

Oversea-Chinese Banking Corporation Limited

**Pillar 3 Disclosures
(OCBC Group – As at 31 December 2021)**



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

23 February 2022

2. 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 2021, 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)

As part of enhanced public disclosures on risk profile and capital adequacy driven by changes in Part XI of MAS Notice 637, a risk disclosure policy which includes establishing and maintaining internal control processes over the disclosure - among other requirements - has been approved by the Board. The Board has also appointed the Group Chief Financial Officer to attest that the Pillar 3 report has been prepared in accordance with the approved internal control processes.

3. 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 31 December 2021, the total equity of these insurance subsidiaries was S\$10 billion and total assets were S\$110 billion.

Disclosures on the Group's reconciliation of regulatory capital and regulatory capital position can be found in Section 6 of this document.

4. 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-21	Sep-21	Jun-21	Mar-21	Dec-20	
Available Capital (S\$ million)						
1	CET1 Capital	34,845	35,025	35,293	34,103	33,206
2	Tier 1 Capital	36,076	36,256	36,522	35,333	34,436
3	Total Capital	39,573	40,168	40,384	39,899	38,966
Risk Weighted Assets (S\$ million)						
4	Total RWA	224,866	225,877	219,740	220,150	218,145
Risk-based Capital Ratios as a percentage of RWA (%)						
5	CET1 Ratio	15.5	15.5	16.1	15.5	15.2
6	Tier 1 Ratio	16.0	16.1	16.6	16.0	15.8
7	Total Capital Ratio	17.6	17.8	18.4	18.1	17.9
Additional CET1 buffer requirements as a percentage of RWA (%)						
8	Capital conservation buffer requirement	2.5	2.5	2.5	2.5	2.5
9	Countercyclical buffer requirement	0.1	0.1	0.1	0.1	0.1
10	Bank G-SIB and/or D-SIB additional requirements	-	-	-	-	-
11	Total of Bank CET1 specific requirements ^{1/}	2.6	2.6	2.6	2.6	2.6
12	CET1 available after meeting the Reporting Bank's minimum capital requirements	7.6	7.8	8.4	8.0	7.9
Leverage Ratio (S\$ million)						
13	Total Leverage Ratio exposure measure	469,537	467,213	451,172	451,626	450,084
14	Leverage Ratio (%) ^{2/}	7.7	7.8	8.1	7.8	7.7
Liquidity Coverage Ratio (S\$ million) ^{3/}						
15	Total High Quality Liquid Assets	70,437	65,960	62,172	64,135	60,309
16	Total net cash outflow	44,368	44,007	43,007	42,607	40,135
17	Liquidity Coverage Ratio (%)	159	150	145	151	150
Net Stable Funding Ratio (S\$ million)						
18	Total available stable funding	274,655	271,799	266,099	263,447	263,226
19	Total required stable funding	227,629	217,083	210,990	211,446	210,237
20	Net Stable Funding Ratio (%)	121	125	126	125	125

^{1/} Sum of rows 8, 9 and 10

^{2/} Computed by row 2 / row 13

^{3/} Reported as simple averages of daily observations for the respective quarter

5. G-SIB INDICATORS AND COUNTERCYCLICAL CAPITAL BUFFER

5.1 G-SIB Assessment Indicators

The Basel Committee on Banking Supervision (BCBS) has published 14 indicators it uses to classify a Bank as a Global Systemically Important Bank (G-SIB). While OCBC is not a G-SIB, it is required under MAS Notice 637 to disclose the 14 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.

G-SIB indicators of OCBC Group as at 31 December 2021 and 31 December 2020

31 Dec 2021			Amount
Category	Indicators used for assessing G-SIB ^{3/}		S\$ million
1	Cross-jurisdictional activity	Cross-jurisdictional claims	262,781
2		Cross-jurisdictional liabilities	210,651
3	Size	Total exposures as defined for use in the Basel III leverage ratio ^{1/}	584,955
4	Interconnectedness	Intra-financial system assets	108,969
5		Intra-financial system liabilities	36,089
6		Securities outstanding	99,493
7	Substitutability / financial institution infrastructure	Assets under custody	150,734
8		Payments activity	5,923,379
9		Underwritten transactions in debt and equity markets	7,288
10		Trading Volume - Fixed income securities ^{2/}	109,793
11		- Equities and other securities ^{2/}	173,063
12	Complexity	Notional amount of OTC derivatives	1,052,076
13		Level 3 assets	4,583
14		Trading and available-for-sale securities	30,267

31 Dec 2020			Amount
Category	Indicators used for assessing G-SIB		S\$ million
1	Cross-jurisdictional activity	Cross-jurisdictional claims	244,208
2		Cross-jurisdictional liabilities	188,699
3	Size	Total exposures as defined for use in the Basel III leverage ratio ^{1/}	457,725
4	Interconnectedness	Intra-financial system assets	77,926
5		Intra-financial system liabilities	41,286
6		Securities outstanding	94,261
7	Substitutability / financial institution infrastructure	Assets under custody	127,362
8		Payments activity	4,747,796
9		Underwritten transactions in debt and equity markets	6,442
10	Complexity	Notional amount of OTC derivatives	982,207
11		Level 3 assets	1,406
12		Trading and available-for-sale securities	35,916

^{1/} 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

^{2/} Trading volume indicator has been introduced as at 31 December 2021

^{3/} The scope of consolidation has been extended to include insurance subsidiaries for Total exposures; Intra-financial system assets; Intra-financial system liabilities; Securities outstanding; Notional amount of OTC derivatives; and Level 3 assets indicators

5.2 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-21			
	(a)	(b)	(c)	(d)
	Country-Specific countercyclical buffer requirement	RWA for private sector credit exposures	Bank-specific countercyclical buffer requirement ^{1/}	Countercyclical buffer amount
	(%)	(S\$ million)	(%)	(S\$ million)
Geographical breakdown				
Hong Kong	1.00%	19,574		
Luxembourg	0.50%	29		
All Others		152,269		
Total		171,872	0.1%	256

	30-Jun-21			
	(a)	(b)	(c)	(d)
	Country-Specific countercyclical buffer requirement	RWA for private sector credit exposures	Bank-specific countercyclical buffer requirement ^{1/}	Countercyclical buffer amount
	(%)	(S\$ million)	(%)	(S\$ million)
Geographical breakdown				
Hong Kong	1.00%	18,420		
Luxembourg	0.50%	29		
All Others		147,999		
Total		166,448	0.1%	243

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

6. COMPOSITION OF CAPITAL

6.1 Reconciliation of Regulatory Capital

The reporting position of the table in this section is as at 31 December 2021.

