

**THE HONGKONG AND SHANGHAI BANKING CORPORATION LIMITED**

**Supplementary Notes on the Financial Statements  
(unaudited)**

**31 December 2012**

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**Supplementary Notes on the Financial Statements** (unaudited) (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 2012 Annual Report and Accounts. 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 2011 which came into operation on 1 January 2012. 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.

**1 Basis of preparation**

- a** 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. As opposed to the standardised (market risk) approach that was used at 31 December 2011, the group has adopted an internal models approach to calculate the general market risk and specific risk for the risk category of equity exposures. The group also uses an internal models approach to calculate its market risk in respect of specific risk for interest rate 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 21.
- 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 2012, as set out in note 3 on the financial statements in the Annual Report and Accounts.
- d** Certain comparative figures have not been provided where the current year is the first year of disclosure and provision is impracticable. Certain comparative figures have been reclassified to conform to the current year disclosure.

**2 Summary of risk-weighted amounts**

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

	2012 HK\$m	2011 HK\$m
Credit risk		
Basic approach .....	–	11,409
Standardised (credit risk) approach .....	172,582	164,644
Internal ratings-based approach .....	1,363,329	1,244,578
Internal ratings-based (securitisation) approach .....	1,173	1,106
	<b>1,537,084</b>	1,421,737
Market risk .....	116,911	38,585
Operational risk .....	250,139	221,429
	<b>1,904,134</b>	1,681,751

**Supplementary Notes on the Financial Statements** (unaudited) (continued)**3 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 the risk-weighted amount for that risk multiplied by 8%.

	2012 HK\$m	2011 HK\$m
<b>Capital required for exposures under the IRB approach</b>		
Corporate exposures		
Specialised lending under the supervisory slotting criteria approach		
- Project finance .....	690	512
- Object finance .....	108	98
- Commodities finance .....	43	90
- Income-producing real estate .....	3,824	4,030
Small-and-medium sized corporates .....	17,266	15,983
Other corporates .....	53,100	47,287
Sovereign exposures		
Sovereigns .....	7,958	7,675
Bank exposures		
Banks .....	10,950	9,729
Securities firms .....	383	459
Retail exposures		
Residential mortgages		
- Individuals .....	4,410	3,881
- Property-holding shell companies .....	278	232
Qualifying revolving retail exposures .....	3,508	3,303
Small business retail exposures .....	17	25
Other retail exposures to individuals .....	753	673
Other exposures		
Cash items .....	74	37
Other items .....	8,642	8,048
Total for the IRB approach .....	<b>112,004</b>	<b>102,062</b>
<b>Capital required for exposures under the standardised (credit risk) approach</b>		
Sovereign exposures .....	57	18
Public sector entity exposures .....	653	817
Bank exposures .....	296	125
Securities firm exposures .....	2	-
Corporate exposures .....	2,720	2,504
Collective investment scheme exposures .....	3	3
Cash items .....	-	-
Regulatory retail exposures .....	4,446	4,192
Residential mortgage loans .....	3,087	2,678
Other exposures which are not past due exposures .....	1,126	1,203
Past due exposures .....	389	409
Off-balance sheet exposures other than OTC derivative transactions and credit derivative contracts ...	813	1,062
OTC derivative transactions and credit derivative contracts .....	214	160
Total for the standardised (credit risk) approach .....	<b>13,806</b>	<b>13,171</b>
<b>Capital required for exposures under the basic approach</b> .....	<b>-</b>	<b>913</b>
<b>Total</b> .....	<b>125,810</b>	<b>116,146</b>

## Supplementary Notes on the Financial Statements (unaudited) (continued)

### 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 applies the IRB approach to the following 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 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.
- 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.

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. 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.

## Supplementary Notes on the Financial Statements (unaudited) (continued)

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

#### 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.

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 EL bands, in 10 composite EL grades, facilitating comparability across the group's retail customer segments, business lines and product types.

#### Model governance

Model governance of group risk rating models, including development, validation and monitoring, was under the general oversight of the group Credit Risk Analytics Oversight Committee ('CRAOC') subject to overall Group CRAOC oversight until October 2012. To align with the Group model governance framework in meeting both local regulatory requirements and global standards, the Wholesale Credit and Market Risk ('WCMR') Model Oversight Committee ('MOC') and Retail Banking and Wealth Management Risk ('RBWMR') MOC were established in place of CRAOC. Both the WCMR MOC and RBWMR MOC are under the oversight of the Group MOC and 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 customer groups.

## Supplementary Notes on the Financial Statements (unaudited) (continued)

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

#### *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:** Basel II 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** (unaudited) (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
<b>2012</b>				
Corporate exposures .....	1,644,553	85,473	–	1,730,026
Sovereign exposures .....	1,204,474	–	–	1,204,474
Bank exposures .....	885,816	–	–	885,816
Retail exposures				
- Residential mortgages to individuals and property-holding shell companies .....	–	–	665,404	665,404
- Qualifying revolving retail exposures .....	–	–	182,827	182,827
- Other retail exposures to individuals and small business retail exposures .....	–	–	50,047	50,047
<b>2011</b>				
Corporate exposures .....	1,465,812	83,529	–	1,549,341
Sovereign exposures .....	1,024,337	–	–	1,024,337
Bank exposures .....	876,569	–	–	876,569
Retail exposures				
- Residential mortgages to individuals and property-holding shell companies .....	–	–	603,070	603,070
- Qualifying revolving retail exposures .....	–	–	168,158	168,158
- Other retail exposures to individuals and small business retail exposures .....	–	–	49,544	49,544

The corporate, sovereign and bank exposures reported under the IRBA approach as at 31 December 2012 include amounts of HK\$74,268m, HK\$7,898m and HK\$184,565m respectively (31 December 2011: HK\$67,160m, HK\$5,398m and HK\$157,370m respectively) that are subject to supervisory estimates. By definition, amounts reported under the Supervisory Slotting Criteria approach continue to be subject to supervisory estimates.



