

PILLAR 3 DISCLOSURES

(OCBC Group – As at 31 December 2015)

1. Introduction

The purpose of this document is to provide the information in accordance with Pillar 3 directives under Monetary Authority of Singapore (“MAS”) Notice 637 on Risk Based Capital Adequacy Requirements for banks incorporated in Singapore. MAS Notice 637 mandates a minimum level of public disclosures to be made available to market participants to assist them in assessing the capital adequacy and risk profile of a bank.

For qualitative descriptions of the Group’s capital and risk management objectives and policies, and disclosures on remuneration, please refer to the Capital Management, Risk Management and Corporate Governance sections of the Annual Report.

2. Accounting and Regulatory Consolidation

The consolidation basis used for regulatory capital computation is similar to that used for financial reporting except for the following:

- Subsidiaries that carry out insurance business are excluded from regulatory consolidation and are treated as investments in major stake companies. The regulatory adjustments applied to these investments are in accordance to MAS Notice 637 paragraphs 6.1.3(p), 6.2.3(e) and 6.3.3(e).
- As at 31 December 2015, the subsidiaries that carry out insurance business are as follows:
 - (a) The Great Eastern Life Assurance Company Limited and its insurance entities
 - (b) The Overseas Assurance Corporation Limited and its insurance entities
- As at 31 December 2015, the total equity of these insurance subsidiaries was S\$6b and total assets were S\$63b.

The basis of consolidation for financial reporting can be found in Note 2.2 in the Notes to the Financial Statements in the Annual Report.

3. Capital Adequacy

Disclosures on the Group’s capital adequacy ratios and the capital positions for the Group’s significant banking subsidiaries as at 31 December 2015 are presented in the Capital Management Chapter as well as the Bank’s investor relations website. (<http://www.ocbc.com/group/investors/index.html>)

The capital adequacy information of the Group’s significant banking subsidiaries as at 31 December 2015 were:

S\$ million	Total Risk Weighted Assets	Capital Adequacy Ratios		
		Common Equity Tier 1	Tier 1	Total
OCBC Wing Hang Bank Limited	19,483	12.7%	12.7%	16.1%
OCBC Bank (Malaysia) Berhad	13,573	12.5%	14.6%	17.1%
PT Bank OCBC NISP Tbk	10,401	NA	16.1%	17.3%

“NA” denotes not applicable.

The capital adequacy ratios of OCBC Wing Hang Bank Limited are computed in accordance with the Banking (Capital) Rules issued by the Hong Kong Monetary Authority, and the ratios for OCBC Bank (Malaysia) Berhad are computed in accordance with the Capital Adequacy Framework (Capital Components) issued by Bank Negara Malaysia. PT Bank OCBC NISP Tbk computes their ratios based on the standardised approach under the Basel II framework. The computed Common Equity Tier 1 capital adequacy ratio as at 31 December 2015 for PT Bank OCBC NISP Tbk based on Basel II rules would be 16.1%.

Disclosures on the composition of the Group’s regulatory capital, including reconciliation between balance sheet and regulatory capital elements, as well as terms and conditions and main features of capital instruments can be found under the Capital and Regulatory Disclosures sections of the Bank’s investor relations website. (http://www.ocbc.com/group/investors/Cap_and_Reg_Disclosures.html)

Disclosures on the Group’s leverage ratio are presented in the Leverage Ratio section of the financial year 2015 Financial Results (<http://www.ocbc.com/group/investors/index.html>) and under the Capital and Regulatory Disclosures section of the Bank’s investor relations website. (http://www.ocbc.com/group/investors/Cap_and_Reg_Disclosures.html)

4. Credit Risk

4.1 MAXIMUM EXPOSURE TO CREDIT RISK

<u>S\$ million</u>	<u>Period End</u>	<u>Average</u> ⁽³⁾
Credit risk exposure of on-balance sheet assets:		
Net loans and bills receivable	208,218 ⁽¹⁾	207,975
Placements with and loans to banks	35,791	43,708
Government treasury bills and securities	21,001	21,442
Debt securities	20,040	21,171
Assets pledged	1,452 ⁽²⁾	1,611
Others	9,096	9,911
	<u>295,598</u>	<u>305,818</u>
Credit risk exposure of off-balance sheet items:		
Credit commitments	113,114	107,553
Contingent liabilities	9,610	10,516
	<u>122,724</u>	<u>118,069</u>
Total maximum credit risk exposure	418,322	423,887

⁽¹⁾ Net of specific allowances of \$360 million and portfolio allowances of \$2,060 million.