	Balance sheet as per published financial statements	Under regulatory scope of consolidation	Cross Reference to Section 6.2
EQUITY			
Share capital	18,040	18,040	A
Other equity instruments	1,198	1,198	B
Reserves:			
Capital reserves	782		
Fair value reserves	848		
Revenue reserves	31,795		
Total reserves	33,425		
of which: Retained earnings		23,619	C1
of which: Accumulated other comprehensive income and other disclosed reserves		1,947	C2
of which: Cash flow hedge reserve		(0)	C3
of which: Unrealised fair value gains/losses on financial liabilities and derivative liabilities arising from changes in own credit risk		5	C4
Non-controlling interests	1,675		
of which: Minority interest that meets criteria for inclusion in CET1 Capital		216	D1
of which: Minority interest that meets criteria for inclusion in AT1 Capital		34	D2
of which: Minority interest that meets criteria for inclusion in Tier 2 Capital		20	D3
Valuation adjustment		20	E
Total equity	54,338		
LIABILITIES			
Deposits of non-bank customers	342,395		
Deposits and balances of banks	8,239		
Due to associates	431		
Trading portfolio liabilities	393		
Derivative payables	9,070		
Other liabilities	7,163		
Current tax payables	905		
Deferred tax liabilities	2,832		
of which: Associated with intangible assets		26	F
Debt issued	20,115		
of which: Tier 2 capital instruments		2,169	G
Life insurance fund liabilities	96,306		
Total liabilities	487,849		
Total equity and liabilities	542,187		
ASSETS			
Cash and placements with central banks	27,919		
Singapore government treasury bills and securities	11,112		
Other government treasury bills and securities	26,159		
Placements with and loans to banks	25,462		
Loans to customers	286,281		
of which: Eligible provision for inclusion in Tier 2 Capital subject to cap in respect of exposures under SA and IRBA		1,307	H
Debt and equity securities	34,015		
of which: Investments in unconsolidated major stake financial institutions		367	I1
of which: Investments in unconsolidated non major stake financial institutions		1,565	I2
of which: PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630		0	I3
Investments in insurance subsidiaries		1,953	J
Derivative and forward securities:			
Unconsolidated non major stake financial institutions		(36)	K
Assets held for sale	11		
Derivative receivables	9,267		
Other assets	6,334		
Deferred tax assets	280		
of which: Deferred tax assets before netting		396	L
Associates	6,170		
of which: Investments in unconsolidated major stake financial institutions		6,002	M
Property, plant and equipment	3,506		
Investment property	801		
Goodwill and intangible assets	4,774		
of which: Goodwill		4,007	N1
of which: Intangible assets		177	N2
Life insurance fund investment securities and other assets	100,096		
Total assets	542,187		

6.2 Regulatory Capital Position

The reporting position of the tables in this section is as at 31 December 2021.

	Amount	Cross Reference to Section 6.1
Common Equity Tier 1 capital: instruments and reserves		-
1 Paid-up ordinary shares and share premium (if applicable)	18,040	A
2 Retained earnings	23,619	C1
3 Accumulated other comprehensive income and other disclosed reserves	1,947	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	216	D1
Common Equity Tier 1 capital before regulatory adjustments	43,821	
Common Equity Tier 1 capital: regulatory adjustments		
7 Valuation adjustment pursuant to Part VIII of MAS Notice 637	20	E
8 Goodwill, net of associated deferred tax liability	4,007	N1
9 Intangible assets, net of associated deferred tax liability	151	N2 - F
10 Deferred tax assets that rely on future profitability	396	L
11 Cash flow hedge reserve	(0)	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	5	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)	4,398	(I1 + J + M) - 3,924 ¹
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	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	-	
Total regulatory adjustments to CET1 Capital	8,977	
Common Equity Tier 1 capital (CET1)	34,845	
Additional Tier 1 capital: instruments		
30 AT1 capital instruments and share premium (if applicable)	1,198	B
31 of which: classified as equity under the Accounting Standards	1,198	
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	34	D2
35 of which: instruments issued by subsidiaries subject to phase out	-	
Additional Tier 1 capital before regulatory adjustments	1,232	
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 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	-	
Total regulatory adjustments to Additional Tier 1 capital	-	
Additional Tier 1 capital (AT1)	1,232	
Tier 1 capital (T1 = CET1 + AT1)	36,076	

6.2 Regulatory Capital Position (continued)

	Amount	Cross Reference to Section 6.1
Tier 2 capital: instruments and provisions		
46 Tier 2 capital instruments and share premium (if applicable)	2,169	G
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	20	D3
49 of which: instruments issued by subsidiaries subject to phase out	-	
50 Provisions	1,307	H
51 Tier 2 capital before regulatory adjustments	3,497	
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)	3,497	
59 Total capital (TC = T1 + T2)	39,573	
60 Floor-adjusted total risk weighted assets	224,866	
Capital ratios (as a percentage of floor-adjusted risk weighted assets)		
61 Common Equity Tier 1 CAR	15.5%	
62 Tier 1 CAR	16.0%	
63 Total CAR	17.6%	
64 Bank-specific buffer requirement	9.1%	
65 of which: capital conservation buffer requirement	2.5%	
66 of which: bank specific countercyclical buffer requirement	0.1%	
67 of which: G-SIB and/or D-SIB buffer requirement (if applicable)	0.0%	
68 Common Equity Tier 1 available after meeting the Reporting Bank's minimum capital requirements	7.6%	
National minima		
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 unconsolidated financial institutions in which the Reporting Bank does not hold a major stake	1,529	I2 + K
73 Investments in ordinary shares of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	3,924	Refer to note ¹
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)	507	
77 Cap on inclusion of provisions in Tier 2 under standardised approach	493	
78 Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	1,734	
79 Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	814	
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)	-	

^{1/} 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)

6.3 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). The reporting position of all tables in this section is as at 31 December 2021.

	OCBC Ordinary Shares	OCBC 4.00% Non-cumulative Non-convertible Perpetual Capital Securities
1. Issuer	Oversea-Chinese Banking Corporation Limited	Oversea-Chinese Banking Corporation Limited
2. Unique identifier (ISIN)	SG1S04926220	SGXF81199428
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\$18,040 million	S\$998 million
9. Par value of instrument	NA	S\$1,000 million
10. Accounting classification	Shareholders' equity	Shareholders' equity
11. Original date of issuance	NA	24 Aug 2018
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 the First Reset Date of 24 Aug 2023 and each Distribution Payment Date thereafter (at par) Tax call (at par) Regulatory call (at par)
16. Subsequent call dates, if applicable	NA	Optional call dates - any Distribution Payment 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	4.00% 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.
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 which includes holders of Tier 2 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

6.3 Main Features of Capital Instruments (continued)

	OCBC 3.00% Non-cumulative Non-convertible Perpetual Capital Securities	OCBC 4.25% Subordinated Notes due 2024
1. Issuer	Oversea-Chinese Banking Corporation Limited	Oversea-Chinese Banking Corporation Limited
2. Unique identifier (ISIN)	SGXF54217405	US69033DAC11 (Reg S) US69033CAC38 (144A)
3. Governing law(s) of instrument	Singapore	England (Save for the subordination provisions) Singapore (In respect of the subordination provisions)
<i>Regulatory treatment</i>		
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\$200 million	S\$841 million
9. Par value of instrument	S\$200 million	US\$1,000 million
10. Accounting classification	Shareholders' equity	Liabilities - amortised cost
11. Original date of issuance	30 Sep 2020	19 Jun 2014
12. Perpetual or dated	Perpetual	Dated
13. Original maturity date	No maturity	19 Jun 2024
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 30 Sep 2030 and each Distribution Payment Date thereafter (at par) Tax call (at par) Regulatory call (at par)	Tax 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
<i>Coupons / dividends</i>		
17. Fixed or floating dividend / coupon	Fixed to fixed	Fixed
18. Coupon rate and any related index	3.00% p.a. up to 30 September 2030; if not redeemed, the distribution rate will be reset on the First Reset Date and every 10 years thereafter to a fixed rate equal to the then prevailing 10-year SGD SOR plus 2.19% p.a.	4.25% 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
30. 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.	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 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)	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 2 Capital Securities, and will rank senior to all Junior Obligations.	Unsubordinated and unsecured obligations of OCBC Bank
36. Non-compliant transitioned features	No	No
37. If yes, specify non-compliant features	NA	NA

