

**Oversea-Chinese Banking Corporation Limited**

**Pillar 3 Disclosures  
(OCBC Group – As at 31 December 2018)**



Incorporated in Singapore  
Company Registration Number: 193200032W

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**Attestation Statement Pursuant to Monetary Authority of Singapore (MAS) Notice 637  
on Risk Based Capital Adequacy Requirements – Disclosure Requirements (Pillar 3)**

On behalf of the Board of Directors (Board), we are satisfied that the disclosures in this report have been prepared in accordance with the internal control processes approved by the Board for public disclosures.



**Darren Tan**  
Chief Financial Officer  
22 February 2019

## 1. INTRODUCTION

This document presents the information in accordance with Pillar 3 (P3) disclosure requirements under Monetary Authority of Singapore (MAS) Notice 637 on Risk Based Capital Adequacy Requirements for Banks incorporated in Singapore. The P3 requirements specify reporting templates for most of the quantitative disclosures to enable market participants to better compare the capital adequacy and risk profile across banks via improved consistency in public disclosure.

For purpose of the year-end disclosure for OCBC Group (Group) as at 31 December 2018, explanations of the drivers behind significant differences between reporting periods for the respective sections are provided where appropriate. The disclosure on the RWA flow statements for the following are omitted as there is no exposure treated under these approaches:

- Counterparty Credit Risk (CCR) under the Internal Models Method (IMM)
- Market Risk exposures under the Internal Models Approach (IMA)

## 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:

- Great Eastern Holdings Limited and its insurance subsidiaries are excluded from regulatory consolidation and are treated as investments in unconsolidated major stake companies that are financial institutions in accordance with MAS Notice 637's amended definition of insurance subsidiary. The regulatory adjustments applied to these investments are in accordance with MAS Notice 637 paragraphs 6.1.3(p), 6.2.3(e) and 6.3.3(e).
- As at 31 December 2018, the total equity of these insurance subsidiaries was S\$7 billion and total assets were S\$85 billion.

Disclosures on the Group's reconciliation of regulatory capital and regulatory capital position can be found in Section 5 of this document.

### 3. KEY METRICS

The table below provides an overview of the Group's prudential regulatory metrics, as stipulated by MAS Notice 637.

	(a)	(b)	(c)	(d)	(e)	
	Dec-18	Sep-18	Jun-18	Mar-18	Dec-17	
<b>Available Capital (S\$ million)</b>						
1	CET1 Capital	28,068	27,377	26,641	26,206	26,907
2	Tier 1 Capital	29,640	28,948	28,714	28,277	28,960
3	Total Capital	32,986	32,300	32,075	31,440	33,225
<b>Risk Weighted Assets (S\$ million)</b>						
4	Total RWA	200,248	200,322	200,786	198,817	193,082
<b>Risk-based Capital Ratios as a percentage of RWA (%)</b>						
5	CET1 Ratio	14.0	13.6	13.2	13.1	13.9
6	Tier 1 Ratio	14.8	14.4	14.3	14.2	14.9
7	Total Capital Ratio	16.4	16.1	15.9	15.8	17.2
<b>Additional CET1 buffer requirements as a percentage of RWA (%)</b>						
8	Capital conservation buffer requirement <sup>1/</sup>	1.875	1.875	1.875	1.875	1.25
9	Countercyclical buffer requirement	0.3	0.3	0.3	0.2	0.2
10	Bank G-SIB and/or D-SIB additional requirements	-	-	-	-	-
11	Total of Bank CET1 specific requirements <sup>2/</sup>	2.2	2.1	2.1	2.1	1.4
12	CET1 available after meeting the Reporting Bank's minimum capital requirements	6.4	6.1	5.9	5.8	7.2
<b>Leverage Ratio (S\$ million)</b>						
13	Total Leverage Ratio exposure measure	409,993	406,022	408,204	401,030	394,770
14	Leverage Ratio (%) <sup>3/</sup>	7.2	7.1	7.0	7.0	7.3
<b>Liquidity Coverage Ratio (S\$ million) <sup>4/</sup></b>						
15	Total High Quality Liquid Assets	49,751	47,630	50,536	50,644	46,675
16	Total net cash outflow	32,124	36,885	36,956	34,368	29,638
17	Liquidity Coverage Ratio (%)	156	130	138	149	159
<b>Net Stable Funding Ratio (S\$ million) <sup>5/</sup></b>						
18	Total available stable funding	231,631	228,607	227,516	218,729	
19	Total required stable funding	213,274	211,715	210,220	207,022	
20	Net Stable Funding Ratio (%)	109	108	108	106	

<sup>1/</sup> To be 2.5% from 1 Jan 2019

<sup>2/</sup> Sum of rows 8, 9 and 10

<sup>3/</sup> Computed by row 2 / row 13

<sup>4/</sup> Reported as simple averages of daily observations for the respective quarter

<sup>5/</sup> Information shown from Mar-18 position as prior periods were not subject to public disclosure requirements

## 4. CAPITAL ADEQUACY

### 4.1 Capital Adequacy Information

Disclosures on the Group's capital adequacy ratios and the capital positions for the Group's significant Banking subsidiaries as at 31 December 2018 are presented in the Capital Adequacy Ratios section of the Financial Year 2018 Financial Results (<http://www.ocbc.com/group/investors/index.html>).

### 4.2 G-SIB Assessment Indicators

The following disclosures are made under Part XIA of MAS Notice 637 'Notice of Risk Based Capital Adequacy Requirements for Banks Incorporated in Singapore'.

The Basel Committee on Banking Supervision (BCBS) has published 12 indicators it uses to classify a Bank as a Global Systemically Important Bank (G-SIB). While OCBC is not a GSIB, it is required under MAS Notice 637 to disclose the 12 G-SIB indicators. The G-SIB indicators disclosed in the table below are unaudited and have been prepared in accordance with the instructions issued by BCBS and, may not be directly comparable with other disclosed information.

12 G-SIB indicators of OCBC Group as at 31 December 2018

<b>31 Dec 2018</b>			<b>Amount</b>
<b>Category</b>	<b>Indicators used for assessing G-SIBs</b>		<b>S\$ million</b>
<b>1</b>	Cross-jurisdictional claims		235,361
<b>2</b>	Cross-jurisdictional liabilities		177,511
<b>3</b>	Total exposures as defined for use in the Basel III leverage ratio <sup>1/</sup>		416,877
<b>4</b>	Intra-financial system assets		71,427
<b>5</b>	Intra-financial system liabilities		40,483
<b>6</b>	Securities outstanding		102,944
<b>7</b>	Assets under custody		125,206
<b>8</b>	Payments activity		5,735,185
<b>9</b>	Underwritten transactions in debt and equity markets		7,202
<b>10</b>	Notional amount of OTC derivatives		1,011,819
<b>11</b>	Level 3 assets		1,226
<b>12</b>	Trading and available-for-sale securities		36,043

<sup>1/</sup> Total exposures differ from the total exposures disclosed under Leverage Ratio as the computation as required by the Basel Committee for the purposes of the G-SIB assessment disclosures excludes regulatory adjustments.

### 4.3 Geographical Distribution of Credit Exposures Used in the Countercyclical Capital Buffer

The following table provides an overview of the Group's geographical distribution of private sector credit exposures for the calculation of countercyclical buffer.

The geographical distribution is based on the country where the physical collateral resides in, residence of the guarantor, or in the absence of such mitigant, the country of obligor (i.e. the country where the majority of the obligor's operating assets is situated) in accordance with MAS Notice 637 requirements.

31 Dec 2018				
	(a)	(b)	(c)	(d)
	Country-Specific countercyclical buffer requirement %	RWA for private sector credit exposures S\$ million	Bank-Specific countercyclical buffer requirement <sup>1/</sup> %	Countercyclical buffer amount S\$ million
<b>Geographical breakdown</b>				
Hong Kong	1.875%	19,094		
Sweden	1.875%	73		
United Kingdom	1.00%	5,123		
<b>Sub-total</b>		24,290		
<b>Total</b>		<b>146,181</b>	<b>0.3%</b>	<b>563</b>

30 Jun 2018				
	(a)	(b)	(c)	(d)
	Country-Specific countercyclical buffer requirement %	RWA for private sector credit exposures S\$ million	Bank-Specific countercyclical buffer requirement <sup>1/</sup> %	Countercyclical buffer amount S\$ million
<b>Geographical breakdown</b>				
Hong Kong	1.875%	19,314		
Sweden	1.875%	7		
United Kingdom	0.50%	4,252		
<b>Sub-total</b>		23,573		
<b>Total</b>		<b>145,861</b>	<b>0.3%</b>	<b>528</b>

<sup>1/</sup> The Bank-Specific countercyclical buffer is the additional capital which needs to be maintained above the Regulatory minimum and Capital Conservation buffer requirement



## 5. COMPOSITION OF CAPITAL

### 5.1 Reconciliation of Regulatory Capital

The reporting position of the table in this section is as at 31 December 2018.

	Balance sheet as per published financial statements	Under regulatory scope of consolidation	Cross Reference to Section 5.2
<b>S\$m</b>			
<b>EQUITY</b>			
Share capital	15,750	15,750	A
Other equity instruments	1,497	1,497	B
Reserves:			
Capital reserves	930		
Fair value reserves	(66)		
Revenue reserves	24,026		
Total reserves	<b>24,890</b>		
of which: Retained earnings		17,939	C1
of which: Accumulated other comprehensive income and other disclosed reserves		1,082	C2
of which: Cash flow hedge reserve		1	C3
of which: Unrealised fair value gains/losses on financial liabilities and derivative liabilities arising from changes in own credit risk		17	C4
Non-controlling interests	1,255		
of which: Minority interest that meets criteria for inclusion in CET1 Capital		198	D1
of which: Minority interest that meets criteria for inclusion in AT1 Capital		32	D2
of which: Minority interest that meets criteria for inclusion in Tier 2 Capital		20	D3
Valuation adjustment		26	E
<b>Total equity</b>	<b>43,392</b>		
<b>LIABILITIES</b>			
Deposits of non-bank customers	295,412		
Deposits and balances of banks	7,576		
Due to associates	366		
Trading portfolio liabilities	214		
Derivative payables	7,105		
Other liabilities	5,813		
Current tax payables	1,014		
Deferred tax liabilities	1,451		
of which: Associated with intangible assets		52	F
Debt issued	30,272		
of which: AT1 capital instruments issued by fully-consolidated subsidiaries that meet criteria for inclusion		43	G1
of which: Tier 2 capital instruments		2,715	G2
of which: Tier 2 capital instruments issued by fully-consolidated subsidiaries that meet criteria for inclusion		1	G3
Life assurance fund liabilities	74,928		
<b>Total liabilities</b>	<b>424,151</b>		
<b>Total equity and liabilities</b>	<b>467,543</b>		
<b>ASSETS</b>			
Cash and placements with central banks	18,748		
Singapore government treasury bills and securities	9,611		
Other government treasury bills and securities	18,165		
Placements with and loans to banks	39,035		
Loans and bills receivable	255,193		
of which: Eligible provision for inclusion in Tier 2 Capital subject to cap in respect of exposures under SA and IRBA		609	H
Debt and equity securities	25,542		
of which: Indirect investments in own Tier 2 capital instrument		1	I1
of which: Investments in unconsolidated major stake financial institutions		340	I2
of which: Investments in unconsolidated non major stake financial institutions		430	I3
of which: PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630		0	I4
Investments in insurance subsidiaries		1,953	J
Derivative and forward securities in unconsolidated non major stake financial institutions		(20)	K
Assets pledged	1,105		
Assets held for sale	2		
Derivative receivables	7,201		
Other assets	3,475		
Deferred tax assets	106		
of which: Deferred tax assets before netting		209	L
Associates	3,183		
of which: Investments in unconsolidated major stake financial institutions		3,080	M
Property, plant and equipment	3,337		
Investment property	880		
Goodwill and intangible assets	5,093		
of which: Goodwill		4,020	N1
of which: Intangible assets		347	N2
Life assurance fund investment assets	76,867		
<b>Total assets</b>	<b>467,543</b>		

## 5.2 Regulatory Capital Position

The reporting position of the tables in this section is as at 31 December 2018.

		S\$m	
		Amount	Cross Reference to Section 5.1
	<b>Common Equity Tier 1 capital: instruments and reserves</b>		-
1	Paid-up ordinary shares and share premium (if applicable)	15,750	A
2	Retained earnings	17,939	C1
3	Accumulated other comprehensive income and other disclosed reserves	1,082	C2
4	Directly issued capital subject to phase out from CET1 (only applicable to non-joint stock companies)	-	
5	Minority interest that meets criteria for inclusion	198	D1
6	<b>Common Equity Tier 1 capital before regulatory adjustments</b>	<b>34,969</b>	
	<b>Common Equity Tier 1 capital: regulatory adjustments</b>		
7	Valuation adjustment pursuant to Part VIII of MAS Notice 637	26	E
8	Goodwill, net of associated deferred tax liability	4,020	N1
9	Intangible assets, net of associated deferred tax liability	295	N2 - F
10	Deferred tax assets that rely on future profitability	209	L
11	Cash flow hedge reserve	1	C3
12	Shortfall of TEP relative to EL under IRBA	-	
13	Increase in equity capital resulting from securitisation transactions	-	
14	Unrealised fair value gains/losses on financial liabilities and derivative liabilities arising from changes in own credit risk	17	C4
15	Defined benefit pension fund assets, net of associated deferred tax liability	-	
16	Investments in own shares	-	
17	Reciprocal cross-holdings in ordinary shares of financial institutions	-	
18	Investments in ordinary shares of unconsolidated financial institutions in which the Reporting Bank does not hold a major stake	-	
19	Investments in ordinary shares of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries) (amount above 10% threshold)	2,332	(I2 + M + J) - 3,040 <sup>1</sup>
20	Mortgage servicing rights (amount above 10% threshold)	-	
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of associated deferred tax liability)	-	
22	Amount exceeding the 15% threshold	-	
23	of which: investments in ordinary shares of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	-	
24	of which: mortgage servicing rights	-	
25	of which: deferred tax assets arising from temporary differences	-	
26	National specific regulatory adjustments	0	
26A	PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630	0	I4
26B	Capital deficits in subsidiaries and associates that are regulated financial institutions	-	
26C	Any other items which the Authority may specify	-	
27	Regulatory adjustments applied in calculation of CET1 Capital due to insufficient AT1 Capital to satisfy required deductions	-	
28	<b>Total regulatory adjustments to CET1 Capital</b>	<b>6,901</b>	
29	<b>Common Equity Tier 1 capital (CET1)</b>	<b>28,068</b>	
	<b>Additional Tier 1 capital: instruments</b>		
30	AT1 capital instruments and share premium (if applicable)	1,497	B
31	of which: classified as equity under the Accounting Standards	1,497	
32	of which: classified as liabilities under the Accounting Standards	-	
33	Transitional: Ineligible capital instruments (pursuant to paragraphs 6.5.3 and 6.5.4)	-	
34	AT1 capital instruments issued by fully-consolidated subsidiaries that meet criteria for inclusion	75	D2 + G1
35	of which: instruments issued by subsidiaries subject to phase out	43	G1
36	<b>Additional Tier 1 capital before regulatory adjustments</b>	<b>1,572</b>	
	<b>Additional Tier 1 capital: regulatory adjustments</b>		
37	Investments in own AT1 capital instruments	-	
38	Reciprocal cross-holdings in AT1 capital instruments of financial institutions	-	
39	Investments in AT1 capital instruments of unconsolidated financial institutions in which the Reporting Bank does not hold a major stake	-	
40	Investments in AT1 capital instruments of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	-	
41	National specific regulatory adjustments which the Authority may specify	-	
42	Regulatory adjustments applied in calculation of AT1 Capital due to insufficient Tier 2 Capital to satisfy required deductions	-	
43	<b>Total regulatory adjustments to Additional Tier 1 capital</b>	<b>-</b>	
44	<b>Additional Tier 1 capital (AT1)</b>	<b>1,572</b>	
45	<b>Tier 1 capital (T1 = CET1 + AT1)</b>	<b>29,640</b>	

## 5.2 Regulatory Capital Position (continued)

		Amount	Cross Reference to Section 5.1
	<b>Tier 2 capital: instruments and provisions</b>		
46	Tier 2 capital instruments and share premium (if applicable)	2,715	G2
47	Transitional: Ineligible capital instruments (pursuant to paragraphs 6.5.3 and 6.5.4)	-	
48	Tier 2 capital instruments issued by fully-consolidated subsidiaries that meet criteria for inclusion	21	D3 + G3
49	of which: instruments issued by subsidiaries subject to phase out	-	
50	Provisions	609	H
51	<b>Tier 2 capital before regulatory adjustments</b>	<b>3,346</b>	
	<b>Tier 2 capital: regulatory adjustments</b>		
52	Investments in own Tier 2 instruments	1	I1
53	Reciprocal cross-holdings in Tier 2 capital instruments of financial institutions	-	
54	Investments in Tier 2 capital instruments of unconsolidated financial institutions in which the Reporting Bank does not hold a major stake	-	
55	Investments in Tier 2 capital instruments of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	-	
56	National specific regulatory adjustments which the Authority may specify	-	
57	<b>Total regulatory adjustments to Tier 2 capital</b>	<b>1</b>	
58	<b>Tier 2 capital (T2)</b>	<b>3,345</b>	
59	<b>Total capital (TC = T1 + T2)</b>	<b>32,986</b>	
60	<b>Floor-adjusted total risk weighted assets</b>	<b>200,248</b>	
	<b>Capital ratios (as a percentage of floor-adjusted risk weighted assets)</b>		
61	<b>Common Equity Tier 1 CAR</b>	14.0%	
62	<b>Tier 1 CAR</b>	14.8%	
63	<b>Total CAR</b>	16.4%	
64	Bank-specific buffer requirement	8.7%	
65	of which: capital conservation buffer requirement	1.875%	
66	of which: bank specific countercyclical buffer requirement	0.3%	
67	of which: G-SIB and/or D-SIB buffer requirement (if applicable)	-	
68	Common Equity Tier 1 available after meeting the Reporting Bank's minimum capital requirements	6.4%	
	<b>National minima</b>		
69	Minimum CET1 CAR	6.5%	
70	Minimum Tier 1 CAR	8.0%	
71	Minimum Total CAR	10.0%	
	<b>Amounts below the thresholds for deduction (before risk weighting)</b>		
72	Investments in ordinary shares, AT1 capital and Tier 2 capital of unconsolidated financial institutions in which the Reporting Bank does not hold a major stake	410	I3 + K
73	Investments in ordinary shares of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	3,040	Refer to note <sup>1</sup>
74	Mortgage servicing rights (net of associated deferred tax liability)		
75	Deferred tax assets arising from temporary differences (net of associated deferred tax liability)		
	<b>Applicable caps on the inclusion of provisions in Tier 2</b>		
76	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	447	
77	Cap on inclusion of provisions in Tier 2 under standardised approach	588	
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	162	
79	Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	648	
	<b>Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2013 and 1 Jan 2022)</b>		
80	Current cap on CET1 instruments subject to phase out arrangements		
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)		
82	Current cap on AT1 instruments subject to phase out arrangements	1,982	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	68	
84	Current cap on T2 instruments subject to phase out arrangements	-	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-	

<sup>1/</sup> The investments in the ordinary shares of unconsolidated major stake companies that are financial institutions which are within the prescribed threshold amount in accordance with MAS Notice 637 paragraph 6.1.3 (p)(iii)

### 5.3 Main Features of Capital Instruments

The following disclosures are made pursuant to the requirements of MAS Notice 637 Annex 11D. They are not a summary of the terms, do not purport to be complete, and should be read in conjunction with, and are qualified in their entirety by, the relevant Terms and Conditions available on the Bank's Investor Relations website ([http://www.ocbc.com/group/investors/Cap\\_and\\_Reg\\_Disclosures.html](http://www.ocbc.com/group/investors/Cap_and_Reg_Disclosures.html)). The reporting position of all tables in this section is as at 31 December 2018.