⁽²⁾ Assets pledged comprise net loans and bills receivable of \$27 million, placements with and loans to banks of \$237 million, government treasury bills and securities of \$98 million and debt securities of \$1,090 million.

⁽³⁾ Computed on a monthly average basis.

4.2 GEOGRAPHIC/INDUSTRY DISTRIBUTION OF MAJOR TYPES OF CREDIT EXPOSURE

Gross Loans and Bills Receivable ⁽¹⁾

Analysed by Geography

	<u>S\$ million</u>
Singapore	87,540
Malaysia	28,599
Indonesia	17,216
Greater China	56,416
Other Asia Pacific	10,644
Rest of the World	10,250
Total	210,665

Distribution by geography is determined based on where the credit risk resides.

Analysed by Industry

	<u>S\$ million</u>
Agriculture, mining and quarrying	7,394
Manufacturing	13,222
Building and construction	34,407
Housing	56,058
General commerce	26,128
Transport, storage and communication	12,360
Financial institutions, investment and holding companies	27,463
Professionals and individuals	23,464
Others	10,169
Total	210,665

⁽¹⁾ Includes assets pledged of \$27 million.

Placements with and Loans to Banks ⁽¹⁾

Analysed by Geography

	<u>S\$ million</u>
Singapore	740
Malaysia	2,649
Indonesia	936
Greater China	21,174
Other Asia Pacific	3,296
Rest of the World	6,504
Balances with banks	35,299
Bank balances of life assurance fund	729
Total	36,028

Distribution by geography is determined based on where the credit risk resides.

⁽¹⁾ Includes assets pledged of \$237 million.

Government Treasury Bills and Securities ⁽¹⁾

Analysed by Geography

	<u>S\$ million</u>
Singapore	8,673
Malaysia	2,844
Indonesia	1,075
Greater China	2,664
Other Asia Pacific	4,260
Rest of the World	1,583
Total	21,099

Distribution by geography is determined based on country of the issuer.

⁽¹⁾ Includes assets pledged of \$98 million.

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Debt Securities⁽¹⁾*Analysed by Geography*

	S\$ million
Singapore	3,501
Malaysia	1,821
Indonesia	1,076
Greater China	8,265
Other Asia Pacific	4,124
Rest of the World	2,343
Total	21,130

Distribution by geography is determined based on where the borrowers are incorporated.

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	1,380
Manufacturing	1,717
Building and construction	2,515
General commerce	746
Transport, storage and communication	1,427
Financial institutions, investment and holding companies	10,966
Others	2,379
Total	21,130

⁽¹⁾ Includes assets pledged of \$1,090 million.

Credit Commitments*Analysed by Geography*

	S\$ million
Singapore	84,227
Malaysia	7,801
Indonesia	3,678
Greater China	13,841
Other Asia Pacific	1,521
Rest of the World	2,046
Total	113,114

Distribution by geography is determined based on where the transactions are recorded.

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	2,222
Manufacturing	8,095
Building and construction	9,884
General commerce	22,119
Transport, storage and communication	3,742
Financial institutions, investment and holding companies	24,129
Professionals and individuals	35,771
Others	7,152
Total	113,114

4.3 RESIDUAL CONTRACTUAL MATURITY OF MAJOR TYPES OF CREDIT EXPOSURE**On-Balance Sheet Assets**

S\$ million	Within 1 week	1 week to 1 month	1 to 3 months	3 to 12 months	1 to 3 years	Over 3 years	Total
Net loans and bills receivable	13,645	22,044	16,961	25,157	36,345	94,093	208,245 ⁽¹⁾
Placements with and loans to banks	6,623	6,657	10,407	11,154	355	103	35,299 ⁽²⁾
Government treasury bills and securities	487	1,033	5,225	3,690	6,461	4,203	21,099 ⁽³⁾
Debt securities	94	358	1,077	2,500	8,456	8,645	21,130 ⁽⁴⁾

⁽¹⁾ Includes assets pledged of \$27 million.