6.3 Main Features of Capital Instruments (continued)

OCBC 1.832% Subordinated Notes due 2030	
1. Issuer	Oversea-Chinese Banking Corporation Limited
2. Unique identifier (ISIN)	US69033DAD93 (Reg S) US69033CAD11 (144A)
3. Governing law(s) of instrument	England (Save for the subordination provisions) Singapore (In respect of the subordination provisions)
<i>Regulatory treatment</i>	
4. Transitional Basel III rules	Tier 2
5. Post-transitional Basel III rules	Tier 2
6. Eligible at Solo / Group / Solo and Group	Solo and Group
7. Instrument type	Subordinated debt
8. Amount recognised in regulatory capital	S\$1,328 million
9. Par value of instrument	US\$1,000 million
10. Accounting classification	Liabilities - amortised cost
11. Original date of issuance	10 Sep 2020
12. Perpetual or dated	Dated
13. Original maturity date	10 Sep 2030
14. Issuer call subject to prior supervisory approval	Yes
15. Optional call date, contingent call dates and redemption amount	Tax call (at par) Regulatory call (at par)
16. Subsequent call dates, if applicable	NA
<i>Coupons / dividends</i>	
17. Fixed or floating dividend / coupon	Fixed
18. Coupon rate and any related index	1.832% p.a. up to 10 September 2025; if not redeemed, the interest rate will be reset to a fixed p.a. equal to the then-prevailing 5-year U.S. Treasury Rate plus 1.58% p.a.
19. Existence of a dividend stopper	NA
20. Fully discretionary, partially discretionary or mandatory	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

7. LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES

7.1 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 3 of this document.

S\$ million	31 Dec 2021						
	(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 ^{1/}	Subject to CCR requirements	Subject to securitisation framework	Subject to market risk requirements	Not subject to capital requirements or subject to deduction from regulatory capital
Carrying amounts of items:							
Assets							
Cash and placements with central banks	27,919	27,919	26,095	1,827	-	13,225	-
Singapore government treasury bills and securities	11,112	10,106	8,976	-	-	1,130	-
Other government treasury bills and securities	26,159	25,897	23,251	-	-	25,636	-
Placements with and loans to banks	25,462	22,710	21,758	201	-	22,298	-
Loans to customers	286,281	286,280	287,171	1,009	-	185,329	-
Debt and equity securities	34,015	29,686	23,113	-	-	28,804	194
Assets held for sale	11	11	11	-	-	2	-
Derivative receivables	9,267	9,257	-	8,315	-	8,528	-
Other assets	6,334	5,753	5,753	-	-	4,464	-
Deferred tax assets	280	274	-	-	-	272	396
Associates	6,170	6,170	2,998	-	-	2,354	3,172
Subsidiaries	-	1,953	921	-	-	11	1,032
Property, plant and equipment	3,506	2,796	2,796	-	-	768	-
Investment property	801	801	801	-	-	84	-
Goodwill and intangible assets	4,774	4,184	-	-	-	-	4,184
Life insurance fund investment securities and other assets	100,096	-	-	-	-	-	-
Total Assets	542,187	433,797	403,644	11,352	-	292,905	8,978
Liabilities							
Deposits of non-bank customers	342,395	342,513	-	668	-	216,053	126,460
Deposits and balances of banks	8,239	8,239	-	1,387	-	7,505	734
Due to associates	431	431	-	-	-	199	232
Trading portfolio liabilities	393	393	-	-	-	393	#
Derivative payables	9,070	9,071	-	8,648	-	8,624	423
Other liabilities	7,163	6,405	-	-	-	3,366	3,039
Current tax payables	905	588	-	-	-	130	458
Deferred tax liabilities	2,832	246	-	-	-	75	171
Debt issued	20,115	20,122	-	-	-	20,106	16
Life insurance fund liabilities	96,306	-	-	-	-	-	-
Total Liabilities	487,849	388,008	-	10,703	-	256,451	131,533

7.1 Differences between Accounting and Regulatory Scopes of Consolidation (continued)

S\$ million	31 Dec 2020							
	(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 ^{1/}	Subject to CCR requirements	Carrying amounts of items:			Not subject to capital requirements or subject to deduction from regulatory capital
					Subject to securitisation framework	Subject to market risk requirements		
Assets								
Cash and placements with central banks	26,525	26,525	22,855	3,671	-	10,898	-	
Singapore government treasury bills and securities	10,628	9,294	8,242	-	-	1,052	-	
Other government treasury bills and securities	22,663	22,432	19,129	-	-	22,431	-	
Placements with and loans to banks	32,816	30,950	29,721	1	-	30,155	-	
Loans to customers	263,538	263,537	264,944	484	-	168,602	-	
Debt and equity securities	33,143	28,498	23,131	-	-	27,791	171	
Assets held for sale	2	2	2	-	-	#	-	
Derivative receivables	15,223	15,240	-	14,747	-	14,930	-	
Other assets	5,806	5,396	5,396	-	-	3,798	-	
Deferred tax assets	133	129	-	-	-	128	283	
Associates	4,633	4,633	2,559	-	-	1,834	2,074	
Subsidiaries	-	1,953	1,046	-	-	4	907	
Property, plant and equipment	3,567	2,836	2,836	-	-	789	-	
Investment property	813	813	813	-	-	84	-	
Goodwill and intangible assets	4,837	4,199	-	-	-	-	4,199	
Life insurance fund investment securities and other assets	97,068	-	-	-	-	-	-	
Total Assets	521,395	416,437	380,674	18,903	-	282,496	7,634	
Liabilities								
Deposits of non-bank customers	314,907	314,989	-	81	-	197,982	117,007	
Deposits and balances of banks	9,586	9,586	-	1,139	-	8,911	675	
Due to associates	406	406	-	-	-	205	201	
Trading portfolio liabilities	339	339	-	-	-	339	#	
Derivative payables	15,516	15,542	-	15,244	-	15,310	298	
Other liabilities	8,093	7,531	-	-	-	3,710	3,821	
Current tax payables	745	531	-	-	-	180	351	
Deferred tax liabilities	1,818	328	-	-	-	98	230	
Debt issued	24,355	23,960	-	-	-	23,958	2	
Life insurance fund liabilities	94,454	-	-	-	-	-	-	
Total Liabilities	470,219	373,212	-	16,464	-	250,693	122,585	

^{1/} Refers to non CCR exposures and exclude trading book assets such as bonds and equities

Represents amounts of less than \$0.5 million

7.2 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 2021				
S\$ million	(a)	(b)	(c)	(d)
	Items subject to:			Total
	Credit risk requirements	CCR requirements	Securitisation framework	
1 Assets carrying amount under regulatory scope of consolidation ^{1/}	403,644	11,352	-	424,819
2 Liabilities carrying amount under regulatory scope of consolidation ^{1/}	-	10,703	-	256,193
3 Total net amount under regulatory scope of consolidation	403,644	649	-	168,626
4 Differences due to off-balance sheet amounts	49,933	9,845	-	
5 Differences due to valuations	-	-	-	
6 Differences due to repos	-	4,457	-	
7 Differences due to derivatives netting ^{2/}	-	2,775	-	
8 Differences due to consideration of provisions	3,662	-	-	
9 Differences due to prudential filters	-	-	-	
10 Others ^{3/}	14	7	-	
11 Exposure amounts considered for regulatory purposes ^{4/}	457,253	17,733	-	474,986