	OCBC Ordinary Shares	OCBC 3.8% Non-cumulative Non-convertible Perpetual Capital Securities
1. Issuer	Oversea-Chinese Banking Corporation Limited	Oversea-Chinese Banking Corporation Limited
2. Unique identifier (ISIN)	SG1S04926220	SG6YJ3000003
3. Governing law(s) of instrument	Singapore	Singapore
<i>Regulatory treatment</i>		
4. Transitional Basel III rules	Common Equity Tier 1	Additional Tier 1
5. Post-transitional Basel III rules	Common Equity Tier 1	Additional Tier 1
6. Eligible at Solo / Group / Solo and Group	Solo and Group	Solo and Group
7. Instrument type	Ordinary shares	Perpetual Capital Securities
8. Amount recognised in regulatory capital	S\$15,750 million	S\$499 million
9. Par value of instrument	NA	S\$500 million
10. Accounting classification	Shareholders' equity	Shareholders' equity
11. Original date of issuance	NA	25 Aug 2015
12. Perpetual or dated	Perpetual	Perpetual
13. Original maturity date	No maturity	No maturity
14. Issuer call subject to prior supervisory approval	No	Yes
15. Optional call date, contingent call dates and redemption amount	NA	On or after the First Reset Date of 25 Aug 2020 (at par)  Tax call (at par) Regulatory call (at par)
16. Subsequent call dates, if applicable	NA	Optional call dates - any date after the First Reset Date
<i>Coupons / dividends</i>		
17. Fixed or floating dividend / coupon	NA	Fixed to fixed
18. Coupon rate and any related index	NA	3.8% p.a. up to (but excluding) 25 Aug 2020; if not redeemed, the distribution rate will be reset every 5 years thereafter to a fixed rate equal to the then prevailing 5-year SGD SOR plus 1.51% p.a.
19. Existence of a dividend stopper	NA	Yes
20. Fully discretionary, partially discretionary or mandatory	NA	Fully discretionary
21. Existence of step up or other incentive to redeem	NA	No
22. Noncumulative or cumulative	NA	Noncumulative
23. Convertible or non-convertible	NA	Nonconvertible
24. If convertible, conversion trigger(s)	NA	NA
25. If convertible, fully or partially	NA	NA
26. If convertible, conversion rate	NA	NA
27. If convertible, mandatory or optional conversion	NA	NA
28. If convertible, specify instrument type convertible into	NA	NA
29. If convertible, specify issuer of instrument it converts into	NA	NA
30. Write-down feature	No	Yes
31. If write-down, write-down trigger(s)	NA	The earlier of: i) the MAS notifying the Issuer in writing that it is of the opinion that a Write-off is necessary, without which the Issuer would become non-viable; and ii) a decision by the MAS to make a public sector injection of capital, or equivalent support, without which the Issuer would have become non-viable, as determined by the MAS.
32. If write-down, full or partial	NA	Fully or partially
33. If write-down, permanent or temporary	NA	Permanent
34. If temporary write-down, description of write-up mechanism	NA	NA
35. Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned)	Additional Tier 1 capital instruments of OCBC Bank	Upon the occurrence of any winding-up proceeding (other than pursuant to a Permitted Reorganisation), Capital Securities are expressly subordinated and subject in right of payment to the prior payment in full of all claims of (i) Senior Creditors and (ii) holders of Tier II Capital Securities, and will rank senior to all Junior Obligations.
36. Non-compliant transitioned features	No	No
37. If yes, specify non-compliant features	NA	NA

### 5.3 Main Features of Capital Instruments (continued)

	OCBC 4.0% Non-cumulative Non-convertible Perpetual Capital Securities	OCBC Malaysia 6.75% Innovative Tier 1 Capital Securities
1. Issuer	Oversea-Chinese Banking Corporation Limited	OCBC Bank (Malaysia) Berhad
2. Unique identifier (ISIN)	SGXF81199428	MYBPZ0900079
3. Governing law(s) of instrument	Singapore	Malaysia
<i>Regulatory treatment</i>		
4. Transitional Basel III rules	Additional Tier 1	Additional Tier 1
5. Post-transitional Basel III rules	Additional Tier 1	Ineligible
6. Eligible at Solo / Group / Solo and Group	Solo and Group	Group
7. Instrument type	Perpetual Capital Securities	Capital securities
8. Amount recognised in regulatory capital	SS998 million	SS44 million
9. Par value of instrument	SS1,000 million	MYR400 million
10. Accounting classification	Shareholders' equity	Liabilities - amortised cost
11. Original date of issuance	24 Aug 2018	17 Apr 2009
12. Perpetual or dated	Perpetual	Perpetual <sup>1</sup>
13. Original maturity date	No maturity	No maturity <sup>1</sup>
14. Issuer call subject to prior supervisory approval	Yes	Yes
15. Optional call date, contingent call dates and redemption amount	On the First Reset Date of 24 Aug 2023 and each Distribution Payment Date thereafter (at par)	First call date: 17 Apr 2019 (at par)
	Tax call (at par)	Tax call (at par)
	Regulatory call (at par)	Regulatory call (at par)
16. Subsequent call dates, if applicable	Optional call dates - any Distribution Payment Date after the First Reset Date	17 Apr and 17 Oct of each year after the first call date
<i>Coupons / dividends</i>		
17. Fixed or floating dividend / coupon	Fixed to fixed	Fixed to floating
18. Coupon rate and any related index	4.0% p.a. up to (but excluding) 24 Aug 2023; if not redeemed, the distribution rate will be reset on the First Reset Date and every 5 years thereafter to a fixed rate equal to the then prevailing 5-year SGD SOR plus 1.811% p.a.	6.75% p.a. up to 17 Apr 2019, and 6M KLIBOR plus 3.32% p.a. thereafter
19. Existence of a dividend stopper	Yes	Yes
20. Fully discretionary, partially discretionary or mandatory	Fully discretionary	Fully discretionary
21. Existence of step up or other incentive to redeem	No	Yes
22. Noncumulative or cumulative	Noncumulative	Cumulative <sup>2</sup>
23. Convertible or non-convertible	Nonconvertible	Nonconvertible
24. If convertible, conversion trigger(s)	NA	NA
25. If convertible, fully or partially	NA	NA
26. If convertible, conversion rate	NA	NA
27. If convertible, mandatory or optional conversion	NA	NA
28. If convertible, specify instrument type convertible into	NA	NA
29. If convertible, specify issuer of instrument it converts into	NA	NA
30. Write-down feature	Yes	No
31. If write-down, write-down trigger(s)	The earlier of: i) the MAS notifying the Issuer in writing that it is of the opinion that a Write-off is necessary, without which the Issuer would become non-viable; and ii) a decision by the MAS to make a public sector injection of capital, or equivalent support, without which the Issuer would have become non-viable, as determined by the MAS.	NA
32. If write-down, full or partial	Fully or partially	NA
33. If write-down, permanent or temporary	Permanent	NA
34. If temporary write-down, description of write-up mechanism	NA	NA
35. Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned)	Upon the occurrence of any winding-up proceeding (other than pursuant to a Permitted Reorganisation), Capital Securities are expressly subordinated and subject in right of payment to the prior payment in full of all claims of (i) Senior Creditors which includes holders of Tier II Capital Securities, and will rank senior to all Junior Obligations.	Tier 2 capital instruments of OCBC Malaysia
36. Non-compliant transitioned features	No	Yes
37. If yes, specify non-compliant features	NA	Has no loss absorbency when CET1 CAR falls to 7% or below, and at the point of non-viability  Has a step-up

<sup>1</sup> Redemption of the capital securities after 30 years from the issue date, if still outstanding then, is subject to regulatory approval being obtained and may only be made from the proceeds of a fresh issuance of preference shares.

<sup>2</sup> Payment of any deferred coupon amount is subject to regulatory approval being obtained and may only be made from the proceeds of a fresh issuance of preference shares. In addition, payment of any deferred coupon amount in excess of the specified limit is subject to regulatory approval.

### 5.3 Main Features of Capital Instruments (continued)

	OCBC 4.25% Subordinated Notes due 2024	OCBC 4.00% Subordinated Notes due 2024 Callable in 2019
1. Issuer	Oversea-Chinese Banking Corporation Limited	Oversea-Chinese Banking Corporation Limited
2. Unique identifier (ISIN)	US69033DAC11 (Reg S)	US69033DAB38 (Reg S)
3. Governing law(s) of instrument	US69033CAC38 (144A) England (Save for the subordination provisions) Singapore (In respect of the subordination provisions)	US69033CAB54 (144A) England (Save for the subordination provisions) Singapore (In respect of the subordination provisions)
<i>Regulatory treatment</i>		
4. Transitional Basel III rules	Tier 2	Tier 2
5. Post-transitional Basel III rules	Tier 2	Tier 2
6. Eligible at Solo / Group / Solo and Group	Solo and Group	Solo and Group
7. Instrument type	Subordinated debt	Subordinated debt
8. Amount recognised in regulatory capital	S\$1,361 million	S\$1,354 million
9. Par value of instrument	US\$1,000 million	US\$1,000 million
10. Accounting classification	Liabilities - amortised cost	Liabilities - amortised cost
11. Original date of issuance	19 Jun 2014	15 Apr 2014
12. Perpetual or dated	Dated	Dated
13. Original maturity date	19 Jun 2024	15 Oct 2024
14. Issuer call subject to prior supervisory approval	Yes	Yes
15. Optional call date, contingent call dates and redemption amount	Tax call (at par)  Regulatory call (at par)	First call date: 15 Oct 2019 (at par)  Tax call (at par)  Regulatory call (at par)
16. Subsequent call dates, if applicable	NA	NA
<i>Coupons / dividends</i>		
17. Fixed or floating dividend / coupon	Fixed	Fixed to fixed
18. Coupon rate and any related index	4.25% p.a.	4.00% p.a. up to 15 Oct 2019, and reset to 5-yr US Dollar Swap Rate plus 2.203% p.a. thereafter
19. Existence of a dividend stopper	NA	NA
20. Fully discretionary, partially discretionary or mandatory	Mandatory	Mandatory
21. Existence of step up or other incentive to redeem	No	No
22. Noncumulative or cumulative	NA	NA
23. Convertible or non-convertible	Nonconvertible	Nonconvertible
24. If convertible, conversion trigger(s)	NA	NA
25. If convertible, fully or partially	NA	NA
26. If convertible, conversion rate	NA	NA
27. If convertible, mandatory or optional conversion	NA	NA
28. If convertible, specify instrument type convertible into	NA	NA
29. If convertible, specify issuer of instrument it converts into	NA	NA
30. Write-down feature	Yes	Yes
31. If write-down, write-down trigger(s)	Contractual approach  The earlier of (i) MAS determining that a write-down is necessary; and (ii) a decision by MAS to make a public sector injection of capital, or equivalent support, without which the issuer would become non-viable in both (i) and (ii)	Contractual approach  The earlier of (i) MAS determining that a write-down is necessary; and (ii) a decision by MAS to make a public sector injection of capital, or equivalent support, without which the issuer would become non-viable in both (i) and (ii)
32. If write-down, full or partial	May be written down fully or partially	May be written down fully or partially
33. If write-down, permanent or temporary	Permanent	Permanent
34. If temporary write-down, description of write-up mechanism	NA	NA
35. Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned)	Unsubordinated and unsecured obligations of OCBC Bank	Unsubordinated and unsecured obligations of OCBC Bank
36. Non-compliant transitioned features	No	No
37. If yes, specify non-compliant features	NA	NA

## 6. LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES

### 6.1 Differences between Accounting and Regulatory Scopes of Consolidation

The purpose of this table is to identify the differences between the accounting and regulatory scopes of consolidation by the respective regulatory risk categories. The key reason for the differences between the accounting and regulatory scope of consolidation can be found in Section 2 of this document.

31 Dec 2018							
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Carrying amounts as reported in balance sheet of published financial statements	Carrying amounts under regulatory scope of consolidation	Subject to credit risk requirements <sup>1/</sup>	Carrying amounts of items:			Not subject to capital requirements or subject to deduction from regulatory capital
\$S million				Subject to credit risk requirements <sup>1/</sup>	Subject to CCR requirements	Subject to securitisation framework	
<b>Assets</b>							
Cash and placements with central banks	18,748	18,748	16,535	2,216	-	10,131	-
Singapore government treasury bills and securities	9,611	9,286	7,670	-	-	2,446	-
Other government treasury bills and securities	18,165	18,065	15,664	-	-	17,236	-
Placements with and loans to banks	39,035	37,301	33,912	589	-	37,198	-
Loans and bills receivable	255,193	255,186	253,963	1,873	-	164,252	-
Debt and equity securities	25,542	20,909	17,299	-	-	20,584	148
Assets pledged	1,105	1,105	1,105	-	-	785	-
Assets held for sale	2	2	2	-	-	-	-
Derivative receivables	7,201	7,195	-	6,989	-	7,009	-
Other assets	3,475	3,194	3,194	-	-	2,203	-
Deferred tax assets	106	70	-	-	-	69	209
Associates	3,183	3,183	1,846	-	-	1,462	1,337
Subsidiaries	-	1,952	1,105	-	-	5	848
Property, plant and equipment	3,337	2,748	2,748	-	-	678	-
Investment property	880	880	880	-	-	75	-
Goodwill and intangible assets	5,093	4,367	-	-	-	-	4,367
Life insurance fund investment assets	76,867	-	-	-	-	-	-
<b>Total Assets</b>	<b>467,543</b>	<b>384,191</b>	<b>355,923</b>	<b>11,667</b>	<b>-</b>	<b>264,133</b>	<b>6,909</b>
<b>Liabilities</b>							
Deposits of non-bank customers	295,412	295,517	-	1,037	-	194,239	101,278
Deposits and balances of banks	7,576	7,576	-	430	-	7,013	563
Due to associates	366	366	-	-	-	222	144
Trading portfolio liabilities	214	214	-	-	-	214	#
Derivative payables	7,105	7,101	-	7,078	-	7,035	22
Other liabilities	5,813	5,523	-	-	-	1,336	4,187
Current tax payables	1,014	515	-	-	-	143	372
Deferred tax liabilities	1,451	282	-	-	-	103	179
Debt issued	30,272	29,876	-	-	-	29,871	5
Life insurance fund liabilities	74,928	-	-	-	-	-	-
<b>Total Liabilities</b>	<b>424,151</b>	<b>346,970</b>	<b>-</b>	<b>8,545</b>	<b>-</b>	<b>240,176</b>	<b>106,750</b>

<sup>1/</sup> Refers to non CCR exposures and exclude trading book assets such as bonds and equities

# represents amounts of less than \$0.5 million

## 6.2 Main Sources of Differences between Financial Statements and Regulatory Exposures

This table provides information on the main sources of differences, other than due to the difference in scope of consolidation, between regulatory exposure amounts and carrying amounts under regulatory scope of consolidation. These differences are mainly due to off-balance sheet amounts, repos, derivatives and provisions.

Amounts subject to Market Risk Requirements are omitted from this table since they are not meaningful for this disclosure.

31 Dec 2018				
	(a)	(b)	(c)	(d)
	Items subject to:			
S\$ million	Credit risk requirements	CCR requirements	Securitisation framework	Total
<b>1 Assets carrying amount under regulatory scope of consolidation <sup>1/</sup></b>	355,923	11,667	-	377,282
<b>2 Liabilities carrying amount under regulatory scope of consolidation <sup>1/</sup></b>	-	8,545	-	240,220
<b>3 Total net amount under regulatory scope of consolidation</b>	355,923	3,122	-	137,062
<b>4 Differences due to off-balance sheet amounts</b>	37,848	9,412	-	
<b>5 Differences due to valuations</b>	-	-	-	
<b>6 Differences due to repos</b>	-	3,089	-	
<b>7 Differences due to derivatives netting <sup>2/</sup></b>	-	1,732	-	
<b>8 Differences due to consideration of provisions</b>	2,057	-	-	
<b>9 Differences due to prudential filters</b>	-	-	-	
<b>10 Others <sup>3/</sup></b>	55	-	-	
<b>11 Exposure amounts considered for regulatory purposes <sup>4/</sup></b>	<b>395,883</b>	<b>17,355</b>	<b>-</b>	<b>413,238</b>

<sup>1/</sup> Refers to assets and liabilities carrying amounts as per the table in section 6.1

<sup>2/</sup> Refers to gross-up of the net exposure value as the derivatives netting in row 2 is broader than the netting considered for regulatory purpose

<sup>3/</sup> Includes amounts not reported in the other categories

<sup>4/</sup> Refers to Regulatory Exposures at Default gross of impairment allowances before taking into account the effect of Credit Risk Mitigation



### 6.3 Prudent Valuation Adjustments

This table is to provide the breakdown of the constituent elements of the Group's prudent valuation adjustments. Valuation adjustments relating to Mid-market value, Closeout cost, Model risk and Unearned credit spreads, have been taken in financial reporting.

