	11,240,845	25,545	23,197
	11,771,684	26,515	24,421
Credit derivative contracts	262,200	1,434	246
Other OTC derivative contracts	881,633	9,803	15,590
	25,976,737	117,258	132,371
At 31 December 2013			
Exchange rate contracts			
Forwards	6,955,051	23,471	42,776
Options purchased	583,691	9,542	2,906
Swaps	3,364,049	28,643	41,100
	10,902,791	61,656	86,782
Interest rate contracts			
Forwards	781,700	251	12
Options purchased	113,517	921	1,266
Swaps	12,660,269	21,841	29,324
	13,555,486	23,013	30,602
Credit derivative contracts	251,130	1,096	359
Other OTC derivative contracts	889,476	7,664	14,756
	25,598,883	93,429	132,499

The above table is compiled in accordance with the 'Capital Adequacy Ratio' return submitted to the HKMA. This return is prepared using a consolidated basis as specified by the HKMA under the requirements of section 3C of the Banking (Capital) Rules. This consolidation basis is different from the group's basis of consolidation for accounting purposes, as explained in note 20. Therefore, the contract amounts shown in the above table are different from those disclosed in note 13 of the *Annual Report and Accounts 2014*.

The fair values are calculated after taking into account the effect of valid bilateral netting agreements amounting to HK\$244,305m (2013: HK\$241,272m).

Supplementary Notes on the Financial Statements (continued)**6 Counterparty credit risk-related exposures** (continued)**g Contract amounts of credit derivative contracts which create exposure to counterparty credit risk**

	At 31 December	
	2014 HK\$m	2013 HK\$m
Used for credit portfolio		
Credit default swaps		
Protection bought	7,040	2,950
Protection sold	–	–
Total return swaps		
Protection bought	7,917	21,681
Protection sold	–	–
	14,957	24,631
Used for intermediation activities		
Credit default swaps		
Protection bought	116,473	113,654
Protection sold	121,562	110,760
Total return swaps		
Protection bought	9,208	1,310
Protection sold	–	775
	247,243	226,499

Supplementary Notes on the Financial Statements (continued)

7 Credit risk mitigation

The group grants credit facilities on the basis of capacity to repay, rather than place primary reliance on credit risk mitigation. Depending on a customer's standing and the type of product, unsecured facilities may be provided. The mitigation of credit risk is nevertheless a key aspect of effective risk management. By consideration of type, jurisdiction and geographical location of the credit risk mitigation held, there is no material concentration.

The group's general policy is to promote the use of credit risk mitigation, justified by commercial prudence and good practice as well as capital efficiency. Specific, detailed policies cover the acceptability, structuring and terms of various types of business with regard to the availability of credit risk mitigation, for example in the form of collateral security. These policies, together with the determination of suitable valuation parameters, are subject to regular review to ensure that they are supported by empirical evidence and continue to fulfil their intended purpose.

The most common method of mitigating credit risk is to take collateral. The main types of recognised collateral taken by the group are those as stated in section 77 of the Banking (Capital) Rules, including (but not limited to) cash on deposit, a mortgage over property, a charge over business assets, guarantees, equities (including convertible bonds) included in any main indices, units or shares in collective investment schemes and various recognised debt securities.

In accordance with sections 98 and 99 of the Banking (Capital) Rules, certain guarantees and credit derivative contracts are recognised for credit risk mitigation purposes. The main types of guarantees are from sovereigns, corporates and banks. The credit mitigating effect of recognised guarantees is grounded on empirical evidence of loss recovery experiences regionally. Exposures related to sovereign and bank guarantees are managed by central teams in HSBC Group Head Office in London.

Trading facilities are often supported by charges over financial instruments such as cash, debt securities and equities. Netting is extensively used and is a prominent feature of market standard documentation. Techniques such as credit default swaps, structured credit notes and securitisation structures can be deployed to actively manage the credit risk of the portfolios. The credit and market risk concentrations within the credit risk mitigants (recognised collateral, netting, guarantees and credit derivative contracts) used by the group are not considered to be material.

The group's policy stipulates that netting should only be applied where there is a legal right to do so. Under section 209 of the Banking (Capital) Rules, recognised netting is defined as any netting done pursuant to a valid bilateral netting arrangement. Consistent with the Banking (Capital) Rules, only bilateral netting arrangements are eligible to net amounts owed by the group for capital adequacy purposes.

The group has in place specific policies with respect to the valuation and re-valuation of credit risk mitigants. The primary objective of these policies is to monitor and ensure that the respective mitigants will provide the secure repayment source as anticipated at the time they were taken. Where collateral is subject to high volatility, valuation is frequent; where stable, less so. Policies in respect of credit mitigants underlying past due accounts are more stringent and call for more frequent monitoring and valuation.

In terms of their application within an IRB approach risk mitigants are considered in two broad categories: 1) those which reduce the intrinsic probability of default of a borrower and therefore are accounted for with adjustments to PD estimation; 2) those which affect the estimated recoverability of obligations and are accounted for with adjustments of LGD or, in certain circumstances, EAD.

The adjustment of PD estimation is also subject to supplementary methodologies in respect of a 'sovereign floor', constraining the risk ratings assigned to borrowers in countries of higher risk, and partial parental support.

LGD and EAD values, in the case of individually assessed exposures, are determined by reference to internal risk parameters based on the nature of the exposure, subject to the relevant regulatory requirements and floors. For retail portfolios, credit mitigation data is incorporated into the internal risk parameters and fed into the calculation of the EL band summarising both customer delinquency and product or facility risk.

Supplementary Notes on the Financial Statements (continued)

8 Asset securitisation

Group securitisation strategy

The group's strategy is to use securitisations to meet its needs for aggregate funding or capital management, to the extent that market, regulatory treatments and other conditions are suitable, and for customer facilitation.

