# **Oversea-Chinese Banking Corporation Limited**

Pillar 3 Disclosures (OCBC Group – As at 30 June 2019)





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#### 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 mid-year disclosure for OCBC Group (Group) as at 30 June 2019, 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 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 30 June 2019, the total equity of these insurance subsidiaries was S\$8 billion and total assets were S\$91 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)
		Jun-19	Mar-19	Dec-18	Sep-18	Jun-18
	Available Capital (S\$ million)					
1	CET1 Capital	30,176	29,024	28,068	27,377	26,641
2	Tier 1 Capital	31,706	30,585	29,640	28,948	28,714
3	Total Capital	35,341	34,155	32,986	32,300	32,075
	Risk Weighted Assets (S\$ million)					
4	Total RWA	209,203	204,357	200,248	200,322	200,786
	Risk-based Capital Ratios as a percentage of RWA (%)					
5	CET1 Ratio	14.4	14.2	14.0	13.6	13.2
6	Tier 1 Ratio	15.1	14.9	14.8	14.4	14.3
7	Total Capital Ratio	16.8	16.7	16.4	16.1	15.9
	Additional CET1 buffer requirements as a percentage of RWA (%)					
8	Capital conservation buffer requirement	2.5	2.5	1.875	1.875	1.875
9	Countercyclical buffer requirement	0.4	0.4	0.3	0.3	0.3
10	Bank G-SIB and/or D-SIB additional requirements	-	-	-	-	-
11	Total of Bank CET1 specific requirements 1/	2.9	2.9	2.2	2.1	2.1
12	CET1 available after meeting the Reporting Bank's minimum capital requirements	6.8	6.7	6.4	6.1	5.9
	Leverage Ratio (S\$ million)					
13	Total Leverage Ratio exposure measure	417,885	408,788	409,993	406,022	408,204
14	Leverage Ratio (%) <sup>2/</sup>	7.5	7.4	7.2	7.1	7.0
	Liquidity Coverage Ratio (S\$ million) 3/					
15	Total High Quality Liquid Assets	46,894	48,930	49,751	47,630	50,536
16	Total net cash outflow	31,028	32,942	32,124	36,885	36,956
17	Liquidity Coverage Ratio (%)	151	150	156	130	138
	Net Stable Funding Ratio (S\$ million)					
18	Total available stable funding	239,480	236,498	231,631	228,607	227,516
19	Total required stable funding	219,417	214,338	213,274	211,715	210,220
20	Net Stable Funding Ratio (%)	109	110	109	108	108

<sup>1/</sup> Sum of rows 8, 9 and 10

 $<sup>^{2/}\</sup>mbox{Computed}$  by row 2 / row 13

 $<sup>^{\</sup>mbox{\tiny 3/}}$  Reported as simple averages of daily observations for the respective quarter



## 4. COUNTERCYCLICAL CAPITAL BUFFER

The following table provides an overview of the Group's geographical distribution of private sector credit exposures used in 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.

		30 Jun 2019		
	(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
Geographical breakdown				
Hong Kong	2.50%	20,544		
Sweden	2.00%	236		
United Kingdom	1.00%	5,716		
Sub-total		26,496		
Total		151,588	0.4%	795
		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
Geographical breakdown				
Hong Kong	1.875%	19,094		
Sweden	1.875%	73		
United Kingdom Sub-total	1.00%	5,123 24,290		
Total		146,181	0.3%	563

<sup>&</sup>lt;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 30 June 2019.

S\$'m

			S\$'m	
	Balance sheet as per published	regulatory scope of	Cross Reference to Section	
	financial	consolidation	5.2	
FOURTY	statements			
EQUITY Share capital	16,423	16,423	A	
Other equity instruments	1,497	1,497	B	
Reserves:	27.57	27.57		
Capital reserves	1,055			
Fair value reserves	698			
Revenue reserves	25,184			
Total reserves of which: Retained earnings	26,936	19,036	C1	
of which: Accumulated other comprehensive income and other disclosed reserves		1,360	C2	
of which: Cash flow hedge reserve		(3)	C3	
of which: Unrealised fair value gains/losses on financial liabilities and derivative		9	C4	
liabilities arising from changes in own credit risk				
Non-controlling interests	1,361			
of which: Minority interest that meets criteria for inclusion in CET1 Capital		200 33	D1 D2	
of which: Minority interest that meets criteria for inclusion in AT1 Capital of which: Minority interest that meets criteria for inclusion in Tier 2 Capital		33 19	D2 D3	
Valuation adjustment		41	<u>D3</u>	
Total equity	46,218			
LIABILITIES				
Deposits of non-bank customers	296,806			
Deposits and balances of banks	11,269			
Due to associates	363 317			
Trading portfolio liabilities  Derivative payables	7,079			
Other liabilities	6,503			
Current tax payables	1,034			
Deferred tax liabilities	1,752			
of which: Associated with intangible assets		47	F	
Debt issued	28,406	2 755		
of which: Tier 2 capital instruments Life assurance fund liabilities	80,020	2,755	G1	
Total liabilities	433,549			
Total equity and liabilities	479,767			
ASSETS	•			
Cash and placements with central banks	18,705			
Singapore government treasury bills and securities	10,427			
Other government treasury bills and securities	17,957			
Placements with and loans to banks Loans and bills receivable	36,762 260,099			
of which: Eligible provision for inclusion in Tier 2 Capital subject to cap in respect of exposures under SA and IRBA	200,099	861	Н	
Debt and equity securities	26,490			
of which: Investments in unconsolidated major stake financial institutions		343	I1	
of which: Investments in unconsolidated non major stake financial institutions		1,520	I2	
of which: PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630		0	I3	
Investments in insurance subsidiaries  Derivative and forward securities in unconsolidated non major stake financial		1,953 27	J K	
institutions		2/	^	
Assets pledged	2,943			
Assets held for sale	6			
Derivative receivables	7,021			
Other assets	4,500			
Deferred tax assets	46	171	1	
of which: Deferred tax assets before netting Associates	3,330	171	L	
of which: Investments in unconsolidated major stake financial institutions	3,330	3,301	М	
Property, plant and equipment	3,556	5,501	111	
Investment property	845			
Goodwill and intangible assets	5,029	_		
of which: Goodwill		4,010	N1	
of which: Intangible assets	02.051	317	N2	
Life assurance fund investment assets  Total assets	82,051 <b>479,767</b>			
Iotal assets	7/3,/0/			



# 5.2 Regulatory Capital Position

The reporting position of the tables in this section is as at 30 June 2019.

S\$'m

			S\$'m
		Amount	Cross Reference
			to Section 5.1
	Common Equity Tier 1 capital: instruments and reserves		-
1	Paid-up ordinary shares and share premium (if applicable)	16,423	Α
2	Retained earnings	19,036	C1
	Accumulated other comprehensive income and other disclosed reserves		C2
3		1,360	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	200	D1
6	Common Equity Tier 1 capital before regulatory adjustments	37,019	
	Common Equity Tier 1 capital: regulatory adjustments	, , , , , , , , , , , , , , , , , , , ,	
7	Valuation adjustment pursuant to Part VIII of MAS Notice 637	41	E
	Goodwill, net of associated deferred tax liability	4,010	N1
8			
9	Intangible assets, net of associated deferred tax liability	270	N2 - F
10	Deferred tax assets that rely on future profitability	171	L
11	Cash flow hedge reserve	(3)	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	9	C4
1-7		,	CŦ
4.5	changes in own credit risk		
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	2,345	(I1 + M + J) -
	Bank holds a major stake (including insurance subsidiaries) (amount above 10% threshold)		3,252¹
20	Mortgage servicing rights (amount above 10% threshold)		
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of		
21			
	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	
	PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630	0	I3
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	Total regulatory adjustments to CET1 Capital	6,843	
29	Common Equity Tier 1 capital (CET1)	30,176	
	Additional Tier 1 capital: instruments		
30	AT1 capital instruments and share premium (if applicable)	1,497	В
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		22	D2
	AT1 capital instruments issued by fully-consolidated subsidiaries that meet criteria for inclusion	33	DZ
35	of which: instruments issued by subsidiaries subject to phase out		
36	Additional Tier 1 capital before regulatory adjustments	1,530	
	Additional Tier 1 capital: regulatory adjustments		
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	_	
رزا	Reporting Bank does not hold a major stake	-	
40			
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	Total regulatory adjustments to Additional Tier 1 capital	-	
44	Additional Tier 1 capital (AT1)	1,530	
45	Tier 1 capital (T1 = CET1 + AT1)	31,706	