31 Dec 2020				
S\$ million	(a)	(b)	(c)	(d)
	Items subject to:			Total
	Credit risk requirements	CCR requirements	Securitisation framework	
1 Assets carrying amount under regulatory scope of consolidation ^{1/}	380,674	18,903	-	408,803
2 Liabilities carrying amount under regulatory scope of consolidation ^{1/}	-	16,464	-	250,627
3 Total net amount under regulatory scope of consolidation	380,674	2,439	-	158,175
4 Differences due to off-balance sheet amounts	45,005	9,856	-	
5 Differences due to valuations	-	-	-	
6 Differences due to repos	-	2,762	-	
7 Differences due to derivatives netting ^{2/}	-	6,616	-	
8 Differences due to consideration of provisions	3,145	-	-	
9 Differences due to prudential filters	-	-	-	
10 Others ^{3/}	41	18	-	
11 Exposure amounts considered for regulatory purposes ^{4/}	428,865	21,691	-	450,556

^{1/} Refers to assets and liabilities carrying amounts as per the table in section 7.1

^{2/} 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

^{3/} Includes amounts not reported in the other categories

^{4/} Refers to Regulatory Exposures at Default gross of impairment allowances before taking into account the effect of Credit Risk Mitigation

7.3 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 and not shown in this table.

		31 Dec 2021							
		(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 ^{1/}	-	-	-	-	-	-	-	-
6	Model risk	-	-	-	-	-	-	-	-
7	Operational risk ^{2/}	-	-	-	-	-	-	-	-
8	Investing and funding costs	-	14	6	-	-	20	20	#
9	Unearned credit spreads	-	-	-	-	-	-	-	-
10	Future administrative costs ^{3/}	-	-	-	-	-	-	-	-
11	Other ^{4/}	-	-	-	-	-	-	-	-
12	Total adjustment	-	14	6	#	-	20	20	#

		31 Dec 2020							
		(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 ^{1/}	-	-	-	-	-	-	-	-
6	Model risk	-	-	-	-	-	-	-	-
7	Operational risk ^{2/}	-	-	-	-	-	-	-	-
8	Investing and funding costs	-	26	15	-	-	41	41	#
9	Unearned credit spreads	-	-	-	-	-	-	-	-
10	Future administrative costs ^{3/}	-	-	-	-	-	-	-	-
11	Other ^{4/}	-	-	-	-	-	-	-	-
12	Total adjustment	-	26	15	#	-	41	41	#

^{1/} Included in unwinding cost

^{2/} Valuation processes are mostly automated with minimal manual intervention

^{3/} No significant change in future administrative costs is expected

^{4/} Not applicable

Represents amounts less than \$0.5 million

8. LEVERAGE RATIO

8.1 Leverage Ratio Summary Comparison Table

Item	Amount (S\$m)	
	31 Dec 2021	30 Sep 2021
1 Total consolidated assets as per published financial statements	542,187	538,539
2 Adjustment for investments in entities that are consolidated for accounting purposes but are outside the regulatory scope of consolidation	(108,389)	(110,234)
3 Adjustment for fiduciary assets recognised on the balance sheet in accordance with the Accounting Standards but excluded from the calculation of exposure measure	0	0
4 Adjustment for derivative transactions	3,282	3,354
5 Adjustment for SFTs	192	202
6 Adjustment for off-balance sheet items	41,237	43,614
7 Other adjustments	(8,972)	(8,262)
8 Exposure measure	469,537	467,213

8.2 Leverage Ratio Common Disclosure Table

Item	Amount (S\$m)	
	31 Dec 2021	30 Sep 2021
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)	421,396	416,423
2 Asset amounts deducted in determining Tier 1 capital	(8,972)	(8,262)
3 Total exposures measures of on-balance sheet items (excluding derivative transactions and SFTs)	412,424	408,161
Derivative exposure measures		
4 Replacement cost associated with all derivative transactions (net of the eligible cash portion of variation margins)	5,781	5,818
5 Potential future exposure associated with all derivative transactions	6,733	6,700
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	(5)	(4)
8 CCP leg of trade exposures excluded	-	-
9 Adjusted effective notional amount of written credit derivatives	136	382
10 Further adjustments in effective notional amounts and deductions from potential future exposures of written credit derivatives	-	-
11 Total derivative exposure measures	12,645	12,896
SFT exposure measures		
12 Gross SFT assets (with no recognition of accounting netting), after adjusting for sales accounting	3,039	2,340
13 Eligible netting of cash payables and cash receivables	-	-
14 SFT counterparty exposures	192	202
15 SFT exposure measures where a Reporting Bank acts as an agent in the SFTs	-	-
16 Total SFT exposure measures	3,231	2,542
Exposure measures of off-balance sheet items		
17 Off-balance sheet items at notional amount	194,971	191,795
18 Adjustments for calculation of exposure measures of off-balance sheet items	(153,734)	(148,181)
19 Total exposure measures of off-balance sheet items	41,237	43,614
Capital and Total exposures		
20 Tier 1 capital	36,076	36,256
21 Total exposures	469,537	467,213
Leverage Ratio		
22 Leverage ratio	7.7%	7.8%

SFT: Securities Financing Transactions

CCP: Central Counterparty

9. CREDIT QUALITY

9.1 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.

		31 Dec 2021						
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Gross carrying amount of ^{1/}		Allowances and Impairments	of which: Allowances for Standardised Approach exposures		of which: Allowances for IRBA exposures	Net Values ^{2/} (a + b + c)
S\$ million		Defaulted exposures	Non-defaulted exposures		of which: Specific Allowances	of which: General Allowances		
1	Loans to customers	4,215	285,501	(3,037)	(527)	(320)	(2,190)	286,679
2	Debt securities	6	28,055	(16)	(2)	(1)	(13)	28,045
3	Off-balance sheet exposures	117	16,534	(398)	-	(44)	(354)	16,253
4	Total	4,338	330,090	(3,451)	(529)	(365)	(2,557)	330,977

		30 Jun 2021						
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Gross carrying amount of ^{1/}		Allowances and Impairments	of which: Allowances for Standardised Approach exposures		of which: Allowances for IRBA exposures	Net Values ^{2/} (a + b + c)
S\$ million		Defaulted exposures	Non-defaulted exposures		of which: Specific Allowances	of which: General Allowances		
1	Loans to customers	3,991	270,803	(3,441)	(405)	(329)	(2,708)	271,353
2	Debt securities	2	28,727	(17)	(2)	(2)	(13)	28,712
3	Off-balance sheet exposures	89	15,003	(326)	-	(34)	(292)	14,766
4	Total	4,082	314,533	(3,784)	(407)	(365)	(3,013)	314,831

^{1/} Refers to the accounting value of the assets before any impairment allowances but after write-offs

^{2/} Refers to total gross carrying amount less impairment allowances

9.2 Changes in Stock of Defaulted Loans to Customers and Debt Securities

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

S\$ million	(a) Amount outstanding
1 Defaulted loans and debt securities as at 30 June 2021	3,993
2 Loans and debt securities that have defaulted in the second half of 2021	1,846
3 Return to non-defaulted status	(187)
4 Amounts written-off	(877)
5 Other changes ^{1/}	(554)
6 Defaulted loans and debt securities as at 31 December 2021 (1 + 2 + 3 + 4 + 5)	4,221

^{1/} Other changes comprise foreign exchange, increase in existing defaulted loans and recoveries

9.3 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 2021.