Group securitisation roles

The roles played by the group in the securitisation process are as follows:

- Investor: where the group invests in a securitisation transaction directly, or provides derivatives or liquidity facilities to a securitisation;
- Originator: where the group originates the assets being securitised, either directly or indirectly; and
- Sponsor: in relation to an asset-backed commercial paper ('ABCP') programme, or a programme with similar features, where the group establishes and manages a securitisation programme that purchases exposures from third parties.

The group as investor

The group has exposure to third-party securitisations, including re-securitisation positions, in the form of investments, liquidity facilities and as a derivative counterparty. The majority of the group's securitisation positions are held as part of its investment portfolios in the banking book. The group also holds securitisation positions occasionally to generate trading profits. The credit and market risks of securitisation positions are monitored and managed along with their respective business portfolios. Factors such as the estimated future cash flows on underlying pools of collateral, including prepayment speeds, and whether historical performance remains representative of current economic and credit conditions, are considered in assessing impairment of these positions.

The group as originator

The group securitises customer loans and advances that it originated using special purpose entities ('SPEs') to diversify its sources of funding for asset origination, and for capital efficiency purposes. In such cases, the group transfers the loans and advances to the SPEs for cash, and the SPEs issue debt securities to investors to fund the cash purchases. The group may also act as a derivative counterparty or provide a guarantee. Credit enhancements to the underlying assets may be used to obtain investment grade ratings on the senior debt issued by the SPEs. The group currently consolidates these securitisations for accounting purposes. The group did not use any SPEs to securitise exposures acquired from third parties during the year (2013: none). The group's policy on credit risk mitigation to mitigate the risks of securitisation exposures retained is the same as that for non-securitisation exposures, as set out in note 7.

In addition, the group uses SPEs to mitigate the capital absorbed by some of the customer loans and advances it has originated. Credit derivatives are used to transfer the credit risk associated with such customer loans and advances to an SPE, using securitisations commonly known as synthetic securitisations, by which the SPEs write credit default swap protection to the group. These SPEs are consolidated for accounting purposes when the group is exposed to the majority of risks and rewards of ownership. The group did not originate any synthetic securitisations during the year (2013: none).

The group as sponsor

There were no outstanding underlying exposures in securitisation transactions where the group acted as a sponsor (2013: none).

Supplementary Notes on the Financial Statements (continued)

8 Asset securitisation (continued)

Valuation of securitisation positions

The group's banking and trading book investments in securitisation exposures, including re-securitisation exposures, are valued according to their accounting classification. Valuation methods include, but are not limited to, quotations from third parties, observed trade levels and calibrated valuations from market standard models. The principal assumptions to determine fair value are based on benchmark information about prepayment speeds, default rates, loss severities and the historical performance of the underlying assets. This process did not change in 2014.

The group has exposures that it intends to securitise in 2015, and they continue to be valued according to their original accounting classification.

Securitisation activities in 2014

As an investor, the group's securitisation activities in 2014 mainly consisted of changes to the existing portfolio mix in the normal course of business. There was no transfer of securitisation exposures between the banking book and trading book during the year (2013: none).

As an originator, the group transferred additional residential mortgages into an existing SPE which the group continues to consolidate and owns all of the notes and receivables. During the year, the group securitised HK\$17,169m of residential mortgages in the banking book (2013: none). There were no gains or losses recognised (2013: none).

Securitisation accounting treatment

For accounting purposes, the group consolidates SPEs when the substance of the relationship indicates that it controls them. In assessing control, all relevant factors are considered, including qualitative and quantitative aspects. The group reassesses the required consolidation whenever there is a change in the substance of the relationship between the group and an SPE, for example, when the nature of its involvement or the governing rules, contractual arrangements or capital structure of the SPE change.

For securitisation transactions originated, the transfer of assets to an SPE may give rise to full or partial derecognition of the financial assets concerned. Only in the event that derecognition is achieved are sales and any resultant gains on sales recognised in the financial statements.

Full derecognition occurs when the group transfers its contractual right to receive cash flows from the financial assets, or retains the right but assumes an obligation to pass on the cash flows from the asset, and transfers substantially all the risks and rewards of ownership. The risks include credit, interest rate, currency, prepayment and other price risks.

Partial derecognition occurs when the group sells or otherwise transfers financial assets in such a way that some but not substantially all of the risks and rewards of ownership are transferred but control is retained. These financial assets are recognised on the balance sheet to the extent of the group's continuing involvement.

The rights and obligations that the group retains from its continuing involvement in securitisations are initially recorded as an allocation of the fair value of the financial asset between the part that is derecognised and the part that continues to be recognised on the date of transfer.

When the group has contractual arrangements that could require it to provide financial support for the underlying exposures that have been securitised, these are recognised following the accounting policies as set out in the group's Annual Report and Accounts.

Securitisation regulatory capital approaches

The group uses the internal ratings-based (securitisation) approach to calculate the credit risk for its securitisation exposures in the banking book. Securitisation positions in the trading book are treated under the standardised (market risk) approach, which calculates the market risk capital charge for specific risk interest rate exposures using the same methodology as the internal ratings-based (securitisation) approach.

The group uses Standard & Poor's Rating Services, Moody's Investors Service and Fitch Ratings as the ECAIs for each and all classes of securitisation exposures.

Supplementary Notes on the Financial Statements (continued)

8 Asset securitisation (continued)

a Securitisation transactions – underlying exposures and impairment

	At 31 December	
	2014 HK\$m	2013 HK\$m
As originator		
Traditional securitisations:		
Residential mortgage loans	24,565	12,913
	24,565	12,913

As at 31 December 2014, there were impaired or overdue residential mortgage loans of HK\$548m securitised (2013: HK\$361m) and there were no losses recognised during the year (2013: none).