## 5.2 Regulatory Capital Position (continued)

		Amount	Cross Reference to Section 5.1
	Tier 2 capital: instruments and provisions		
46	Tier 2 capital instruments and share premium (if applicable)	2,755	G1
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	19	D3
49	of which: instruments issued by subsidiaries subject to phase out	-	
50	Provisions	861	Н
51	Tier 2 capital before regulatory adjustments	3,635	
	Tier 2 capital: regulatory adjustments		
52	Investments in own Tier 2 instruments	-	
53	Reciprocal cross-holdings in Tier 2 capital instruments of financial institutions	-	
54	Investments in Tier 2 capital instruments and other TLAC liabilities of unconsolidated financial institutions in which the Reporting Bank does not hold a major stake	-	
54a	Investments in other TLAC liabilities of unconsolidated financial institutions in which the Reporting Bank does not hold a major stake: amount previously designated for the 5% threshold but that no longer meets the conditions	-	
55	Investments in Tier 2 capital instruments and other TLAC liabilities 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	Total regulatory adjustments to Tier 2 capital	-	
58	Tier 2 capital (T2)	3,635	
59	Total capital (TC = T1 + T2)	35,341	
60	Floor-adjusted total risk weighted assets	209,203	
	Capital ratios (as a percentage of floor-adjusted risk weighted assets)		
61	Common Equity Tier 1 CAR	14.4%	
62	Tier 1 CAR	15.1%	
63	Total CAR	16.8%	
64	Bank-specific buffer requirement	9.4%	
65	of which: capital conservation buffer requirement	2.500%	
66	of which: bank specific countercyclical buffer requirement	0.4%	
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	6.8%	
-	National minima	0.070	
69	Minimum CET1 CAR	6.5%	
70	Minimum Tier 1 CAR	8.0%	
71	Minimum Total CAR	10.0%	
	Amounts below the thresholds for deduction (before risk weighting)		
72	Investments in ordinary shares, AT1 capital and Tier 2 capital and other TLAC liabilities of	1,547	I2 + K
-	unconsolidated financial institutions in which the Reporting Bank does not hold a major stake	=,5	
73	Investments in ordinary shares of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	3,252	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)		
	Applicable caps on the inclusion of provisions in Tier 2		
76	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	488	
77	Cap on inclusion of provisions in Tier 2 under standardised approach	600	
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings- based approach (prior to application of cap)	373	
79	Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	681	
	Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2013 and 1 Jan 2022)		
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	-	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-	
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)	-	

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 (<a href="http://www.ocbc.com/group/investors/Cap">http://www.ocbc.com/group/investors/Cap</a> and Reg Disclosures.html). The reporting position of all tables in this section is as at 30 June 2019.

		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
4.	Regulatory treatment 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\$16,423 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	No	Yes
15.	supervisory approval  Optional call date, contingent call	NA	On or after the First Reset Date of 25 Aug 2020 (at par)
	dates and redemption amount		
			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
17.	Coupons / dividends Fixed or floating dividend / coupon	NA	Fixed to fixed
18.	Coupon rate and any related index	NA NA	3.8% p.a. up to (but excluding) 25 Aug 2020; if not
10.	Coupon rate and any related index	IVO	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 Reorgnisation), 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.
	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%	OCBC 4.25%
		Non-cumulative Non-convertible Perpetual Capital Securities	Subordinated Notes due 2024
1.	Issuer	Oversea-Chinese Banking Corporation Limited	Oversea-Chinese Banking Corporation Limited
2.	Unique identifier (ISIN)	SGXF81199428	US69033DAC11 (Reg S)
3.	Governing law(s) of instrument	Singapore	US69033CAC38 (144A)
			England
			(Save for the subordination provisions)
			Singapore (In respect of the subordination provisions)
	Regulatory treatment		
4.	Transitional Basel III rules	Additional Tier 1	Tier 2
5.	Post-transitional Basel III rules	Additional Tier 1	Tier 2
6.	Eligible at Solo / Group / Solo and Group	Solo and Group	Solo and Group
7.	Instrument type	Perpetual Capital Securities	Subordinated debt
8.	Amount recognised in regulatory capital	S\$998 million	S\$1,404 million
9.	Par value of instrument	S\$1,000 million	US\$1,000 million
9. 10.	Accounting classification	Shareholders' equity	Liabilities - amortised cost
11.	Original date of issuance	24 Aug 2018	19 Jun 2014
12.	Perpetual or dated	Perpetual	Dated
13.	Original maturity date	No maturity	19 Jun 2024
	Issuer call subject to prior	Yes	Yes
	supervisory approval		
15.	Optional call date, contingent call	On the First Reset Date of 24 Aug 2023 and each Distribution	
	dates and redemption amount	Payment Date thereafter (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	NA
17.	Coupons / dividends Fixed or floating dividend / coupon	Fixed to fixed	Fixed
18.	Coupon rate and any related index	4.0% p.a. up to (but excluding) 24 Aug 2023; if not redeemed, the	4.25% p.a.
		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.	
19.	Existence of a dividend stopper	Yes	NA
20.	Fully discretionary, partially discretionary or mandatory	Fully discretionary	Mandatory
21.	Existence of step up or other incentive to redeem	No	No
22.	Noncumulative or cumulative	Noncumulative	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
	Write-down feature	Yes	Yes
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.	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	Fully or partially	May be written down fully or partially
33.	If write-down, permanent or	Permanent	Permanent
	temporary		
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 Reorgnisation), 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.	Unsubordinated and unsecured obligations of OCBC Bank
36.	Non-compliant transitioned features	No	No
	If yes, specify non-compliant features	NA	NA NA
· · ·	,, opoon, non compliant loatares		



# 5.3 Main Features of Capital Instruments (continued)

	due 2024 Callat in 2019	ole
	Subordinated No	tes
	OCBC 4.00%	

		due 2024 Callable in 2019
1.	Issuer	Oversea-Chinese Banking Corporation Limited
2.	Unique identifier (ISIN)	US69033DAB38 (Reg S)
3.	Governing law(s) of instrument	US69033CAB54 (144A)
		England
		(Save for the subordination provisions)
		Singapore
		(In respect of the subordination provisions)
4.	Regulatory treatment Transitional Basel III rules	Tier 2
5.	Post-transitional Basel III rules	Tier 2
6.	Eligible at Solo / Group /	Solo and Group
0.	Solo and Group	Solo and Group
7.	Instrument type	Subordinated debt
8.	Amount recognised in regulatory capital	S\$1,350 million
_		
9.	Par value of instrument	US\$1,000 million
10.	ŭ	Liabilities - amortised cost
	•	15 Apr 2014
12.	Perpetual or dated	Dated
13.	Original maturity date	15 Oct 2024
14.	Issuer call subject to prior supervisory approval	Yes
15.	Optional call date, contingent call	First call date:
	dates and redemption amount	15 Oct 2019 (at par)
		Tax call (at par)
		Regulatory call (at par)
16.	Subsequent call dates,	NA
	if applicable	
17.	Coupons / dividends Fixed or floating dividend / coupon	Fixed to fixed
18.	Coupon rate and any related index	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
20.	Fully discretionary, partially	Mandatory
	discretionary or mandatory	
21.	Existence of step up or other incentive to redeem	No
22.	Noncumulative or cumulative	NA
23.	Convertible or non-convertible	Nonconvertible
24.	If convertible, conversion trigger(s)	NA
25.	If convertible, fully or partially	NA
26.	If convertible, conversion rate	NA
27.	If convertible, mandatory or optional conversion	NA
28.	If convertible, specify instrument type convertible into	NA
29.	If convertible, specify issuer of instrument it converts into	NA
30.	Write-down feature	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)
32.	If write-down, full or partial	May be written down fully or partially
33.	If write-down, permanent or temporary	Permanent
34.	If temporary write-down, description of write-up mechanism	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
36.	Non-compliant transitioned features	No
37.	If yes, specify non-compliant features	NA