Gross Loans to Customers

Analysed by Geography

	S\$ million
Singapore	115,620
Malaysia	27,611
Indonesia	18,918
Greater China	74,120
Other Asia Pacific	19,293
Rest of the World	34,154
Total	289,716

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

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

Gross Loans to Customers (continued)

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	8,094
Manufacturing	15,642
Building and construction	81,375
Housing	61,733
General commerce	30,159
Transport, storage and communication	13,423
Financial institutions, investment and holding companies	25,365
Professionals and individuals	36,854
Others	17,071
Total	289,716

Gross Placements with and Loans to Banks

Analysed by Geography

	S\$ million
Singapore	802
Malaysia	2,565
Indonesia	404
Greater China	14,027
Other Asia Pacific	1,813
Rest of the World	3,629
Balances with banks	23,240
Bank balances of life insurance fund	2,228
Total	25,468

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

Government Treasury Bills and Securities

Analysed by Geography

	S\$ million
Singapore	11,112
Malaysia	5,428
Indonesia	6,425
Greater China	4,373
Other Asia Pacific	5,393
Rest of the World	4,540
Total	37,271

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

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

Gross Debt Securities

Analysed by Geography

	S\$ million
Singapore	2,827
Malaysia	1,598
Indonesia	1,367
Greater China	14,461
Other Asia Pacific	4,909
Rest of the World	2,883
Total	28,045

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

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	525
Manufacturing	1,565
Building and construction	2,177
General commerce	626
Transport, storage and communication	1,689
Financial institutions, investment and holding companies	17,417
Others	4,046
Total	28,045

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 to customers	24,494	37,225	21,463	32,106	57,751	113,242	286,281
Net placements with and loans to banks	5,773	2,918	4,102	10,381	60	#	23,234
Government treasury bills and securities	54	1,850	3,158	8,972	12,952	10,285	37,271
Debt securities	10	452	1,263	5,270	10,041	11,009	28,045

Represents amounts less than S\$0.5 million

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

Credit Commitments

Analysed by Geography

	S\$ million
Singapore	136,454
Malaysia	8,736
Indonesia	5,379
Greater China	13,709
Other Asia Pacific	3,071
Rest of the World	3,713
Total	171,062

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

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	1,408
Manufacturing	8,025
Building and construction	17,338
General commerce	24,809
Transport, storage and communication	4,768
Financial institutions, investment and holding companies	53,570
Professionals and individuals	54,552
Others	6,592
Total	171,062

Analysed by Residual Maturity

	S\$ million
Undrawn credit facilities:	
Term to maturity of one year or less	141,648
Term to maturity of more than one year	29,414
Total	171,062

Contingent Liabilities

Analysed by Geography

	S\$ million
Singapore	11,347
Malaysia	1,125
Indonesia	1,169
Greater China	2,520
Other Asia Pacific	128
Rest of the World	362
Total	16,651

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

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

Contingent Liabilities (continued)

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	198
Manufacturing	1,412
Building and construction	2,137
General commerce	10,287
Transport, storage and communication	359
Financial institutions, investment and holding companies	1,116
Professionals and individuals	113
Others	1,029
Total	16,651

Analysed by Residual Maturity

	S\$ million
Guarantees and standby letters of credit:	
Term to maturity of one year or less	6,770
Term to maturity of more than one year	2,472
	9,242
Acceptances and endorsements	1,016
Documentary credits and other short term trade-related transactions	6,393
Total	16,651

9.4 Overview of Past Due Exposure and Impairment Allowances

The following tables provide breakdown of defaulted loans to customers (Non-performing Loans) by geography, credit grade under MAS Notices 612 and 612A and industry. In addition, loans to customers are categorised into “neither past due nor impaired”, “past due but not impaired” and “impaired”.

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 2021.

9.4 Overview of Past Due Exposure and Impairment Allowances (continued)

Total Loans to Customers – Credit Quality

	S\$ million
Neither past due nor impaired	284,855
Non-impaired	1,690
Impaired	1,714
Past due loans	3,404
Impaired but not past due	1,457
Gross loans	289,716
Allowances	
Impaired loans	(1,535)
Non-impaired loans	(1,900)
Net loans	286,281

Non-performing Loans

Analysed by Geography

S\$ million	Singapore	Malaysia	Indonesia	Greater China	Rest of the World	Total
Substandard	289	1,100	765	117	80	2,351
Doubtful	164	142	255	447	323	1,331
Loss	98	225	188	22	#	533
Total	551	1,467	1,208	586	403	4,215

Represents amounts less than S\$0.5 million

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

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	96
Manufacturing	840
Building and construction	330
Housing	1,002
General commerce	594
Transport, storage and communication	491
Financial institutions, investment and holding companies	89
Professionals and individuals	179
Others	594
Total	4,215

9.4 Overview of Past Due Exposure and Impairment Allowances (continued)

Non-performing Loans (continued)

Analysed by Period Overdue

	S\$ million
Over 180 days	874
Over 90 days to 180 days	145
30 days to 90 days	179
Less than 30 days	1,018
Past due	2,216
No overdue	1,999
Total	4,215

Past Due Loans

Analysed by Industry

	S\$ million
Agriculture, mining and quarrying	168
Manufacturing	767
Building and construction	330
General commerce	669
Transport, storage and communication	313
Financial institutions, investment and holding companies	56
Professionals and individuals (include housing)	963
Others	138
Total	3,404

Analysed by Geography

	S\$ million
Singapore	625
Malaysia	576
Indonesia	1,829
Greater China	280
Rest of the World	94
Total	3,404

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

9.4 Overview of Past Due Exposure and Impairment Allowances (continued)

Impairment Allowances for Loans to Customers and Debt Securities

Analysed by Geography

S\$ million	Allowances for Impaired Assets			Allowances for Non-impaired Assets
	Debt Securities	Loans to Customers	Total	
Singapore	2	191	193	873
Malaysia	-	361	361	343
Indonesia	-	504	504	234
Greater China	-	270	270	590
Other Asia Pacific	-	44	44	118
Rest of the World	-	165	165	209
Total	2	1,535	1,537	2,367

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

Analysed by Industry

S\$ million	Allowances for Impaired Assets		
	Debt Securities	Loans to Customers	Total
Agriculture, mining and quarrying	-	67	67
Manufacturing	2	283	285
Building and construction	-	136	136
Housing	-	155	155
General commerce	-	226	226
Transport, storage and communication	-	283	283
Financial institutions, investment and holding companies	-	31	31
Professionals and individuals	-	70	70
Others	-	284	284
Total	2	1,535	1,537

9.4 Overview of Past Due Exposure and Impairment Allowances (continued)

Impairment Allowances for Loans to Customers and Debt Securities (continued)

S\$ million	Net Allowances for Impaired Assets (Credited)/Charged to Income Statement		
	Debt Securities	Loans to Customers	Total
Agriculture, mining and quarrying	-	(7)	(7)
Manufacturing	(#)	138	138
Building and construction	-	116	116
Housing	-	110	110
General commerce	-	198	198
Transport, storage and communication	-	(4)	(4)
Financial institutions, investment and holding companies	-	1	1
Professionals and individuals	-	40	40
Others	-	260	260
Total	(#)	852	852

Represents amounts less than S\$0.5 million

Past Due Loans but Not Impaired

These are loans to customers 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
Past due	
Less than 30 days	1,188
30 to 90 days	224
Over 90 days	278
Past due but not impaired	1,690

9.5 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.