The group does not report any amounts under the internal ratings-based (securitisation) approach or the standardised (market risk) approach for these securitisation exposures as they do not fall within the scope of s229(1) of the Banking (Capital) Rules. The related credit risk has been calculated using the same approach as other non-securitisation exposures. The capital requirements and the amounts deducted from capital under the internal ratings-based (securitisation) approach are therefore nil.

b Securitisation exposures – by exposure type

	At 31 December 2014			At 31 December 2013		
	Banking book HK\$m	Trading book HK\$m	Total HK\$m	Banking book HK\$m	Trading book HK\$m	Total HK\$m
On-balance sheet exposures						
As investor						
Residential mortgage loans	646	7	653	936	7	943
Student loans	26	–	26	63	–	63
Commercial mortgage loans	453	–	453	427	–	427
Loans and receivables	686	–	686	431	–	431
Auto loans	3,078	–	3,078	2,737	–	2,737
Others	122	451	573	152	–	152
	5,011	458	5,469	4,746	7	4,753
Off-balance sheet exposures						
As investor						
Residential mortgage loans	–	–	–	–	–	–
Student loans	–	–	–	–	–	–
Commercial mortgage loans	679	–	679	757	–	757
Loans and receivables	61	–	61	–	–	–
Auto loans	–	–	–	–	–	–
Others	–	–	–	–	–	–
	740	–	740	757	–	757
	5,751	458	6,209	5,503	7	5,510

Supplementary Notes on the Financial Statements (continued)**8 Asset securitisation** (continued)**c Securitisation exposures – by risk-weight bands**

	Securitisation exposures			Capital requirements		
	Banking book HK\$m	Trading book HK\$m	Total HK\$m	Banking book HK\$m	Trading book HK\$m	Total HK\$m
At 31 December 2014						
As investor						
Securitisations						
- less than or equal to 10%	1,430	451	1,881	9	3	12
- greater than 10% and less than or equal to 20%	622	–	622	9	–	9
- greater than 20% and less than or equal to 50%	–	–	–	–	–	–
- greater than 50% and less than or equal to 100%	3,673	–	3,673	311	–	311
- greater than 100% and less than or equal to 650%	–	–	–	–	–	–
- greater than 650% and less than 1,250% - 1,250%	19	7	26	20	7	27
	5,744	458	6,202	349	10	359
Re-securitisations						
- 1,250%	7	–	7	7	–	7
	5,751	458	6,209	356	10	366
At 31 December 2013						
As investor						
Securitisations						
- less than or equal to 10%	1,236	–	1,236	8	–	8
- greater than 10% and less than or equal to 20%	735	–	735	10	–	10
- greater than 20% and less than or equal to 50%	–	–	–	–	–	–
- greater than 50% and less than or equal to 100%	3,509	–	3,509	298	–	298
- greater than 100% and less than or equal to 650%	–	–	–	–	–	–
- greater than 650% and less than 1,250% - 1,250%	17	7	24	18	8	26
	5,497	7	5,504	334	8	342
Re-securitisations						
- 1,250%	6	–	6	6	–	6
	5,503	7	5,510	340	8	348

Capital requirement means the amount of capital required to be held for that risk based on the risk-weighted amount for that risk multiplied by 8%. Securitisation exposures are presented as the principal amount net of specific provision or partial write-offs.

d Securitisation exposures deducted from capital

There were no securitisation exposures deducted from capital (2013: none).

There were no credit-enhancing interest-only strips and other exposures that have been allocated a risk-weight of 1,250% by the group (2013: none).

Supplementary Notes on the Financial Statements (continued)**8 Asset securitisation** (continued)**e Other disclosures**

- (i) There were no securitisation transactions that were subject to an early amortisation provision in which the group was the originating institution (2013: none).
- (ii) There were no securitisation transactions under the internal ratings-based (securitisation) approach which were covered by recognised guarantees or recognised credit derivative contracts during the year (2013: none). There were no re-securitisation exposures to which credit risk mitigation or guarantees were applied. (2013: none)
- (iii) There were no affiliates within the meaning of section 35 of the Banking (Capital) Rules that the group managed or advised, which invested in the securitisation exposures issued by (i) the group; or (ii) the SPEs of which the group was a sponsor. (2013: none)
- (iv) At 31 December 2014, there were HK\$1,589m corporate loan exposures in the banking book held by the group with the intention of transferring into a securitisation transaction (2013: none).

9 Market risk

Market risk is the risk that movements in market factors, including foreign exchange rates, interest rates, credit spreads or equity and commodity prices will result in profits or losses to the group. The group uses an internal models approach to calculate its general market risk for the risk categories of interest rate and foreign exchange (including gold) exposures, and equity exposures. The group also uses an internal models approach to calculate its market risk in respect of specific risk for interest rate exposures and equity exposures. The group uses the standardised approach for calculating other market risk positions as well as trading book securitisation exposures.

The group's market risk capital requirement under the internal models approach uses value at risk ('VaR'), stressed VaR and an incremental risk charge. The comprehensive risk charge is not used by the group.

Market risk capital requirement

	At 31 December	
	2014 HK\$m	2013 HK\$m
Under the standardised (market risk) approach		
Commodity exposures	–	–
Other equity exposures	10	11
Interest rate exposures- non-securitisations	–	–
Interest rate exposures- securitisations	10	8
Under the internal models approach		
VaR	1,449	1,078
Stressed VaR	2,413	2,649
Incremental risk charge	6,045	5,566
Add-ons for interest rate	696	245
Add-ons for equity	833	1,166
Capital requirement for market risk	11,456	10,723

Supplementary Notes on the Financial Statements (continued)

9 Market risk (continued)

Capital requirement means the amount of regulatory capital which the group is required to hold for an exposure to a relevant risk which, if multiplied by 12.5, becomes the risk-weighted amount of that exposure for that risk.