# 6. LEVERAGE RATIO

# 6.1 Leverage Ratio Summary Comparison Table

	Item	Amount (S\$'m)	
		30 Jun 2019	31 Mar 2019
1	Total consolidated assets as per published financial statements	479,767	469,513
2	Adjustment for investments in entities that are consolidated for accounting purposes but are outside the regulatory scope of consolidation	(89,535)	(87,395)
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	4,820	4,733
5	Adjustment for SFTs	4	4
6	Adjustment for off-balance sheet items	29,663	28,946
7	Other adjustments	(6,834)	(7,013)
8	Exposure measure	417,885	408,788



# 6.2 Leverage Ratio Common Disclosure Table

	Mana.	Amount (S\$'m)	
	Item	30 Jun 2019	31 Mar 2019
	Exposure measures of on-balance sheet items		
1	On-balance sheet items (excluding derivative transactions and SFTs, but including on-balance sheet collateral for derivative transactions or SFTs)	380,940	374,091
2	Asset amounts deducted in determining Tier 1 capital	(6,834)	(7,013)
3	Total exposures measures of on-balance sheet items (excluding derivative transactions and SFTs)	374,106	367,077
	Derivative exposure measures		
4	Replacement cost associated with all derivative transactions (net of the eligible cash portion of variation margins)	4,910	3,712
5	Potential future exposure associated with all derivative transactions	6,432	6,411
6	Gross-up for derivative collaterals provided where deducted from the balance sheet assets in accordance with the Accounting Standards	-	1
7	Deductions of receivables for the cash portion of variation margins provided in derivative transactions	(8)	(8)
8	CCP leg of trade exposures excluded	-	-
9	Adjusted effective notional amount of written credit derivatives	499	431
10	Further adjustments in effective notional amounts and deductions from potential future exposures of written credit derivatives	-	-
11	Total derivative exposure measures	11,833	10,546
	SFT exposure measures		
12	Gross SFT assets (with no recognition of accounting netting), after adjusting for sales accounting	2,279	2,214
13	Eligible netting of cash payables and cash receivables	-	-
14	SFT counterparty exposures	4	4
15	SFT exposure measures where a Reporting Bank acts as an agent in the SFTs	-	-
16	Total SFT exposure measures	2,283	2,218
	Exposure measures of off-balance sheet items		
17	Off-balance sheet items at notional amount	132,793	133,000
18	Adjustments for calculation of exposure measures of off-balance sheet items	(103,130)	(104,054)
19	Total exposure measures of off-balance sheet items	29,663	28,946
	Capital and Total exposures		
20	Tier 1 capital	31,706	30,585
21	Total exposures	417,885	408,788
	Leverage Ratio		
22	Leverage ratio	7.5%	7.4%

SFT: Securities Financing Transactions

CCP: Central Counterparty



#### 7. CREDIT QUALITY

## 7.1 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. The breakdown of specific and general allowances for exposures under Standardised and Internal Ratings-Based Approach is provided effective from 30 June 2019.

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.

			30	0 Jun 2019				
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Gross carrying amount of <sup>1/</sup> Defaulted Non- defaulted			of which: Allowances for Standardised Approach exposures			
	S\$ million	Defaulted exposures		Allowances and Impairments	of which: Specific Allowances	of which: General Allowances	of which: Allowances for IRBA exposures	Net Values <sup>2/</sup> (a + b - c)
1	Loans and bills receivable	3,860	258,848	(2,083)	(189)	(216)	(1,678)	260,625
2	Debt securities	2	24,861	(13)	(3)	(4)	(6)	24,850
3	Off-balance sheet exposures	52	11,477	(262)	#	(28)	(234)	11,267
4	Total	3,914	295,186	(2,358)	(192)	(248)	(1,918)	296,742

			31	1 Dec 2018				
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Gross carrying amount of 1/  Defaulted exposures  Non-defaulted exposures			of which: A for Stand Approach	dardised		
	S\$ million		defaulted	Allowances and Impairments	of which: Specific Allowances	of which: General Allowances	of which: Allowances for IRBA exposures	Net Values <sup>2/</sup> (a + b - c)
1	Loans and bills receivable	3,838	253,867	(1,937)				255,768
2	Debt securities	2	22,288	(15)				22,275
3	Off-balance sheet exposures	98	11,866	(266)				11,698
4	Total	3,938	288,021	(2,218)				289,741

<sup>&</sup>lt;sup>1/</sup> Refers to the accounting value of the assets before any allowances and impairments but after write-offs

<sup>&</sup>lt;sup>2/</sup> Refers to total gross carrying amount less allowances and impairments

<sup>#</sup> Represents amounts of less than \$0.5 million



## 7.2 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.

Defaulted loans and bills receivable, and debt securities remained relatively unchanged in the first half of 2019.

		(a)
	S\$ million	Amount outstanding
1	Defaulted loans and bills receivable, and debt securities as at 31 December 2018	3,840
2	Loans and bills receivable, and debt securities that have defaulted in the first half of 2019	691
3	Return to non-defaulted status	(180)
4	Amounts written-off	(241)
5	Other changes 1/	(248)
6	Defaulted loans and bills receivable, and debt securities as at 30 June 2019 $(1 + 2 - 3 - 4 \pm 5)$	3,862

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



#### 8. 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. The increase in RWA between March 2019 and June 2019 was largely attributed to higher Credit Risk RWA led by increased corporate loans.

		(a)	(b)	(c)
	_	R	WA	Minimal Capital Requirements <sup>1/</sup>
	S\$ million	Jun-19	Mar-19	Jun-19
1	Credit Risk (excluding Counterparty Credit Risk)	165,528	161,471	16,553
2	Of which: Standardised Approach	47,299	46,254	4,730
3	Of which: Foundation Internal Ratings-Based Approach (F-IRBA)	100,631	97,803	10,063
4	Of which: Supervisory Slotting Approach	2,428	1,966	243
5	Of which: Advanced Internal Ratings-Based Approach (A-IRBA)	15,170	15,448	1,517
6	Credit Risk: Counterparty Credit Risk (CCR)	2,696	2,404	270
7	Of which: Current Exposure Method	2,089	1,887	209
8	Of which: Internal Models Method	-	-	-
9	Of which: Other CCR	182	178	18
9a	Of which: Central Counterparties (CCP)	425	339	43
10	Credit Valuation Adjustments (CVA)	2,881	2,284	288
11	Equity exposures under Simple Risk Weight Method	-	-	-
11a	Equity exposures under Internal Models Method	-	-	-
12	Equity investments in funds - Look Through Approach	121	116	12
13	Equity investments in funds - Mandate-Based Approach	161	155	16
14	Equity investments in funds - Fall Back Approach	15	-	2
14a	Equity investments in funds - Partial Use of an Approach	128	122	13
15	Unsettled Transactions	24	12	2
16	Securitisation exposures in banking book	-	-	-
17	Of which: SEC-IRBA	-	-	-
18	Of which: SEC-ERBA, including IAA	-	-	-
19	Of which: SEC-SA	-	-	-
20	Market Risk	14,963	15,627	1,496
21	Of which: Standardised Approach	14,963	15,627	1,496
22	Of which: Internal Models Approach	-	-	-
23	Operational Risk	14,556	14,287	1,455
24	Credit RWA pursuant to paragraph 6.1.3(p)(iii) 2/	8,130	7,879	813
25	Floor Adjustment	-	-	-
26	Total	209,203	204,357	20,920

 $<sup>^{\</sup>mbox{\scriptsize 1/}}$  Minimum capital requirements are calculated at 10% of RWA

<sup>&</sup>lt;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)



#### 9. 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.

The increase in RWA during the second quarter of 2019 was primarily due to asset growth particularly in corporate loans, partially offset by improving asset quality.