**Supplementary Notes on the Financial Statements** (unaudited) (continued)**4 Credit risk under the internal-ratings based approach** (continued)**c Exposures covered by recognised guarantees or recognised credit derivative contracts**

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

	<b>2012</b>	2011
	<b>HK\$m</b>	HK\$m
Corporate exposures .....	<b>317,740</b>	311,870
Sovereign exposures .....	<b>658</b>	495
Bank exposures .....	<b>14,210</b>	45,604
Retail exposures .....	<b>37,978</b>	38,073
	<b>370,586</b>	396,042

**d Risk assessment for exposures under IRB approach**

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

	Exposure at default HK\$m	Exposure- weighted average risk- weight %	Exposure- weighted average PD %	Exposure- weighted average LGD %
<b>2012</b>				
Minimal default risk .....	130,103	15	0.04	45.5
Low default risk .....	495,704	26	0.10	45.1
Satisfactory default risk .....	544,890	52	0.37	44.5
Fair default risk .....	245,804	86	1.19	43.5
Moderate default risk .....	195,678	101	2.74	37.1
Significant default risk .....	17,554	142	6.44	38.9
High default risk .....	3,604	204	11.10	46.3
Special management .....	2,605	230	20.69	43.9
Default .....	8,611	–	100.00	48.3
	<b>1,644,553</b>			
<b>2011</b>				
Minimal default risk .....	127,600	15	0.04	41.5
Low default risk .....	452,955	27	0.10	45.3
Satisfactory default risk .....	515,206	53	0.37	45.1
Fair default risk .....	175,216	92	1.20	45.7
Moderate default risk .....	160,770	106	2.78	38.6
Significant default risk .....	17,415	159	6.50	43.6
High default risk .....	3,951	194	11.83	43.4
Special management .....	3,728	242	24.50	47.3
Default .....	8,971	–	100.00	51.0
	<b>1,465,812</b>			

**Supplementary Notes on the Financial Statements** (unaudited) (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

	Exposure at default HK\$m	Exposure- weighted average risk- weight %
<b>2012</b>		
Strong .....	69,721	64
Good .....	13,724	84
Satisfactory .....	1,717	122
Weak .....	194	265
Default .....	117	–
	<b>85,473</b>	
<b>2011</b>		
Strong .....	63,577	64
Good .....	15,849	84
Satisfactory .....	3,832	122
Weak .....	229	265
Default .....	42	–
	<b>83,529</b>	

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

Sovereign exposures – analysis by obligor grade

	Exposure at default HK\$m	Exposure- weighted average risk- weight %	Exposure- weighted average PD %	Exposure- weighted average LGD %
<b>2012</b>				
Minimal default risk .....	825,760	2	0.02	13.0
Low default risk .....	329,530	15	0.08	31.0
Satisfactory default risk .....	33,515	54	0.49	45.0
Fair default risk .....	7,168	94	1.10	45.0
Moderate default risk .....	7,578	125	3.41	44.4
Significant default risk .....	923	54	5.75	16.3
	<b>1,204,474</b>			
<b>2011</b>				
Minimal default risk .....	651,161	2	0.02	13.4
Low default risk .....	325,891	16	0.08	37.7
Satisfactory default risk .....	33,456	54	0.49	44.7
Fair default risk .....	9,436	82	1.01	44.7
Moderate default risk .....	4,162	117	3.32	43.1
Significant default risk .....	231	198	5.75	45.0
	<b>1,024,337</b>			

**Supplementary Notes on the Financial Statements** (unaudited) (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

	Exposure at default HK\$ <b>m</b>	Exposure- weighted average risk- weight %	Exposure- weighted average PD %	Exposure- weighted average LGD %
<b>2012</b>				
Minimal default risk .....	236,678	7	0.04	25.1
Low default risk .....	525,820	13	0.09	32.8
Satisfactory default risk .....	93,256	33	0.34	34.3
Fair default risk .....	20,919	62	1.01	36.4
Moderate default risk .....	3,495	139	3.47	52.1
Significant default risk .....	2,384	205	6.60	62.2
High default risk .....	3,146	137	10.56	32.2
Special management .....	8	123	75.00	43.0
Default .....	110	–	100.00	64.7
	<b>885,816</b>			
<b>2011</b>				
Minimal default risk .....	340,197	7	0.04	27.5
Low default risk .....	426,640	13	0.09	32.9
Satisfactory default risk .....	89,972	31	0.29	35.4
Fair default risk .....	13,470	68	1.04	38.6
Moderate default risk .....	2,606	109	3.59	41.3
Significant default risk .....	1,873	158	6.19	49.0
High default risk .....	1,685	273	10.73	65.9
Special management .....	16	133	70.15	40.4
Default .....	110	–	100.00	64.6
	<b>876,569</b>			

The EADs, PDs and LGDs disclosed above 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.

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

Retail exposures – analysis by credit quality

The following shows a breakdown of exposures on a pool basis by quality classification:

	<b>Residential mortgages HK\$m</b>	<b>Qualifying revolving retail exposures HK\$m</b>	<b>Other retail exposures HK\$m</b>	<b>Total exposures HK\$m</b>
<b>2012</b>				
Strong .....	653,767	151,883	45,012	850,662
Medium .....	10,999	30,266	4,534	45,799
Sub-standard .....	638	676	490	1,804
Impaired .....	–	2	11	13
	<b>665,404</b>	<b>182,827</b>	<b>50,047</b>	<b>898,278</b>
<b>2011</b>				
Strong .....	591,773	138,533	45,074	775,380
Medium .....	10,619	28,898	3,990	43,507
Sub-standard .....	678	725	479	1,882
Impaired .....	–	2	1	3
	<b>603,070</b>	<b>168,158</b>	<b>49,544</b>	<b>820,772</b>

Undrawn commitments

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

	<b>2012</b>		<b>2011</b>	
	<b>Undrawn commitments HK\$m</b>	<b>Exposure-weighted average EAD HK\$m</b>	<b>Undrawn commitments HK\$m</b>	<b>Exposure-weighted average EAD HK\$m</b>
Corporate exposures .....	906,331	273,983	794,083	232,968
Sovereign exposures .....	1,180	349	1,831	539
Bank exposures .....	15,789	2,882	21,457	5,724
	<b>923,300</b>	<b>277,214</b>	<b>817,371</b>	<b>239,231</b>

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

The following table shows the IRB expected loss (EL) and impairment charge by class of exposure. EL is the estimated loss likely to be incurred arising from the potential default of the obligor in respect of the exposure over a one-year period. Impairment charges are the net charge for actual losses (including write-offs and individually assessed impairment allowances) for each IRB class made during the year:

	2012		2011	
	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 .....	342	–	238	–
Bank .....	699	129	685	42
Corporate .....	9,795	3,000	11,787	2,415
Residential mortgages .....	1,038	101	993	90
Qualifying revolving retail .....	1,551	323	1,584	335
Other retail .....	512	142	467	149
	<b>13,937</b>	<b>3,695</b>	<b>15,754</b>	<b>3,031</b>

The EL for sovereigns increased as default estimates increased, notably for eurozone countries. The EL for banks was generally stable, while that for corporates decreased slightly, driven by a continuing effort to enhance portfolio quality. Impairment charges increased in 2012 mainly due to the impairment of a corporate exposure in Australia, coupled with higher charges in a number of other countries in the region.