Methodology and Characteristics of Market Risk Models

VaR and stressed VaR models

VaR is a technique that estimates the potential losses that could occur on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence. A Historical Simulation approach is used to model foreign currency, equity and interest rate risk generated by revaluing the portfolio for each historical scenario from one-day market movements, and is derived from a clean two-year time series of historical market risk factor data.

A parametric approach is used to model idiosyncratic credit spread risk arising from proxy, generated from a statistical model calibrated using historical time series data.

The VaR and stressed VaR models cover all material sources of price risk relating to foreign exchange risk, general interest rate risk and specific interest rate risk, as well as general equity risk and specific equity risk. Foreign exchange risk factors include, but are not limited to, foreign currency prices and foreign currency option volatility. General interest rate risk factors include, but are not limited to, interest rate curves and interest rate option volatilities. Specific interest rate risk factors are principally bond and credit derivative spread changes. Equity risk factors include, but are not limited to, equity and equity index prices and volatilities.

VaR measures are calculated to a 99% confidence level and use a one-day holding period scaled to 10 days, whereas stressed VaR uses a 10-day holding period.

Historical, hypothetical and technical scenario stress testing is performed on positions on a weekly basis. Back-testing of the interest rate, foreign exchange, equity and credit spread models uses clean and hypothetical profits and losses from trading operations and compares these to overall and individual business level VaR on a daily basis.

A comparison of the group's trading VaR with the actual profit and loss during the year reveals no loss side back-testing exceptions. For capital charge calculation purposes, the number of loss exceptions is accumulated on a 250 business days basis.

Add-ons are used to capture the risks that are not adequately captured in the VaR models. The add-ons include, but are not limited to, inflation risk, interest rate basis risk on Libor tenor and overnight index swap, as well as equity risk on equity event, equity dividend and equity volatility skew. These add-ons are calibrated at least as conservatively as comparable risk factors under the internal models approach.

To enable group entities to aggregate and hold a risk-adjusted amount of capital resources appropriate to the group, all entities with trading book portfolios have adopted the group's VaR approach.

Incremental risk charge ('IRC')

The IRC measures the default and migration risk of issuers of traded instruments. It is computed using Monte-Carlo simulation and employing a multi-factor Gaussian Copula model.

The IRC model is calibrated to the 99.9th percentile loss over a one-year capital horizon. Risk factors covered include credit migration, default, product basis, concentration, hedge mismatch, recovery rate and liquidity.

Liquidity horizons are assessed based on a combination of factors including issuer type, currency and size of exposure, and are floored to three months.

The IRC is a standalone charge generating no diversification benefit with other charges.

As part of normal model oversight, the IRC model is periodically recalibrated in order to continue accurately to capture the risk profile in a stressed environment.

Supplementary Notes on the Financial Statements (continued)

9 Market risk (continued)

Analysis of VaR, stressed VaR and incremental risk charge measures

The group's VaR for the positions covered by the internal models approach were as follows:

	2014 HK\$m	2013 HK\$m
Total		
Year end	177	102
Average	138	109
Maximum	192	157
Minimum	76	68
Interest rate		
Year end	153	83
Average	125	91
Maximum	176	120
Minimum	66	55
Foreign exchange		
Year end	30	49
Average	49	52
Maximum	86	114
Minimum	17	20
Credit spread		
Year end	27	28
Average	23	28
Maximum	41	51
Minimum	11	13
Equity		
Year end	28	16
Average	18	22
Maximum	31	41
Minimum	7	13

The above table is prepared in accordance with the basis of preparation used to calculate the group's market risk capital charge under the internal models approach. The preparation basis and the amounts shown are different from those disclosed in the Risk Report of the *Annual Report and Accounts 2014*, which reflects the group's trading VaR within Global Markets where the management of market risk is principally undertaken.

The group's stressed VaR for the positions covered by the internal models approach were as follows:

	2014 HK\$m	2013 HK\$m
Year end	800	1,439
Average	813	805
Maximum	1,439	1,439
Minimum	545	359

The following table shows an analysis of the group's incremental risk charge:

	2014 HK\$m	2013 HK\$m
Year end	5,993	5,561
Average	6,668	4,189
Maximum	8,169	7,327
Minimum	5,550	2,416

Supplementary Notes on the Financial Statements (continued)

10 Operational risk

The group uses the standardised (operational risk) approach to calculate its operational risk.

	At 31 December	
	2014 HK\$m	2013 HK\$m
Capital requirement for operational risk	23,227	21,956

Capital requirement means an amount of regulatory capital which the group is required to hold for an exposure to a relevant risk which, if multiplied by 12.5, becomes the risk-weighted amount of that exposure for that risk.

11 Equity exposures in the banking book

Investments in equity shares which are intended to be held on a continuing basis, but which are not investments in associates, jointly controlled entities or subsidiaries, are classified as available-for-sale securities and are reported in the balance sheet as financial investments. Available-for-sale securities are measured at fair value as described in Notes 3(h) and (i) in the *Annual Report and Accounts 2014*. Included within this category are primarily investments made by the group for strategic purposes, which are subject to additional internal procedures and approvals to ensure that the investment is in accordance with the group's and HSBC Group's strategy and to ensure compliance with all relevant regulatory and legal restrictions. In some cases, additional investments may be made later such that the investee becomes an associate, jointly controlled entity or subsidiary, at which point the investment is reclassified in accordance with the group's accounting policies. In certain cases, some investments may be held for sale such that their carrying amounts will be recovered principally through sale, they are available for sale in their present condition and their sale is highly probable. These are reclassified and measured following the group's accounting policies as described in note 3(ad) in the *Annual Report and Accounts 2014*.