		(a)
	S\$ million	RWA
1	RWA as at 31 March 2019 1/	115,217
2	Asset Size 2/	5,539
3	Asset Quality 3/	(2,084)
4	Model Updates 4/	-
5	Methodology and Policy 5/	-
6	Acquisitions and Disposals 6/	-
7	Foreign exchange movements 7/	(443)
8	Other 8/	-
9	RWA as at 30 June 2019 1/ (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8)	118,229

<sup>1/</sup> Refers to RWA of Credit Risk (excluding Counterparty Credit Risk) exposures under IRB Approach and Supervisory Slotting Approach

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

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

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

<sup>&</sup>lt;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



## 10. CREDIT EXPOSURES UNDER STANDARDISED AND IRB APPROACH

## 10.1 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.

			30 Jun 2	019			
		(a)	(b)	(c)	(d)	(e)	(f)
		Exposures before	re CCF and CRM	Exposures post-C	CF and post-CRM		
	S\$ million	On-Balance Sheet	Off-Balance Sheet	On-Balance Sheet	Off-Balance Sheet	RWA	RWA Density
	Asset Class						
1	Cash Items	833	-	833	-	7	1%
2	Sovereign	3,501	-	3,501	-	713	20%
3	PSE	262	41	262	41	151	50%
4	MDB	18	130	18	-	=	0%
5	Bank	5,492	163	5,514	146	2,530	45%
6	Corporate	15,005	7,027	14,380	1,488	14,624	92%
7	Regulatory Retail	7,038	1,743	6,681	54	5,051	75%
8	Residential Mortgage	13,524	65	13,279	2	4,711	35%
9	Commercial Real Estate	11,794	1,800	11,707	132	11,839	100%
10	Equity exposures	510	-	510	-	816	160%
11	Past Due exposures	191	#	191	#	237	124%
12	Higher risk exposures	-	-	-	-	-	NA
13	Others 1/	6,747	792	6,562	58	6,620	100%
14	Total	64,915	11,761	63,438	1,921	47,299	72%

			31 Dec 20	018			
		(a)	(b)	(c)	(d)	(e)	(f)
		Exposures before	re CCF and CRM	Exposures post-C	CF and post-CRM		
	S\$ million	On-Balance Sheet	Off-Balance Sheet	On-Balance Sheet	Off-Balance Sheet	RWA	RWA Density
	Asset Class						
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 1/	6,706	791	6,485	65	6,550	100%
14	Total	64,086	11,900	63,053	2,141	46,500	71%

 $<sup>^{\</sup>mbox{\tiny 1/}}$  Includes other exposures not included in the above asset classes, such as fixed asset

<sup>#</sup> Represents amounts of less than \$0.5 million



## 10.2 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.

					30 Jun 2	2019					(j)  Total EAD 1/  833 3,501 303 18 5,661 15,868 6,735
		(a)	(b)	(c)	(d) Risk	(e) Weight	(f)	(g)	(h)	(i)	(j)
	S\$ million	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total EAD 1/
	Asset Class										
1	Cash Items	800	-	33	-	-	-	-	-	-	833
2	Sovereign	2,075	-	-	-	1,426	-	-	-	-	3,501
3	PSE	-	-	-	-	303	-	-	-	-	303
4	MDB	18	-	-	-	-	-	-	-	-	18
5	Bank	-	-	1,015	-	4,639	-	7	-	-	5,661
6	Corporate	-	-	124	-	2,290	-	13,454	-	-	15,868
7	Regulatory Retail	-	-	-	-	-	6,735	-	-	-	6,735
8	Residential Mortgage	-	-	-	13,143	-	106	32	-	-	13,281
9	Commercial Real Estate	-	-	-	-	-	-	11,839	-	-	11,839
10	Equity exposures	-	-	-	-	-	-	-	-	510	510
11	Past Due exposures	-	-	-	-	-	-	99	92	-	191
12	Higher risk exposures	-	-	-	-	-	-	-	-	-	-
13	Others <sup>2/</sup>	-	-	-	-	-	-	6,619	-	-	6,619
14	Total	2,893	-	1,172	13,143	8,658	6,841	32,050	92	510	65,359

					31 Dec 20	18					
		(a)	(b)	(c)	(d) Risk \	(e) Veight	(f)	(g)	(h)	(i)	(j)
	S\$ million	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total EAD 1/
	Asset Class										
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 2/	-	-	-	-	-	-	6,550	-	-	6,550
14	Total	3,288	-	1,627	13,790	7,449	6,808	31,737	99	396	65,194

<sup>&</sup>lt;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

 $<sup>^{2/}\</sup>mbox{ Includes}$  other exposures not included in the above asset classes, such as fixed assets



# 10.3 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.

					30 Ju	ın 2019						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	<b>(I)</b>
	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\$	TEP 8/ (S\$ million)
Sovereign	(S\$ m	illion)	. ,	,	, ,		` ,	, , ,	ŕ	` ,	million)	,
PD Range												
0.00 to < 0.15	34,687	944	100%	36,134	0.01%	22	45%	1.6	744	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	-	-	2	1.11%	1	45%	1.0	1	81%	#	
2.50 to < 10.00	41	-	-	41	6.42%	1	48%	1.0	66	164%	1	
10.00 to < 100.00	#	#	-	#	11.10%	2	45%	1.0	#	194%	#	
100.00 (Default)	-	-	-	-	-	-	-	-	-	NA	-	
Sub-total	34,730	944	100%	36,177	0.01%	26	45%	1.6	811	2%	2	8
Bank												
PD Range												
0.00 to < 0.15	38,615	2,492	13%	39,370	0.05%	260	45%	1.1	5,822	15%	8	
0.15 to < 0.25	=	-	-	-	-	=	-	-	-	NA	-	
0.25 to < 0.50	2,717	128	42%	4,703	0.37%	18	45%	0.9	2,852	61%	8	
0.50 to < 0.75	2,711	157	9%	2,746	0.54%	18	45%	0.9	1,999	73%	7	
0.75 to < 2.50	1,751	28	5%	1,752	1.89%	26	45%	0.9	2,151	123%	15	
2.50 to < 10.00	276	8	40%	279	6.34%	25	45%	0.2	417	150%	8	
10.00 to < 100.00	#	#	88%	#	11.10%	40	2%	1.0	#	7%	#	
100.00 (Default)	#	-	0%	#	100.00%	1	45%	1.0	-	0%	#	
Sub-total	46,070	2,813	14%	48,850	0.21%	388	45%	1.1	13,241	27%	46	135
Corporate												
PD Range												
0.00 to < 0.15	41,248	37,148	21%	49,319	0.09%	894	44%	2.2	13,558	27%	20	
0.15 to < 0.25	#1,240	37,140	1%	<del>4</del> 5,515	0.19%	5	36%	3.1	#	40%	#	
0.25 to < 0.50	14,669	15,846	21%	17,925	0.13%	576	43%	2.2	10,652	59%	29	
0.50 to < 0.75	8,272	10,527	14%	9,599	0.54%	545	43%	1.7	6,256	65%	23	
0.75 to < 2.50	11,255	11,759	13%	10,954	1.42%	771	43%	1.9	10,570	97%	66	
2.50 to < 10.00	3,266	2,008	11%	3,107	4.97%	251	43%	2.1	4,526	146%	67	
10.00 to < 100.00	920	1,766	1%	914	14.46%	312	40%	3.5	1,965	215%	54	
100.00 (Default)	2,182	47	52%	2,206	100.00%	160	44%	2.5	-,555	0%	970	
Sub-total	81,812	79,104	18%	94,024	2.99%	3,514	44%	2.1	47,527	51%	1,229	1,641