⁽²⁾ Includes assets pledged of \$237 million and excludes bank balances of life assurance fund.

⁽³⁾ Includes assets pledged of \$98 million.

⁽⁴⁾ Includes assets pledged of \$1,090 million.

Credit Commitments

	S\$ million
Undrawn credit facilities:	
Term to maturity of one year or less	93,856
Term to maturity of more than one year	19,258
Total	113,114

4.4 CREDIT QUALITY OF LOAN PORTFOLIO, NON-PERFORMING LOANS, PAST-DUE LOANS, IMPAIRMENT ALLOWANCES

Total Loans and Advances – Credit Quality

	S\$ million
Neither past due nor impaired	208,324
Not impaired	1,212
Impaired	887
Past due loans	2,099
Impaired but not past due	242
Gross loans	210,665
Specific allowances	(360)
Portfolio allowances	(2,060)
Net loans	208,245

Non-Performing Loans

Analysed by Geography

S\$ million	Singapore	Malaysia	Indonesia	Greater China	Rest of the World	Total
Substandard	337	607	316	75	95	1,430
Doubtful	113	75	10	77	15	290
Loss	95	25	74	55	–	249
Total	545	707	400	207	110	1,969

Distribution by geography is determined based on where the credit risk resides.

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	337
Manufacturing	428
Building and construction	105
Housing	278
General commerce	194
Transport, storage and communication	274
Financial institutions, investment and holding companies	197
Professionals and individuals	129
Others	27
Total	1,969

Analysed by Period Overdue

	S\$ million
Over 180 days	584
Over 90 days to 180 days	378
30 days to 90 days	249
Less than 30 days	207
Past due	1,418
No overdue	551
Total	1,969

Past-Due Loans

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	64
Manufacturing	410
Building and construction	119
General commerce	254
Transport, storage and communication	287
Financial institutions, investment and holding companies	202
Professionals and individuals (include housing)	687
Others	76
Total	2,099

Analysed by Geography

	S\$ million
Singapore	481
Malaysia	629
Indonesia	534
Greater China	380
Rest of the World	75
Total	2,099

Distribution by geography is determined based on where the credit risk resides.

Loans Past Due but Not Impaired

Certain loans and advances are past due but not impaired as the collateral values of these loans are in excess of the principal and interest outstanding. Allowances for these loans may have been set aside on a portfolio basis.

Analysed by Period Overdue

	S\$ million
Past due	
Less than 30 days	378
30 to 90 days	432
Over 90 days	402
Past due but not impaired	1,212

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Impairment Allowances for Loans and Bills Receivable

Analysed by Geography

S\$ million	Specific allowances	Portfolio allowances
Singapore	85	772
Malaysia	142	391
Indonesia	58	210
Greater China	63	511
Other Asia Pacific	1	97
Rest of the World	11	79
Total	360	2,060

Distribution by geography is determined based on where the credit risk resides.

Analysed by Industry

S\$ million	Cumulative specific allowances	Specific allowances charged/ (write-back) to income statements
Agriculture, mining and quarrying	9	8
Manufacturing	94	52
Building and construction	31	6
Housing	28	5
General commerce	81	82
Transport, storage and communication	11	1
Financial institutions, investment and holding companies	2	(1)
Professionals and individuals	87	86
Others	17	(7)
Total	360	232

Reconciliation of Changes in Impairment Allowances

S\$ million	Specific Allowances
At 1 January 2015	332
Currency translation	(17)
Bad debts written off	(177)
Recovery of amounts previously provided for Allowances for loans	(53)
	285
Net allowances charged to income statements	232
Interest recognition on impaired loans	(7)
Transfer to other assets	(3)
At 31 December 2015	360