S\$ million	Impaired Exposures	Non-impaired Exposures
Credit Quality of Restructured Exposures		
Substandard	706	110
Doubtful	396	11
Loss	79	6
At 31 December 2021	1,181	127

10. KEY APPROACHES USED FOR COMPUTATION OF RWA

Table below provides detail on key approaches used for computation of RWA.

Risk Type	Approach for Computation of RWA
Credit Risk	<ul style="list-style-type: none"> Advanced Internal Ratings Based (A-IRB) approach for major consumer portfolios, including residential mortgages, credit cards and auto loans as well as small business and margin lending Foundation Internal Ratings Based (F-IRB) for wholesale portfolios, namely sovereign, bank, non-bank financial institution, corporate real estate (including income-producing real estate specialised lending) and general corporate Supervisory slotting approach for other specialised lending portfolios, namely project finance, object finance and commodities finance Any credit risk-weighted assets for securitisation exposures will be computed using the ratings-based method prescribed by MAS Notice 637 Standardised approach for portfolios in Bank OCBC NISP as well as selected portfolios in OCBC Wing Hang. Regulatory prescribed risk weights based on asset class and external ratings from approved credit rating agencies, where available, are used to determine regulatory capital. Approved external credit rating agencies are Standard and Poor's, Moody's and Fitch Ratings
Market Risk	<ul style="list-style-type: none"> Standardised approach for market risk assets, where Risk Weights are specified according to the instrument category, maturity period, credit quality grade as well as other factors and applied to the corresponding notional amount as prescribed under MAS Notice 637
Operational Risk	<ul style="list-style-type: none"> Standardised approach is used across the Group except for OCBC Wing Hang (Hong Kong and Macau) and Bank OCBC NISP, which have adopted the Basic Indicator approach Operational risk-weighted assets are derived by applying specified factors or percentages to the annual gross income for the prescribed business lines in accordance with regulatory guidelines

11. 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 2021 and December 2021.

S\$ million	(a) RWA		(b)	(c)
	Dec-21	Sep-21	Minimal Capital Requirements ^{1/}	Dec-21
1	Credit Risk (excluding Counterparty Credit Risk)	180,249	179,867	18,025
2	Of which: Standardised Approach	38,461	37,683	3,846
3	Of which: Foundation Internal Ratings-Based Approach (F-IRBA)	122,857	122,684	12,286
4	Of which: Supervisory Slotting Approach	3,992	4,945	399
5	Of which: Advanced Internal Ratings-Based Approach (A-IRBA)	14,939	14,555	1,494
6	Credit Risk: Counterparty Credit Risk (CCR)	3,020	2,969	302
7	Of which: Current Exposure Method	2,050	2,131	205
8	Of which: Internal Models Method	-	-	-
9	Of which: Other CCR	305	177	31
9a	Of which: Central Counterparties (CCP)	665	661	66
10	Credit Valuation Adjustments (CVA)	3,440	3,836	344
11	Equity exposures under Simple Risk Weight Method	-	-	-
11a	Equity exposures under Internal Models Method	-	-	-
12	Equity investments in funds - Look Through Approach	211	209	21
13	Equity investments in funds - Mandate-Based Approach	235	221	24
14	Equity investments in funds - Fall Back Approach	9	9	1
14a	Equity investments in funds - Partial Use of an Approach	160	160	16
15	Unsettled Transactions	29	15	3
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	11,681	13,000	1,168
21	Of which: Standardised Approach	11,681	13,000	1,168
22	Of which: Internal Models Approach	-	-	-
23	Operational Risk	16,021	15,906	1,602
24	Credit RWA pursuant to paragraph 6.1.3(p)(iii) ^{2/}	9,811	9,685	981
25	Floor Adjustment	-	-	-
26	Total	224,866	225,877	22,487

^{1/} Minimum capital requirements are calculated at 10% of RWA

^{2/} 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)

12. RWA FLOW STATEMENT FOR CREDIT RISK EXPOSURES

This table provides an overview of the quarter-on-quarter movement of Credit RWA (“CRWA”) attributed to the key drivers from rows 2 to 8.

Credit RWA remained relatively stable during fourth quarter of 2021.

S\$ million	(a) RWA
1 RWA as at 30 September 2021 ^{1/}	142,184
2 Asset Size ^{2/}	3,929
3 Asset Quality ^{3/}	(3,981)
4 Model Updates ^{4/}	1
5 Methodology and Policy ^{5/}	-
6 Acquisitions and Disposals ^{6/}	-
7 Foreign exchange movements ^{7/}	(344)
8 Other ^{8/}	-
9 RWA as at 31 December 2021 ^{1/} (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8)	141,789

^{1/} Refers to RWA of Credit Risk (excluding Counterparty Credit Risk) exposures under IRB Approach and Supervisory Slotting Approach

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

^{3/} Refers to changes in the assessed quality of the bank’s assets due to changes in borrower risk, residual maturity or similar effects

^{4/} Refers to changes due to model implementation, changes in model scope, or any model enhancements

^{5/} Refers to changes driven by methodological changes such as regulatory policy changes

^{6/} Refers to changes in book size due to acquisition and disposal of entities or portfolios

^{7/} Refers to changes driven by market movements such as foreign exchange movements

^{8/} Refers to changes that cannot be attributed to any other category

13. CREDIT EXPOSURES UNDER STANDARDISED AND IRB APPROACH

13.1 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.

		31 Dec 2021					
		(a) Exposures before CCF and CRM		(c) Exposures post-CCF and post-CRM		(e)	(f)
S\$ million		On-Balance Sheet	Off-Balance Sheet	On-Balance Sheet	Off-Balance Sheet	RWA	RWA Density
Asset Class							
1	Cash Items	1,881	-	1,881	-	5	0%
2	Sovereign	6,858	-	6,858	-	993	14%
3	PSE	218	-	218	-	109	50%
4	MDB	56	-	56	#	-	0%
5	Bank	590	9	590	2	227	38%
6	Corporate	12,383	8,019	11,441	2,274	13,103	96%
7	Regulatory Retail	9,325	2,209	8,864	50	6,686	75%
8	Residential Mortgage	2,599	-	2,481	-	898	36%
9	Commercial Real Estate	6,995	2,400	6,979	214	7,191	100%
10	Equity exposures	711	-	711	-	1,147	161%
11	Past Due exposures	582	3	574	2	713	124%
12	Higher risk exposures	-	-	-	-	-	NA
13	Others ^{1/}	7,642	628	7,369	20	7,389	100%
14	Total	49,840	13,268	48,022	2,562	38,461	76%