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 the impairment charges (write-off and impairment loss allowances) and the Basel II framework which determines the regulatory EL calculation on a forward looking basis.

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

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 %
<b>At 31 December 2012</b>						
Sovereign .....	<b>0.00</b>	<b>0.25</b>	<b>0.0</b>	<b>22.6</b>	<b>0</b>	<b>100</b>
Bank .....	<b>0.00</b>	<b>1.06</b>	<b>0.0</b>	<b>31.3</b>	<b>0</b>	<b>95</b>
Corporate .....	<b>0.14</b>	<b>1.08</b>	<b>45.8</b>	<b>44.3</b>	<b>41</b>	<b>66</b>
Residential mortgages .....	<b>0.80</b>	<b>0.96</b>	<b>12.9</b>	<b>12.1</b>	<b>70</b>	<b>98</b>
Qualifying revolving retail .....	<b>0.38</b>	<b>0.69</b>	<b>86.9</b>	<b>100.8</b>	<b>49</b>	<b>60</b>
Other retail .....	<b>1.49</b>	<b>1.05</b>	<b>26.6</b>	<b>20.0</b>	<b>76</b>	<b>146</b>
<b>At 31 December 2011</b>						
Sovereign .....	0.00	0.27	0.0	18.4	0	100
Bank .....	0.00	1.24	0.0	28.8	0	95
Corporate .....	0.23	1.10	35.8	45.5	46	71
Residential mortgages .....	0.76	0.97	10.7	12.0	81	99
Qualifying revolving retail .....	0.40	0.85	84.8	101.0	52	60
Other retail .....	1.35	1.09	33.5	19.4	73	134

The difference between actual PD and projected PD is driven by the difference in the time horizon used to calculate the actual and estimated default rates. The actual default rate is a 'point-in-time' measurement referencing the actual number of borrower defaults during the year, whereas the projected PD is based on a 'through-the-cycle' credit experience.

The group measures actual LGD by using resolved default cases within the year 2012 whereas projected LGD is based on a downturn recovery experience. Due to the different calculation methodologies and the portfolio mix between the default population and the overall book, the 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 2012 against the limits one year prior to default. The projected EAD is based on a 'through-the-cycle' credit experience.

## Supplementary Notes on the Financial Statements (unaudited) (continued)

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

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#### a *Ratings from External Credit Assessment Institutions*

The following exposure classes include exposures where IRB exemption has been granted by the HKMA. Such exposures are reported under the standardised (credit risk) approach based on external credit ratings from External Credit Assessment Institutions ('ECAI'):

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

The group uses external credit ratings from the following ECAs:

- 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.

## Supplementary Notes on the Financial Statements (unaudited) (continued)

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

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

	Total exposures <sup>1</sup> HK\$m	Exposures after recognised credit risk mitigation <sup>2</sup>		Risk-weighted amounts		Total HK\$m	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	Rated HK\$m	Unrated HK\$m			
<b>Assets</b>								
<b>On-balance sheet</b>								
Sovereign .....	4,127	22,678	–	713	–	713	–	–
Public sector entity .....	79,777	60,360	–	8,165	–	8,165	5,058	14,879
Multilateral development bank .....	46,801	46,801	–	–	–	–	–	–
Bank .....	8,094	3,064	6,532	773	2,930	3,703	–	–
Securities firm .....	58	–	58	–	29	29	–	–
Corporate .....	41,699	43	34,004	34	33,972	34,006	4,393	3,261
Cash Items .....	359	–	359	–	–	–	–	–
Collective investment scheme .....	39	–	39	–	39	39	–	–
Regulatory retail .....	78,157	–	74,084	–	55,563	55,563	1,773	2,301
Residential mortgage loan .....	70,327	–	70,246	–	38,578	38,578	79	2
Other exposures which are not past due exposures .....	17,418	–	14,079	–	14,079	14,079	3,207	133
Past due exposures .....	3,363	135	3,228	67	4,796	4,863	8	69
<b>Total on-balance sheet .....</b>	<b>350,219</b>	<b>133,081</b>	<b>202,629</b>	<b>9,752</b>	<b>149,986</b>	<b>159,738</b>	<b>14,518</b>	<b>20,645</b>
<b>Off-balance sheet</b>								
Off-balance sheet exposure other than OTC derivative transactions or credit derivative contracts .....	14,774	2,106	10,788	861	9,306	10,167	1,881	920
OTC derivative transactions .....	6,935	4,834	1,994	1,042	1,636	2,678	107	–
<b>Total off-balance sheet .....</b>	<b>21,709</b>	<b>6,940</b>	<b>12,782</b>	<b>1,903</b>	<b>10,942</b>	<b>12,845</b>	<b>1,988</b>	<b>920</b>
<b>Total .....</b>	<b>371,928</b>	<b>140,021</b>	<b>215,411</b>	<b>11,655</b>	<b>160,928</b>	<b>172,583</b>	<b>16,506</b>	<b>21,565</b>
Exposures deducted from Core Capital or Supplementary Capital	–							



## Supplementary Notes on the Financial Statements (unaudited) (continued)

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

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

2011 Assets	Total exposures <sup>1</sup> HK\$m		Exposures after recognised credit risk mitigation <sup>2</sup>		Risk-weighted amounts			Total HK\$m	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	Rated HK\$m	Unrated HK\$m	Rated HK\$m	Unrated HK\$m	Total HK\$m			
On-balance sheet										
Sovereign .....	14,380	–	223	–	223	–	223	–	–	–
Public sector entity .....	70,191	–	10,210	–	10,210	–	10,210	5,071	7,673	7,673
Multilateral development bank .....	57,448	–	–	–	–	–	–	–	–	–
Bank .....	3,898	3,896	445	1,115	445	1,115	1,560	–	–	–
Securities firm .....	9	9	–	5	–	5	5	–	–	–
Corporate .....	47,037	31,334	54	31,267	41	31,267	31,308	2,678	13,551	13,551
Collective investment scheme .....	42	42	–	42	–	42	42	–	–	–
Regulatory retail .....	74,018	69,877	–	69,877	–	69,877	52,408	1,851	2,289	2,289
Residential mortgage loan .....	58,454	58,334	–	58,334	–	58,334	33,474	53	68	68
Other exposures which are not past due exposures .....	21,075	15,033	–	15,033	–	15,033	15,033	5,772	271	271
Past due exposures .....	3,519	3,326	193	4,951	159	4,951	5,110	185	33	33
Total on-balance sheet .....	340,956	181,851	143,681	138,295	11,078	138,295	149,373	15,610	23,885	23,885
Off-balance sheet										
Off-balance sheet exposure other than OTC derivative transactions or credit derivative contracts .....	16,735	13,742	1,135	12,945	327	12,945	13,272	1,858	287	287
OTC derivative transactions .....	4,538	1,501	3,034	1,482	517	1,482	1,999	3	–	–
Total off-balance sheet .....	21,273	15,243	4,169	14,427	844	14,427	15,271	1,861	287	287
Total .....	362,229	197,094	147,850	152,722	11,922	152,722	164,644	17,471	24,172	24,172
Exposures deducted from Core Capital or Supplementary Capital	–	–	–	–	–	–	–	–	–	–

1 Total exposures are the principal amounts for on-balance sheet exposures, or the credit equivalent amounts 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** (unaudited) (continued)**6 Counterparty credit risk-related exposures**

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- a** Counterparty credit risk is the risk that a counterparty to a transaction may default before completing the satisfactory settlement of the transaction.