		31 Dec 2018							
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
S\$ million		Equity	Interest rates	FX	Credit	Commodities	Total	of which: in the Trading book	of which: in the Banking book
1	Closeout uncertainty	-	-	-	#	-	#	#	-
2	of which: Mid-market value	-	-	-	-	-	-	-	-
3	of which: Closeout cost	-	-	-	-	-	-	-	-
4	of which: Concentration	-	-	-	#	-	#	#	-
5	Early termination <sup>1/</sup>	-	-	-	-	-	-	-	-
6	Model risk	-	-	-	-	-	-	-	-
7	Operational risk <sup>2/</sup>	-	-	-	-	-	-	-	-
8	Investing and funding costs	-	14	12	-	-	26	26	#
9	Unearned credit spreads	-	-	-	-	-	-	-	-
10	Future administrative costs <sup>3/</sup>	-	-	-	-	-	-	-	-
11	Other <sup>4/</sup>	-	-	-	-	-	-	-	-
<b>12</b>	<b>Total adjustment</b>	-	<b>14</b>	<b>12</b>	<b>#</b>	-	<b>26</b>	<b>26</b>	<b>#</b>

<sup>1/</sup> Included in unwinding cost

<sup>2/</sup> Valuation processes are mostly automated with minimal manual intervention

<sup>3/</sup> No significant change in future administrative costs is expected

<sup>4/</sup> Not applicable

# Represents amounts less than \$0.5 million

## 7. LEVERAGE RATIO

### 7.1 Leverage Ratio

	31 Dec 2018	30 Sep 2018	30 Jun 2018	31 Mar 2018
<b>Capital and Total exposures (S\$m)</b>				
Tier 1 capital	29,640	28,948	28,714	28,277
Total exposures	409,993	406,022	408,204	401,030
<b>Leverage Ratio (%)</b>				
Leverage ratio	7.2	7.1	7.0	7.0

As at 31 December 2018, the leverage ratio of 7.2% was above the 3% minimum regulatory requirement. The leverage ratio was 0.1% higher as compared to previous quarter, mainly contributed by improved Tier 1 capital partially offset by higher total exposures.

### 7.2 Leverage Ratio Summary Comparison Table

	Item	Amount (S\$m)	
		31 Dec 2018	30 Sep 2018
1	Total consolidated assets as per published financial statements	467,543	464,115
2	Adjustment for investments in entities that are consolidated for accounting purposes but are outside the regulatory scope of consolidation	(83,352)	(83,741)
3	Adjustment for fiduciary assets recognised on the balance sheet in accordance with the Accounting Standards but excluded from the calculation of exposure measure	-	-
4	Adjustment for derivative transactions	4,325	3,771
5	Adjustment for SFTs	5	11
6	Adjustment for off-balance sheet items	28,356	28,665
7	Other adjustments	(6,884)	(6,799)
<b>8</b>	<b>Exposure measure</b>	<b>409,993</b>	<b>406,022</b>

### 7.3 Leverage Ratio Common Disclosure Table

	Item	Amount (S\$m)	
		31 Dec 2018	30 Sep 2018
	<b>Exposure measures of on-balance sheet items</b>		
1	On-balance sheet items (excluding derivative transactions and SFTs, but including on-balance sheet collateral for derivative transactions or SFTs)	372,310	368,915
2	Asset amounts deducted in determining Tier 1 capital	(6,884)	(6,799)
3	<b>Total exposures measures of on-balance sheet items</b> (excluding derivative transactions and SFTs)	<b>365,426</b>	<b>362,116</b>
	<b>Derivative exposure measures</b>		
4	Replacement cost associated with all derivative transactions (net of the eligible cash portion of variation margins)	4,521	5,336
5	Potential future exposure associated with all derivative transactions	6,514	6,621
6	Gross-up for derivative collaterals provided where deducted from the balance sheet assets in accordance with the Accounting Standards	-	-
7	Deductions of receivables for the cash portion of variation margins provided in derivative transactions	(12)	(12)
8	CCP leg of trade exposures excluded	-	-
9	Adjusted effective notional amount of written credit derivatives	497	463
10	Further adjustments in effective notional amounts and deductions from potential future exposures of written credit derivatives	-	-
11	<b>Total derivative exposure measures</b>	<b>11,520</b>	<b>12,408</b>
	<b>SFT exposure measures</b>		
12	Gross SFT assets (with no recognition of accounting netting), after adjusting for sales accounting	4,686	2,822
13	Eligible netting of cash payables and cash receivables	-	-
14	SFT counterparty exposures	5	11
15	SFT exposure measures where a Reporting Bank acts as an agent in the SFTs	-	-
16	<b>Total SFT exposure measures</b>	<b>4,691</b>	<b>2,833</b>
	<b>Exposure measures of off-balance sheet items</b>		
17	Off-balance sheet items at notional amount	132,540	132,538
18	Adjustments for calculation of exposure measures of off-balance sheet items	(104,184)	(103,873)
19	<b>Total exposure measures of off-balance sheet items</b>	<b>28,356</b>	<b>28,665</b>
	<b>Capital and Total exposures</b>		
20	<b>Tier 1 capital</b>	<b>29,640</b>	<b>28,948</b>
21	<b>Total exposures</b>	<b>409,993</b>	<b>406,022</b>
	<b>Leverage Ratio</b>		
22	<b>Leverage ratio</b>	<b>7.2%</b>	<b>7.1%</b>

SFT: Securities Financing Transactions

CCP: Central Counterparty

## 8. CREDIT QUALITY

### 8.1 Overview of Credit Quality of Assets

The table below provides an overview of the credit quality of the on and off-balance sheet assets of the Group.

A borrower is recognised to be in default when the borrower is unlikely to repay in full its credit obligations to the Group, or the borrower is past due for more than 90 days on its credit obligations to the Group.

<b>31 Dec 2018</b>				
	<b>(a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d)</b>
	<b>Gross carrying amount of <sup>1/</sup></b>			
S\$ million	Defaulted exposures	Non-defaulted exposures	Impairment allowances	Net Values <sup>2/</sup> (a + b - c)
<b>1</b> Loans and bills receivable	3,838	253,867	(1,937)	255,768
<b>2</b> Debt securities	2	22,288	(15)	22,275
<b>3</b> Off-balance sheet exposures	98	11,866	(266)	11,698
<b>4 Total</b>	<b>3,938</b>	<b>288,021</b>	<b>(2,218)</b>	<b>289,741</b>

<b>30 Jun 2018</b>				
	<b>(a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d)</b>
	<b>Gross carrying amount of <sup>1/</sup></b>			
S\$ million	Defaulted exposures	Non-defaulted exposures	Impairment allowances	Net Values <sup>2/</sup> (a + b - c)
<b>1</b> Loans and bills receivable	3,471	248,893	(2,013)	250,351
<b>2</b> Debt securities	25	22,600	(11)	22,614
<b>3</b> Off-balance sheet exposures	18	11,816	(304)	11,530
<b>4 Total</b>	<b>3,514</b>	<b>283,309</b>	<b>(2,328)</b>	<b>284,495</b>

<sup>1/</sup> Refers to the accounting value of the assets before any impairment allowances but after write-offs

<sup>2/</sup> Refers to total gross carrying amount less impairment allowances

## 8.2 Changes in Stock of Defaulted Loans and Bills Receivable, and Debt Securities

The table below identifies the changes in defaulted loans and bills receivable as well as debt securities from the previous semi-annual reporting period, including the flows between non-defaulted and defaulted categories and reductions due to write-offs.

The increase in defaulted loans and bills receivable, and debt securities in the second half of 2018 was mainly driven by new defaulted loans and bills receivable that was partly offset by write-offs and upgrades.

S\$ million	(a) Amount outstanding
<b>1 Defaulted loans and bills receivable, and debt securities as at 30 June 2018</b>	3,496
2 Loans and bills receivable, and debt securities that have defaulted in the second half of 2018	1,158
3 Return to non-defaulted status	(187)
4 Amounts written-off	(397)
5 Other changes <sup>1/</sup>	(230)
<b>6 Defaulted loans and bills receivable, and debt securities as at 31 December 2018 (1 + 2 - 3 - 4 ± 5)</b>	<b>3,840</b>

<sup>1/</sup> Other changes comprise foreign exchange, increase in existing defaulted loans and bills receivable, and recoveries

## 8.3 Additional Disclosures related to the Credit Quality of Assets

The following tables show the breakdown of credit risk exposures by geographic areas, industry and residual maturity. The reporting position of all tables in this section is as at 31 December 2018.

### Gross Loans and Bills Receivable <sup>1/</sup>

#### Analysed by Geography

	S\$ million
Singapore	108,169
Malaysia	29,649
Indonesia	19,660
Greater China	64,404
Other Asia Pacific	13,595
Rest of the World	22,228
<b>Total</b>	<b>257,705</b>

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

<sup>1/</sup> Include assets pledged of S\$309 million

### 8.3 Additional Disclosures related to the Credit Quality of Assets (continued)

#### Gross Loans and Bills Receivable <sup>1/</sup> (continued)

##### Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	8,894
Manufacturing	16,703
Building and construction	53,572
Housing	64,753
General commerce	34,664
Transport, storage and communication	13,917
Financial institutions, investment and holding companies	22,144
Professionals and individuals	30,373
Others	12,685
<b>Total</b>	<b>257,705</b>

<sup>1/</sup> Include assets pledged of S\$309 million

#### Gross Placements with and Loans to Banks <sup>2/</sup>

##### Analysed by Geography

	S\$ million
Singapore	534
Malaysia	4,145
Indonesia	810
Greater China	25,528
Other Asia Pacific	1,599
Rest of the World	5,296
<b>Balances with banks</b>	<b>37,912</b>
Bank balances of life insurance fund	1,261
<b>Total</b>	<b>39,173</b>

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

<sup>2/</sup> Include assets pledged of S\$125 million

#### Government Treasury Bills and Securities <sup>3/</sup>

##### Analysed by Geography

	S\$ million
Singapore	9,611
Malaysia	3,667
Indonesia	2,783
Greater China	5,475
Other Asia Pacific	4,047
Rest of the World	2,221
<b>Total</b>	<b>27,804</b>

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

<sup>3/</sup> Include assets pledged of S\$28 million

### 8.3 Additional Disclosures related to the Credit Quality of Assets (continued)

#### Debt Securities <sup>4/</sup>

##### Analysed by Geography

	S\$ million
Singapore	2,395
Malaysia	1,944
Indonesia	1,095
Greater China	10,799
Other Asia Pacific	4,049
Rest of the World	1,993
<b>Total</b>	<b>22,275</b>

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

##### Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	599
Manufacturing	1,016
Building and construction	1,492
General commerce	566
Transport, storage and communication	1,400
Financial institutions, investment and holding companies	14,474
Others	2,728
<b>Total</b>	<b>22,275</b>

<sup>4/</sup> Include assets pledged of S\$643 million

#### Residual Contractual Maturity of 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	19,565	37,045	23,081	26,606	41,075	108,130	<b>255,502</b> <sup>1/</sup>
Net placements with and loans to banks	6,622	3,375	6,887	20,218	451	345	<b>37,898</b> <sup>2/</sup>
Government treasury bills and securities	436	1,414	3,413	10,139	6,673	5,729	<b>27,804</b> <sup>3/</sup>
Debt securities	13	487	1,156	3,506	7,920	9,193	<b>22,275</b> <sup>4/</sup>

<sup>1/</sup> Include assets pledged of S\$309 million

<sup>2/</sup> Include assets pledged of S\$125 million and exclude bank balances of life insurance fund

<sup>3/</sup> Include assets pledged of S\$28 million

<sup>4/</sup> Include assets pledged of S\$643 million

### 8.3 Additional Disclosures related to the Credit Quality of Assets (continued)

#### Credit Commitments

##### Analysed by Geography

	S\$ million
Singapore	103,744
Malaysia	7,630
Indonesia	4,210
Greater China	22,755
Other Asia Pacific	2,035
Rest of the World	2,340
<b>Total</b>	<b>142,714</b>

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

##### Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	1,371
Manufacturing	9,602
Building and construction	16,556
General commerce	21,370
Transport, storage and communication	2,972
Financial institutions, investment and holding companies	37,254
Professionals and individuals	46,872
Others	6,717
<b>Total</b>	<b>142,714</b>

##### Analysed by Residual Maturity

	S\$ million
Undrawn credit facilities:	
Term to maturity of one year or less	124,392
Term to maturity of more than one year	18,322
<b>Total</b>	<b>142,714</b>

#### Contingent Liabilities

##### Analysed by Geography

	S\$ million
Singapore	7,085
Malaysia	1,268
Indonesia	1,159
Greater China	1,933
Other Asia Pacific	256
Rest of the World	263
<b>Total</b>	<b>11,964</b>

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



### 8.3 Additional Disclosures related to the Credit Quality of Assets (continued)

#### Contingent Liabilities (continued)

##### Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	78
Manufacturing	1,561
Building and construction	1,757
General commerce	5,388
Transport, storage and communication	577
Financial institutions, investment and holding companies	698
Professionals and individuals	228
Others	1,677
<b>Total</b>	<b>11,964</b>

##### Analysed by Residual Maturity

	S\$ million
Guarantees and standby letters of credit:	
Term to maturity of one year or less	4,319
Term to maturity of more than one year	2,357
	6,676
Acceptances and endorsements	1,096
Documentary credits and other short term trade-related transactions	4,192
<b>Total</b>	<b>11,964</b>

### 8.4 Overview of Past Due Exposure and Impairment Allowances

The following tables provide breakdown of defaulted loans and bills receivable (Non-performing Loans) by geography, credit grade under MAS Notice 612 and industry. Loans and bills receivable that are past due and not impaired are separately identified and disclosed. Past due loans refer to loans that are overdue by one day or more, while impaired loans are classified loans with specific allowances made.

With effect from 1 January 2018, the Group recognises allowance for Expected Credit Losses (ECL) on credit impaired and non-credit impaired exposures in accordance to SFRS(I) 9 and MAS Notice 612 with a forward looking ECL model.

For credit impaired portfolio, specific allowance is assessed individually and measured based on lifetime ECL. The amount of specific allowance for an individual credit exposure is determined by ascertaining the net present value of future cash flows that is recoverable from the borrower.

For non-credit impaired portfolio, the portfolio allowance is assessed and measured based on 12-month ECL if the credit risk of a credit exposure has not increased significantly since initial recognition. However, where there is significant increase in credit risk, the loss allowance is based on lifetime ECL.

The reporting position of all tables in this section is as at 31 December 2018.

#### 8.4 Overview of Past Due Exposure and Impairment Allowances (continued)

##### Total Loans and Bills Receivable – Credit Quality

	S\$ million
Neither past due nor impaired	251,002
Non-impaired	3,731
Impaired	1,592
Past due loans	5,323
Impaired but not past due	1,380
<b>Gross loans</b>	<b>257,705</b>
Allowances	
Impaired loans	(1,219)
Non-impaired loans	(984)
<b>Net loans</b>	<b>255,502</b>

##### Non-performing Loans

###### Analysed by Geography

S\$ million	Singapore	Malaysia	Indonesia	Greater China	Rest of the World	Total
Substandard	893	393	405	120	501	2,312
Doubtful	379	368	95	106	197	1,145
Loss	184	42	118	35	2	381
<b>Total</b>	<b>1,456</b>	<b>803</b>	<b>618</b>	<b>261</b>	<b>700</b>	<b>3,838</b>

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

###### Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	555
Manufacturing	395
Building and construction	143
Housing	429
General commerce	676
Transport, storage and communication	1,328
Financial institutions, investment and holding companies	38
Professionals and individuals	118
Others	156
<b>Total</b>	<b>3,838</b>

#### 8.4 Overview of Past Due Exposure and Impairment Allowances (continued)

##### Non-performing Loans (continued)

###### Analysed by Period Overdue

	S\$ million
Over 180 days	1,225
Over 90 days to 180 days	396
30 days to 90 days	345
Less than 30 days	164
<b>Past due</b>	<b>2,130</b>
No overdue	1,708
<b>Total</b>	<b>3,838</b>

##### Past Due Loans

###### Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	108
Manufacturing	734
Building and construction	271
General commerce	1,217
Transport, storage and communication	496
Financial institutions, investment and holding companies	295
Professionals and individuals (include housing)	1,935
Others	267
<b>Total</b>	<b>5,323</b>

###### Analysed by Geography

	S\$ million
Singapore	1,847
Malaysia	757
Indonesia	1,719
Greater China	680
Rest of the World	320
<b>Total</b>	<b>5,323</b>

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

#### 8.4 Overview of Past Due Exposure and Impairment Allowances (continued)

##### Impairment Allowances for Loans and Bills Receivable, and Debt Securities

###### Analysed by Geography

S\$ million	Allowances for Impaired Assets			Allowances for Non-impaired Assets
	Debt Securities	Loans and Bills Receivable	Total	
Singapore	2	481	483	677
Malaysia	-	333	333	219
Indonesia	-	200	200	207
Greater China	-	61	61	329
Other Asia Pacific	-	2	2	43
Rest of the World	-	142	142	73
<b>Total</b>	<b>2</b>	<b>1,219</b>	<b>1,221</b>	<b>1,548</b>

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

###### Analysed by Industry

S\$ million	Allowances for Impaired Assets		
	Debt Securities	Loans and Bills Receivable	Total
Agriculture, mining and quarrying	-	146	146
Manufacturing	-	64	64
Building and construction	-	17	17
Housing	-	39	39
General commerce	-	272	272
Transport, storage and communication	-	499	499
Financial institutions, investment and holding companies	2	74	76
Professionals and individuals	-	68	68
Others	-	40	40
<b>Total</b>	<b>2</b>	<b>1,219</b>	<b>1,221</b>

#### 8.4 Overview of Past Due Exposure and Impairment Allowances (continued)

##### Impairment Allowances for Loans and Bills Receivable, and Debt Securities (continued)

##### Analysed by Industry

S\$ million	Net Allowances for Impaired Assets (Credited)/Charged to Income Statement		
	Debt Securities	Loans and Bills Receivable	Total
Agriculture, mining and quarrying	-	69	69
Manufacturing	(3)	33	30
Building and construction	-	6	6
Housing	-	5	5
General commerce	-	185	185
Transport, storage and communication	-	7	7
Financial institutions, investment and holding companies	(2)	51	49
Professionals and individuals	-	26	26
Others	-	15	15
<b>Total</b>	<b>(5)</b>	<b>397</b>	<b>392</b>

##### Past Due Loans Not Impaired

These are loans and bills receivable that 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.