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

					30 Ju	n 2019						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(I)
	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	Average LGD <sup>4/</sup> (%)	Average Maturity <sup>6/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>7/</sup> (%)	Expected Losses (S\$	TEP <sup>8/</sup> (S\$ million)
Corporate (IPRE)	(S\$ m	illion)	(70)	million)	(70)	5/	(70)	(III years)	minorij	(70)	million)	minori
PD Range												
0.00 to < 0.15	2,519	73	66%	2,568	0.14%	15	45%	1.8	831	32%	2	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	4,469	982	60%	5,058	0.37%	41	45%	2.6	3,282	65%	8	
0.50 to < 0.75	8,609	1,693	57%	9,577	0.54%	85	45%	3.2	8,107	85%	23	
0.75 to < 2.50	13,447	3,049	56%	15,123	1.33%	275	45%	2.6	16,453	109%	90	
2.50 to < 10.00	2,403	1,041	49%	2,908	3.74%	138	45%	3.1	4,404	151%	48	
10.00 to < 100.00	23	23	58%	36	11.52%	10	45%	3.2	81	223%	2	
100.00 (Default)	6	#	50%	6	100.00%	4	45%	4.8	-	0%	3	
Sub-total	31,476	6,861	56%	35,276	1.12%	568	45%	2.8	33,158	94%	176	337
Corporate Small B	usiness											
PD Range												
0.00 to < 0.15	879	706	11%	956	0.12%	457	41%	2.8	296	31%	#	
0.15 to < 0.25	484	139	11%	499	0.16%	724	38%	4.2	198	40%	#	
0.25 to < 0.50	621	620	15%	713	0.37%	292	37%	2.6	327	46%	1	
0.50 to < 0.75	798	828	8%	866	0.54%	581	38%	1.9	443	51%	2	
0.75 to < 2.50	2,269	1,935	11%	2,368	1.43%	1,059	39%	2.3	1,830	77%	13	
2.50 to < 10.00	1,890	1,453	10%	2,020	4.33%	617	37%	2.6	2,175	108%	32	
10.00 to < 100.00	432	176	20%	466	13.10%	4,866	34%	2.5	625	134%	21	
100.00 (Default)	1,102	4	53%	1,104	100.00%	208	43%	1.8	-	0%	479	
Sub-total	8,475	5,861	11%	8,992	14.41%	8,804	39%	2.5	5,894	66%	548	589
Total (all portfolios)	202,563	95,583	21%	223,319	2.06%	13,300	44%	1.9	100,631	45%	2,001	2,710



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

					31 De	ec 2018						
	(a) On- Balance	(b) Off- Balance	(c) Average	(d) EAD <sup>3/</sup>	(e) Average	(f) Number of	(g) Average	(h) Average	(i) RWA	(j) RWA	(k) Expected Losses	(I) TEP <sup>8/</sup>
Sovereign	Sheet 1/ (S\$ m	Sheet 2/ illion)	CCF (%)	(S\$ million)	PD <sup>4/</sup> (%)	Obligors <sup>5/</sup>	LGD <sup>4/</sup> (%)	Maturity <sup>6/</sup> (In years)	(S\$ million)	Density <sup>7/</sup> (%)	(S\$ million)	(S\$ million)
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	-	
Sub-total	34,592	10	100%	35,237	0.02%	26	45%	1.4	900	3%	3	9
Bank												
PD Range			40.4				4=0/			4=0/		
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	-	-	-	4 000	0.070/	-	450/	-		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%	#	44=
Sub-total	46,468	3,183	5%	48,721	0.18%	380	45%	1.1	12,348	25%	38	117
Corporate												
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	
Sub-total	76,692	80,436	18%	88,736	3.31%	3,588	43%	2.1	45,112	51%	1,283	1,560



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

					31 D	ec 2018						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	<b>(I)</b>
	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\$	TEP <sup>8/</sup> (S\$ million)
Corporate (IPRE)	(S\$ mi	illion)	(70)		(73)		(70)	( ) ()		(70)	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	
Sub-total	28,939	6,568	54%	32,455	1.13%	564	45%	2.7	29,942	92%	166	284
Corporate Small Bu	ısiness											
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	
Sub-total	8,748	5,771	12%	9,241	15.56%	10,102	39%	2.6	6,391	69%	621	648
Total (all portfolios)	195,439	95,968	20%	214,390	2.25%	14,660	44%	1.8	94,693	44%	2,111	2,618

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

<sup>#</sup> Represents amounts of less than \$0.5 million



## 10.4 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.

					30 J	un 2019						
	(a) On- Balance Sheet <sup>1/</sup>	(b) Off- Balance Sheet <sup>2/</sup>	(c) Average	(d) EAD <sup>3/</sup>	(e) Average	(f) Number of	(g) Average	(h)	(i) RWA	(j) RWA	(k) Expected Losses	(I) TEP <sup>8/</sup>
Residential Mortgage	(S\$ m		- CCF (%)	(S\$ million)	PD <sup>4/</sup> (%)	Obligors 5/	LGD <sup>4/</sup> (%)	Maturity <sup>6/</sup> (In years)	(S\$ million)	Density <sup>7/</sup> (%)	(S\$ million)	(S\$ million)
PD Range												
0.00 to < 0.15	2,996	667	68%	3,450	0.09%	12,154	10%		81	2%	#	
0.15 to < 0.25	13,232	712	80%	13,804	0.15%	36,327	10%		486	4%	2	
0.25 to < 0.50	11,987	658	70%	12,450	0.25%	44,018	10%		654	5%	3	
0.50 to < 0.75	13,540	433	74%	13,861	0.50%	46,732	11%		1,208	9%	7	
0.75 to < 2.50	6,590	441	83%	6,955	1.02%	32,454	11%		991	14%	8	
2.50 to < 10.00	2,631	125	88%	2,742	3.81%	8,875	11%		844	31%	11	
10.00 to < 100.00	963	13	73%	972	23.40%	6,861	12%		629	65%	27	
100.00 (Default)	433	8	0%	433	100.00%	2,551	15%		290	67%	67	
Sub-total	52,372	3,057	75%	54,667	1.76%	189,972	11%		5,183	9%	125	120
Qualifying Revolving Retail PD Range												
0.00 to < 0.15	725	5,793	43%	3,243	0.06%	544,716	80%		104	3%	1	
0.15 to < 0.25	68	1,483	52%	840	0.00%	154,380	81%		66	3 <i>%</i> 8%	1	
0.15 to < 0.25 0.25 to < 0.50	204	689	45%	512	0.17 %	82,717	81%		64	13%	1	
0.50 to < 0.75	310	795	43%	656	0.58%	99,341	78%		135	21%	3	
0.75 to < 2.50	285	548	60%	614	1.40%	84,761	83%		263	43%	7	
2.50 to < 10.00	308	242	66%	468	5.14%	63,062	83%		498	106%	20	
10.00 to < 10.00	120	125	89%	231	24.78%	28,584	86%		534	232%	49	
100.00 (Default)	22	120	0%	22	100.00%	3,460	82%		-	0%	22	
Sub-total	2,042	9,675	47%	6,586	1.82%	1,061,021	81%		1,664	25%	104	38
Retail Small Business	· · · · · · · · · · · · · · · · · · ·	· ·		·					,			
PD Range	005	000	<b>57</b> 0/	400	0.400/	0.504	070/		0.4	70/	,,	
0.00 to < 0.15	285	263	57%	436	0.10%	2,501	27%		31	7%	#	
0.15 to < 0.25	1,250	479	49%	1,483	0.17%	5,906	32%		188	13%	1	
0.25 to < 0.50	301	31	53%	317	0.35%	1,148	32%		63	20%	#	
0.50 to < 0.75	540	45	60%	567	0.50%	3,089	39%		169	30%	1	
0.75 to < 2.50	938	92	57%	990	1.15%	5,509	43%		492	50%	5	
2.50 to < 10.00	487	26	73%	505	4.45%	5,469	41%		318	63%	9	
10.00 to < 100.00	326	23	83%	344	29.78%	6,130	42%		303	88%	43	
100.00 (Default)	116	4	0%	116	100.00%	1,249	54%		157	136%	54	
Sub-total	4,243	963	54%	4,758	5.44%	31,001	37%		1,721	36%	113	70