In respect of the group's counterparty credit risk which arises from over-the-counter ('OTC') derivative transactions, repo-style transactions and credit derivative contracts (other than recognised credit derivative contracts), all credit limits are established in advance of transacting the business. 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 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.

## Supplementary Notes on the Financial Statements (unaudited) (continued)

## 6 Counterparty credit risk-related exposures (continued)

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

	OTC derivative transactions HK\$m	Repo-style transactions HK\$m	Credit derivative contracts HK\$m
<b>2012</b>			
<b>OTC derivative &amp; credit derivatives:</b>			
Gross total positive fair value .....	385,240	–	2,644
Credit equivalent amounts .....	265,824	–	4,182
<b>Repo-style transactions:</b>			
Net credit exposures <sup>1</sup> .....	–	23,686	–
<b>Value of recognised collateral by type:</b>			
Debt securities .....	2,675	124,498	1
Others .....	17,714	52,373	430
	<b>20,389</b>	<b>176,871</b>	<b>431</b>
Credit equivalent amounts/ net credit exposures net of recognised collateral <sup>2</sup> .....	265,824	23,686	4,182
Exposure at default .....	265,824	23,686	4,182
Risk-weighted amounts .....	76,227	1,375	1,098
Notional amounts of recognised credit derivative contracts which provide credit protection .....	–	–	–
<b>2011</b>			
<b>OTC derivative &amp; credit derivatives:</b>			
Gross total positive fair value .....	363,758	–	5,595
Credit equivalent amounts .....	227,840	–	4,177
<b>Repo-style transactions:</b>			
Net credit exposures <sup>1</sup> .....	–	10,023	–
<b>Value of recognised collateral by type:</b>			
Debt securities .....	670	96,421	–
Others .....	16,234	15,985	–
	16,904	112,406	–
Credit equivalent amounts/ net credit exposures net of recognised collateral <sup>2</sup> .....	227,840	10,023	4,177
Exposure at default .....	227,840	10,023	4,177
Risk-weighted amounts .....	67,332	987	896
Notional amounts of recognised credit derivative contracts which provide credit protection .....	–	–	–

1 For repo-style transactions, the recognised collateral is netted against the EAD.

2 For OTC and credit derivative contracts, the recognised collateral is reflected in the LGD.

## Supplementary Notes on the Financial Statements (unaudited) (continued)

## 6 Counterparty credit risk-related exposures (continued)

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

	OTC derivative transactions HK\$m	Repo-style transactions HK\$m	Credit derivative contracts HK\$m
<b>2012</b>			
<b>OTC derivative &amp; credit derivatives:</b>			
Gross total positive fair value .....	3,694	–	–
Credit equivalent amounts .....	6,935	–	–
<b>Repo-style transactions:</b>			
Net credit exposures .....	–	35	–
<b>Value of recognised collateral by type:</b>			
Debt securities .....	–	411	–
Others .....	117	17	–
	117	428	–
Credit equivalent amounts/ net credit exposures net of recognised collateral .....	6,935	35	–
Risk-weighted amounts .....	2,678	31	–
Notional amounts of recognised credit derivative contracts which provide credit protection .....	–	–	–
<b>2011</b>			
<b>OTC derivative &amp; credit derivatives:</b>			
Gross total positive fair value .....	2,684	–	–
Credit equivalent amounts .....	4,538	–	–
<b>Repo-style transactions:</b>			
Net credit exposures .....	–	106	–
<b>Value of recognised collateral by type:</b>			
Debt securities .....	–	391	–
Others .....	3	315	–
	3	706	–
Credit equivalent amounts/ net credit exposures net of recognised collateral .....	4,538	106	–
Risk-weighted amounts .....	1,999	52	–
Notional amounts of recognised credit derivative contracts which provide credit protection .....	–	–	–

## Supplementary Notes on the Financial Statements (unaudited) (continued)

## 6 Counterparty credit risk-related exposures (continued)

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

	OTC derivative transactions HK\$m	Repo-style transactions HK\$m	Credit derivative contracts HK\$m
<b>2012</b>			
<b>Notional amounts:</b>			
Sovereigns .....	502,657	23,749	77
Banks .....	22,623,707	131,348	325,546
Corporates .....	2,760,911	34,109	33,765
	<b>25,887,275</b>	<b>189,206</b>	<b>359,388</b>
<b>Exposure at default<sup>1</sup>:</b>			
Sovereigns .....	7,895	1,856	4
Banks .....	181,719	20,765	2,950
Corporates .....	76,210	1,065	1,228
	<b>265,824</b>	<b>23,686</b>	<b>4,182</b>
<b>Risk-weighted amounts:</b>			
Sovereigns .....	1,256	156	2
Banks .....	29,511	999	550
Corporates .....	45,460	220	546
	<b>76,227</b>	<b>1,375</b>	<b>1,098</b>
<b>2011</b>			
<b>Notional amounts:</b>			
Sovereigns .....	509,971	32,614	580
Banks .....	22,371,732	75,270	455,210
Corporates .....	2,644,018	9,685	22,934
	<b>25,525,721</b>	<b>117,569</b>	<b>478,724</b>
<b>Exposure at default<sup>1</sup>:</b>			
Sovereigns .....	5,342	1,197	55
Banks .....	153,514	8,000	3,856
Corporates .....	68,984	826	266
	<b>227,840</b>	<b>10,023</b>	<b>4,177</b>
<b>Risk-weighted amounts:</b>			
Sovereigns .....	627	90	10
Banks .....	22,349	562	757
Corporates .....	44,356	335	129
	<b>67,332</b>	<b>987</b>	<b>896</b>

<sup>1</sup> For repo-transactions, the recognised collateral is netted against the EAD. For OTC and credit derivative contracts, the recognised collateral is reflected in the LGD.