	2014 HK\$m	2013 HK\$m
Realised gains from sales for the year	4,573	34,230
Unrealised gains included in reserves but not through the income statement	12,859	4,802

12 Interest rate exposures in the banking book

A principal part of our management of market risk in non-trading portfolios is to monitor the sensitivity of projected net interest income at least quarterly under varying interest rate scenarios (simulation modelling). The group aims, through its management of market risk in non-trading portfolios, to mitigate the effect of prospective interest rate movements which could reduce future net interest income, while balancing the cost of such hedging activities on the current net revenue stream.

For simulation modelling, our businesses use a combination of scenarios and assumptions relevant to them and local markets, as well as standard scenarios which are required throughout the HSBC Group. The standard scenarios are consolidated to illustrate the combined pro forma effect on the group's consolidated portfolio valuations and net interest income.

The table below sets out the effect on future net interest income of an incremental 25 basis points parallel rise or fall in all yield curves at the beginning of each quarter during the 12 months from 1 January. Assuming no management actions, the sensitivity of projected net interest income is as follows:

Change in projected net interest income arising from a shift in yield curves of:

Underlying Currency	2015 Projections HK\$m						2014 Projections HK\$m
	HK dollar	US dollar	Renminbi	Singapore dollar	Others	Total	Total
+25 basis points at the beginning of each quarter	1,921	1,307	725	421	1,010	5,384	5,658
-25 basis points at the beginning of each quarter	(3,857)	(2,698)	(826)	(490)	(810)	(8,681)	(7,289)

Supplementary Notes on the Financial Statements (continued)

12 Interest rate exposures in the banking book (continued)

The sensitivity analysis reflects the fact that our deposit taking businesses generally benefit from rising rates, which are partly offset by increased funding costs in Balance Sheet Management given our simplifying assumption of unchanged Balance Sheet Management positioning. The main drivers of the year-on-year changes in the sensitivity of the group's net interest income from the changes in rates shown in the table above were due to higher implied Hong Kong dollar and US dollar yield curves under a reducing interest rate scenario, while the potential for wider margins in a rising interest rate scenario was offset by an increase in the funding requirements of the trading book. Net interest income and its associated sensitivity, as reflected in the table above, include the expense of internally funding trading assets, while the related revenue is reported in 'Net trading income'.

The interest rate sensitivities set out in the table above are illustrative only and are based on simplified scenarios. The figures represent the effect of the pro-forma movements in net interest income based on the projected yield curve scenarios and the group's current interest rate risk profile. This effect, however, does not incorporate actions that would be taken by Balance Sheet Management or in the business units to mitigate the effect of interest rate risk. In reality, Balance Sheet Management seeks proactively to change the interest rate risk profile to minimise losses and optimise net revenues. The projections above also assume that interest rates of all maturities move by the same amount (although rates are not assumed to become negative in the falling rates scenario) and, therefore, do not reflect the potential impact on net interest income of some rates changing while others remain unchanged. In addition, the projections take account of the effect on net interest income of anticipated differences in changes between interbank interest rates and interest rates linked to other bases (such as Central Bank rates, or product rates over which the entity has discretion in terms of the timing and extent of rate changes). The projections make other simplifying assumptions, including that contractually fixed term positions run to maturity, managed rate products and non-interest bearing balances, such as interest free current accounts, are subject to interest rate risks behaviouralisation, and any material effect from the extent to which movements in interest rates will alter the demand for the group's products and how customers' behaviour may change with movements in interest rates, such as loan repayments are incorporated.

Projecting the movements in net interest income from prospective changes in interest rates is a complex interaction of structural and managed exposures. The group's exposure to the effect of movements in interest rates on its net interest income arises in two main areas: savings and demand deposit accounts and Balance Sheet Management portfolios.

- The net interest income of savings and demand deposit accounts increases as interest rates rise and decreases as interest rates fall. However, this risk is asymmetrical in a very low interest rate environment as there is limited room to lower deposit pricing in the event of interest rate reductions.
- Interest rate risk is transferred from the commercial bank to Balance Sheet Management under our policy where interest rate risk is managed within defined limits.

Supplementary Notes on the Financial Statements (continued)**13 Off-balance sheet exposures other than derivative transactions**

	At 31 December	
	2014 HK\$m	2013 HK\$m
Contract amounts		
Direct credit substitutes	68,422	95,496
Transaction-related contingencies	142,811	122,734
Trade-related contingencies	107,766	111,199
Forward asset purchases	2,329	2,301
Forward forward deposits placed	435	2,564
Commitments that are unconditionally cancellable without prior notice	1,605,529	1,423,126
Commitments which have an original maturity of not more than one year	62,886	70,096
Commitments which have an original maturity of more than one year	173,829	150,046
	2,164,007	1,977,562
Risk-weighted amounts	236,299	222,817

The table above gives the nominal contract amounts and risk-weighted amounts of contingent liabilities and commitments. The information is consistent with that in the 'Capital Adequacy Ratio' return submitted to the HKMA by the group. The return is prepared on a consolidated basis as specified by the HKMA under the requirement of section 3C(1) of the Banking (Capital) Rules.

For accounting purposes, acceptances and endorsements are recognised on the balance sheet in 'Other assets' in accordance with HKAS 39 'Financial Instruments: Recognition and Measurement'. For the purpose of the Banking (Capital) Rules, acceptances and endorsements are included in the capital adequacy calculation as if they were contingencies.