		30 Jun 2021					
		(a) Exposures before CCF and CRM		(c) Exposures post-CCF and post-CRM		(e)	(f)
S\$ million		On-Balance Sheet	Off-Balance Sheet	On-Balance Sheet	Off-Balance Sheet	RWA	RWA Density
Asset Class							
1	Cash Items	1,882	-	1,882	-	3	0%
2	Sovereign	5,432	-	5,432	-	642	12%
3	PSE	218	-	218	-	109	50%
4	MDB	-	128	-	#	-	0%
5	Bank	657	9	657	2	257	39%
6	Corporate	11,489	9,451	10,558	1,818	11,885	96%
7	Regulatory Retail	7,970	2,012	7,517	61	5,683	75%
8	Residential Mortgage	2,620	-	2,484	-	903	36%
9	Commercial Real Estate	7,163	2,135	7,136	186	7,322	100%
10	Equity exposures	666	-	666	-	1,073	161%
11	Past Due exposures	264	5	247	3	307	123%
12	Higher risk exposures	-	-	-	-	-	NA
13	Others ^{1/}	7,133	486	6,867	50	6,917	100%
14	Total	45,494	14,226	43,664	2,120	35,101	77%

^{1/} Includes other exposures not included in the above asset classes, such as fixed asset

Represents amounts of less than \$0.5 million

13.2 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 2021									
		(a)	(b)	(c)	Risk 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	1,857	-	24	-	-	-	-	-	-	1,881
2	Sovereign	4,873	-	-	-	1,985	-	-	-	-	6,858
3	PSE	-	-	-	-	218	-	-	-	-	218
4	MDB	56	-	-	-	-	-	-	-	-	56
5	Bank	-	-	230	-	363	-	-	-	-	593
6	Corporate	-	-	132	-	1,004	-	12,577	#	-	13,713
7	Regulatory Retail	-	-	-	-	-	8,914	-	-	-	8,914
8	Residential Mortgage	-	-	-	2,420	-	39	22	-	-	2,481
9	Commercial Real Estate	-	-	-	-	-	-	7,193	#	-	7,193
10	Equity exposures	-	-	-	-	-	-	-	-	711	711
11	Past Due exposures	-	-	-	-	-	-	301	275	-	576
12	Higher risk exposures	-	-	-	-	-	-	-	-	-	-
13	Others ^{2/}	-	-	-	-	-	-	7,389	-	-	7,389
14	Total	6,786	-	386	2,420	3,570	8,953	27,482	275	711	50,583

		30 Jun 2021									
		(a)	(b)	(c)	Risk 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	1,867	-	15	-	-	-	-	-	-	1,882
2	Sovereign	4,148	-	-	-	1,284	-	-	-	-	5,432
3	PSE	-	-	1	-	217	-	-	-	-	218
4	MDB	#	-	-	-	-	-	-	-	-	#
5	Bank	-	-	240	-	419	-	-	-	-	659
6	Corporate	-	-	57	-	881	-	11,438	#	-	12,376
7	Regulatory Retail	-	-	-	-	-	7,578	-	-	-	7,578
8	Residential Mortgage	-	-	-	2,414	-	47	23	-	-	2,484
9	Commercial Real Estate	-	-	-	-	-	-	7,322	-	-	7,322
10	Equity exposures	-	-	-	-	-	-	-	-	666	666
11	Past Due exposures	-	-	-	-	-	-	143	107	-	250
12	Higher risk exposures	-	-	-	-	-	-	-	-	-	-
13	Others ^{2/}	-	-	-	-	-	-	6,917	-	-	6,917
14	Total	6,015	-	313	2,414	2,801	7,625	25,843	107	666	45,784

^{1/} 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

^{2/} Includes other exposures not included in the above asset classes, such as fixed asset

13.3 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 2021												
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On- Balance Sheet ^{1/}	Off- Balance Sheet ^{2/}	Average CCF (%)	EAD ^{3/} (S\$ million)	Average PD ^{4/} (%)	Number of Obligors ^{5/}	Average LGD ^{4/} (%)	Average Maturity ^{6/} (In years)	RWA (S\$ million)	RWA Density ^{7/} (%)	Expected Losses (S\$ million)	TEP ^{8/} (S\$ million)
Sovereign	(S\$ million)											
Sovereign												
PD Range												
0.00 to < 0.15	53,444	1,103	3%	54,404	0.00%	44	45%	1.7	837	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	24	-	-	24	1.11%	2	45%	1.0	19	81%	#	
2.50 to < 10.00	-	-	-	-	-	-	-	-	-	NA	-	
10.00 to < 100.00	57	200	-	57	11.10%	4	45%	1.0	110	194%	3	
100.00 (Default)	-	-	-	-	-	-	-	-	-	NA	-	
Sub-total	53,525	1,303	3%	54,485	0.02%	50	45%	1.7	966	2%	4	12
Bank												
PD Range												
0.00 to < 0.15	31,516	1,116	23%	34,247	0.05%	254	45%	1.2	5,791	17%	8	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	3,559	56	18%	3,576	0.37%	23	45%	0.4	1,857	52%	6	
0.50 to < 0.75	2,231	131	3%	2,518	0.54%	19	45%	0.5	1,686	67%	6	
0.75 to < 2.50	406	29	6%	367	1.14%	21	45%	0.3	337	92%	2	
2.50 to < 10.00	#	3	24%	1	6.42%	2	0%	1.0	#	0%	#	
10.00 to < 100.00	18	17	29%	22	11.41%	50	41%	0.2	37	168%	1	
100.00 (Default)	-	-	-	-	-	-	-	-	-	NA	-	
Sub-total	37,730	1,352	21%	40,731	0.13%	369	45%	1.0	9,708	24%	23	125
Corporate												
PD Range												
0.00 to < 0.15	49,558	34,758	36%	62,042	0.10%	929	44%	2.3	18,908	30%	28	
0.15 to < 0.25	1	#	36%	1	0.16%	4	39%	3.9	#	49%	#	
0.25 to < 0.50	23,764	20,861	24%	28,450	0.37%	619	43%	2.0	16,291	57%	46	
0.50 to < 0.75	10,566	11,952	21%	12,624	0.54%	589	42%	1.8	8,181	65%	29	
0.75 to < 2.50	13,426	13,646	18%	14,726	1.33%	885	42%	2.0	13,747	93%	82	
2.50 to < 10.00	5,572	2,052	20%	5,770	4.31%	399	41%	2.7	8,168	142%	104	
10.00 to < 100.00	615	838	2%	573	12.96%	421	42%	2.0	1,148	201%	31	
100.00 (Default)	2,379	65	30%	2,349	100.00%	129	44%	1.3	-	0%	1,036	
Sub-total	105,881	84,172	27%	126,535	2.45%	3,975	44%	2.2	66,443	53%	1,356	2,738