S\$ million	Portfolio Allowances
At 1 January 2015	1,897
Currency translation	(14)
Allowances charged to income statements	177
At 31 December 2015	2,060

Key Parameters used to Quantify Credit Risk

1. What is the probability of an obligor going into default?	Probability of Default =	PD (%)
2. What is our exposure in the event of a default?	Exposure at Default =	EAD
3. How much of the exposure amount should we expect to lose?	Loss Given Default =	LGD (%)

4.5 EXPOSURES AND RISK WEIGHTED ASSETS (“RWA”) BY PORTFOLIO

S\$ million	EAD	RWA
Credit Risk		
Standardised Approach		
Corporate	17,515	16,602
Sovereign	38,703	2,084
Bank	8,188	3,115
Retail	5,015	3,766
Residential Mortgage	12,558	4,830
Commercial Real Estate	10,350	10,382
Fixed Assets	4,000	4,000
Others	6,458	5,504
Total Standardised	102,787	50,283
Internal Ratings- Based (IRB) Approach		
Foundation IRB		
Corporate	107,460	71,112
Bank	51,677	11,151
Advanced IRB		
Residential Mortgage	53,152	5,985
Qualifying Revolving Retail	5,940	1,536
Small Business	7,854	3,278
Other Retail	1,063	133
Specialised Lending under Supervisory		
Slotting Criteria	1,837	2,207
Securitisation	–	–
Equity	1,413	4,926
Total IRB	230,396	100,328
Central Counterparties (CCP)	1,528	236 ⁽¹⁾
Credit Valuation Adjustments (CVA)		2,244 ⁽²⁾
Credit RWA pursuant to paragraph 6.1.3(p)(iii)		7,765 ⁽³⁾
Total Credit Risk	334,711	160,856
Market Risk		
Standardised Approach		19,531
Operational Risk		
Standardised Approach		10,343
Basic Indicator Approach		2,389
Total Operational Risk		12,732
Total RWA		193,119

⁽¹⁾ Refers to Credit RWA for exposures to central clearing houses that act as the intermediary for counterparties of contracts traded in financial markets.

⁽²⁾ Refers to Credit RWA for adjustments to the mark-to-market valuation of the Over-the-Counter (OTC) derivatives with a counterparty.

⁽³⁾ Refers to Credit RWA for investments in the ordinary shares of Unconsolidated Major Stake Companies within the prescribed threshold amount in accordance with MAS Notice 637 paragraph 6.1.3 (p)(iii).

4.6 CREDIT EXPOSURES UNDER STANDARDISED APPROACH

Credit exposures under the standardised approach comprise mainly exposures to sovereigns, exposures from major subsidiaries such as OCBC Wing Hang, OCBC NISP and Bank of Singapore, as well as fixed assets. Rated exposures relate mainly to debt securities, corporate and sovereign portfolios while unrated exposures relate mainly to individuals and fixed assets.

Risk Weight	EAD S\$ million	RWA S\$ million
0%	36,357	–
10% - 40%	16,949	5,144
50% - 99%	11,554	7,155
100%	37,814	37,814
>100%	113	170
Total	102,787	50,283
Rated exposures	56,877	15,014
Unrated exposures	45,910	35,269

4.7 CREDIT EXPOSURES SUBJECT TO SUPERVISORY RISK WEIGHTS UNDER INTERNAL RATINGS-BASED APPROACH

Equity Exposures under IRB Approach

Equities for regulatory capital computation are risk weighted and/or deducted from capital in accordance with MAS Notice 637 under IRB Approach. Equity exposures of S\$6 million have been deducted from regulatory capital.

	IRB Approach			
	(SRW)		(PD/LGD)	
	EAD S\$ million	Average Risk Weight %	EAD S\$ million	Average Risk Weight %
Listed securities	1,032	318%	–	–
Other equity holdings	275	424%	106	451%
Total	1,307	340%	106	451%

Specialised Lending Exposures under Supervisory Slotting Criteria

Specialised lending exposures include project, object and commodity financing.