The following table provides the ageing analysis of non-impaired past due exposures.

##### Analysed by Period Overdue

	S\$ million
<b>Past due</b>	
Less than 30 days	2,795
30 to 90 days	474
Over 90 days	462
<b>Past due but not impaired</b>	<b>3,731</b>

## 8.5 Restructured Exposures

Restructured exposures refer to exposures where the Bank has granted concessions or restructured repayment terms to borrowers who are facing difficulties in meeting original repayment schedules. They are classified in the appropriate non-performing grades and not restored to performing loan status until the borrowers have demonstrated sustained ability to meet all future obligations under the restructured terms.

The following table provides the breakdown of impaired and non-impaired restructured exposures.

<b>S\$ million</b>	<b>Impaired Exposures</b>	<b>Non-impaired Exposures</b>
<b>Credit Quality of Restructured Exposures</b>		
Substandard	398	367
Doubtful	155	2
Loss	32	1
Passed/ Watchlist/ Special Mention	-	215
<b>At 31 December 2018</b>	<b>585</b>	<b>585</b>

## 9. OVERVIEW OF RISK WEIGHTED ASSETS

The table below provides an overview of the Group's total RWA, broken down by the approaches with which the RWA are computed, as stipulated by MAS Notice 637. Total RWA remained relatively stable between September 2018 and December 2018.

S\$ million	(a)	(b)	(c)
	RWA		Minimal Capital Requirements <sup>1/</sup>
	Dec-18	Sep-18	Dec-18
<b>1</b> Credit Risk (excluding Counterparty Credit Risk)	158,908	158,673	15,891
<b>2</b> Of which: Standardised Approach	46,500	45,711	4,650
<b>3</b> Of which: Foundation Internal Ratings-Based Approach (F-IRBA)	94,693	94,540	9,469
<b>4</b> Of which: Supervisory Slotting Approach	1,938	1,983	194
<b>5</b> Of which: Advanced Internal Ratings-Based Approach (A-IRBA)	15,777	16,439	1,578
<b>6</b> Credit Risk: Counterparty Credit Risk (CCR)	2,567	3,003	257
<b>7</b> Of which: Current Exposure Method	2,279	2,679	228
<b>8</b> Of which: Internal Models Method	-	-	-
<b>9</b> Of which: Other CCR	-	-	-
<b>9a</b> Of which: Central Counterparties (CCP)	288	324	29
<b>10</b> Credit Valuation Adjustments (CVA)	2,010	1,871	201
<b>11</b> Equity exposures under Simple Risk Weight Method	-	-	-
<b>11a</b> Equity exposures under Internal Models Method	-	-	-
<b>12</b> Equity investments in funds - Look Through Approach	108	124	11
<b>13</b> Equity investments in funds - Mandate-Based Approach	154	191	15
<b>14</b> Equity investments in funds - Fall Back Approach	-	-	-
<b>14a</b> Equity investments in funds - Partial Use of an Approach	111	126	11
<b>15</b> Unsettled Transactions	29	3	3
<b>16</b> Securitisation exposures in banking book	-	-	-
<b>17</b> Of which: SEC-IRBA	-	-	-
<b>18</b> Of which: SEC-ERBA, including IAA	-	-	-
<b>19</b> Of which: SEC-SA	-	-	-
<b>20</b> Market Risk	14,669	14,872	1,467
<b>21</b> Of which: Standardised Approach	14,669	14,872	1,467
<b>22</b> Of which: Internal Models Approach	-	-	-
<b>23</b> Operational Risk	14,092	14,053	1,409
<b>24</b> Credit RWA pursuant to paragraph 6.1.3(p)(iii) <sup>2/</sup>	7,600	7,406	760
<b>25</b> Floor Adjustment	-	-	-
<b>26 Total</b>	<b>200,248</b>	<b>200,322</b>	<b>20,025</b>

<sup>1/</sup> Minimum capital requirements are calculated at 10% of RWA

<sup>2/</sup> Refers to Credit RWA attributed to investments in the ordinary shares of unconsolidated major stake companies that are financial institutions, within the prescribed threshold amount in accordance with MAS Notice 637 paragraph 6.1.3 (p)(iii)

## 10. RWA FLOW STATEMENT FOR CREDIT RISK EXPOSURES

This table provides an overview of the quarter-on-quarter movement of Credit Risk RWA attributed to the key drivers from rows 2 to 8.

RWA was largely stable during the fourth quarter of 2018 primarily due to improving asset quality largely offset by asset growth particularly in corporate loans.

S\$ million	(a) RWA
<b>1 RWA as at 30 September 2018 <sup>1/</sup></b>	<b>112,962</b>
2 Asset Size <sup>2/</sup>	2,280
3 Asset Quality <sup>3/</sup>	(2,357)
4 Model Updates <sup>4/</sup>	22
5 Methodology and Policy <sup>5/</sup>	(106)
6 Acquisitions and Disposals <sup>6/</sup>	-
7 Foreign exchange movements <sup>7/</sup>	(393)
8 Other <sup>8/</sup>	-
<b>9 RWA as at 31 December 2018 <sup>1/</sup> (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8)</b>	<b>112,408</b>

<sup>1/</sup> Refers to RWA of Credit Risk exposures under IRB Approach and Equity exposures under PD/LGD method (excluding Counterparty Credit Risk)

<sup>2/</sup> Refers to organic changes in book size and composition (origination of new businesses and maturing loans), excluding acquisitions and disposal of entities

<sup>3/</sup> Refers to changes in the assessed quality of the bank's assets due to changes in borrower risk, such as rating grade migration or similar effects

<sup>4/</sup> Refers to changes due to model implementation, changes in model scope, or any model enhancements

<sup>5/</sup> Refers to changes driven by methodological changes such as regulatory policy changes

<sup>6/</sup> Refers to changes in book size due to acquisition and disposal of entities or portfolios

<sup>7/</sup> Refers to changes driven by market movements such as foreign exchange movements

<sup>8/</sup> Refers to changes that cannot be attributed to any other category



## 11. CREDIT EXPOSURES UNDER STANDARDISED AND IRB APPROACH

### 11.1 Credit Exposures under Standardised Approach and CRM effects

The following table illustrates the effects of credit risk mitigation (CRM) on the calculation of capital requirements for credit and equity exposures under the Standardised Approach.

In the second half of 2018, RWA increased mainly due to higher exposures under Corporate asset class attributed to loan growth.

		31 Dec 2018							
		(a)		(b)		(c)	(d)	(e)	(f)
		Exposures before CCF and CRM		Exposures post-CCF and post-CRM				RWA	RWA Density
S\$ million	Asset Class	On-Balance Sheet	Off-Balance Sheet	On-Balance Sheet	Off-Balance Sheet				
1	Cash Items	934	-	934	-	6	1%		
2	Sovereign	3,724	-	3,724	-	688	18%		
3	PSE	193	-	626	-	146	23%		
4	MDB	34	126	36	-	-	0%		
5	Bank	5,067	-	5,113	-	2,273	44%		
6	Corporate	14,181	7,462	13,402	1,848	14,255	93%		
7	Regulatory Retail	6,802	1,665	6,614	59	5,005	75%		
8	Residential Mortgage	14,269	29	14,012	4	5,018	36%		
9	Commercial Real Estate	11,593	1,827	11,525	165	11,690	100%		
10	Equity exposures	396	-	396	-	633	160%		
11	Past Due exposures	187	#	186	#	236	127%		
12	Higher risk exposures	-	-	-	-	-	NA		
13	Others <sup>1/</sup>	6,706	791	6,485	65	6,550	100%		
14	<b>Total</b>	<b>64,086</b>	<b>11,900</b>	<b>63,053</b>	<b>2,141</b>	<b>46,500</b>	<b>71%</b>		

  

		30 Jun 2018							
		(a)		(b)		(c)	(d)	(e)	(f)
		Exposures before CCF and CRM		Exposures post-CCF and post-CRM				RWA	RWA Density
S\$ million	Asset Class	On-Balance Sheet	Off-Balance Sheet	On-Balance Sheet	Off-Balance Sheet				
1	Cash Items	935	-	935	-	8	1%		
2	Sovereign	3,500	681	3,500	20	518	15%		
3	PSE	165	85	617	-	176	29%		
4	MDB	35	128	37	#	-	0%		
5	Bank	5,218	148	5,277	35	2,682	50%		
6	Corporate	13,004	7,273	12,304	1,633	13,160	94%		
7	Regulatory Retail	6,369	1,556	6,195	44	4,679	75%		
8	Residential Mortgage	14,473	35	14,174	6	5,061	36%		
9	Commercial Real Estate	11,261	1,832	11,205	211	11,416	100%		
10	Equity exposures	450	-	450	-	721	160%		
11	Past Due exposures	190	-	190	-	241	127%		
12	Higher risk exposures	-	-	-	-	-	NA		
13	Others <sup>1/</sup>	6,956	1,174	6,701	153	6,855	100%		
14	<b>Total</b>	<b>62,556</b>	<b>12,912</b>	<b>61,585</b>	<b>2,102</b>	<b>45,517</b>	<b>71%</b>		

<sup>1/</sup> Includes other exposures not included in the above asset classes, such as fixed asset

# Represents amounts of less than \$0.5 million

## 11.2 Credit Exposures under Standardised Approach by Risk Weight

The following table provides a breakdown of credit risk exposures treated under the Standardised approach by asset class and risk weight. The risk weight assigned corresponds to the level of risk attributed to each exposure.

		31 Dec 2018									
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Risk Weight									
S\$ million	Asset Class	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total EAD <sup>1/</sup>
1	Cash Items	904	-	30	-	-	-	-	-	-	934
2	Sovereign	2,348	-	-	-	1,376	-	-	-	-	3,724
3	PSE	-	-	556	-	70	-	-	-	-	626
4	MDB	36	-	-	-	-	-	-	-	-	36
5	Bank	-	-	945	-	4,167	-	1	-	-	5,113
6	Corporate	-	-	96	-	1,836	-	13,318	-	-	15,250
7	Regulatory Retail	-	-	-	-	-	6,673	-	-	-	6,673
8	Residential Mortgage	-	-	-	13,790	-	135	91	-	-	14,016
9	Commercial Real Estate	-	-	-	-	-	-	11,690	-	-	11,690
10	Equity exposures	-	-	-	-	-	-	-	-	396	396
11	Past Due exposures	-	-	-	-	-	-	87	99	-	186
12	Higher risk exposures	-	-	-	-	-	-	-	-	-	-
13	Others <sup>2/</sup>	-	-	-	-	-	-	6,550	-	-	6,550
14	<b>Total</b>	<b>3,288</b>	<b>-</b>	<b>1,627</b>	<b>13,790</b>	<b>7,449</b>	<b>6,808</b>	<b>31,737</b>	<b>99</b>	<b>396</b>	<b>65,194</b>

		30 Jun 2018									
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Risk Weight									
S\$ million	Asset Class	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total EAD <sup>1/</sup>
1	Cash Items	895	-	40	-	-	-	-	-	-	935
2	Sovereign	2,484	-	-	-	1,036	-	-	-	-	3,520
3	PSE	-	-	551	-	-	-	66	-	-	617
4	MDB	37	-	-	-	-	-	-	-	-	37
5	Bank	-	-	577	-	4,336	-	399	-	-	5,312
6	Corporate	-	-	112	-	1,373	-	12,452	-	-	13,937
7	Regulatory Retail	-	-	-	-	-	6,239	-	-	-	6,239
8	Residential Mortgage	-	-	-	13,973	-	147	60	-	-	14,180
9	Commercial Real Estate	-	-	-	-	-	-	11,416	-	-	11,416
10	Equity exposures	-	-	-	-	-	-	-	-	450	450
11	Past Due exposures	-	-	-	-	-	-	87	103	-	190
12	Higher risk exposures	-	-	-	-	-	-	-	-	-	-
13	Others <sup>2/</sup>	-	-	-	-	-	-	6,854	-	-	6,854
14	<b>Total</b>	<b>3,416</b>	<b>-</b>	<b>1,280</b>	<b>13,973</b>	<b>6,745</b>	<b>6,386</b>	<b>31,334</b>	<b>103</b>	<b>450</b>	<b>63,687</b>

<sup>1/</sup> Total EAD refers to both on and off-balance sheet amounts that are used for computing capital requirements, net of impairment allowances and write-offs and after application of CRM and CCF

<sup>2/</sup> Includes other exposures not included in the above asset classes, such as fixed assets

### 11.3 Credit Exposures under Foundation Internal Ratings-Based Approach (F-IRBA)

The following table provides the main parameters used in the treatment of exposures for the calculation of capital requirements under the F-IRBA.

31 Dec 2018												
	(a) On- Balance Sheet <sup>1/</sup> (S\$ million)	(b) Off- Balance Sheet <sup>2/</sup>	(c) Average CCF (%)	(d) EAD <sup>3/</sup> (S\$ million)	(e) Average PD <sup>4/</sup> (%)	(f) Number of Obligors <sup>5/</sup>	(g) Average LGD <sup>4/</sup> (%)	(h) Average Maturity <sup>6/</sup> (In years)	(i) RWA (S\$ million)	(j) RWA Density <sup>7/</sup> (%)	(k) Expected Losses (S\$ million)	(l) TEP <sup>8/</sup> (S\$ million)
<b>Sovereign</b>												
PD Range												
0.00 to < 0.15	34,516	10	100%	35,161	0.01%	23	45%	1.4	783	2%	1	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	-	-	-	-	-	-	-	-	-	NA	-	
0.50 to < 0.75	-	-	-	-	-	-	-	-	-	NA	-	
0.75 to < 2.50	2	-	0%	2	1.90%	1	45%	1.0	2	100%	#	
2.50 to < 10.00	74	-	0%	74	6.42%	1	45%	1.0	115	155%	2	
10.00 to < 100.00	-	#	-	-	-	1	-	-	-	NA	-	
100.00 (Default)	-	-	-	-	-	-	-	-	-	NA	-	
<b>Sub-total</b>	<b>34,592</b>	<b>10</b>	<b>100%</b>	<b>35,237</b>	<b>0.02%</b>	<b>26</b>	<b>45%</b>	<b>1.4</b>	<b>900</b>	<b>3%</b>	<b>3</b>	<b>9</b>
<b>Bank</b>												
PD Range												
0.00 to < 0.15	40,475	2,840	4%	40,494	0.05%	246	45%	1.1	6,051	15%	9	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	2,068	121	6%	4,266	0.37%	21	45%	0.9	2,562	60%	7	
0.50 to < 0.75	2,437	160	1%	2,448	0.54%	19	45%	0.9	1,806	74%	6	
0.75 to < 2.50	1,328	35	8%	1,331	1.89%	26	45%	0.9	1,628	122%	11	
2.50 to < 10.00	152	27	87%	176	6.29%	29	44%	0.4	287	163%	5	
10.00 to < 100.00	8	#	18%	6	11.10%	38	45%	0.0	14	213%	#	
100.00 (Default)	#	-	0%	#	100.00%	1	45%	1.0	-	0%	#	
<b>Sub-total</b>	<b>46,468</b>	<b>3,183</b>	<b>5%</b>	<b>48,721</b>	<b>0.18%</b>	<b>380</b>	<b>45%</b>	<b>1.1</b>	<b>12,348</b>	<b>25%</b>	<b>38</b>	<b>117</b>
<b>Corporate</b>												
PD Range												
0.00 to < 0.15	36,508	38,196	19%	43,877	0.10%	905	44%	2.1	11,934	27%	18	
0.15 to < 0.25	1	3	0%	1	0.15%	4	45%	2.9	#	43%	#	
0.25 to < 0.50	14,513	16,214	22%	18,067	0.37%	584	44%	2.2	10,735	59%	29	
0.50 to < 0.75	8,294	9,272	14%	9,580	0.54%	556	43%	1.7	6,147	64%	22	
0.75 to < 2.50	11,476	13,435	14%	11,513	1.46%	806	43%	1.8	11,023	96%	72	
2.50 to < 10.00	2,806	1,847	13%	2,558	4.97%	250	41%	1.9	3,538	138%	53	
10.00 to < 100.00	771	1,374	3%	780	15.01%	325	42%	3.5	1,735	223%	49	
100.00 (Default)	2,323	95	39%	2,360	100.00%	158	44%	2.3	-	0%	1,040	
<b>Sub-total</b>	<b>76,692</b>	<b>80,436</b>	<b>18%</b>	<b>88,736</b>	<b>3.31%</b>	<b>3,588</b>	<b>43%</b>	<b>2.1</b>	<b>45,112</b>	<b>51%</b>	<b>1,283</b>	<b>1,560</b>

**11.3 Credit Exposures under Foundation Internal Ratings-Based Approach (F-IRBA) (continued)**

	31 Dec 2018											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet <sup>1/</sup>	Off-Balance Sheet <sup>2/</sup>	Average CCF (%)	EAD <sup>3/</sup> (\$ million)	Average PD <sup>4/</sup> (%)	Number of Obligors <sup>5/</sup>	Average LGD <sup>4/</sup> (%)	Average Maturity <sup>6/</sup> (In years)	RWA (\$ million)	RWA Density <sup>7/</sup> (%)	Expected Losses (\$ million)	TEP <sup>8/</sup> (\$ million)
<b>Corporate (IPRE)</b>	(\$ million)											
PD Range												
0.00 to < 0.15	2,538	123	43%	2,592	0.14%	15	45%	2.1	905	35%	3	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	4,788	807	61%	5,277	0.37%	44	45%	2.5	3,383	64%	9	
0.50 to < 0.75	7,971	1,741	55%	8,928	0.54%	84	45%	3.1	7,503	84%	22	
0.75 to < 2.50	10,969	2,810	55%	12,453	1.36%	256	45%	2.5	13,375	107%	76	
2.50 to < 10.00	2,636	1,055	50%	3,155	3.68%	150	45%	2.9	4,672	148%	52	
10.00 to < 100.00	32	32	41%	45	12.19%	13	45%	3.7	104	231%	2	
100.00 (Default)	5	#	50%	5	100.00%	2	45%	2.9	-	0%	2	
<b>Sub-total</b>	<b>28,939</b>	<b>6,568</b>	<b>54%</b>	<b>32,455</b>	<b>1.13%</b>	<b>564</b>	<b>45%</b>	<b>2.7</b>	<b>29,942</b>	<b>92%</b>	<b>166</b>	<b>284</b>
<b>Corporate Small Business</b>												
PD Range												
0.00 to < 0.15	468	744	11%	551	0.13%	447	41%	3.4	203	37%	#	
0.15 to < 0.25	490	151	15%	513	0.16%	822	38%	4.2	203	39%	#	
0.25 to < 0.50	937	595	14%	1,020	0.37%	303	39%	3.1	586	57%	1	
0.50 to < 0.75	851	850	11%	945	0.54%	572	39%	1.9	498	53%	2	
0.75 to < 2.50	2,449	2,171	11%	2,522	1.44%	6,773	39%	2.4	2,047	81%	14	
2.50 to < 10.00	1,853	1,101	11%	1,955	4.69%	645	39%	2.2	2,151	110%	35	
10.00 to < 100.00	464	156	22%	498	12.63%	382	35%	2.5	703	141%	22	
100.00 (Default)	1,236	3	50%	1,237	100.00%	158	44%	2.3	-	0%	547	
<b>Sub-total</b>	<b>8,748</b>	<b>5,771</b>	<b>12%</b>	<b>9,241</b>	<b>15.56%</b>	<b>10,102</b>	<b>39%</b>	<b>2.6</b>	<b>6,391</b>	<b>69%</b>	<b>621</b>	<b>648</b>
<b>Total (all portfolios)</b>	<b>195,439</b>	<b>95,968</b>	<b>20%</b>	<b>214,390</b>	<b>2.25%</b>	<b>14,660</b>	<b>44%</b>	<b>1.8</b>	<b>94,693</b>	<b>44%</b>	<b>2,111</b>	<b>2,618</b>