14 Loans and advances to customers by geographical area

Analysis of loans and advances to customers by geographical areas according to the location of counterparties, after recognised risk transfer:

	Hong Kong HK\$m	Rest of Asia-Pacific HK\$m	Other HK\$m	Total HK\$m
At 31 December 2014				
Gross loans and advances to customers	1,336,446	1,256,404	232,886	2,825,736
At 31 December 2013 (re-presented)				
Gross loans and advances to customers	1,234,958	1,180,624	213,164	2,628,746

Supplementary Notes on the Financial Statements (continued)**15 Loans and advances to customers by industry sectors**

The following analysis of the group's loans and advances to customers is based on the categories contained in the 'Quarterly Analysis of Loans and Advances and Provisions – (MA(BS)2A)' return required to be submitted to the HKMA by branches of the Bank and by banking subsidiaries in Hong Kong.

	Gross advances at 31 December		Collateral and other security at 31 December	
	2014 HK\$m	2013 HK\$m (re-presented)	2014 HK\$m	2013 HK\$m (re-presented)
Gross loans and advances to customers for use in Hong Kong				
<i>Industrial, commercial and financial</i>				
Property development	90,524	82,700	24,370	26,960
Property investment	240,221	217,098	187,070	169,273
Financial concerns	39,510	31,032	19,944	14,544
Stockbrokers	7,527	5,828	1,773	257
Wholesale and retail trade	106,875	93,187	29,165	28,429
Manufacturing	50,755	36,799	13,523	8,465
Transport and transport equipment	47,046	37,480	23,748	21,722
Recreational activities	415	263	284	63
Information technology	10,125	9,980	1,892	1,230
Others	112,466	85,317	38,285	29,596
	705,464	599,684	340,054	300,539
<i>Individuals</i>				
Advances for the purchase of flats under the Hong Kong Government's Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme	26,671	25,040	26,671	25,040
Advances for the purchase of other residential properties ..	378,992	349,541	378,992	349,529
Credit card advances	53,499	48,452	–	–
Others	64,523	54,358	31,547	24,262
	523,685	477,391	437,210	398,831
Gross loans and advances to customers for use in Hong Kong	1,229,149	1,077,075	777,264	699,370
Trade finance	161,250	218,096	32,260	28,858
Gross loans and advances to customers for use outside Hong Kong	1,435,337	1,333,575	522,027	512,588
Gross loans and advances to customers	2,825,736	2,628,746	1,331,551	1,240,816

The categories of advances, and the relevant definitions, used by the HKMA differ from those used for internal purposes by the HSBC Group, including The Hongkong and Shanghai Banking Corporation Limited and its subsidiaries, as disclosed in note 16 on the financial statements in the *Annual Reports and Accounts 2014*.

The geographical information shown above has been classified by the location of the principal operations of the subsidiary or, in the case of the Bank, by the location of the branch responsible for advancing the funds.

Collateral includes any tangible security that has a determinable fair market value and is readily marketable. This includes (but is not limited to) cash and deposits, stocks and bonds, mortgages over properties and charges over other fixed assets such as plant and equipment. Where collateral values are greater than gross advances, only the amount of collateral up to the gross advance has been included.

Supplementary Notes on the Financial Statements (continued)**16 Non-bank mainland exposures**

The analysis of non-bank mainland exposures is based on the categories of non-bank counterparties and the type of direct exposures defined by the HKMA under the Banking (Disclosure) Rules with reference to the HKMA's 'Return of Mainland Activities', which includes the mainland exposures extended by the Bank's Hong Kong offices, mainland China branches and wholly owned banking subsidiaries in mainland China.

There are changes in categorisation and exposure scope as required by the HKMA during 2014, hence the 2013 reported numbers are not directly comparable.

	On-balance sheet exposure HK\$m	Off-balance sheet exposure HK\$m	Total exposures HK\$m
At 31 December 2014			
Types of Counterparties			
1. Central government, central government-owned entities and their subsidiaries and joint ventures ('JVs')	264,486	9,212	273,698
2. Local governments, local government-owned entities and their subsidiaries and JVs	60,879	5,712	66,591
3. PRC nationals residing in Mainland China or other entities incorporated in Mainland China and their subsidiaries and JVs	186,717	21,366	208,083
4. Other entities of central government not reported in item 1 above	2,151	2,264	4,415
5. Other entities of local governments not reported in item 2 above	4,190	19	4,209
6. PRC nationals residing outside Mainland China or entities incorporated outside Mainland China where the credit is granted for use in Mainland China	49,405	2,020	51,425
7. Other counterparties where the exposures are considered by the reporting institution to be non-bank Mainland China exposures	42,727	2,179	44,906
Total	610,555	42,772	653,327
Total assets after provision	3,908,505		
On-balance sheet exposures as percentages of total assets	15.62%		

	On-balance sheet exposure HK\$m	Off-balance sheet exposure HK\$m	Total exposures HK\$m	Specific provisions HK\$m
At 31 December 2013				
Mainland entities	138,876	11,354	150,230	–
Companies and individuals outside the mainland where the credit is granted for use in the mainland	48,332	4,638	52,970	15
Other counterparties the exposures to whom are considered by the Bank to be non-bank mainland exposures	36,132	4,552	40,684	2
	223,340	20,544	243,884	17
Mainland exposures of wholly owned mainland subsidiaries:				
Loans and advances	171,875	4,137	176,012	165
Debt securities and other	154,835	35,993	190,828	–
	326,710	40,130	366,840	165
	550,050	60,674	610,724	182

Supplementary Notes on the Financial Statements (continued)**17 Cross-border exposures**

The group's country risk exposures in the tables below are prepared in accordance with the HKMA Return of External Positions Part II: Cross-Border Claims (MA(BS)9) guidelines.