**Supplementary Notes on the Financial Statements** (unaudited) (continued)**6 Counterparty credit risk-related exposures** (continued)**e Major classes of exposures under the standardised (credit risk) approach by counterparty type**

	OTC derivative transactions HK\$m	Repo-style transactions HK\$m	Credit derivative contracts HK\$m
<b>2012</b>			
<b>Notional amounts:</b>			
Sovereigns .....	36,723	–	–
Public sector entities .....	135,358	19	–
Banks .....	497	–	–
Corporates .....	74,697	432	–
	<u>247,275</u>	<u>451</u>	<u>–</u>
<b>Credit equivalent amounts/net credit exposures .....</b>	<b>6,935</b>	<b>35</b>	<b>–</b>
<b>Risk-weighted amounts .....</b>	<b>2,678</b>	<b>31</b>	<b>–</b>
<b>2011</b>			
<b>Notional amounts:</b>			
Sovereigns .....	19,887	–	–
Public sector entities .....	120,830	298	–
Banks .....	475	–	–
Corporates .....	48,545	446	92
	<u>189,737</u>	<u>744</u>	<u>92</u>
<b>Credit equivalent amounts/net credit exposures .....</b>	<b>4,538</b>	<b>106</b>	<b>–</b>
<b>Risk-weighted amounts .....</b>	<b>1,999</b>	<b>52</b>	<b>–</b>

**Supplementary Notes on the Financial Statements** (unaudited) (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
<b>2012</b>			
<b>Exchange rate contracts</b>			
Forward .....	7,313,214	19,263	32,249
Option purchased .....	396,776	7,886	2,087
Swap .....	3,251,523	23,756	29,485
	<b>10,961,513</b>	<b>50,905</b>	<b>63,821</b>
<b>Interest rate contracts</b>			
Forward .....	355,358	–	8
Option purchased .....	178,377	1,168	1,664
Swap .....	14,269,029	22,861	28,438
	<b>14,802,764</b>	<b>24,029</b>	<b>30,110</b>
<b>Credit derivative contracts</b> .....	<b>359,388</b>	<b>1,098</b>	<b>302</b>
<b>Other OTC derivative contracts</b> .....	<b>370,273</b>	<b>3,971</b>	<b>8,070</b>
	<b>26,493,938</b>	<b>80,003</b>	<b>102,303</b>
<b>2011</b>			
<b>Exchange rate contracts</b>			
Forward .....	6,628,177	17,442	27,708
Option purchased .....	406,331	6,453	4,678
Swap .....	2,978,224	18,983	17,072
	<b>10,012,732</b>	<b>42,878</b>	<b>49,458</b>
<b>Interest rate contracts</b>			
Forward .....	483,586	1	26
Option purchased .....	315,417	1,805	2,197
Swap .....	14,544,565	21,444	29,163
	<b>15,343,568</b>	<b>23,250</b>	<b>31,386</b>
<b>Credit derivative contracts</b> .....	<b>478,815</b>	<b>896</b>	<b>1,279</b>
<b>Other OTC derivative contracts</b> .....	<b>359,619</b>	<b>3,206</b>	<b>9,185</b>
	<b>26,194,734</b>	<b>70,230</b>	<b>91,308</b>

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 98(2) of the Banking Ordinance. This consolidation basis is different from the group's basis of consolidation for accounting purposes, as explained in note 21. Therefore, the contract amounts shown in the above table are different from those disclosed in Note 17 of the 2012 Annual Report and Accounts.

The fair values are calculated after taking into account the effect of valid bilateral netting agreements amounting to HK\$289,275m (2011: HK\$280,732m).

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

	<b>2012</b>	2011
	<b>HK\$m</b>	HK\$m
<b>Used for credit portfolio</b>		
Credit default swap		
Protection bought .....	<b>2,763</b>	3,158
Protection sold .....	–	–
Total return swap		
Protection bought .....	<b>29,278</b>	21,735
Protection sold .....	–	–
	<b>32,041</b>	<b>24,893</b>
<b>Used for intermediation activities</b>		
Credit default swap		
Protection bought .....	<b>164,249</b>	230,506
Protection sold .....	<b>152,173</b>	218,812
Total return swap		
Protection bought .....	<b>3,215</b>	402
Protection sold .....	<b>7,710</b>	4,202
	<b>327,347</b>	<b>453,922</b>



## Supplementary Notes on the Financial Statements (unaudited) (continued)

### 7 Credit risk mitigation

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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: first, those which reduce the intrinsic probability of default of a borrower and therefore are accounted for with adjustments to PD estimation; secondly, 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. 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 (unaudited) (continued)

### 8 Asset securitisation

#### Group securitisation strategy

The group's strategy is to use securitisations to meet its needs for aggregate funding, 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'), in order 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 (2011: none). The group's policy on credit risk mitigation to mitigate the risks of securitisation exposures retained is 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 (2011: none).

#### *The group as sponsor*

There were no outstanding underlying exposures in securitisation transactions where the group acted as a sponsor (2011: none).

#### 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 2012.

The group does not originate loans and advances with an expectation to securitise them in the near future.

**Supplementary Notes on the Financial Statements** (unaudited) (continued)**8 Asset securitisation** *(continued)*

To the extent that the group has exposures that it intends to securitise, they continue to be valued according to their original accounting classification.

**Securitisation activities in 2012**

As an investor, the group's securitisation activities in 2012 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 (2011: none).

As an originator, the increase in underlying exposures in securitisation transactions in 2012 was related to the transfer of 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\$12 billion of residential mortgages in the banking book (2011: none). There were no gains or losses recognised (2011: 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. Following the implementation of the Banking (Capital) (Amendment) Rules 2011 on 1 January 2012, the securitisation positions in the trading book are treated under the standardised (market risk) approach, which calculates the market risk capital charge for specific interest rate risk using the same methodology as the internal ratings-based (securitisation) approach.