**11.3 Credit Exposures under Foundation Internal Ratings-Based Approach (F-IRBA) (continued)**

	30 Jun 2018											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet <sup>1/</sup>	Off-Balance Sheet <sup>2/</sup>	Average CCF (%)	EAD <sup>3/</sup> (S\$ million)	Average PD <sup>4/</sup> (%)	Number of Obligors <sup>5/</sup>	Average LGD <sup>4/</sup> (%)	Average Maturity <sup>6/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>7/</sup> (%)	Expected Losses (S\$ million)	TEP <sup>8/</sup> (S\$ million)
<b>Sovereign</b>	(S\$ million)											
<b>PD Range</b>												
0.00 to < 0.15	33,604	139	100%	33,777	0.01%	26	45%	1.5	698	2%	1	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	-	-	-	-	-	-	-	-	-	NA	-	
0.50 to < 0.75	-	-	-	-	-	-	-	-	-	NA	-	
0.75 to < 2.50	1	-	0%	1	1.90%	1	45%	1.0	1	100%	#	
2.50 to < 10.00	62	-	0%	62	6.42%	1	45%	1.0	97	155%	2	
10.00 to < 100.00	-	#	-	-	-	1	-	-	-	NA	-	
100.00 (Default)	-	-	-	-	-	-	-	-	-	NA	-	
<b>Sub-total</b>	<b>33,667</b>	<b>139</b>	<b>100%</b>	<b>33,840</b>	<b>0.02%</b>	<b>29</b>	<b>45%</b>	<b>1.5</b>	<b>796</b>	<b>2%</b>	<b>3</b>	<b>8</b>
<b>Bank</b>												
<b>PD Range</b>												
0.00 to < 0.15	41,662	2,341	5%	42,489	0.05%	244	45%	1.0	6,096	14%	9	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	2,427	65	10%	4,728	0.37%	21	45%	0.8	2,758	58%	8	
0.50 to < 0.75	3,967	102	2%	3,970	0.54%	20	45%	0.7	2,770	70%	10	
0.75 to < 2.50	819	22	32%	826	1.88%	26	45%	0.8	989	120%	7	
2.50 to < 10.00	195	23	26%	201	4.60%	24	45%	0.2	264	131%	4	
10.00 to < 100.00	12	#	19%	12	11.10%	39	9%	1.0	5	44%	#	
100.00 (Default)	#	-	0%	#	100.00%	1	45%	1.0	-	0%	#	
<b>Sub-total</b>	<b>49,082</b>	<b>2,553</b>	<b>5%</b>	<b>52,226</b>	<b>0.16%</b>	<b>375</b>	<b>45%</b>	<b>0.9</b>	<b>12,882</b>	<b>25%</b>	<b>38</b>	<b>124</b>
<b>Corporate</b>												
<b>PD Range</b>												
0.00 to < 0.15	37,608	33,706	18%	43,701	0.10%	905	44%	2.2	12,036	28%	18	
0.15 to < 0.25	-	3	0%	-	0.00%	2	0%	-	-	NA	-	
0.25 to < 0.50	14,206	16,655	21%	17,665	0.37%	555	44%	2.1	10,196	58%	29	
0.50 to < 0.75	5,854	7,872	18%	7,242	0.54%	519	43%	1.7	4,577	63%	17	
0.75 to < 2.50	13,104	14,499	13%	12,861	1.50%	832	43%	1.8	12,437	97%	83	
2.50 to < 10.00	3,309	1,950	18%	3,180	5.21%	266	43%	2.2	4,768	150%	72	
10.00 to < 100.00	990	2,285	6%	1,027	13.86%	307	39%	3.6	2,149	209%	57	
100.00 (Default)	1,788	14	53%	1,796	100.00%	146	44%	2.8	-	0%	794	
<b>Sub-total</b>	<b>76,859</b>	<b>76,984</b>	<b>17%</b>	<b>87,472</b>	<b>2.79%</b>	<b>3,532</b>	<b>44%</b>	<b>2.1</b>	<b>46,163</b>	<b>53%</b>	<b>1,070</b>	<b>1,388</b>

**11.3 Credit Exposures under Foundation Internal Ratings-Based Approach (F-IRBA) (continued)**

30 Jun 2018												
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet <sup>1/</sup>	Off-Balance Sheet <sup>2/</sup>	Average CCF (%)	EAD <sup>3/</sup> (\$ million)	Average PD <sup>4/</sup> (%)	Number of Obligors <sup>5/</sup>	Average LGD <sup>4/</sup> (%)	Average Maturity <sup>6/</sup> (In years)	RWA (\$ million)	RWA Density <sup>7/</sup> (%)	Expected Losses (\$ million)	TEP <sup>8/</sup> (\$ million)
<b>Corporate (IPRE)</b>	(S\$ million)											
PD Range												
0.00 to < 0.15	1,796	74	72%	1,848	0.14%	10	45%	2.9	760	41%	1	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	3,823	743	64%	4,297	0.37%	37	45%	2.2	2,596	60%	7	
0.50 to < 0.75	7,240	1,202	54%	7,888	0.54%	85	45%	3.1	6,564	83%	19	
0.75 to < 2.50	10,903	2,883	58%	12,521	1.37%	249	45%	2.4	13,283	106%	77	
2.50 to < 10.00	2,483	1,179	49%	3,058	3.84%	139	45%	2.6	4,451	146%	52	
10.00 to < 100.00	52	32	42%	66	11.16%	17	45%	3.6	148	226%	3	
100.00 (Default)	5	#	50%	5	100.00%	2	45%	3.2	-	0%	2	
<b>Sub-total</b>	<b>26,302</b>	<b>6,113</b>	<b>56%</b>	<b>29,683</b>	<b>1.22%</b>	<b>539</b>	<b>45%</b>	<b>2.6</b>	<b>27,802</b>	<b>94%</b>	<b>161</b>	<b>267</b>
<b>Corporate Small Business</b>												
PD Range												
0.00 to < 0.15	393	661	14%	485	0.13%	444	41%	2.7	156	32%	#	
0.15 to < 0.25	467	139	15%	487	0.16%	772	38%	4.3	196	40%	#	
0.25 to < 0.50	790	544	8%	832	0.37%	298	41%	3.5	520	63%	1	
0.50 to < 0.75	831	911	11%	929	0.54%	565	39%	2.1	488	52%	2	
0.75 to < 2.50	2,216	2,001	12%	2,324	1.45%	6,303	39%	2.3	1,856	80%	13	
2.50 to < 10.00	1,688	1,087	11%	1,795	4.55%	641	36%	2.2	1,792	100%	29	
10.00 to < 100.00	426	157	7%	438	13.43%	397	34%	2.7	607	139%	21	
100.00 (Default)	1,305	3	66%	1,306	100.00%	153	44%	2.6	-	0%	577	
<b>Sub-total</b>	<b>8,116</b>	<b>5,503</b>	<b>11%</b>	<b>8,596</b>	<b>17.33%</b>	<b>9,573</b>	<b>39%</b>	<b>2.6</b>	<b>5,615</b>	<b>65%</b>	<b>643</b>	<b>681</b>
<b>Total (all portfolios)</b>	<b>194,026</b>	<b>91,292</b>	<b>19%</b>	<b>211,817</b>	<b>2.07%</b>	<b>14,048</b>	<b>44%</b>	<b>1.8</b>	<b>93,258</b>	<b>44%</b>	<b>1,915</b>	<b>2,468</b>

- <sup>1/</sup> On-balance sheet refers to the amount of the on-balance sheet exposure gross of impairment allowances (before taking into account the effect of CRM)
- <sup>2/</sup> Off-balance sheet refers to the exposure value without taking into account valuation adjustments and impairment allowances, CCFs and the effect of CRM
- <sup>3/</sup> EAD refers to the amount relevant for the capital requirements calculation, after taking into account the effect of CCFs and CRM
- <sup>4/</sup> Refers to the PD and LGD associated with each obligor grade, weighted by EAD
- <sup>5/</sup> Number of obligors refers to the number of counterparties
- <sup>6/</sup> Refers to the effective maturity of the exposures to the obligor in years, weighted by EAD
- <sup>7/</sup> Total RWA divided by the exposures post-CCF and post-CRM
- <sup>8/</sup> Refers to the total eligible provisions attributed to the respective portfolios
- # Represents amounts of less than \$0.5 million

#### 11.4 Credit Exposures under Advanced Internal Ratings-Based Approach (A-IRBA)

The following table provides the main parameters used in the treatment of exposures for the calculation of capital requirements under the A-IRBA.

	31 Dec 2018											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet <sup>1/</sup>	Off-Balance Sheet <sup>2/</sup>	Average CCF (%)	EAD <sup>3/</sup> (\$ million)	Average PD <sup>4/</sup> (%)	Number of Obligors <sup>5/</sup>	Average LGD <sup>4/</sup> (%)	Average Maturity <sup>6/</sup> (In years)	RWA (\$ million)	RWA Density <sup>7/</sup> (%)	Expected Losses (\$ million)	TEP <sup>8/</sup> (\$ million)
	(\$ million)											
<b>Residential Mortgage</b>												
PD Range												
0.00 to < 0.15	2,896	653	68%	3,342	0.09%	11,687	10%		78	2%	#	
0.15 to < 0.25	13,481	835	82%	14,164	0.15%	36,695	10%		499	4%	2	
0.25 to < 0.50	12,239	685	73%	12,737	0.25%	43,828	10%		671	5%	3	
0.50 to < 0.75	13,861	521	76%	14,255	0.50%	47,632	11%		1,249	9%	8	
0.75 to < 2.50	6,500	361	80%	6,790	1.02%	33,802	11%		977	14%	7	
2.50 to < 10.00	3,363	123	84%	3,466	3.58%	11,297	11%		1,029	30%	13	
10.00 to < 100.00	1,030	11	92%	1,040	22.90%	6,503	12%		670	64%	28	
100.00 (Default)	433	5	0%	433	100.00%	2,537	15%		299	69%	65	
<b>Sub-total</b>	<b>53,803</b>	<b>3,194</b>	<b>76%</b>	<b>56,227</b>	<b>1.76%</b>	<b>193,981</b>	<b>11%</b>		<b>5,472</b>	<b>10%</b>	<b>126</b>	<b>117</b>
<b>Qualifying Revolving Retail</b>												
PD Range												
0.00 to < 0.15	709	5,489	44%	3,127	0.06%	525,466	80%		100	3%	1	
0.15 to < 0.25	66	1,356	52%	770	0.17%	141,311	81%		61	8%	1	
0.25 to < 0.50	227	775	44%	564	0.30%	94,302	81%		71	13%	1	
0.50 to < 0.75	316	804	44%	666	0.59%	101,420	78%		138	21%	3	
0.75 to < 2.50	293	574	61%	641	1.42%	87,267	83%		278	43%	8	
2.50 to < 10.00	318	238	66%	475	5.13%	63,435	83%		505	106%	20	
10.00 to < 100.00	123	71	76%	177	22.51%	22,570	84%		386	218%	34	
100.00 (Default)	22	-	0%	22	100.00%	3,639	81%		-	0%	23	
<b>Sub-total</b>	<b>2,074</b>	<b>9,307</b>	<b>47%</b>	<b>6,442</b>	<b>1.62%</b>	<b>1,039,410</b>	<b>81%</b>		<b>1,539</b>	<b>24%</b>	<b>91</b>	<b>37</b>
<b>Retail Small Business</b>												
PD Range												
0.00 to < 0.15	301	259	56%	447	0.10%	2,613	27%		31	7%	#	
0.15 to < 0.25	1,322	481	47%	1,549	0.17%	5,947	33%		204	13%	1	
0.25 to < 0.50	324	32	55%	341	0.35%	1,118	33%		70	21%	#	
0.50 to < 0.75	554	44	61%	581	0.50%	3,094	38%		168	29%	1	
0.75 to < 2.50	906	91	56%	956	1.14%	7,534	43%		470	49%	5	
2.50 to < 10.00	506	36	75%	533	4.45%	5,904	41%		337	63%	10	
10.00 to < 100.00	319	14	80%	330	29.07%	2,742	42%		292	89%	39	
100.00 (Default)	126	5	0%	126	100.00%	1,365	56%		184	146%	57	
<b>Sub-total</b>	<b>4,358</b>	<b>962</b>	<b>53%</b>	<b>4,863</b>	<b>5.42%</b>	<b>30,317</b>	<b>37%</b>		<b>1,756</b>	<b>36%</b>	<b>113</b>	<b>73</b>

**11.4 Credit Exposures under Advanced Internal Ratings-Based Approach (A-IRBA) (continued)**

	31 Dec 2018											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On- Balance Sheet <sup>1/</sup>	Off- Balance Sheet <sup>2/</sup>	Average CCF (%)	EAD <sup>3/</sup> (S\$ million)	Average PD <sup>4/</sup> (%)	Number of Obligors <sup>5/</sup>	Average LGD <sup>4/</sup> (%)	Average Maturity <sup>6/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>7/</sup> (%)	Expected Losses (S\$ million)	TEP <sup>8/</sup> (S\$ million)
	(S\$ million)											
<b>Other Retail</b>												
PD Range												
0.00 to < 0.15	428	2,167	99%	2,580	0.05%	2,563	8%		33	1%	#	
0.15 to < 0.25	2,873	1,253	93%	4,037	0.19%	25,144	11%		186	5%	1	
0.25 to < 0.50	289	25	42%	299	0.31%	4,132	15%		25	8%	#	
0.50 to < 0.75	3,009	680	95%	3,655	0.50%	4,066	11%		309	8%	2	
0.75 to < 2.50	7,477	1,275	99%	8,745	1.48%	4,208	10%		1,105	13%	14	
2.50 to < 10.00	4,175	737	100%	4,910	5.00%	1,698	10%		764	16%	24	
10.00 to < 100.00	9,338	1,089	100%	10,427	13.61%	1,605	11%		2,203	21%	150	
100.00 (Default)	54	5	78%	58	100.00%	168	29%		118	204%	9	
<b>Sub-total</b>	<b>27,643</b>	<b>7,231</b>	<b>98%</b>	<b>34,711</b>	<b>5.41%</b>	<b>43,584</b>	<b>10%</b>		<b>4,743</b>	<b>14%</b>	<b>200</b>	<b>52</b>
<b>Corporate</b>												
PD Range												
0.00 to < 0.15	71	411	100%	482	0.05%	347	7%	1.0	9	2%	#	
0.15 to < 0.25	477	291	100%	768	0.20%	370	8%	1.0	43	6%	#	
0.25 to < 0.50	-	-	-	-	-	-	-	-	-	NA	-	
0.50 to < 0.75	483	164	100%	647	0.50%	148	8%	1.0	60	9%	#	
0.75 to < 2.50	1,150	356	100%	1,506	1.49%	203	9%	1.0	260	17%	2	
2.50 to < 10.00	1,076	172	100%	1,248	5.00%	113	9%	1.0	345	28%	6	
10.00 to < 100.00	2,179	470	100%	2,649	12.04%	323	14%	1.0	1,550	59%	41	
100.00 (Default)	-	-	-	-	-	-	-	-	-	NA	-	
<b>Sub-total</b>	<b>5,436</b>	<b>1,864</b>	<b>100%</b>	<b>7,300</b>	<b>5.60%</b>	<b>1,504</b>	<b>10%</b>	<b>1.0</b>	<b>2,267</b>	<b>31%</b>	<b>49</b>	<b>22</b>
<b>Total (all portfolios)</b>	<b>93,314</b>	<b>22,558</b>	<b>72%</b>	<b>109,543</b>	<b>3.33%</b>	<b>1,308,796</b>	<b>16%</b>		<b>15,777</b>	<b>14%</b>	<b>579</b>	<b>301</b>