	EAD S\$ million	Average Risk Weight
Strong	–	NA
Good	–	NA
Satisfactory	1,653	122%
Weak	72	265%
Default	112	NA
Total	1,837	120%

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4.8 CREDIT EXPOSURES UNDER FOUNDATION INTERNAL RATINGS-BASED APPROACH (F-IRBA)

Corporate exposures are mainly exposures to corporate and institutional customers, major non-bank financial institutions, as well as financing of income-producing real estate. Bank exposures are exposures to banks and eligible public sector entities.

Corporate Exposures

PD Range	EAD S\$ million	Average Risk Weight
up to 0.05%	14,510	17%
> 0.05 to 0.5%	37,471	46%
> 0.5 to 2.5%	43,841	86%
> 2.5 to 9%	9,673	130%
> 9%	782	123%
Default	1,183	NA
Total	107,460	66%

Bank Exposures

PD Range	EAD S\$ million	Average Risk Weight
up to 0.05%	34,423	11%
> 0.05 to 0.5%	12,193	35%
> 0.5 to 2.5%	4,920	61%
> 2.5 to 9%	72	110%
> 9%	69	217%
Default	#	NA
Total	51,677	22%

represents amounts less than \$0.5 million.

4.9 CREDIT EXPOSURES UNDER ADVANCED INTERNAL RATINGS BASED APPROACH (A-IRBA)

Residential Mortgages are loans to individuals secured by residential properties. Qualifying Revolving Retail exposures are revolving unsecured loans to individuals e.g. credit cards. Small Business exposures include lending to small businesses and commercial property loans to individuals in Singapore and Malaysia. Other Retail exposures are mainly auto loans in Singapore.

Residential Mortgages

PD Range	EAD S\$ million	Undrawn Commitment S\$ million	EAD Weighted Average	
			LGD	Risk Weight
up to 0.5%	39,577	4,539	11%	6%
> 0.5 to 3%	10,990	1,519	12%	18%
> 3 to 10%	1,278	71	11%	47%
> 10%	1,030	27	12%	68%
Default	277	12	14%	85%
Total	53,152	6,168	11%	11%

Qualifying Revolving Retail Exposures

PD Range	EAD S\$ million	Undrawn Commitment S\$ million	EAD Weighted Average	
			LGD	Risk Weight
up to 0.5%	4,471	7,754	80%	7%
> 0.5 to 3%	802	743	80%	43%
> 3 to 10%	480	236	83%	109%
> 10%	160	75	85%	231%
Default	27	–	82%	0%
Total	5,940	8,808	81%	26%

Small Business Exposures

PD Range	EAD S\$ million	Undrawn Commitment S\$ million	EAD Weighted Average	
			LGD	Risk Weight
up to 0.5%	2,473	944	32%	15%
> 0.5 to 3%	3,224	448	37%	39%
> 3 to 10%	1,782	102	41%	66%
> 10%	214	7	42%	97%
Default	161	4	44%	179%
Total	7,854	1,505	37%	42%

Other Retail Exposures

PD Range	EAD S\$ million	Undrawn Commitment S\$ million	EAD Weighted Average	
			LGD	Risk Weight
up to 0.5%	954	33	18%	7%
> 0.5 to 3%	54	9	42%	52%
> 3 to 10%	39	3	41%	65%
> 10%	12	1	40%	91%
Default	4	–	39%	88%
Total	1,063	46	20%	13%

4.10 ACTUAL LOSS AND EXPECTED LOSS FOR EXPOSURES UNDER FOUNDATION AND ADVANCED IRB APPROACH

Actual loss refers to net impairment loss allowance and direct write-off to the income statement during the year. Expected loss ("EL") represents model derived and/or regulatory prescribed estimates of future loss on potential defaults over a one-year time horizon. Comparison of the two measures has limitations because they are calculated using different methods. EL computations are based on LGD and EAD estimates that reflect downturn economic conditions and regulatory minimums, and PD estimates that reflect long run through-the-cycle approximation of default rates. Actual loss is based on accounting standards and represents the point-in-time impairment experience for the financial year.