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

**Supplementary Notes on the Financial Statements** (unaudited) (continued)**8 Asset securitisation** (continued)**a Securitisation transactions – underlying exposures and impairment**

	2012 HK\$m	2011 HK\$m
<b>As originator</b>		
Traditional securitisations:		
Residential mortgage loans .....	19,213	9,167
	<b>19,213</b>	<b>9,167</b>

There were no material impaired or overdue exposures securitised (2011: none) and there were no losses recognised during the year (2011: 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**

	2012			2011
	Banking book HK\$m	Trading book HK\$m	Total HK\$m	Total HK\$m
On-balance sheet exposures				
<b>As investor</b>				
Residential mortgage loans .....	1,264	8	1,272	1,565
Student loans .....	179	–	179	496
Commercial mortgage loans .....	436	–	436	592
Loans and receivables .....	1,186	–	1,186	605
Others .....	149	–	149	170
	<b>3,214</b>	<b>8</b>	<b>3,222</b>	<b>3,428</b>
Off-balance sheet exposure				
<b>As investor</b>				
Residential mortgage loans .....	–	–	–	–
Student loans .....	–	–	–	–
Commercial mortgage loans .....	798	–	798	751
Loans and receivables .....	82	–	82	–
Others .....	–	–	–	–
	<b>880</b>	<b>–</b>	<b>880</b>	<b>751</b>
	<b>4,094</b>	<b>8</b>	<b>4,102</b>	<b>4,179</b>

## Supplementary Notes on the Financial Statements (unaudited) (continued)

## 8 Asset securitisation (continued)

## c Securitisation exposures – by risk-weight bands

Securitisation exposures	2012			2011 Total HK\$m
	Banking book HK\$m	Trading book HK\$m	Total HK\$m	
<b>As investor</b>				
Securitisations				
- less than or equal to 10% .....	2,850	–	2,850	2,748
- greater than 10% and less than or equal to 20% .....	423	–	423	399
- greater than 20% and less than or equal to 50% .....	–	–	–	–
- greater than 50% and less than or equal to 100% .....	798	–	798	752
- greater than 100% and less than or equal to 650% .....	–	–	–	–
- greater than 650% and less than 1,250% .....	–	–	–	–
- deducted from capital .....	17	8	25	280
	4,088	8	4,096	4,179
Re-securitisations <sup>1</sup>				
- deducted from capital .....	6	–	6	–
	4,094	8	4,102	4,179

## Capital requirements

Capital requirements	2012			2011 Total HK\$m
	Banking book HK\$m	Trading book HK\$m	Total HK\$m	
<b>As investor</b>				
Securitisations				
- less than or equal to 10% .....	19	–	19	18
- greater than 10% and less than or equal to 20% .....	7	–	7	7
- greater than 20% and less than or equal to 50% .....	–	–	–	–
- greater than 50% and less than or equal to 100% .....	68	–	68	64
- greater than 100% and less than or equal to 650% .....	–	–	–	–
- greater than 650% and less than 1,250% .....	–	–	–	–
- deducted from capital .....	17	8	25	–
	111	8	119	89
Re-securitisations <sup>1</sup>				
- deducted from capital .....	6	–	6	–
	117	8	125	89

<sup>1</sup> Re-securitisations were not separately analysed in 2011

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 core and supplementary capital

Securitisation exposures deducted from core and supplementary capital	2012			2011 Total HK\$m
	Banking book HK\$m	Trading book HK\$m	Total HK\$m	
Residential mortgage loans.....	3	8	11	44
Commercial mortgage loans.....	13	–	13	193
Loans and receivables.....	7	–	7	16
Others .....	–	–	–	27
	23	8	31	280

There were no credit-enhancing interest-only strips and other exposures that have been deducted from the group's core capital and supplementary capital (2011: none).

**Supplementary Notes on the Financial Statements** (unaudited) (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 (2011: 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 (2011: none). There were no re-securitisation exposures to which credit risk mitigation or guarantees were applied.
- (iii) There were no related companies 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.
- (iv) There were no outstanding exposures held by the group with the intention of transferring into securitisation transactions (2011: 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. As opposed to the standardised approach that was used at 31 December 2011, the group has adopted an internal models approach to calculate the general market risk and specific risk for the risk category of equity exposures. The group also uses an internal models approach to calculate its market risk in respect of specific risk for interest rate exposures. The group uses the standardised approach for calculating other market risk positions as well as trading book securitisation exposures.

Following the implementation of the Banking (Capital) (Amendment) Rules 2011 on 1 January 2012, the group's market risk capital requirement 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*

	HK\$m
<b>2012</b>	
<b>Under the standardised (market risk) approach</b>	
Commodity exposures .....	–
Other equity exposures .....	11
Interest rate exposures- non-securitisations .....	–
Interest rate exposures- securitisations .....	–
<b>Under the internal models approach</b>	
VAR .....	1,012
Stressed VAR .....	2,625
Incremental risk charge .....	4,672
Add-ons for equity .....	1,033
<b>Capital requirement for market risk</b> .....	<b>9,353</b>
<b>2011</b>	
<b>Under the standardised (market risk) approach</b>	
Interest rate exposures .....	9
Other equity exposures .....	611
<b>Under the internal models approach</b>	
Equity options .....	175
Default risk surcharge .....	857
General market risk and specific interest rate risk .....	1,435
<b>Capital requirement for market risk</b> .....	<b>3,087</b>

## Supplementary Notes on the Financial Statements (unaudited) (continued)

### 9 Market risk (continued)

Capital charge 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.

#### 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 Monte Carlo approach is used to model idiosyncratic interest rate risk and default risk, 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. 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. During the fourth quarter of 2012, the VAR and stressed VAR models were expanded to cover general market risk and specific risk for equity exposures. 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 of equity event, equity dividend and equity volatility skew, along with the group's implementation of equity VAR.

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.

- Disaster Limit Matrix

Prior to migrating to the VAR model, specific equity option risks were computed on gross utilisation bases on the underlying equity in the worst case scenario.

- Incremental Risk charge

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 99.9<sup>th</sup> 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.

**Supplementary Notes on the Financial Statements** (unaudited) (continued)**9 Market risk** (continued)**Analysis of VAR, stressed VAR and incremental risk charge measures**

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

	2012		2011
	VAR HK\$m	Stressed VAR HK\$m	VAR HK\$m
Total			
Year end .....	114	1,084	189
Average .....	133	953	130
Maximum .....	218	1,529	197
Minimum .....	84	673	75
Interest rate			
Year end .....	94	1,035	98
Average .....	108	813	91
Maximum .....	158	1,146	149
Minimum .....	62	579	62
Foreign exchange			
Year end .....	38	225	50
Average .....	42	161	50
Maximum .....	88	340	116
Minimum .....	22	75	28
Credit spread			
Year end .....	41	354	92
Average .....	46	348	60
Maximum .....	98	656	99
Minimum .....	29	224	36
Equity			
Year end .....	38	201	–
Average .....	25	188	–
Maximum .....	42	410	–
Minimum .....	17	25	–

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 Note 52 of the Annual Report and Accounts, which reflects the group's trading VAR within Global Markets, where the management of market risk is principally undertaken.

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

	2012 HK\$m
Year end .....	4,672
Average .....	2,186
Maximum .....	4,672
Minimum .....	1,294



**Supplementary Notes on the Financial Statements** (unaudited) (continued)**10 Operational risk**

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

	<b>2012</b>	2011
	<b>HK\$m</b>	HK\$m
Capital charge for operational risk .....	<b>20,011</b>	<b>17,714</b>

Capital charge 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(g) and (h) on the financial statements. 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(ac) on the financial statements.