**11.4 Credit Exposures under Advanced Internal Ratings-Based Approach (A-IRBA) (continued)**

	30 Jun 2018											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet <sup>1/</sup>	Off-Balance Sheet <sup>2/</sup>	Average CCF (%)	EAD <sup>3/</sup> (S\$ million)	Average PD <sup>4/</sup> (%)	Number of Obligors <sup>5/</sup>	Average LGD <sup>4/</sup> (%)	Average Maturity <sup>6/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>7/</sup> (%)	Expected Losses (S\$ million)	TEP <sup>8/</sup> (S\$ million)
<b>Residential Mortgage</b>	(S\$ million)											
<b>PD Range</b>												
0.00 to < 0.15	2,642	675	69%	3,104	0.09%	11,576	10%		71	2%	#	
0.15 to < 0.25	13,389	918	77%	14,100	0.15%	36,822	10%		497	4%	2	
0.25 to < 0.50	12,592	822	70%	13,167	0.25%	44,543	10%		684	5%	3	
0.50 to < 0.75	14,064	644	73%	14,535	0.50%	48,588	10%		1,250	9%	8	
0.75 to < 2.50	6,935	406	77%	7,248	1.02%	35,112	11%		1,032	14%	8	
2.50 to < 10.00	3,691	120	81%	3,788	3.67%	12,065	11%		1,129	30%	15	
10.00 to < 100.00	1,179	17	81%	1,193	22.40%	7,244	11%		739	62%	30	
100.00 (Default)	423	7	0%	423	100.00%	2,554	15%		326	77%	61	
<b>Sub-total</b>	<b>54,915</b>	<b>3,609</b>	<b>73%</b>	<b>57,558</b>	<b>1.79%</b>	<b>198,504</b>	<b>10%</b>		<b>5,728</b>	<b>10%</b>	<b>127</b>	<b>117</b>
<b>Qualifying Revolving Retail</b>												
<b>PD Range</b>												
0.00 to < 0.15	660	5,736	44%	3,208	0.06%	549,624	80%		105	3%	2	
0.15 to < 0.25	26	1,000	54%	561	0.17%	105,332	84%		47	8%	1	
0.25 to < 0.50	244	974	43%	666	0.29%	123,789	79%		81	12%	2	
0.50 to < 0.75	272	731	45%	598	0.60%	87,910	78%		126	21%	3	
0.75 to < 2.50	277	542	59%	595	1.46%	82,592	83%		264	44%	7	
2.50 to < 10.00	300	233	66%	455	5.03%	60,297	83%		479	105%	19	
10.00 to < 100.00	133	69	77%	186	22.58%	24,007	84%		403	217%	35	
100.00 (Default)	22	-	0%	22	100.00%	3,519	81%		-	0%	21	
<b>Sub-total</b>	<b>1,934</b>	<b>9,285</b>	<b>47%</b>	<b>6,291</b>	<b>1.65%</b>	<b>1,037,070</b>	<b>81%</b>		<b>1,505</b>	<b>24%</b>	<b>90</b>	<b>36</b>
<b>Retail Small Business</b>												
<b>PD Range</b>												
0.00 to < 0.15	281	284	58%	445	0.10%	2,631	26%		30	7%	#	
0.15 to < 0.25	1,309	504	47%	1,545	0.17%	6,001	33%		198	13%	1	
0.25 to < 0.50	304	32	55%	321	0.35%	1,103	33%		66	20%	#	
0.50 to < 0.75	602	42	63%	629	0.50%	3,131	37%		177	28%	1	
0.75 to < 2.50	940	86	59%	991	1.14%	7,518	42%		471	48%	5	
2.50 to < 10.00	558	31	75%	582	4.38%	6,333	42%		375	65%	11	
10.00 to < 100.00	348	12	76%	357	28.44%	3,028	43%		324	91%	42	
100.00 (Default)	140	6	0%	140	100.00%	1,575	56%		260	185%	60	
<b>Sub-total</b>	<b>4,482</b>	<b>997</b>	<b>53%</b>	<b>5,010</b>	<b>5.71%</b>	<b>31,320</b>	<b>37%</b>		<b>1,901</b>	<b>38%</b>	<b>120</b>	<b>78</b>

**11.4 Credit Exposures under Advanced Internal Ratings-Based Approach (A-IRBA) (continued)**

	30 Jun 2018											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet <sup>1/</sup>	Off-Balance Sheet <sup>2/</sup>	Average CCF (%)	EAD <sup>3/</sup> (\$ million)	Average PD <sup>4/</sup> (%)	Number of Obligors <sup>5/</sup>	Average LGD <sup>4/</sup> (%)	Average Maturity <sup>6/</sup> (In years)	RWA (\$ million)	RWA Density <sup>7/</sup> (%)	Expected Losses (\$ million)	TEP <sup>8/</sup> (\$ million)
	(S\$ million)											
<b>Other Retail</b>												
PD Range												
0.00 to < 0.15	378	474	97%	834	0.05%	2,415	9%		12	1%	#	
0.15 to < 0.25	2,968	291	76%	3,190	0.18%	25,198	11%		134	4%	1	
0.25 to < 0.50	285	49	31%	301	0.31%	4,301	15%		26	9%	#	
0.50 to < 0.75	3,367	311	97%	3,669	0.50%	4,345	9%		256	7%	2	
0.75 to < 2.50	7,160	1,131	99%	8,279	1.49%	4,334	9%		954	12%	12	
2.50 to < 10.00	4,359	949	99%	5,304	5.00%	1,811	12%		973	18%	30	
10.00 to < 100.00	9,365	914	100%	10,280	13.66%	1,658	11%		2,325	23%	163	
100.00 (Default)	38	1	0%	38	100.00%	246	28%		53	137%	13	
<b>Sub-total</b>	<b>27,920</b>	<b>4,120</b>	<b>96%</b>	<b>31,895</b>	<b>5.82%</b>	<b>44,308</b>	<b>11%</b>		<b>4,733</b>	<b>15%</b>	<b>221</b>	<b>58</b>
<b>Corporate</b>												
PD Range												
0.00 to < 0.15	74	207	97%	273	0.05%	334	7%	1.0	5	2%	#	
0.15 to < 0.25	437	113	100%	550	0.20%	354	7%	1.0	27	5%	#	
0.25 to < 0.50	-	-	-	-	-	-	-	-	-	NA	-	
0.50 to < 0.75	618	114	100%	732	0.50%	189	7%	1.0	65	9%	#	
0.75 to < 2.50	1,389	332	100%	1,722	1.56%	199	10%	1.0	336	20%	3	
2.50 to < 10.00	952	247	100%	1,200	5.00%	94	8%	1.0	305	25%	5	
10.00 to < 100.00	2,264	489	100%	2,752	12.73%	308	14%	1.0	1,667	61%	48	
100.00 (Default)	-	-	-	-	-	-	-	-	-	NA	-	
<b>Sub-total</b>	<b>5,734</b>	<b>1,502</b>	<b>100%</b>	<b>7,229</b>	<b>6.12%</b>	<b>1,478</b>	<b>10%</b>	<b>1.0</b>	<b>2,405</b>	<b>33%</b>	<b>56</b>	<b>23</b>
<b>Total (all portfolios)</b>	<b>94,985</b>	<b>19,513</b>	<b>67%</b>	<b>107,983</b>	<b>3.44%</b>	<b>1,312,680</b>	<b>16%</b>		<b>16,272</b>	<b>15%</b>	<b>614</b>	<b>312</b>

<sup>1/</sup> On-balance sheet refers to the amount of the on-balance sheet exposure gross of impairment allowances (before taking into account the effect of CRM)

<sup>2/</sup> Off-balance sheet refers to the exposure value without taking into account valuation adjustments and impairment allowances, CCFs and the effect of CRM

<sup>3/</sup> EAD refers to the amount relevant for the capital requirements calculation, after taking into account the effects of CCFs and CRM

<sup>4/</sup> Refers to the PD and LGD associated with each obligor grade, weighted by EAD

<sup>5/</sup> Comparatives for obligor count have been restated to conform with the current period's presentation

<sup>6/</sup> Refers to the effective maturity of the exposures to the obligor in years and is not applicable for portfolios under the IRB treatment of Retail asset classes (IRB)

<sup>7/</sup> Total RWA divided by the exposures post-CCF and post-CRM

<sup>8/</sup> Refers to the total eligible provisions attributed to the respective portfolios

# Represents amounts of less than \$0.5 million

### 11.5 Overview of Credit Risk Mitigation Techniques

The table below provides an overview of the Group's usage of Credit Risk Mitigation (CRM) techniques for on-balance sheet exposures to Loans & Bills Receivable and Debt Securities, categorised by status followed by form of instrument.

		31 Dec 2018				
		(a)	(b)	(c)	(d)	(e)
S\$ million		Exposures unsecured	Exposures secured <sup>1/</sup>	Exposures secured by Collateral	Exposures secured by Financial Guarantees	Exposures secured by Credit Derivatives <sup>2/</sup>
1	Loans and Bills Receivable	140,826	114,942	104,654	3,111	-
2	Debt Securities	21,698	577	-	577	-
<b>3</b>	<b>Total</b>	<b>162,524</b>	<b>115,519</b>	<b>104,654</b>	<b>3,688</b>	-
4	Of which: Defaulted	1,723	902	700	-	-

		30 Jun 2018				
		(a)	(b)	(c)	(d)	(e)
S\$ million		Exposures unsecured	Exposures secured <sup>1/</sup>	Exposures secured by Collateral	Exposures secured by Financial Guarantees	Exposures secured by Credit Derivatives <sup>2/</sup>
1	Loans and Bills Receivable	134,947	115,404	105,484	3,523	-
2	Debt Securities	22,597	17	-	17	-
<b>3</b>	<b>Total</b>	<b>157,544</b>	<b>115,421</b>	<b>105,484</b>	<b>3,540</b>	-
4	Of which: Defaulted	1,381	888	717	-	-

<sup>1/</sup> Refers to carrying amount of exposures (net of impairment allowances) which have at least one credit risk mitigation mechanism, collateral or financial guarantees associated with them

<sup>2/</sup> Not applicable since the Group does not recognise credit derivatives as a form of CRM instrument for exposures

### 11.6 Effect on RWA of Credit Derivatives used as CRM

The Group does not recognise credit derivatives as a credit risk mitigant for exposures under F-IRBA or A-IRBA.

## 12. BACKTESTING OF PD FOR PORTFOLIOS UNDER IRB APPROACH

### 12.1 Backtesting of PD for Portfolios under Foundation Internal Ratings-Based Approach (F-IRBA)

The following table provides the information used to validate the reliability of PD used in the calculation of capital requirements. It compares the PD under F-IRBA with the average of the annual observed default rate of the Group's obligors.

(a)	(b)	(c)			31 Dec 2018		(f)	(g)	(h)	(i)	
		External Ratings			(d)	(e)					
		S&P	Fitch	Moody's	PD <sup>1/</sup> (%)	Arithmetic PD of Obligors <sup>2/</sup> (%)	Dec-17	Dec-18	Defaulted Obligors	Of which: New Defaulted Obligors <sup>3/</sup>	Historical Annual Default Rate <sup>4/</sup> (%)
<b>Sovereign</b>											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.00%	0.01%	39	36	-	-	-
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	NA	NA	-	-	-	-	-
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.37%	3	-	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	NA	NA	-	-	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.90%	1.90%	1	1	-	-	-
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	6.42%	6.42%	1	1	-	-	-
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	NA	11.10%	1	1	-	-	-
<b>Total</b>					<b>0.02%</b>	<b>0.47%</b>	<b>45</b>	<b>39</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Bank</b>											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.05%	0.06%	236	254	-	-	-
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	NA	NA	-	-	-	-	-
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.37%	31	23	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	22	19	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.13%	1.41%	29	28	-	-	-
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	6.15%	5.39%	25	30	-	-	-
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	11.10%	11.10%	38	38	-	-	-
<b>Total</b>					<b>0.16%</b>	<b>1.67%</b>	<b>381</b>	<b>392</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Corporate</b>											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.09%	0.11%	890	953	-	-	-
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	0.18%	0.18%	7	4	-	-	-
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.37%	483	594	-	-	0.04%
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	526	568	2	-	0.13%
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.48%	1.48%	804	818	1	-	0.45%
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.83%	4.45%	319	251	13	-	2.72%
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	14.43%	11.24%	327	355	6	2	2.09%
<b>Total</b>					<b>0.85%</b>	<b>2.04%</b>	<b>3,356</b>	<b>3,543</b>	<b>22</b>	<b>2</b>	<b>0.66%</b>

## 12.1 Backtesting of PD for Portfolios under Foundation Internal Ratings-Based Approach (F-IRBA) (continued)

(a)	(b)	(c)			31 Dec 2018		(f)		(g)	(h)	(i)
		External Ratings			PD <sup>1/</sup> (%)	Arithmetic PD of Obligors <sup>2/</sup> (%)	Number of Obligors		Defaulted Obligors	Of which: New Defaulted Obligors <sup>3/</sup>	Historical Annual Default Rate <sup>4/</sup> (%)
		S&P	Fitch	Moody's			Dec-17	Dec-18			
<b>Corporate IPRE</b>											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.14%	0.14%	13	15	-	-	
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	NA	NA	-	-	-	-	
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.37%	37	44	-	-	
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	81	85	-	-	
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.40%	1.44%	240	256	-	-	
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.17%	4.40%	131	150	1	-	
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	11.25%	12.13%	18	13	-	-	
<b>Total</b>					<b>1.22%</b>	<b>2.31%</b>	<b>520</b>	<b>563</b>	<b>1</b>	<b>-</b>	<b>0.34%</b>
<b>Corporate Small Business</b>											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.12%	0.12%	459	449	-	-	-
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	0.16%	0.17%	795	822	-	-	0.06%
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.36%	331	306	-	-	0.04%
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.52%	612	579	-	-	0.06%
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.44%	1.55%	6,664	6,786	5	-	0.06%
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.51%	4.41%	688	653	12	1	1.33%
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	12.28%	14.03%	449	385	21	-	2.37%
<b>Total</b>					<b>2.41%</b>	<b>2.03%</b>	<b>9,998</b>	<b>9,980</b>	<b>38</b>	<b>1</b>	<b>0.23%</b>

## 12.1 Backtesting of PD for Portfolios under Foundation Internal Ratings-Based Approach (F-IRBA) (continued)

31 Dec 2017											
(a)	(b)	(c) External Ratings			(d)	(e)	(f) Number of Obligors		(g)	(h)	(i)
Bank		S&P	Fitch	Moody's	PD <sup>1/</sup> (%)	Arithmetic PD of Obligors <sup>2/</sup> (%)	Dec- 16	Dec- 17	Defaulted Obligors	Of which: New Defaulted Obligors <sup>3/</sup>	Historical Annual Default Rate <sup>4/</sup> (%)
<b>Bank</b>											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.04%	0.06%	223	236	-	-	-
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	NA	NA	-	-	-	-	-
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.37%	44	31	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	25	22	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.15%	1.54%	26	29	-	-	-
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	5.12%	4.92%	15	25	-	-	-
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	11.10%	11.10%	44	38	-	-	-
<b>Total</b>					<b>0.13%</b>	<b>1.71%</b>	<b>377</b>	<b>381</b>	-	-	-
<b>Corporate</b>											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.09%	0.11%	844	890	-	-	-
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	NA	0.15%	1	7	-	-	-
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.37%	427	483	-	-	0.04%
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	501	526	-	-	0.08%
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.49%	1.50%	903	804	1	-	0.52%
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	5.14%	4.55%	402	319	24	5	2.45%
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	12.94%	11.50%	279	327	16	1	2.27%
<b>Total</b>					<b>1.08%</b>	<b>2.06%</b>	<b>3,357</b>	<b>3,356</b>	<b>41</b>	<b>6</b>	<b>0.67%</b>
<b>Corporate IPRE</b>											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.14%	0.14%	12	13	-	-	-
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	NA	NA	-	-	-	-	-
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.37%	39	37	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	80	81	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.38%	1.44%	235	240	-	-	-
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.05%	4.30%	137	131	-	-	-
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	11.50%	12.65%	18	18	1	-	-
<b>Total</b>					<b>1.18%</b>	<b>2.33%</b>	<b>521</b>	<b>520</b>	<b>1</b>	-	<b>0.37%</b>

## 12.1 Backtesting of PD for Portfolios under Foundation Internal Ratings-Based Approach (F-IRBA) (continued)

(a)	(b)	(c)			31 Dec 2017		(f)		(g)	(h)	(i)
		External Ratings			(d)	(e)	Number of Obligors		Defaulted Obligors	Of which: New Defaulted Obligors <sup>3/</sup>	Historical Annual Default Rate <sup>4/</sup> (%)
Corporate Small Business	S&P	Fitch	Moody's	PD <sup>1/</sup> (%)	Arithmetic PD of Obligors <sup>2/</sup> (%)	Dec-16	Dec-17				
PD Range											
0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.13%	0.12%	427	459	-	-	-	
0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	0.16%	0.17%	894	795	-	-	0.08%	
0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.36%	313	331	-	-	0.05%	
0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.52%	601	612	-	-	0.07%	
0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.52%	1.57%	6,587	6,664	3	-	0.06%	
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.47%	4.35%	727	688	14	-	1.27%	
10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	17.15%	13.40%	316	449	17	1	1.91%	
<b>Total</b>				<b>3.32%</b>	<b>1.86%</b>	<b>9,865</b>	<b>9,998</b>	<b>34</b>	<b>1</b>	<b>0.20%</b>	

<sup>1/</sup> Refers to PD associated with each obligor grade, weighted by EAD

<sup>2/</sup> Arithmetic mean of PDs by the number of obligors within the PD range

<sup>3/</sup> New defaulted obligors refer to the number of obligors that defaulted during the last 12-month period that were not funded at the end of the previous annual reporting period

<sup>4/</sup> Refers to the average of the annual observed default rate (ODR) over a minimum of the last five years. For Corporate IPRE, ODR is only available at overall asset class level as PD approach was only adopted in Q4 2015. For Sovereign asset class, ODR was based on one year of data as the Sovereign portfolio migrated to F-IRBA in the second half of 2017.

## 12.2 Backtesting of PD for Portfolios under Advanced Internal Ratings-Based Approach (A-IRBA)

The following table provides the information used to validate the reliability of PD used in the calculation of capital requirements. It compares the PD under A-IRBA with the average of the annual observed default rate of the Group's obligors.