\$S million	Actual Loss for the 12 months ended 31 December 2015	Regulatory Expected Loss (Non-defaulted) as at 31 December 2014
Corporate	57	266
Bank	–	42
Small Business	44	91
Retail	44	151
Total	145	550

4.11 EXPOSURES COVERED BY CREDIT RISK MITIGATION ⁽¹⁾

\$S million	Eligible Financial Collateral	Other Eligible Collateral	Amount by which exposures have been reduced by eligible credit protection
Standardised Approach			
Corporate	5,139	–	430
Sovereign and Bank	2,111	–	4
Retail and Residential			
Mortgage	501	–	488
Others	5,075	–	#
Total	12,826	–	922
Foundation IRB Approach			
Corporate	4,056	14,400	2,818
Bank	1,844	–	–
Total	5,900	14,400	2,818

represents amounts less than \$0.5 million.

⁽¹⁾ Note:

- i) Not all forms of collateral or credit risk mitigation are included for regulatory capital calculations.
- ii) Does not include collateral for exposures under Advanced IRB Approach and Specialised Lending.

4.12 COUNTERPARTY CREDIT RISK EXPOSURES

Net Derivatives Exposure

	\$S million
Replacement Cost	5,014
Potential Future Exposure	5,602
Less: Effects of Netting	3,314
EAD under Current Exposure Method	7,302
Analysed by type:	
Foreign Exchange Contracts	5,233
Interest Rate Contracts	989
Equity Contracts	214
Gold and Precious Metals Contracts	#
Other Commodities Contracts	16
Credit Derivative Contracts	850
Less: Eligible Financial Collateral	811
Other Eligible Collateral	–
Net Derivatives Credit Exposure	6,491

represents amounts less than \$0.5 million.

Credit Derivatives Exposure

	\$S million Notional Amount	
	Bought	Sold
Credit Default Swaps		
for own credit portfolio	10,475	10,054
for intermediation activities	66	66
Total	10,541	10,120

4.13 SECURITISATION EXPOSURES

There is no securitisation and re-securitisation exposure in the banking and trading books as at 31 December 2015.

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5. Market Risk

Capital Requirement by Market Risk Type under Standardised Approach

	S\$ million
Interest rate risk	816
Equity position risk	46
Foreign exchange risk	699
Commodity risk	1
Total	1,562

6. Equity Exposures in Banking Book

Disclosures on valuation and accounting treatment of equity holdings can be found in Notes 2.2.3, 2.6.2 and 2.23.3 in the Notes to the Financial Statements.

Equity exposures comprise equity securities categorised as “Available-for-sale” (AFS) and investments in associates and joint ventures. AFS securities are carried at fair value in the balance sheet of the Group while investments in associates and joint ventures are carried at cost and adjusted for post-acquisition changes of the Group’s share of the net assets of the associates and joint ventures.

Equity exposures categorised and measured in accordance with Singapore Financial Reporting Standards differ from the regulatory definition under MAS Notice 637 in the following key areas:

- Equity investments held by insurance subsidiaries (included below) are not consolidated for regulatory computation.
- Debt instruments approved for inclusion as Tier 1 capital are treated as equity exposures under MAS Notice 637.

Carrying Value of Equity Exposures

	S\$ million
Quoted equity exposure - AFS	1,728
Unquoted equity exposure - AFS	661
Quoted equity exposure - Associates	1,751
Unquoted equity exposure - Associates	473
Total	4,613

Realised and Unrealised Gains and Losses

	S\$ million
Gains/(losses) from disposal of AFS equities	197
Unrealised gains/(losses) included in fair value reserve	260
Total	457

7. Interest Rate Risk in The Banking Book

A description of the nature of interest rate risk in the banking book and key assumptions made by the Group can be found in Note 39.3 in the Notes to the Financial Statements.

Based on a 100 bp parallel rise in yield curves on the Group’s exposure to major currencies i.e. Singapore Dollar, US Dollar, Hong Kong Dollar and Malaysian Ringgit, net interest income is estimated to increase by \$561 million, or approximately +10.8% of reported net interest income. The corresponding impact from a 100 bp decrease is an estimated reduction of \$463 million in net interest income, or approximately -8.9% of reported net interest income.