Cross-border claims are on-balance sheet exposures to counterparties based on the location of the counterparties after taking into account the transfer of risk.

The tables show claims on individual countries and territories or areas, after recognised risk transfer, amounting to not less than 10% of the aggregate cross-border claims.

Cross-border risk is controlled centrally through a well-developed system of country limits and is frequently reviewed to avoid concentration of transfer, economic or political risk.

	Banks HK\$m	Public sector entities¹ HK\$m	Others HK\$m	Total HK\$m
At 31 December 2014				
Asia-Pacific excluding Hong Kong				
China	347,849	45,983	234,922	628,754
Others	245,653	177,368	375,559	798,580
	593,502	223,351	610,481	1,427,334
Americas				
United States	51,727	125,168	78,246	255,141
Others	32,394	23,912	166,837	223,143
	84,121	149,080	245,083	478,284
Europe	214,264	73,312	157,249	444,825
At 31 December 2013				
Asia-Pacific excluding Hong Kong				
China	357,745	72,148	171,219	601,112
Others	188,520	172,504	324,098	685,122
	546,265	244,652	495,317	1,286,234
Americas				
United States.....	34,466	112,430	52,072	198,968
Others	32,704	23,124	142,307	198,135
	67,170	135,554	194,379	397,103
Europe	207,891	54,688	132,858	395,437

1 Includes balances with central banks.

Supplementary Notes on the Financial Statements (continued)**18 Foreign currency positions**

The group had the following non-structural foreign currency positions that were not less than 10% of the net non-structural positions in all foreign currencies in either year:

	United States dollars HK\$m	Singapore dollars HK\$m	Brunei dollars HK\$m	Renminbi HK\$m
At 31 December 2014				
Spot assets	1,743,998	296,573	15,535	728,481
Spot liabilities	(1,892,847)	(241,818)	(19,643)	(698,814)
Forward purchases	8,154,446	333,035	243	2,262,230
Forward sales	(7,978,516)	(384,261)	(111)	(2,286,303)
Net options positions	10,047	10	–	(6,641)
Net long (net short) position	37,128	3,539	(3,976)	(1,047)
At 31 December 2013				
Spot assets	1,624,983	315,356	17,512	728,767
Spot liabilities	(1,815,034)	(254,883)	(31,553)	(635,263)
Forward purchases	5,989,494	349,352	197	1,392,469
Forward sales	(5,769,631)	(396,101)	(22)	(1,479,839)
Net options positions	1,779	(9)	–	(418)
Net long (net short) position	31,591	13,715	(13,866)	5,716

The net options positions reported above are calculated using the delta-weighted position of the options contracts.

Supplementary Notes on the Financial Statements (continued)**19 Senior management compensation and benefits***Remuneration of senior management and key personnel*

The following tables show the remuneration paid to senior management and key personnel. These disclosures are in compliance with the guideline in Part 3 (Disclosure on remuneration) of the HKMA Supervisory Policy Manual CG-5 'Guideline on a Sound Remuneration System'.

Senior management is defined as those persons responsible for oversight of the group's strategy, activities or material business lines. This includes the Executive Directors, Executive Committee members, Chief Executive, Alternative Chief Executive and Managers as registered with the HKMA. There were 26 members of senior management in 2014 (2013: 23 members). This includes one member (2013: one) who is a Director of, and is remunerated by, HSBC Holdings Plc and is consequently not included in the disclosures below.

Key personnel is defined as individual employees whose duties or activities involve the assumption of material risk or the taking on of material exposures on behalf of the group. Under the provisions of EU's Capital Requirement Directive IV ('CRD IV') which came into effect from 1 January 2014, the group is required to identify individuals who will be considered as 'Identified Staff and Material Risk Takers' (collectively referred to as 'Material Risk Takers' or 'MRTs') based on the qualitative and quantitative criteria specified in the Regulatory Technical Standard ('RTS') issued by the European Banking Authority ('EBA'). Based on the new criteria, the identified number of MRTs, and in turn key personnel, has changed from 38 in 2013 to 226 in 2014.

The group follows the remuneration system of HSBC Holdings plc. Please refer to the Director's Remuneration Report in the *Annual Report and Accounts 2014* and the Capital and Risk Management Pillar 3 Disclosures of HSBC Holdings plc for details of the governance structure and the major design characteristics of the remuneration system.

Analysis of remuneration between fixed, variable, deferred and non-deferred amounts

	2014			2013		
	Senior management (25 people) HK\$m	Key personnel (226 people) HK\$m	Total HK\$m	Senior management (22 people) HK\$m	Key personnel (38 people) HK\$m	Total HK\$m
Fixed						
Cash based	115	911	1,026	98	126	224
Share based	111	139	250	–	–	–
Total fixed pay	226	1,050	1,276	98	126	224
Variable¹						
Cash	47	255	302	53	107	160
Non-Deferred Shares	47	251	298	41	86	127
Deferred cash	60	213	273	54	125	179
Deferred shares	74	214	288	116	142	258
Total variable pay	228	933	1,161	264	460	724

Supplementary Notes on the Financial Statements (continued)**19 Senior management compensation and benefits** (continued)*Analysis of deferred remuneration*

	2014			2013		
	Senior management (25 people) HK\$m	Key personnel (226 people) HK\$m	Total HK\$m	Senior management (22 people) HK\$m	Key personnel (38 people) HK\$m	Total HK\$m
Deferred remuneration at 31 December						
Outstanding, unvested ^{2,3}	452	1076	1,528	336	550	886
Outstanding, cash	144	170	314	85	186	271
Outstanding, shares ⁴	308	906	1,214	251	364	615
Awarded during the year (re-presented) ⁵	200	550	750	148	254	402
Paid out (re-presented) ⁵	149	625	774	153	402	555
Deferred shares paid out (re-presented) ⁵	86	554	640	116	342	458
Deferred cash paid out (re-presented) ⁵	63	71	134	37	60	97
Reduced through performance adjustment	–	–	–	–	–	–