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

					30 、	Jun 2019						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1
	On- Balance Sheet 1/	Off- Balance Sheet <sup>2/</sup>	Average CCF	EAD <sup>3/</sup> (S\$	Average PD <sup>4/</sup>	Number of Obligors <sup>5/</sup>	Average LGD 4/	Average Maturity <sup>6/</sup>	RWA (S\$	RWA Density <sup>7/</sup>	Expected Losses (S\$	TEP (S
Other Retail	(S\$ n	nillion)	(%)	million)	(%)	Obligoro	(%)	(In years)	million)	(%)	million)	million
PD Range												
0.00 to < 0.15	442	2,316	99%	2,745	0.05%	2,658	8%		37	1%	#	
0.15 to < 0.25	2,944	1,310	94%	4,174	0.19%	25,239	11%		183	4%	1	
0.25 to < 0.50	271	23	54%	283	0.31%	3,934	15%		23	8%	#	
0.50 to < 0.75	3,366	632	98%	3,987	0.50%	3,932	10%		314	8%	2	
0.75 to < 2.50	7,742	1,325	98%	9,043	1.49%	4,080	10%		1,078	12%	13	
2.50 to < 10.00	4,466	869	100%	5,333	5.00%	1,702	10%		829	16%	27	
10.00 to < 100.00	8,076	993	100%	9,069	12.96%	1,537	11%		1,893	21%	129	
100.00 (Default)	48	1	6%	48	100.00%	163	28%		116	243%	6	
Sub-total	27,355	7,469	98%	34,682	4.77%	43,245	10%		4,473	13%	178	52
Corporate  DD Bongo												
PD Range 0.00 to < 0.15	65	417	100%	482	0.05%	345	7%	1.0	9	2%	#	
0.00 to < 0.15 0.15 to < 0.25	517	304	100%	821	0.05%	374	7 % 8%	1.0	48	2% 6%	#	
0.15 to < 0.25 0.25 to < 0.50	317	- 304	100 /6	- 021	0.2076	-	0 /0 -	1.0	40 -	NA	-	
0.50 to < 0.75	525	148	100%	672	0.50%	164	8%	1.0	65	10%	#	
0.75 to < 2.50	1,101	228	100%	1,329	1.42%	207	8%	1.0	202	15%	1	
2.50 to < 10.00	1,187	369	100%	1,555	5.00%	88	10%	1.0	478	31%	8	
10.00 to < 100.00	2,169	353	100%	2,522	11.83%	377	10%	1.0	1,327	53%	36	
100.00 (Default)	2,109	-	100 /6	2,522	11.00/0	-	12/0	1.0	1,327	NA	- -	
Sub-total	5,564	1,819	100%	7,381	5.42%	1,555	10%	1.0	2,129	29%	45	2:
T-(-1/-11	•	•		•		-			•			
Total (all portfolios)	91,576	22,983	72%	108,074	3.14%	1,326,794	16%		15,170	14%	565	30



# 10.4 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)	(I)
	On- Balance Sheet <sup>1/</sup>	Off- Balance Sheet <sup>2/</sup>	Average CCF	EAD <sup>3/</sup> (S\$	Average PD 4/	Number of Obligors <sup>5/</sup>	Average LGD 4/	Average Maturity <sup>6/</sup>	RWA (S\$	RWA Density <sup>7/</sup>	Expected Losses (S\$	TEP 8
Residential Mortgage	(S\$ m	nillion)	(%)	million)	(%)	_	(%)	(In years)	million)	(%)	million)	million)
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	
Sub-total	53,803	3,194	76%	56,227	1.76%	193,981	11%		5,472	10%	126	117
Qualifying Revolving Retail												
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	
Sub-total	2,074	9,307	47%	6,442	1.62%	1,039,410	81%		1,539	24%	91	37
Retail Small Business												
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	
Sub-total	4,358	962	53%	4,863	5.42%	30,317	37%		1,756	36%	113	73



(i)

(j)

(k)

(I)

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

31 Dec 2018

(f)

(g)

(h)

(e)

	On- Balance Sheet <sup>1/</sup>	Off- Balance Sheet <sup>2/</sup>	Average CCF (%)	EAD <sup>3/</sup> (S\$	Average PD <sup>4/</sup>	Number of Obligors <sup>5</sup>	Average LGD 4/	Average Maturity <sup>6/</sup>	RWA (S\$	RWA Density <sup>7/</sup>	Expected Losses (S\$	TEP 8/ (S\$
Other Retail	(S\$ m	nillion)	(,	million)	(%)	3.1	(%)	(In years)	million)	(%)	million)	million)
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	
Sub-total	27,643	7,231	98%	34,711	5.41%	43,584	10%		4,743	14%	200	52
Corporate												
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	-	
Sub-total	5,436	1,864	100%	7,300	5.60%	1,504	10%	1.0	2,267	31%	49	22
Total (all portfolios)	93,314	22,558	72%	109,543	3.33%	1,308,796	16%		15,777	14%	579	301

<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)

(a)

(b)

(c)

(d)

<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>&</sup>lt;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 accounts, except for Retail Small Business which refers to the number of counterparties

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

<sup>#</sup> Represents amounts of less than \$0.5 million



## 10.5 Overview of Credit Risk Mitigation Techniques

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

			30 Jun 20	19		
		(a)	(b)	(c)	(d) Exposures	(e)
				Exposures	secured by	Exposures
		Exposures	Exposures	secured by	Financial	secured by Credit
	S\$ million	unsecured	secured 1/	Collateral	Guarantees	Derivatives 2/
1	Loans and Bills Receivable	146,858	113,767	103,309	2,963	-
2	Debt Securities	24,356	494	-	494	-
3	Total	171,214	114,261	103,309	3,457	-
4	Of which: Defaulted	1,741	803	637	-	-

	31 Dec 2018						
		(a)	(b)	(c)	(d)	(e)	
	S\$ million	Exposures unsecured	Exposures secured 1/	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	-	
3	Total	162,524	115,519	104,654	3,688	-	
4	Of which: Defaulted	1,723	902	700	-	-	

<sup>&</sup>lt;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

#### 10.6 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.

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



## 11. 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.

			30 Jun 20	19						
Specialised (S\$ million)	Lending Portfolio			-		EAD	3/			
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
Ctura a	Less than 2.5 years	=	-	50%	=	-	-	-	-	=
Strong	Equal to or more than 2.5 years	-	-	70%	-	-	-	-	-	-
0 1	Less than 2.5 years	-	-	70%	-	-	-	-	-	-
Good	Equal to or more than 2.5 years	-	-	90%	-	-	-	-	-	-
Satisfactory		1,287	1,666	115%	1,725	176	91	1,992	2,428	56
Weak		-	-	250%	-	-	-	-	-	-
Default		129	-	-	30	80	89	199	-	99
Total		1,416	1,666		1,755	256	180	2,191	2,428	155

			31 Dec 20	18						
Specialised (S\$ million)	Lending Portfolio			-		EA	) <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
Ctrong	Less than 2.5 years	-	-	50%	-	-	-	-	-	-
Strong	Equal to or more than 2.5 years	-	-	70%	-	-	-	-	-	-
0 1	Less than 2.5 years	-	-	70%	-	-	-	-	-	-
Good	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
Total		1,274	1,679		1,328	213	225	1,766	1,938	133

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

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



#### 12. COUNTERPARTY CREDIT RISK

#### 12.1 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 addon 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).