31 Dec 2018											
(a)	(b)	(c) External Ratings <sup>1/</sup>			(d)	(e)	(f) Number of Obligors		(g)	(h)	(i)
		S&P	Fitch	Moody's	PD <sup>2/</sup> (%)	Arithmetic PD of Obligors <sup>3/</sup> (%)	Dec-17	Dec-18	Defaulted Obligors	Of which: New Defaulted Obligors <sup>4/</sup>	Historical Annual Default Rate <sup>5/</sup> (%)
<b>Residential Mortgage</b>											
PD Range											
	0.00 to < 0.15				0.05%	0.05%	11,195	11,687	4	-	0.07%
	0.15 to < 0.25				0.15%	0.15%	36,044	36,695	36	-	0.10%
	0.25 to < 0.50				0.25%	0.25%	44,832	43,828	91	-	0.21%
	0.50 to < 0.75				0.50%	0.50%	49,361	47,632	165	4	0.35%
	0.75 to < 2.50				1.02%	1.12%	37,339	33,802	249	2	0.78%
	2.50 to < 10.00				3.62%	3.99%	12,660	11,297	300	10	2.25%
	10.00 to < 100.00				23.12%	23.67%	7,476	6,503	1,419	-	20.31%
<b>Total</b>					<b>1.12%</b>	<b>1.57%</b>	<b>198,907</b>	<b>191,444</b>	<b>2,264</b>	<b>16</b>	<b>1.17%</b>
<b>Qualifying Revolving Retail</b>											
PD Range											
	0.00 to < 0.15				0.06%	0.06%	543,449	525,466	444	1	0.08%
	0.15 to < 0.25				0.17%	0.16%	101,474	141,311	88	5	0.15%
	0.25 to < 0.50				0.29%	0.29%	122,268	94,302	335	-	0.29%
	0.50 to < 0.75				0.59%	0.60%	93,449	101,420	547	3	0.61%
	0.75 to < 2.50				1.43%	1.43%	86,030	87,267	1,230	86	1.35%
	2.50 to < 10.00				5.10%	4.94%	63,223	63,435	2,953	88	4.48%
	10.00 to < 100.00				23.47%	23.78%	18,634	22,570	3,495	11	20.45%
<b>Total</b>					<b>1.15%</b>	<b>0.99%</b>	<b>1,028,527</b>	<b>1,035,771</b>	<b>9,092</b>	<b>194</b>	<b>1.04%</b>
<b>Retail Small Business</b>											
PD Range											
	0.00 to < 0.15				0.10%	0.10%	2,724	2,613	4	-	0.02%
	0.15 to < 0.25				0.17%	0.18%	6,204	5,947	12	-	0.31%
	0.25 to < 0.50				0.35%	0.35%	1,087	1,118	3	-	0.41%
	0.50 to < 0.75				0.50%	0.50%	3,224	3,094	6	-	0.30%
	0.75 to < 2.50				1.15%	1.27%	7,009	7,540	35	1	0.91%
	2.50 to < 10.00				4.45%	4.96%	6,773	5,948	153	2	2.96%
	10.00 to < 100.00				27.19%	28.65%	3,401	2,742	521	-	19.55%
<b>Total</b>					<b>2.87%</b>	<b>4.71%</b>	<b>30,422</b>	<b>29,002</b>	<b>734</b>	<b>3</b>	<b>2.56%</b>



## 12.2 Backtesting of PD for Portfolios under Advanced Internal Ratings-Based Approach (A-IRBA) (continued)

(a)	(b)	(c) External Ratings <sup>1/</sup>			31 Dec 2018		(g) Defaulted Obligor	(h) Of which: New Defaulted Obligor <sup>4/</sup>	(i) Historical Annual Default Rate <sup>5/</sup> (%)		
					(d) PD <sup>2/</sup> (%)	(e) Arithmetic PD of Obligor <sup>3/</sup> (%)				(f) Number of Obligor	
										Dec-17	Dec-18
<b>Other Retail</b>											
PD Range											
	0.00 to < 0.15			0.05%	0.05%	2,558	2,563	3	-	0.15%	
	0.15 to < 0.25			0.18%	0.16%	24,679	25,144	18	1	0.14%	
	0.25 to < 0.50			0.31%	0.29%	4,435	4,132	10	-	0.20%	
	0.50 to < 0.75			0.50%	0.52%	4,565	4,066	19	-	0.43%	
	0.75 to < 2.50			1.49%	1.25%	4,345	4,208	17	-	0.62%	
	2.50 to < 10.00			4.99%	4.94%	1,825	1,698	29	1	1.72%	
	10.00 to < 100.00			13.21%	13.61%	1,410	1,605	65	-	11.63%	
<b>Total</b>				<b>4.84%</b>	<b>0.94%</b>	<b>43,817</b>	<b>43,416</b>	<b>161</b>	<b>2</b>	<b>0.55%</b>	
<b>Corporate</b>											
PD Range											
	0.00 to < 0.15			0.05%	0.05%	361	348	-	-	-	
	0.15 to < 0.25			0.20%	0.20%	359	370	-	-	-	
	0.25 to < 0.50			NA	NA	-	-	-	-	-	
	0.50 to < 0.75			0.50%	0.50%	201	149	-	-	-	
	0.75 to < 2.50			1.34%	1.41%	199	203	-	-	-	
	2.50 to < 10.00			5.00%	5.00%	94	113	-	-	-	
	10.00 to < 100.00			13.62%	11.43%	286	323	-	-	-	
<b>Total</b>				<b>6.34%</b>	<b>2.81%</b>	<b>1,500</b>	<b>1,506</b>	<b>-</b>	<b>-</b>	<b>-</b>	

## 12.2 Backtesting of PD for Portfolios under Advanced Internal Ratings-Based Approach (A-IRBA) (continued)

31 Dec 2017											
(a)	(b)	(c) External Ratings <sup>1/</sup>			(d)	(e)	(f) Number of Obligors		(g)	(h)	(i)
		S&P	Fitch	Moody's	PD <sup>2/</sup> (%)	Arithmetic PD of Obligors <sup>3/</sup> (%)	Dec-16	Dec-17	Defaulted Obligors <sup>4/</sup>	Of which: New Defaulted Obligors <sup>4/</sup>	Historical Annual Default Rate <sup>5/</sup> (%)
<b>Residential Mortgage</b>											
PD Range											
	0.00 to < 0.15				0.06%	0.05%	10,837	11,195	13	-	0.08%
	0.15 to < 0.25				0.15%	0.15%	34,380	36,044	28	1	0.10%
	0.25 to < 0.50				0.25%	0.25%	44,898	44,832	106	-	0.21%
	0.50 to < 0.75				0.50%	0.50%	51,586	49,361	194	5	0.35%
	0.75 to < 2.50				1.04%	1.14%	40,768	37,339	281	15	0.81%
	2.50 to < 10.00				3.88%	4.56%	9,251	12,660	204	4	2.24%
	10.00 to < 100.00				22.76%	23.21%	7,786	7,476	1,576	2	20.58%
<b>Total</b>					<b>1.14%</b>	<b>1.57%</b>	<b>199,506</b>	<b>198,907</b>	<b>2,402</b>	<b>27</b>	<b>1.18%</b>
<b>Qualifying Revolving Retail</b>											
PD Range											
	0.00 to < 0.15				0.06%	0.06%	542,017	543,449	611	-	0.08%
	0.15 to < 0.25				0.17%	0.16%	88,934	101,474	94	10	0.17%
	0.25 to < 0.50				0.29%	0.29%	122,827	122,268	389	-	0.29%
	0.50 to < 0.75				0.59%	0.60%	102,652	93,449	673	5	0.61%
	0.75 to < 2.50				1.45%	1.45%	97,658	86,030	1,512	68	1.35%
	2.50 to < 10.00				5.09%	4.95%	77,373	63,223	3,838	167	4.47%
	10.00 to < 100.00				23.95%	23.94%	23,492	18,634	4,881	35	20.81%
<b>Total</b>					<b>1.36%</b>	<b>1.17%</b>	<b>1,054,953</b>	<b>1,028,527</b>	<b>11,998</b>	<b>285</b>	<b>1.08%</b>
<b>Retail Small Business</b>											
PD Range											
	0.00 to < 0.15				0.10%	0.10%	3,040	2,724	-	-	-
	0.15 to < 0.25				0.17%	0.18%	6,602	6,204	11	-	0.33%
	0.25 to < 0.50				0.35%	0.35%	1,103	1,087	6	-	0.43%
	0.50 to < 0.75				0.50%	0.50%	3,596	3,224	7	-	0.32%
	0.75 to < 2.50				1.16%	1.24%	7,190	7,009	66	1	0.99%
	2.50 to < 10.00				4.33%	4.73%	7,501	6,773	201	4	3.10%
	10.00 to < 100.00				26.51%	26.62%	3,478	3,401	573	-	20.40%
<b>Total</b>					<b>2.88%</b>	<b>4.33%</b>	<b>32,510</b>	<b>30,422</b>	<b>864</b>	<b>5</b>	<b>2.59%</b>

## 12.2 Backtesting of PD for Portfolios under Advanced Internal Ratings-Based Approach (A-IRBA) (continued)

(a)	(b)	31 Dec 2017									
		(c) External Ratings <sup>1/</sup>			(d)	(e)	(f) Number of Obligors		(g)	(h)	(i)
		S&P	Fitch	Moody's	PD <sup>2/</sup> (%)	Arithmetic PD of Obligors <sup>3/</sup> (%)	Dec-16	Dec-17 <sup>4/</sup>	Defaulted Obligors <sup>4/</sup>	Of which: New Defaulted Obligors <sup>4/</sup>	Historical Annual Default Rate <sup>5/</sup> (%)
<b>Other Retail</b>											
PD Range											
	0.00 to < 0.15			0.05%	0.05%	10,707	2,558	9	-	0.16%	
	0.15 to < 0.25			0.16%	0.16%	13,911	24,679	12	1	0.16%	
	0.25 to < 0.50			0.33%	0.30%	1,854	4,435	6	-	0.19%	
	0.50 to < 0.75			0.50%	0.51%	3,931	4,565	20	-	0.43%	
	0.75 to < 2.50			1.22%	1.17%	3,238	4,345	23	-	0.66%	
	2.50 to < 10.00			4.62%	4.60%	1,249	1,825	38	-	1.75%	
	10.00 to < 100.00			16.94%	18.39%	652	1,410	83	-	13.03%	
<b>Total</b>				<b>1.04%</b>	<b>0.76%</b>	<b>35,542</b>	<b>43,817</b>	<b>191</b>	<b>1</b>	<b>0.59%</b>	

<sup>1/</sup> Not applicable for A-IRBA Retail and Corporate asset classes

<sup>2/</sup> Refers to PD associated with each obligor grade, weighted by EAD

<sup>3/</sup> Arithmetic mean of PDs by the number of obligors within the PD range

<sup>4/</sup> Comparatives have been restated to conform with the current period's presentation

<sup>5/</sup> Refers to the average of the annual observed default rate (ODR) over a minimum of the last five years. However, included in the Other Retail and Corporate asset classes are the Margin Lending portfolio of Bank of Singapore which migrated to the A-IRBA at the end of 2017. As such, one year of data was used to compute the ODR for these asset classes.

### 13. SPECIALISED LENDING UNDER SUPERVISORY SLOTTING CRITERIA

Exposures treated under the Supervisory Slotting Criteria include loans to customers for Project Financing (PF), Object Financing (OF) and Commodity Financing (CF). Income Producing Real Estate (IPRE) exposures are reported under F-IRBA.

		31 Dec 2018								
Specialised Lending Portfolio (S\$ million)		EAD <sup>3/</sup>								
Regulatory Categories	Remaining Maturities	On-Balance Sheet <sup>1/</sup>	Off-Balance Sheet <sup>2/</sup>	Risk Weight (%)	PF	OF	CF	Total	RWA	Expected Losses
Strong	Less than 2.5 years	-	-	50%	-	-	-	-	-	-
	Equal to or more than 2.5 years	-	-	70%	-	-	-	-	-	-
Good	Less than 2.5 years	-	-	70%	-	-	-	-	-	-
	Equal to or more than 2.5 years	-	-	90%	-	-	-	-	-	-
Satisfactory		1,153	1,679	115%	1,298	132	159	1,589	1,938	45
Weak		-	-	250%	-	-	-	-	-	-
Default		121	-	-	30	81	66	177	-	88
<b>Total</b>		<b>1,274</b>	<b>1,679</b>		<b>1,328</b>	<b>213</b>	<b>225</b>	<b>1,766</b>	<b>1,938</b>	<b>133</b>

		30 Jun 2018								
Specialised Lending Portfolio (S\$ million)		EAD <sup>3/</sup>								
Regulatory Categories	Remaining Maturities	On-Balance Sheet <sup>1/</sup>	Off-Balance Sheet <sup>2/</sup>	Risk Weight (%)	PF	OF	CF	Total	RWA	Expected Losses
Strong	Less than 2.5 years	-	-	50%	-	-	-	-	-	-
	Equal to or more than 2.5 years	-	-	70%	-	-	-	-	-	-
Good	Less than 2.5 years	-	-	70%	-	-	-	-	-	-
	Equal to or more than 2.5 years	-	-	90%	-	-	-	-	-	-
Satisfactory		864	1,934	115%	1,129	148	175	1,453	1,772	41
Weak		60	2	250%	-	-	60	60	159	5
Default		94	-	-	30	96	12	137	-	68
<b>Total</b>		<b>1,018</b>	<b>1,936</b>		<b>1,159</b>	<b>244</b>	<b>247</b>	<b>1,650</b>	<b>1,931</b>	<b>114</b>

<sup>1/</sup> On-balance sheet refers to the amount of the on-balance sheet exposure net of impairment allowances and write-offs (after taking into account the effect of CRM)

<sup>2/</sup> Off-balance sheet refers to the exposure value without taking into account the effects of CCFs and CRM

<sup>3/</sup> EAD refers to the amount relevant for capital requirements calculated by taking into account the effects of CCFs and CRM

## 14. COUNTERPARTY CREDIT RISK

### 14.1 Counterparty Credit Risk Exposures by Approach

Counterparty credit risk (CCR) is the risk of a counterparty defaulting before the final settlement of the transaction, which generally represents uncertain exposures that can vary over time with the movement of underlying market factors such as those in over-the-counter (OTC) derivatives.

The Group currently treats CCR under the Current Exposure Method (CEM), with regulatory prescribed add-on that represents the potential future exposure in addition to the net replacement cost of the OTC derivatives.

The table below provides an overview of the CCR for OTC derivatives and Securities Financing Transactions (SFTs).

		31 Dec 2018					
		(a)	(b)	(c)	(d)	(e)	(f)
<b>Counterparty Credit Risk Exposure by Approach</b>		Replacement Cost	Potential Future Exposure	Effective EPE	Alpha factor ( $\alpha$ )	EAD <sup>1/</sup>	RWA
(S\$ million)							
1	CEM (For derivatives)	4,768	7,680			7,225	1,828
2	CCR Internal models method (For derivatives and SFTs)			-		-	-
3	FC(SA) for SFTs					-	-
4	FC(CA) for SFTs					5,547	451
5	VaR for SFTs					-	-
6	<b>Total</b>						<b>2,279</b>

		30 Jun 2018					
		(a)	(b)	(c)	(d)	(e)	(f)
<b>Counterparty Credit Risk Exposure by Approach</b>		Replacement Cost	Potential Future Exposure	Effective EPE	Alpha factor ( $\alpha$ )	EAD <sup>1/</sup>	RWA
(S\$ million)							
1	CEM (For derivatives)	5,303	7,240			7,335	2,212
2	CCR Internal models method (For derivatives and SFTs)			-		-	-
3	FC(SA) for SFTs					-	-
4	FC(CA) for SFTs					6,154	218
5	VaR for SFTs					-	-
6	<b>Total</b>						<b>2,430</b>

<sup>1/</sup> EAD refers to the amount relevant for capital requirements calculation, after taking into account the effects of CRM

## 14.2 CVA Risk Capital Charge

The Credit Valuation Adjustment (CVA) is made to the mark-to-market valuation of OTC derivatives as calculated under the Standardised approach for the Group.

<b>31 Dec 2018</b>		
S\$ million	<b>(a)</b> EAD <sup>1/</sup>	<b>(b)</b> RWA
<b>Credit Valuation Adjustments (CVA) Risk Capital Requirements</b>		
Total portfolios subject to Advanced CVA capital requirement	-	-
<b>1</b> (i) VaR component (including the three-times multiplier)	-	-
<b>2</b> (ii) Stressed VaR component (including the three-times multiplier)	-	-
<b>3</b> All portfolios subject to Standardised CVA capital requirement	6,542	2,010
<b>4 Total portfolios subject to the CVA risk capital requirement</b>	<b>6,542</b>	<b>2,010</b>

<b>30 Jun 2018</b>		
S\$ million	<b>(a)</b> EAD <sup>1/</sup>	<b>(b)</b> RWA
<b>Credit Valuation Adjustments (CVA) Risk Capital Requirements</b>		
Total portfolios subject to Advanced CVA capital requirement	-	-
<b>1</b> (i) VaR component (including the three-times multiplier)	-	-
<b>2</b> (ii) Stressed VaR component (including the three-times multiplier)	-	-
<b>3</b> All portfolios subject to Standardised CVA capital requirement	6,647	1,763
<b>4 Total portfolios subject to the CVA risk capital requirement</b>	<b>6,647</b>	<b>1,763</b>

<sup>1/</sup> EAD refers to the amount relevant for capital requirements calculation, after taking into account the effects of CRM

### 14.3 Counterparty Credit Risk Exposures under Standardised Approach by Risk Weight

The table below represents the risk weights used in the calculation of capital for the Group's portfolio, which are subjected to the CCR requirements under the Standardised Approach by asset classes.

S\$ million	31 Dec 2018								Total EAD <sup>1/</sup>
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
	Risk Weight								
	0%	10%	20%	50%	75%	100%	150%	Others	
<b>Asset Class</b>									
Sovereign	38	-	-	-	-	-	-	-	38
PSE	-	-	-	-	-	-	-	-	-
MDB	-	-	-	-	-	-	-	-	-
Bank	-	-	89	15	-	-	-	-	104
Corporate	-	-	#	-	-	96	-	-	96
Regulatory	-	-	-	-	-	-	-	-	-
Retail	-	-	-	-	-	-	-	-	-
Others <sup>2/</sup>	-	-	-	-	-	53	-	-	53
<b>Total</b>	<b>38</b>	<b>-</b>	<b>89</b>	<b>15</b>	<b>-</b>	<b>149</b>	<b>-</b>	<b>-</b>	<b>291</b>

S\$ million	30 Jun 2018								Total EAD <sup>1/</sup>
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
	Risk Weight								
	0%	10%	20%	50%	75%	100%	150%	Others	
<b>Asset Class</b>									
Sovereign	-	-	-	-	-	-	-	-	-
PSE	-	-	-	-	-	-	-	-	-
MDB	-	-	-	-	-	-	-	-	-
Bank	-	-	86	17	-	#	-	-	103
Corporate	-	-	-	-	-	65	-	-	65
Regulatory	-	-	-	-	-	-	-	-	-
Retail	-	-	-	-	-	-	-	-	-
Others <sup>2/</sup>	-	-	-	-	-	53	-	-	53
<b>Total</b>	<b>-</b>	<b>-</b>	<b>86</b>	<b>17</b>	<b>-</b>	<b>118</b>	<b>-</b>	<b>-</b>	<b>221</b>

<sup>1/</sup> EAD refers to the amount relevant for capital requirement calculation, after taking into account the effects of CRM

<sup>2/</sup> Includes other exposures not included in the above asset classes

# Represents amounts of less than \$0.5 million

#### 14.4 Counterparty Credit Risk Exposures under Foundation Internal Ratings-Based Approach (F-IRBA)

The table below represents the parameters used in the calculation of capital for the Group's portfolio, which are subjected to the CCR requirements under the F-IRBA by asset classes.