- The forms of variable remuneration and the proportion deferred are based on the seniority, role and responsibilities of employees and their level of total variable compensation.*
- Outstanding, unvested, deferred remuneration is exposed to ex post explicit adjustments. There is no retained remuneration exposed to ex post explicit adjustments as at 31 December 2014 and 31 December 2013.*
- There is no reduction of deferred remuneration and retained remuneration due to ex post explicit adjustments during 2014 and 2013.*
- Outstanding, unvested, deferred shares are exposed to ex post implicit adjustments. The total value of these shares in 2014 and 2013 are calculated based on the closing market share price as at 31 December of the respective financial years. HSBC's share price is 12% lower as at 31 December 2014 when compared to that of 31 December 2013.*
- The awarded and paid out baseline numbers in 2013 have been adjusted to include only the deferred remuneration awarded and paid out within financial year 2013 for a like for like comparison with 2014 in line with the latest HKMA CG-5 disclosure guidance.*

20 Basis of consolidation

The basis of consolidation for financial accounting purposes is in accordance with Hong Kong Financial Reporting Standards, as described in Note 1 on the financial statements in the *Annual Report and Accounts 2014*.

The basis of consolidation for regulatory purposes is different from that for accounting purposes. Subsidiaries included in the consolidation for regulatory purposes are specified in a notice from the HKMA in accordance with section 3C(1) of the Banking (Capital) Rules. Subsidiaries not included in consolidation for regulatory purposes are securities and insurance companies that are authorised and supervised by a regulator and are subject to supervisory arrangements regarding the maintenance of adequate capital to support business activities comparable to those prescribed for authorised institutions under the Banking (Capital) Rules and the Banking Ordinance. The capital invested by the group in these subsidiaries is deducted from the capital base as determined in accordance with Part 3 of the Banking (Capital) Rules.

Supplementary Notes on the Financial Statements (continued)**20 Basis of consolidation** (continued)

A list of these subsidiaries is shown below:

	Principal activity	At 31 December 2014		At 31 December 2013	
		Total assets HK\$m	Total equity HK\$m	Total assets HK\$m	Total equity HK\$m
HSBC Broking Futures (Hong Kong) Ltd	Futures Broking	2,699	464	2,828	458
HSBC Broking Services (Asia) Ltd and its subsidiaries	Broking services	16,698	2,694	18,016	2,428
HSBC Futures (Singapore) Pte Ltd ¹	Futures broking	–	–	67	67
HSBC Global Asset Management Holdings (Bahamas) Ltd ²	Asset management	125	124	1,355	780
HSBC Global Asset Management (Hong Kong) Ltd ²	Asset management	658	402		
HSBC Investment Funds (Hong Kong) Ltd ²	Asset management	266	113		
HSBC Global Asset Management (Japan) K.K. ²	Asset management	161	75		
HSBC Global Asset Management (Singapore) Ltd ²	Asset management	124	86		
HSBC Insurance (Asia-Pacific) Holdings Ltd and its subsidiaries	Insurance	284,555	21,485	251,617	17,031
HSBC InvestDirect (India) Ltd and its subsidiaries	Financial Services	676	485	679	476
HSBC Securities (Asia) Ltd and its subsidiaries	Broking services	431	420	420	419
HSBC Securities (Japan) Ltd	Broking services	86,246	1,198	48,828	1,341
HSBC Securities (Singapore) Pte Ltd	Broking services	114	31	83	37
HSBC Securities Brokers (Asia) Ltd	Broking services	16,677	3,958	8,856	982
Hang Seng (Nominee) Ltd	Nominee services	–	–	–	–
Hang Seng Bank (Trustee) Ltd	Trustee services	5	3	5	3
Hang Seng Bank Trustee International Ltd ¹	Trust business	–	–	16	12
Hang Seng Futures Ltd	Futures Broking	103	102	102	102
Hang Seng Insurance Co. Ltd and its subsidiaries	Insurance	103,945	10,170	95,736	8,796
Hang Seng Investment Management Ltd	Asset management	870	557	715	602
Hang Seng Investment Services Ltd	Investment services	9	9	9	9
Hang Seng Securities Ltd	Broking services	4,462	1,329	3,019	1,451

¹ The two entities have completed the process of winding up in 2014.

² The numbers at 31 December 2013 represent the group's investment in HSBC Global Asset Management Holdings (Bahamas) Ltd and its subsidiaries. Upon a change in the Asset Management group structure in 2014, the group invests directly in the respective entities and these are disclosed separately.

For insurance entities, the figures shown above exclude deferred acquisition cost assets as these are derecognised for consolidation purpose due to the recognition of the present value of in-force long-term insurance business ('PVIF') on long-term insurance contracts and investment contracts with discretionary participation features at group level. The PVIF asset of HK\$32,389m (31 December 2013: HK\$28,916m) and the related deferred tax liability, however, are recognised at the consolidated group level only, and are therefore also not included in the asset or equity positions for the standalone entities shown above.

There are no subsidiaries which are included within both the accounting scope of consolidation and the regulatory scope of consolidation but where the method of consolidation differs at 31 December 2014 and 31 December 2013.

There are no subsidiaries which are included within the regulatory scope of consolidation but not included within the accounting scope of consolidation at 31 December 2014 and 31 December 2013.

The group operates subsidiaries in a number of countries and territories where capital is governed by local rules and there may be restrictions on the transfer of regulatory capital and funds between members of the banking group.