		(a)	30 Jun 2019 (b)	(c)	(d)	(e)	(f)
	Counterparty Credit Risk Exposure by Approach	Replacement Cost	Potential Future Exposure	Effective EPE	Alpha factor (α)	EAD <sup>1/</sup>	RWA
	(S\$ million)						
1	CEM (For derivatives)	4,138	7,885			6,879	2,089
2	CCR Internal models method (For derivatives and SFTs)			-		-	-
3	FC(SA) for SFTs					-	-
4	FC(CA) for SFTs					5,492	182
5	VaR for SFTs					-	-
6	Total						2,271

			31 Dec 2018				
		(a)	(b)	(c)	(d)	(e)	(f)
	Counterparty Credit Risk Exposure by Approach (S\$ million)	Replacement Cost	Potential Future Exposure	Effective EPE	Alpha factor (α)	EAD 1/	RWA
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	Total						2,279

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



## 12.2 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.

	30 Jun 2019		
		(a)	(b)
	S\$ million	EAD 1/	RWA
	Credit Valuation Adjustments (CVA) Risk Capital Requirements		
	Total portfolios subject to Advanced CVA capital requirement	-	-
1	(i) VaR component (including the three-times multiplier)	-	-
2	(ii) Stressed VaR component (including the three-times multiplier)	-	-
3	All portfolios subject to Standardised CVA capital requirement	6,348	2,881
4	Total portfolios subject to the CVA risk capital requirement	6,348	2,881
	31 Dec 2018		
		(a)	(b)
	S\$ million	EAD 1/	RWA
	Credit Valuation Adjustments (CVA) Risk Capital Requirements		
	Total portfolios subject to Advanced CVA capital requirement	-	-
1	(i) VaR component (including the three-times multiplier)	-	-
2	(ii) Stressed VaR component (including the three-times multiplier)	-	-
3	All portfolios subject to Standardised CVA capital requirement	6,542	2,010
4	Total portfolios subject to the CVA risk capital requirement	6,542	2,010

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



## 12.3 Exposures to Central Counterparties

The table below provides an overview of the Group's exposures to Central Clearing Counterparties (CCPs), including all types of exposures due to operations, margins, contributions to default funds and related capital requirements.

	30 Jun 2019		
		(a)	(b)
	S\$ million	EAD	RWA
1	Total exposures to qualifying CCPs		415
2	Exposures to qualifying CCPs	4,463	196
3	arising from: OTC derivative transactions;	4,463	196
4	arising from: Exchange-traded derivative transactions;	#	#
5	arising from: SFTs; and	-	-
6	arising from: Netting sets 1/	-	-
7	Segregated collateral <sup>2/</sup>	67	
8	Non-segregated collateral	905	218
9	Pre-funded default fund contributions	12	1
10	Unfunded default fund contributions	-	-
11	Total exposures to non-qualifying CCPs		10
12	Exposures to non-qualifying CCPs	2	2
13	arising from: OTC derivative transactions;	-	-
14	arising from: Exchange-traded derivative transactions;	2	2
15	arising from: SFTs; and	-	-
16	arising from: Netting sets 1/	-	-
17	Segregated collateral <sup>2/</sup>	-	
18	Non-segregated collateral	8	8
19	Pre-funded default fund contributions	-	-
20	Unfunded default fund contributions	-	-

 $<sup>^{\</sup>mbox{\tiny 1/}}$  Refers to netting assets where cross-product netting has been approved

<sup>&</sup>lt;sup>2/</sup> Refers to collateral which is held in a bankruptcy remote manner

<sup>#</sup> Represents amounts of less than \$0.5 million



## 12.4 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.

				30 Ju	n 2019				
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
				Risk	Weight				Total EAD 1/
S\$ million	0%	10%	20%	50%	75%	100%	150%	Others	
Asset Class									
Sovereign	647	-	-	-	-	-	-	-	647
PSE	-	-	-	-	-	-	-	-	-
MDB	-	-	-	-	-	-	-	-	-
Bank	-	-	113	3	-	#	-	-	116
Corporate	-	-	#	-	-	128	-	-	128
Regulatory Retail	-	-	-	-	-	-	-	-	-
Others 2/	-	-	-	-	-	72	-	-	72
Total	647	-	113	3	-	200	-	-	963

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

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

 $<sup>^{\</sup>mbox{\tiny 2/}}$  Includes other exposures not included in the above asset classes

<sup>#</sup> Represents amounts of less than \$0.5 million



## 12.5 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.

			30 Jun 2019				
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Sovereign	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> (%)
PD Range							
0.00 to < 0.15	3,207	0.00%	7	27%	0.1	1	0%
0.15 to < 0.25	0,201	0.0070	•	2. 70	0.1	•	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
Sub-total	3,207	0.00%	7	27%	0.1	1	0%
Bank							
PD Range			100	2001	. –		400
0.00 to < 0.15	3,596	0.05%	128	32%	0.7	357	10%
0.15 to < 0.25	-	- 0.270/	-	4.40/	-	- 70	NA FEW
0.25 to < 0.50 0.50 to < 0.75	132 528	0.37% 0.54%	6 9	44% 29%	0.7 0.3	73 221	55% 42%
0.75 to < 2.50	3	1.68%	5	29%	0.3	1	44%
2.50 to < 10.00	#	6.42%	1	45%	0.0	т #	142%
10.00 to < 10.00	#	11.10%	3	45%	0.0	#	182%
100.00 (Default)	-	-	-	-	-	-	NA NA
Sub-total	4,259	0.12%	152	32%	0.7	652	15%
Corporate							
PD Range							
0.00 to < 0.15	1,739	0.07%	196	39%	2.1	426	24%
0.15 to < 0.25	-	-	-	-	-	-	N/
0.25 to < 0.50	517	0.37%	81	22%	1.2	174	34%
0.50 to < 0.75	138	0.54%	71	45%	2.9	113	82%
0.75 to < 2.50	91	1.60%	91	45%	3.0	109	120%
2.50 to < 10.00	34	6.11%	18	45%	2.9	59	175%
10.00 to < 100.00	3	11.10%	37	45%	4.3	6	235%
100.00 (Default)	40	100.00%	2	45%	5.0	-	0%
Sub-total	2,562	1.85%	496	37%	2.0	887	35%



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

			30 Jun 2019				
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Corporate (IPRE)	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> (%)
PD Range	,	. ,		. ,		<u> </u>	
0.00 to < 0.15	27	0.14%	4	45%	3.1	12	44%
0.15 to < 0.25	_	-	_	_	_	_	NA
0.25 to < 0.50	17	0.37%	11	45%	3.0	12	70%
0.50 to < 0.75	45	0.54%	21	45%	3.8	42	93%
0.75 to < 2.50	50	1.33%	34	45%	2.5	53	107%
2.50 to < 10.00	#	3.20%	2	45%	1.0	#	119%
10.00 to < 100.00	_	-	-	_	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	139	0.72%	72	45%	3.1	119	86%
Corporate Small Busine PD Range	ess						
0.00 to < 0.15	15	0.14%	39	45%	4.6	6	45%
0.15 to < 0.25	#	0.17%	5	45%	0.2	#	17%
0.25 to < 0.50	2	0.37%	22	45%	1.4	1	61%
0.50 to < 0.75	- 89	0.54%	31	45%	0.0	36	40%
0.75 to < 2.50	1	1.29%	55	45%	1.4	1	81%
2.50 to < 10.00	1	3.42%	22	45%	2.4	1	111%
10.00 to < 100.00	#	16.05%	8	45%	0.8	#	156%
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	108	0.55%	182	45%	0.7	45	43%
Total (all portfolios)	10,275	0.53%	909	32%	0.9	1,704	17%