	31 Dec 2018						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD <sup>1/</sup> (S\$ million)	Average PD <sup>2/</sup> (%)	Number of Obligors <sup>3/</sup>	Average LGD <sup>2/</sup> (%)	Average Maturity <sup>4/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>5/</sup> (%)
<b>Sovereign</b>							
PD Range							
0.00 to < 0.15	3,112	0.00%	7	40%	0.1	#	0%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	-	-	-	-	-	-	NA
0.50 to < 0.75	-	-	-	-	-	-	NA
0.75 to < 2.50	-	-	-	-	-	-	NA
2.50 to < 10.00	-	-	-	-	-	-	NA
10.00 to < 100.00	-	-	-	-	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
<b>Sub-total</b>	<b>3,112</b>	<b>0.00%</b>	<b>7</b>	<b>40%</b>	<b>0.1</b>	<b>#</b>	<b>0%</b>
<b>Bank</b>							
PD Range							
0.00 to < 0.15	3,719	0.06%	123	31%	0.8	401	11%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	112	0.37%	8	44%	0.7	63	56%
0.50 to < 0.75	198	0.54%	8	45%	0.8	143	72%
0.75 to < 2.50	72	1.13%	4	1%	0.2	1	1%
2.50 to < 10.00	#	3.20%	1	45%	0.0	#	106%
10.00 to < 100.00	-	0.00%	-	0%	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
<b>Sub-total</b>	<b>4,101</b>	<b>0.11%</b>	<b>144</b>	<b>32%</b>	<b>0.8</b>	<b>608</b>	<b>15%</b>
<b>Corporate</b>							
PD Range							
0.00 to < 0.15	2,124	0.08%	180	39%	1.8	461	22%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	806	0.37%	76	16%	0.7	178	22%
0.50 to < 0.75	393	0.54%	78	45%	1.2	272	69%
0.75 to < 2.50	92	1.70%	90	45%	2.6	107	117%
2.50 to < 10.00	4	4.35%	18	45%	3.2	7	160%
10.00 to < 100.00	#	11.10%	30	45%	0.0	#	196%
100.00 (Default)	37	100.00%	2	45%	5.0	-	0%
<b>Sub-total</b>	<b>3,456</b>	<b>1.31%</b>	<b>474</b>	<b>35%</b>	<b>1.5</b>	<b>1,025</b>	<b>30%</b>



**14.4 Counterparty Credit Risk Exposures under Foundation Internal Ratings-Based Approach (F-IRBA)**  
 (continued)

	31 Dec 2018						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD <sup>1/</sup> (S\$ million)	Average PD <sup>2/</sup> (%)	Number of Obligors <sup>3/</sup>	Average LGD <sup>2/</sup> (%)	Average Maturity <sup>4/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>5/</sup> (%)
<b>Corporate (IPRE)</b>							
PD Range							
0.00 to < 0.15	16	0.14%	5	45%	2.9	6	41%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	8	0.37%	11	45%	1.7	4	55%
0.50 to < 0.75	27	0.54%	20	45%	3.1	23	84%
0.75 to < 2.50	28	1.38%	33	45%	2.8	33	112%
2.50 to < 10.00	#	3.48%	3	45%	1.2	#	125%
10.00 to < 100.00	-	-	-	-	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
<b>Sub-total</b>	<b>79</b>	<b>0.76%</b>	<b>72</b>	<b>45%</b>	<b>2.8</b>	<b>66</b>	<b>83%</b>
<b>Corporate Small Business</b>							
PD Range							
0.00 to < 0.15	6	0.14%	31	45%	4.4	3	44%
0.15 to < 0.25	#	0.17%	4	45%	0.2	#	16%
0.25 to < 0.50	3	0.37%	26	45%	1.2	1	46%
0.50 to < 0.75	392	0.54%	38	36%	0.0	185	47%
0.75 to < 2.50	2	1.63%	61	45%	2.2	2	93%
2.50 to < 10.00	1	3.65%	26	45%	1.2	1	104%
10.00 to < 100.00	#	11.10%	4	45%	1.0	#	194%
100.00 (Default)	-	0.00%	-	0%	-	-	NA
<b>Sub-total</b>	<b>404</b>	<b>0.54%</b>	<b>190</b>	<b>36%</b>	<b>0.1</b>	<b>192</b>	<b>48%</b>
<b>Total (all portfolios)</b>	<b>11,152</b>	<b>0.47%</b>	<b>887</b>	<b>35%</b>	<b>0.8</b>	<b>1,891</b>	<b>17%</b>

**14.4 Counterparty Credit Risk Exposures under Foundation Internal Ratings-Based Approach (F-IRBA)**  
 (continued)

	30 Jun 2018						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD <sup>1/</sup> (S\$ million)	Average PD <sup>2/</sup> (%)	Number of Obligors <sup>3/</sup>	Average LGD <sup>2/</sup> (%)	Average Maturity <sup>4/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>5/</sup> (%)
<b>Sovereign</b>							
PD Range							
0.00 to < 0.15	2,494	0.00%	6	31%	0.1	1	0%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	-	-	-	-	-	-	NA
0.50 to < 0.75	-	-	-	-	-	-	NA
0.75 to < 2.50	-	-	-	-	-	-	NA
2.50 to < 10.00	-	-	-	-	-	-	NA
10.00 to < 100.00	-	-	-	-	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
<b>Sub-total</b>	<b>2,494</b>	<b>0.00%</b>	<b>6</b>	<b>31%</b>	<b>0.1</b>	<b>1</b>	<b>0%</b>
<b>Bank</b>							
PD Range							
0.00 to < 0.15	5,395	0.05%	126	29%	0.7	477	9%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	96	0.37%	7	45%	0.7	54	57%
0.50 to < 0.75	825	0.54%	9	12%	0.2	150	18%
0.75 to < 2.50	58	1.11%	4	18%	0.1	16	28%
2.50 to < 10.00	#	3.20%	2	45%	0.1	#	107%
10.00 to < 100.00	#	11.10%	3	45%	0.0	#	212%
100.00 (Default)	-	-	-	-	-	-	NA
<b>Sub-total</b>	<b>6,374</b>	<b>0.13%</b>	<b>151</b>	<b>27%</b>	<b>0.6</b>	<b>697</b>	<b>11%</b>
<b>Corporate</b>							
PD Range							
0.00 to < 0.15	1,391	0.07%	190	34%	1.8	292	21%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	916	0.37%	97	15%	0.6	182	20%
0.50 to < 0.75	89	0.54%	56	45%	0.3	44	49%
0.75 to < 2.50	202	1.69%	98	45%	2.9	243	120%
2.50 to < 10.00	39	6.24%	21	45%	4.6	77	198%
10.00 to < 100.00	1	11.10%	28	45%	3.1	1	224%
100.00 (Default)	-	-	-	-	-	-	NA
<b>Sub-total</b>	<b>2,638</b>	<b>0.41%</b>	<b>490</b>	<b>29%</b>	<b>1.4</b>	<b>839</b>	<b>32%</b>

**14.4 Counterparty Credit Risk Exposures under Foundation Internal Ratings-Based Approach (F-IRBA)**  
 (continued)

	30 Jun 2018						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD <sup>1/</sup> (S\$ million)	Average PD <sup>2/</sup> (%)	Number of Obligors <sup>3/</sup>	Average LGD <sup>2/</sup> (%)	Average Maturity <sup>4/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>5/</sup> (%)
<b>Corporate (IPRE)</b>							
PD Range							
0.00 to < 0.15	11	0.14%	5	45%	2.9	4	42%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	9	0.37%	11	45%	1.8	5	61%
0.50 to < 0.75	14	0.54%	19	45%	3.2	12	85%
0.75 to < 2.50	17	1.27%	29	45%	2.8	20	110%
2.50 to < 10.00	-	4.73%	4	45%	1.7	1	145%
10.00 to < 100.00	-	-	-	-	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
<b>Sub-total</b>	<b>51</b>	<b>0.71%</b>	<b>68</b>	<b>45%</b>	<b>2.8</b>	<b>42</b>	<b>81%</b>
<b>Corporate Small Business</b>							
PD Range							
0.00 to < 0.15	1	0.14%	29	45%	0.9	#	21%
0.15 to < 0.25	#	0.15%	3	45%	0.3	#	16%
0.25 to < 0.50	5	0.37%	32	45%	2.7	3	59%
0.50 to < 0.75	230	0.54%	34	29%	0.0	62	27%
0.75 to < 2.50	3	1.35%	65	45%	2.4	2	90%
2.50 to < 10.00	1	4.26%	28	45%	0.7	1	108%
10.00 to < 100.00	#	11.10%	7	45%	0.2	#	155%
100.00 (Default)	5	100.00%	2	45%	1.0	-	0%
<b>Sub-total</b>	<b>245</b>	<b>2.73%</b>	<b>200</b>	<b>30%</b>	<b>0.1</b>	<b>68</b>	<b>28%</b>
<b>Total (all portfolios)</b>	<b>11,802</b>	<b>0.22%</b>	<b>915</b>	<b>28%</b>	<b>0.7</b>	<b>1,647</b>	<b>14%</b>

<sup>1/</sup> EAD refers to the amount relevant for capital requirements calculation, after taking into account the effects of CRM

<sup>2/</sup> Refers to the PD and LGD associated with each obligor grade, weighted by EAD

<sup>3/</sup> Number of obligors refers to the number of counterparties

<sup>4/</sup> Refers to the effective maturity of the exposures to the obligor in years, weighted by EAD

<sup>5/</sup> Total RWA divided by the exposures post-CRM

# Represents amounts of less than \$0.5 million

#### 14.5 Counterparty Credit Risk Exposures under Advanced Internal Ratings-Based Approach (A-IRBA)

The table below represents the parameters used in the calculation of capital for the Group's portfolio, which are subjected to the CCR requirements under the A-IRBA by asset classes.

There was no CCR exposure within the other prescribed asset classes (Sovereign, Banks and Corporate Small Business) under A-IRBA as at 31 December 2018.

	31 Dec 2018						
	(a) EAD <sup>1/</sup> (S\$ million)	(b) Average PD <sup>2/</sup> (%)	(c) Number of Obligors <sup>3/</sup>	(d) Average LGD <sup>2/</sup> (%)	(e) Average Maturity <sup>4/</sup> (In years)	(f) RWA (S\$ million)	(g) RWA Density <sup>5/</sup> (%)
<b>Corporate</b>							
PD Range							
0.00 to < 0.15	26	0.05%	38	7%	0.7	#	2%
0.15 to < 0.25	20	0.20%	65	8%	1.1	1	5%
0.25 to < 0.50	-	-	-	-	-	-	NA
0.50 to < 0.75	9	0.50%	29	7%	0.5	1	8%
0.75 to < 2.50	19	1.61%	45	7%	0.5	3	14%
2.50 to < 10.00	23	5.00%	42	7%	1.2	5	23%
10.00 to < 100.00	46	14.92%	109	16%	2.0	38	81%
100.00 (Default)	-	-	-	-	-	-	NA
<b>Sub-total</b>	<b>143</b>	<b>5.92%</b>	<b>328</b>	<b>10%</b>	<b>1.2</b>	<b>48</b>	<b>33%</b>
<b>Total (all portfolios)</b>	<b>143</b>	<b>5.92%</b>	<b>328</b>	<b>10%</b>	<b>1.2</b>	<b>48</b>	<b>33%</b>

  

	30 Jun 2018						
	(a) EAD <sup>1/</sup> (S\$ million)	(b) Average PD <sup>2/</sup> (%)	(c) Number of Obligors <sup>3/</sup>	(d) Average LGD <sup>2/</sup> (%)	(e) Average Maturity <sup>4/</sup> (In years)	(f) RWA (S\$ million)	(g) RWA Density <sup>5/</sup> (%)
<b>Corporate</b>							
PD Range							
0.00 to < 0.15	5	0.05%	35	7%	1.6	#	2%
0.15 to < 0.25	18	0.20%	65	7%	1.2	1	5%
0.25 to < 0.50	-	-	-	-	-	-	NA
0.50 to < 0.75	17	0.50%	34	7%	0.7	1	8%
0.75 to < 2.50	46	1.80%	53	26%	1.0	25	56%
2.50 to < 10.00	14	5.00%	31	7%	0.7	3	22%
10.00 to < 100.00	58	16.17%	130	17%	1.6	53	88%
100.00 (Default)	-	-	-	-	-	-	NA
<b>Sub-total</b>	<b>158</b>	<b>7.07%</b>	<b>348</b>	<b>16%</b>	<b>1.2</b>	<b>83</b>	<b>52%</b>
<b>Total (all portfolios)</b>	<b>158</b>	<b>7.07%</b>	<b>348</b>	<b>16%</b>	<b>1.2</b>	<b>83</b>	<b>52%</b>

<sup>1/</sup> EAD refers to the amount relevant for capital requirements calculation, after taking into account the effects of CRM

<sup>2/</sup> Refers to the PD and LGD associated with each obligor grade, weighted by EAD

<sup>3/</sup> Comparatives for obligor count have been restated to conform with the current period's presentation

<sup>4/</sup> Refers to the maturity of the exposures to the obligor in years, weighted by EAD

<sup>5/</sup> Total RWA divided by the exposures post-CRM

# Represents amounts of less than \$0.5 million

#### 14.6 Composition of Collateral for Counterparty Credit Risk Exposures

The table below represents all the types of collateral posted or received by the Group to support or reduce its CCR exposures related to derivatives or securities financing transactions (SFTs), including transactions cleared through Central Counterparties (CCP).

31 Dec 2018											
		(a)		(b)		(c)		(d)	(e)		(f)
		Collateral used in derivative transactions				Collateral used in SFTs <sup>1/</sup>					
		Fair value of collateral received		Fair value of collateral posted		Fair value of collateral received		Fair value of collateral posted			
S\$ million		Segregated <sup>2/</sup>	Unsegregated	Segregated <sup>2/</sup>	Unsegregated						
1	Cash	-	1,968	81	1,747	1,450	4,697				
2	Debt	-	1,087	-	-	4,079	1,622				
3	Equity	-	989	-	-	-	-				
4	Others <sup>3/</sup>	-	594	-	-	-	-				
5	<b>Total</b>	-	<b>4,638</b>	<b>81</b>	<b>1,747</b>	<b>5,529</b>	<b>6,319</b>				

30 Jun 2018											
		(a)		(b)		(c)		(d)	(e)		(f)
		Collateral used in derivative transactions				Collateral used in SFTs <sup>1/</sup>					
		Fair value of collateral received		Fair value of collateral posted		Fair value of collateral received		Fair value of collateral posted			
S\$ million		Segregated <sup>2/</sup>	Unsegregated	Segregated <sup>2/</sup>	Unsegregated						
1	Cash	-	2,370	58	1,720	1,885	3,807				
2	Debt	-	1,246	-	4	3,505	2,360				
3	Equity	-	1,210	-	-	-	-				
4	Others <sup>3/</sup>	-	702	-	-	-	-				
5	<b>Total</b>	-	<b>5,528</b>	<b>58</b>	<b>1,724</b>	<b>5,390</b>	<b>6,167</b>				

<sup>1/</sup> Refers to Securities Financing Transaction (i.e. Repos and Reverse Repos). The 30 June 2018 position was adjusted to correctly classify the reported values of collateral received and posted

<sup>2/</sup> Refers to collateral held in a bankruptcy remote manner

<sup>3/</sup> Includes collateral not reported in the other categories

#### 14.7 Credit Derivative Exposures

The table below presents the Group's exposure to credit derivatives by what had been bought or sold.

The decrease in notional for credit derivatives during the second half of 2018 was mainly driven by lower single-name credit default swaps and index credit default swaps.

S\$ million	31 Dec 2018		30 Jun 2018	
	(a) Protection Bought	(b) Protection Sold	(a) Protection Bought	(b) Protection Sold
<b>Notional</b>				
1 Single-name credit default swaps	2,281	1,859	3,261	2,321
2 Index credit default swaps	1,150	1,098	1,304	1,218
3 Other credit derivatives	370	205	348	183
<b>4 Total notional</b>	<b>3,801</b>	<b>3,162</b>	<b>4,913</b>	<b>3,722</b>
<b>Fair values</b>				
5 Positive fair value (asset)	25	33	8	40
6 Negative fair value (liability)	37	25	42	7

#### 15. SECURITISATION EXPOSURES

There was no securitisation and re-securitisation exposure in the banking and trading books as at 31 December 2018.

## 16. MARKET RISK TYPE UNDER STANDARDISED APPROACH

During the second half of 2018, the decrease in Market Risk RWA was driven mainly by lower Interest Rate and Foreign Exchange risk.

<b>31 Dec 2018</b>	
<b>Market Risk by Standardised Approach</b>	<b>(a)</b>
S\$ million	RWA
<b>Notional</b>	
1 Interest rate risk (general and specific)	8,160
2 Equity risk (general and specific)	430
3 Foreign exchange risk	5,583
4 Commodity risk	11
<b>Options</b>	
5 Simplified approach	-
6 Delta-plus method	331
7 Scenario approach	154
8 Securitisation	-
<b>9 Total</b>	<b>14,669</b>

<b>30 Jun 2018</b>	
<b>Market Risk by Standardised Approach</b>	<b>(a)</b>
S\$ million	RWA
<b>Notional</b>	
1 Interest rate risk (general and specific)	8,736
2 Equity risk (general and specific)	501
3 Foreign exchange risk	6,046
4 Commodity risk	13
<b>Options</b>	
5 Simplified approach	-
6 Delta-plus method	174
7 Scenario approach	127
8 Securitisation	-
<b>9 Total</b>	<b>15,597</b>

There is no Market Risk exposure under Internal Model Approach as at 31 December 2018.

## **17. INTEREST RATE RISK IN THE BANKING BOOK**

Qualitative disclosures related to Interest Rate Risk in the Banking Book, including a description of its nature and key assumptions made by the Group, can be found in the Risk Management chapter and Notes to the Financial Statements of the Annual Report.

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 S\$744 million, or approximately +12.6% of reported net interest income. The corresponding impact from a 100 bp decrease is an estimated reduction of S\$744 million in net interest income, or approximately -12.6% of reported net interest income.