	<b>2012</b>	2011
	<b>HK\$m</b>	HK\$m
Realised gains from sales for the year .....	<b>2,722</b>	<b>147</b>
Unrealised gains:		
Amount included in reserves but not through the income statement .....	<b>37,214</b>	<b>30,304</b>
Amount included in supplementary capital .....	<b>1,135</b>	<b>1,085</b>

**Supplementary Notes on the Financial Statements** (unaudited) (continued)**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 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 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:

	HK\$m
<b>Change in 2013 projected net interest income arising from a shift in yield curves of:</b>	
+25 basis points at the beginning of each quarter .....	4,681
-25 basis points at the beginning of each quarter .....	(5,571)
<b>Change in 2012 projected net interest income arising from a shift in yield curves of:</b>	
+25 basis points at the beginning of each quarter .....	4,785
-25 basis points at the beginning of each quarter .....	(6,848)

The main drivers of the year-on-year changes in the sensitivity of the group's net interest income to the changes in rates shown in the table above were mainly lower implied 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 requirement 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 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 all positions run to maturity and incorporating 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.

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.
- Residual 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** (unaudited) (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 partially offset by increased funding costs in Balance Sheet Management given our simplifying assumption of unchanged Balance Sheet Management positioning. The benefit to deposit taking businesses of rising rates is also offset by the increased funding cost of trading assets, which is recorded in 'Net interest income' and therefore captured in the sensitivity analysis, whereas the income from such assets is recorded in 'Net trading income'.

**13 Off-balance sheet exposures other than derivative transactions**

	2012 HK\$m	2011 HK\$m
<b>Contract amounts</b>		
Direct credit substitutes .....	69,044	57,975
Transaction-related contingencies .....	124,065	105,925
Trade-related contingencies .....	107,558	104,830
Forward asset purchases .....	2,457	2,870
Forward deposits placed .....	–	247
Commitments that are unconditionally cancellable without prior notice .....	1,290,390	1,173,870
Commitments which have an original maturity of not more than one year .....	97,458	91,393
Commitments which have an original maturity of more than one year .....	150,716	133,613
	<b>1,841,688</b>	<b>1,670,723</b>
<b>Risk-weighted amounts</b>	<b>214,479</b>	<b>193,043</b>

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 requirements of section 98(2) of the Banking Ordinance.

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/ Other HK\$m	Total HK\$m
<b>At 31 December 2012</b>			
Gross loans and advances to customers .....	1,090,273	1,268,541	2,358,814
<b>At 31 December 2011</b>			
Gross loans and advances to customers .....	1,002,945	1,139,227	2,142,172

**Supplementary Notes on the Financial Statements** (unaudited) (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' return required to be submitted to the Hong Kong Monetary Authority ('HKMA') by branches of the Bank and by banking subsidiaries in Hong Kong.

	Gross Advances		Collateral and other security	
	2012 HK\$m	2011 HK\$m (restated) <sup>1</sup>	2012 HK\$m	2011 HK\$m (restated) <sup>1</sup>
Gross loans and advances to customers for use in Hong Kong				
<i>Industrial, commercial and financial</i>				
Property development .....	68,345	72,794	21,530	24,685
Property investment .....	206,760	199,314	162,437	153,699
Financial concerns .....	13,533	11,852	3,020	1,804
Stockbrokers .....	3,373	3,117	680	331
Wholesale and retail trade .....	88,658	75,379	25,331	19,352
Manufacturing .....	33,904	28,743	7,566	5,897
Transport and transport equipment .....	27,328	27,429	19,402	18,948
Recreational activities .....	480	88	154	17
Information technology .....	5,741	4,888	1,390	34
Others .....	60,170	58,775	23,608	18,508
	<b>508,292</b>	<b>482,379</b>	<b>265,118</b>	<b>243,275</b>
<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 .....	24,426	25,640	24,426	25,558
Advances for the purchase of other residential properties .....	336,906	298,560	336,906	298,277
Credit card advances .....	45,941	41,200	–	–
Others .....	39,554	40,036	9,522	11,250
	<b>446,827</b>	<b>405,436</b>	<b>370,854</b>	<b>335,085</b>
Gross loans and advances to customers for use in Hong Kong .....	955,119	887,815	635,972	578,360
Trade finance .....	166,521	142,253	26,784	31,113
Gross loans and advances to customers for use outside Hong Kong .....	1,237,174	1,112,104	445,386	394,110
Gross loans and advances to customers .....	<b>2,358,814</b>	<b>2,142,172</b>	<b>1,108,142</b>	<b>1,003,583</b>

<sup>1</sup> Certain comparatives have been restated to reflect changes in classification in the current period disclosure.

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 18 on the financial statements.

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** (unaudited) (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 return for non-bank mainland exposures, which includes the mainland exposures extended by the Bank and its wholly owned banking subsidiaries in mainland China.

	On-balance sheet exposure HK\$m	Off-balance sheet exposure HK\$m	Total exposures HK\$m	Specific provisions HK\$m
<b>At 31 December 2012</b>				
Mainland entities .....	122,389	10,794	133,183	–
Companies and individuals outside the mainland where the credit is granted for use in the mainland .....	29,586	1,195	30,781	46
Other counterparties the exposures to whom are considered by the Bank to be non-bank mainland exposures .....	3,703	2,537	6,240	–
	<b>155,678</b>	<b>14,526</b>	<b>170,204</b>	<b>46</b>
Mainland exposures of wholly owned mainland subsidiaries:				
Loans and advances .....	147,122	3,544	150,666	138
Debt securities and other .....	107,667	19,757	127,424	–
	<b>254,789</b>	<b>23,301</b>	<b>278,090</b>	<b>138</b>
	<b>410,467</b>	<b>37,827</b>	<b>448,294</b>	<b>184</b>
<b>At 31 December 2011</b>				
Mainland entities .....	99,498	11,161	110,659	–
Companies and individuals outside the mainland where the credit is granted for use in the mainland .....	52,382	7,557	59,939	44
Other counterparties the exposures to whom are considered by the Bank to be non-bank mainland exposures .....	4,325	1,353	5,678	–
	156,205	20,071	176,276	44
Mainland exposures of wholly owned mainland subsidiaries:				
Loans and advances .....	129,699	3,739	133,438	50
Debt securities and other .....	104,469	19,574	124,043	–
	234,168	23,313	257,481	50
	390,373	43,384	433,757	94