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

			31 Dec 2018				
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Sovereign	EAD <sup>1/</sup> (S\$ million)	Average PD <sup>2/</sup> (%)	Number of Obligors 3/	Average LGD <sup>2/</sup> (%)	Average Maturity <sup>4/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>5/</sup> (%)
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	<u>-</u>	_	_	_	_	-	NA
0.75 to < 2.50	_	_	_	_	_	_	NA
2.50 to < 10.00	_	_	_	_	_	_	NA
	_	_	_	-	_	_	
10.00 to < 100.00	-	-	-	-	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	3,112	0.00%	7	40%	0.1	#	0%
PD Range 0.00 to < 0.15 0.15 to < 0.25 0.25 to < 0.50 0.50 to < 0.75 0.75 to < 2.50 2.50 to < 10.00 10.00 to < 100.00	3,719 - 112 198 72 #	0.06% - 0.37% 0.54% 1.13% 3.20% 0.00%	123 - 8 8 4 1	31% - 44% 45% 1% 45% 0%	0.8 - 0.7 0.8 0.2 0.0	401 - 63 143 1 #	11% NA 56% 72% 1% 106% NA
100.00 (Default)	_	-	-	-	-	-	NA
Sub-total	4,101	0.11%	144	32%	0.8	608	15%
Corporate							
PD Range 0.00 to < 0.15	2,124	0.08%	180	39%	1.8	461	22%
0.15 to < 0.25	2,124	0.00%	100	3970 -	1.0	401	22% 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%
Sub-total	3,456	1.31%	474	35%	1.5	1,025	30%



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

			31 Dec 2018	<b>B</b>			
	(a)	(b)	(c)	(d)	(e)	<b>(f)</b>	(g)
Corporate (IPRE)	EAD <sup>1/</sup> (S\$ million)	Average PD <sup>2/</sup> (%)	Number of Obligors 3/	Average LGD <sup>2/</sup> (%)	Average Maturity <sup>4/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>5</sup> (%)
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
Sub-total	79	0.76%	72	45%	2.8	66	83%
Corporate Small Busine PD Range	ess						
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)	-	-	-	-	-	-	NA
Sub-total	404	0.54%	190	36%	0.1	192	48%
Total (all portfolios)	11,152	0.47%	887	35%	0.8	1,891	17%

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

 $<sup>^{\</sup>rm 2/}$  Refers to the PD and LGD associated with each obligor grade, weighted by EAD

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

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

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

<sup>#</sup> Represents amounts of less than \$0.5 million



#### 12.6 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 30 June 2019.

			30 Jun 201	9			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Corporate	EAD <sup>1/</sup> (S\$ million)	Average PD <sup>2/</sup> (%)	Number of Obligors 3/	Average LGD <sup>2/</sup> (%)	Average Maturity <sup>4/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>5/</sup> (%)
PD Range							
0.00 to < 0.15	8	0.05%	39	7%	1.0	#	2%
0.15 to < 0.25	14	0.20%	72	7%	1.5	1	6%
0.25 to < 0.50	-	-	-	-	-	-	NA
0.50 to < 0.75	6	0.50%	31	7%	1.3	1	9%
0.75 to < 2.50	10	1.29%	47	8%	1.7	2	16%
2.50 to < 10.00	20	5.00%	28	9%	1.2	5	27%
10.00 to < 100.00	49	13.45%	108	15%	2.4	36	75%
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	107	7.31%	325	11%	1.8	45	42%
Total (all portfolios)	107	7.31%	325	11%	1.8	45	42%

			31 Dec 201	8			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Corporate	EAD <sup>1/</sup> (S\$ million)	Average PD <sup>2/</sup> (%)	Number of Obligors 3/	Average LGD <sup>2/</sup> (%)	Average Maturity <sup>4/</sup> (In years)	RWA (S\$ million)	RWA Density <sup>5/</sup> (%)
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
Sub-total	143	5.92%	328	10%	1.2	48	33%
Total (all portfolios)	143	5.92%	328	10%	1.2	48	33%

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

 $<sup>^{2\</sup>prime}$  Refers to the PD and LGD associated with each obligor grade, weighted by EAD

<sup>&</sup>lt;sup>3/</sup> Number of obligors refers to the number of accounts

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

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

<sup>#</sup> Represents amounts of less than \$0.5 million



## 12.7 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 Clearing Counterparties (CCP).

				30 Jun 2019			
		(a)	(b)	(c)	(d)	(e)	(f)
		Coll	ateral used in de	rivative transact	tions	Collateral used in SFTs 1/	
		Fair value of co	ollateral received	Fair value of	collateral posted	Fair value of	Fair value of
	S\$ million	Segregated <sup>2/</sup>	Unsegregated	Segregated <sup>2/</sup>	Unsegregated	collateral received	collateral posted
1	Cash	-	1,973	67	2,210	2,722	2,389
2	Debt	-	1,176	-	28	1,570	3,396
3	Equity	-	1,025	-	-	-	-
4	Others 3/	-	733	-	-	-	-
5	Total	-	4,907	67	2,238	4,292	5,785

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

 $<sup>^{\</sup>mbox{\tiny 1/}}$  Refers to Securities Financing Transaction (i.e. Repos and Reverse Repos).

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

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



## 12.8 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 first half of 2019 was mainly driven by lower single-name credit default swaps offset by higher index credit default swaps.

		30 Jun	2019	31 Dec 2	2018
		(a)	(b)	(a)	(b)
	S\$ million	Protection Bought	Protection Sold	Protection Bought	Protection Sold
	Notional				
1	Single-name credit default swaps	1,977	1,683	2,281	1,859
2	Index credit default swaps	1,315	1,330	1,150	1,098
3	Other credit derivatives	362	198	370	205
4	Total notional	3,654	3,211	3,801	3,162
	Fair values				
5	Positive fair value (asset)	14	50	25	33
6	Negative fair value (liability)	52	14	37	25

## 13. SECURITISATION EXPOSURES

There was no securitisation and re-securitisation exposure in the banking and trading books as at 30 June 2019.



## 14. MARKET RISK TYPE UNDER STANDARDISED APPROACH

During the first half of 2019, the increase in Market Risk RWA was driven mainly by higher Foreign Exchange risk partially offset by lower Interest Rate.

	30 Jun 2019	
		(a)
	Market Risk by Standardised Approach S\$ million	RWA
	Notional	
1	Interest rate risk (general and specific)	7,828
2	Equity risk (general and specific)	490
3	Foreign exchange risk	6,097
4	Commodity risk	7
	Options	
5	Simplified approach	-
6	Delta-plus method	466
7	Scenario approach	75
8	Securitisation	-
9	Total	14,963

31 Dec 2018		
		(a)
	Market Risk by Standardised Approach S\$ million	RWA
	Notional	
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
	Options	
5	Simplified approach	-
6	Delta-plus method	331
7	Scenario approach	154
8	Securitisation	-
9	Total	14,669

There is no Market Risk exposure under Internal Model Approach as at 30 June 2019.



#### 15. 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\$820 million, or approximately +13.0% of reported net interest income (on an annualised basis). The corresponding impact from a 100 bp decrease is an estimated reduction of S\$820 million in net interest income, or approximately -13.0% of reported net interest income (on an annualised basis).