**Supplementary Notes on the Financial Statements** (unaudited) (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.

	<b>Banks HK\$m</b>	<b>Public sector entities<sup>1</sup> HK\$m</b>	<b>Others HK\$m</b>	<b>Total HK\$m</b>
<b>As at 31 December 2012</b>				
<b>Asia-Pacific excluding Hong Kong</b>				
China .....	312,712	18,708	157,617	489,037
Others .....	172,179	214,737	277,901	664,817
	<b>484,891</b>	<b>233,445</b>	<b>435,518</b>	<b>1,153,854</b>
<b>Americas</b>				
United States .....	21,249	115,285	34,315	170,849
Others .....	39,740	21,480	97,006	158,226
	<b>60,989</b>	<b>136,765</b>	<b>131,321</b>	<b>329,075</b>
<b>Europe</b>	<b>226,409</b>	<b>58,524</b>	<b>94,623</b>	<b>379,556</b>
<b>As at 31 December 2011</b>				
<b>Asia-Pacific excluding Hong Kong</b>				
China .....	281,204	59,324	125,582	466,110
Others .....	138,852	206,296	245,577	590,725
	<b>420,056</b>	<b>265,620</b>	<b>371,159</b>	<b>1,056,835</b>
<b>Americas</b>				
United States .....	52,676	120,498	41,505	214,679
Others .....	38,203	18,866	88,227	145,296
	<b>90,879</b>	<b>139,364</b>	<b>129,732</b>	<b>359,975</b>
<b>Europe</b>	<b>217,656</b>	<b>58,750</b>	<b>57,528</b>	<b>333,934</b>

1 Includes balances with central banks.

**Supplementary Notes on the Financial Statements** (unaudited) (continued)**18 Non-structural foreign exchange 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:

	United States dollars HK\$m	Singapore dollars HK\$m	Brunei dollars HK\$m	Korea Won HK\$m
<b>As 31 December 2012</b>				
Spot assets .....	1,401,014	255,743	18,949	65,400
Spot liabilities .....	(1,599,404)	(235,337)	(23,941)	(22,994)
Forward purchases .....	6,365,644	558,434	3,822	533,171
Forward sales .....	(6,162,237)	(574,195)	(3,801)	(574,781)
Net options positions .....	3,205	(268)	–	529
	<b>8,222</b>	<b>4,377</b>	<b>(4,971)</b>	<b>1,325</b>
<b>As 31 December 2011</b>				
Spot assets .....	1,254,317	325,563	10,508	65,785
Spot liabilities .....	(1,430,476)	(331,008)	(27,893)	(19,383)
Forward purchases .....	5,816,926	436,756	752	317,589
Forward sales .....	(5,669,458)	(413,455)	(1,467)	(364,293)
Net options positions .....	9,826	(14)	–	–
	<b>(18,865)</b>	<b>17,842</b>	<b>(18,100)</b>	<b>(302)</b>

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

**19 Liquidity ratio**

The Banking Ordinance requires banks operating in Hong Kong to maintain a minimum liquidity ratio of 25%, calculated in accordance with the provisions of the Fourth Schedule of the Banking Ordinance. This requirement applies separately to the Hong Kong branches of the Bank and to those subsidiary companies which are Authorised Institutions under the Banking Ordinance in Hong Kong.

The average liquidity ratios for the year are as follows:

	2012 %	2011 %
Hong Kong branches of the Bank .....	<b>38.3</b>	33.6

**Supplementary Notes on the Financial Statements** (unaudited) (continued)**20 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 made pursuant to 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 23 members of senior management in 2012 (2011: 23 members). This includes two members (2011: two) who are Directors of, and are remunerated by, HSBC Holdings Plc and are 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.

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

	2012			2011		
	Senior management (21 people) HK\$m	Key personnel (31 people) HK\$m	Total HK\$m	Senior management (21 people) HK\$m	Key personnel (25 people) HK\$m	Total HK\$m
<b>Fixed</b>						
Cash based .....	91	112	203	91	91	182
<b>Variable<sup>1</sup></b>						
Cash .....	62	100	162	66	82	148
Non-Deferred Shares .....	31	84	115	32	76	108
Deferred cash .....	45	124	169	49	112	161
Deferred shares .....	107	139	246	106	115	221
Total variable pay .....	245	447	692	253	385	638

*Analysis of deferred remuneration*

	2012			2011		
	Senior management (21 people) HK\$m	Key personnel (31 people) HK\$m	Total HK\$m	Senior management (21 people) HK\$m	Key personnel (25 people) HK\$m	Total HK\$m
<b>Deferred remuneration at 31 December</b>						
Outstanding, unvested <sup>2</sup> .....	346	674	1,020	387	759	1,146
Outstanding, cash .....	84	168	252	59	112	171
Outstanding, shares .....	262	506	768	328	647	975
Awarded during the year .....	210	332	542	152	324	476
Paid out .....	323	628	951	128	126	254
Deferred shares paid out .....	301	593	894	128	126	254
Deferred cash paid out .....	22	35	57	–	–	–
Reduced through performance adjustment .....	–	–	–	–	–	–

1 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.

2 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 2012 and 31 December 2011.

3 There is no reduction of deferred remuneration and retained remuneration due to ex post explicit adjustments during 2012 and 2011.



**Supplementary Notes on the Financial Statements** (unaudited) (continued)**21 Principal subsidiaries and basis of consolidation**

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The basis of consolidation for accounting purposes is in accordance with Hong Kong Financial Reporting Standards ('HKFRS'). HKFRS is a collective term which includes all applicable individual Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards and Interpretations issued by the Hong Kong Institute of Certified Public Accountants.

The major subsidiaries of the Bank for accounting purposes are:

Hang Seng Bank Limited  
HSBC Bank (China) Company Limited  
HSBC Bank Malaysia Berhad  
HSBC Bank Australia Limited\*  
HSBC Bank (Taiwan) Limited\*  
HSBC Insurance (Asia) Limited\*  
HSBC Life (International) Limited\*

\* Held indirectly

The basis of consolidation for regulatory purposes is different from the basis of consolidation for accounting purposes. Subsidiaries included in consolidation for regulatory purposes are specified in a notice from the HKMA in accordance with section 98(2) of the Banking Ordinance. 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 Bank's shareholdings in these subsidiaries are deducted from its core capital and supplementary capital as determined in accordance with Part 3 of the Banking (Capital) Rules.

With respect to Notes 2 to 11 and 13, the principal subsidiaries that are not included in the consolidation for regulatory purposes are:

Hang Seng Insurance Company Limited  
HSBC Insurance (Asia Pacific) Holdings Limited and subsidiaries  
HSBC Securities Japan Limited  
HSBC Securities Brokers (Asia) Limited

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 group.