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

	31 Dec 2021											
	(a) On-Balance Sheet ^{1/} (S\$ million)	(b) Off-Balance Sheet ^{2/}	(c) Average CCF (%)	(d) EAD ^{3/} (S\$ million)	(e) Average PD ^{4/} (%)	(f) Number of Obligors ^{5/}	(g) Average LGD ^{4/} (%)	(h) Average Maturity ^{6/} (In years)	(i) RWA (S\$ million)	(j) RWA Density ^{7/} (%)	(k) Expected Losses (S\$ million)	(l) TEP ^{8/} (S\$ million)
Corporate (IPRE)												
PD Range												
0.00 to < 0.15	1,583	183	67%	1,706	0.14%	17	45%	3.4	777	46%	1	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	5,385	662	53%	5,730	0.37%	36	45%	2.0	3,358	59%	10	
0.50 to < 0.75	9,915	1,138	63%	10,627	0.54%	85	45%	2.3	7,847	74%	26	
0.75 to < 2.50	19,958	3,357	62%	21,990	1.41%	345	45%	2.1	22,767	104%	139	
2.50 to < 10.00	2,675	972	31%	2,960	3.65%	142	45%	1.9	4,003	135%	48	
10.00 to < 100.00	186	1	10%	183	13.83%	9	44%	1.4	380	207%	11	
100.00 (Default)	135	12	38%	139	100.00%	7	45%	1.6	-	0%	63	
Sub-total	39,837	6,325	57%	43,335	1.53%	641	45%	2.2	39,132	90%	298	539
Corporate Small Business												
PD Range												
0.00 to < 0.15	444	516	10%	480	0.11%	327	39%	3.0	140	29%	#	
0.15 to < 0.25	619	218	12%	551	0.16%	865	39%	3.9	208	38%	#	
0.25 to < 0.50	524	518	7%	512	0.37%	290	40%	3.2	280	55%	1	
0.50 to < 0.75	766	644	8%	730	0.53%	517	39%	1.8	367	50%	2	
0.75 to < 2.50	3,495	2,534	10%	3,445	1.45%	1,203	38%	2.4	2,755	80%	19	
2.50 to < 10.00	1,934	1,117	11%	1,939	4.11%	753	37%	2.3	2,049	106%	30	
10.00 to < 100.00	531	345	7%	517	12.96%	486	38%	2.5	809	157%	25	
100.00 (Default)	938	28	56%	953	100.00%	242	43%	1.5	-	0%	409	
Sub-total	9,251	5,920	10%	9,127	12.68%	4,683	39%	2.4	6,608	72%	486	705
Total (all portfolios)	246,224	99,072	28%	274,213	1.82%	9,718	44%	1.9	122,857	45%	2,167	4,119

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

30 Jun 2021												
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet ^{1/}	Off-Balance Sheet ^{2/}	Average CCF (%)	EAD ^{3/} (\$ million)	Average PD ^{4/} (%)	Number of Obligors ^{5/}	Average LGD ^{4/} (%)	Average Maturity ^{6/} (In years)	RWA (\$ million)	RWA Density ^{7/} (%)	Expected Losses (\$ million)	TEP ^{8/} (\$ million)
Sovereign	(\$ million)											
PD Range												
0.00 to < 0.15	46,663	1,699	6%	47,751	0.00%	45	45%	1.8	787	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	29	-	-	29	1.11%	2	45%	1.0	24	81%	#	
2.50 to < 10.00	-	-	-	-	-	-	-	-	-	NA	-	
10.00 to < 100.00	84	200	-	84	11.10%	5	51%	1.0	186	220%	5	
100.00 (Default)	-	-	-	-	-	-	-	-	-	NA	-	
Sub-total	46,776	1,899	5%	47,864	0.02%	52	45%	1.8	997	2%	6	14
Bank												
PD Range												
0.00 to < 0.15	34,517	1,131	20%	35,322	0.05%	250	45%	1.2	5,766	16%	7	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	2,753	61	24%	4,136	0.37%	24	45%	0.7	2,366	57%	7	
0.50 to < 0.75	2,417	132	2%	2,688	0.54%	19	45%	0.5	1,806	67%	7	
0.75 to < 2.50	120	25	4%	103	1.29%	20	45%	0.3	98	95%	1	
2.50 to < 10.00	#	3	24%	1	6.10%	4	4%	1.1	#	14%	#	
10.00 to < 100.00	22	12	34%	25	11.41%	52	41%	0.9	50	199%	1	
100.00 (Default)	-	-	-	-	-	-	-	-	-	NA	-	
Sub-total	39,829	1,364	19%	42,275	0.12%	369	45%	1.1	10,086	24%	23	139
Corporate												
PD Range												
0.00 to < 0.15	44,323	37,423	27%	54,623	0.10%	808	44%	2.3	16,231	30%	24	
0.15 to < 0.25	1	#	36%	1	0.16%	4	39%	4.1	#	50%	#	
0.25 to < 0.50	20,950	17,453	25%	25,186	0.37%	579	43%	2.1	14,485	58%	40	
0.50 to < 0.75	9,397	13,448	21%	12,071	0.54%	554	42%	1.7	7,597	63%	28	
0.75 to < 2.50	15,552	17,244	15%	16,982	1.40%	1,004	42%	2.0	16,354	96%	100	
2.50 to < 10.00	5,888	2,318	21%	6,179	4.34%	435	41%	2.5	8,538	138%	111	
10.00 to < 100.00	635	6,771	1%	654	12.86%	413	42%	2.0	1,319	202%	36	
100.00 (Default)	2,751	60	29%	2,705	100.00%	130	44%	1.7	-	0%	1,185	
Sub-total	99,497	94,717	22%	118,401	2.96%	3,927	43%	2.1	64,524	54%	1,524	2,905

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

	30 Jun 2021											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet ^{1/}	Off-Balance Sheet ^{2/}	Average CCF (%)	EAD ^{3/} (S\$ million)	Average PD ^{4/} (%)	Number of Obligors ^{5/}	Average LGD ^{4/} (%)	Average Maturity ^{6/} (In years)	RWA (S\$ million)	RWA Density ^{7/} (%)	Expected Losses (S\$ million)	TEP ^{8/} (S\$ million)
	(S\$ million)											
Corporate (IPRE)												
PD Range												
0.00 to < 0.15	1,761	130	52%	1,830	0.14%	12	45%	2.3	656	36%	1	
0.15 to < 0.25	-	-	-	-	-	-	-	-	-	NA	-	
0.25 to < 0.50	4,154	699	51%	4,508	0.37%	29	45%	2.3	2,763	61%	8	
0.50 to < 0.75	9,737	1,017	70%	10,441	0.54%	84	45%	2.5	7,980	76%	25	
0.75 to < 2.50	19,205	4,001	60%	21,515	1.38%	312	45%	2.1	21,964	102%	133	
2.50 to < 10.00	2,713	911	35%	3,015	3.78%	135	45%	2.1	4,183	139%	51	
10.00 to < 100.00	148	81	12%	154	14.28%	11	44%	1.8	330	214%	10	
100.00 (Default)	114	#	50%	114	100.00%	6	45%	1.6	-	0%	51	
Sub-total	37,832	6,839	56%	41,577	1.50%	589	45%	2.2	37,876	91%	279	557
Corporate Small Business												
PD Range												
0.00 to < 0.15	430	329	10%	510	0.10%	308	39%	3.0	139	27%	#	
0.15 to < 0.25	614	211	12%	536	0.16%	837	39%	3.9	202	38%	#	
0.25 to < 0.50	433	486	14%	465	0.37%	268	41%	3.3	264	57%	1	
0.50 to < 0.75	642	728	8%	653	0.53%	518	39%	2.0	348	53%	1	
0.75 to < 2.50	3,343	2,314	7%	3,210	1.47%	1,172	37%	2.2	2,416	75%	17	
2.50 to < 10.00	2,547	1,308	12%	2,558	4.25%	811	37%	2.5	2,698	105%	41	
10.00 to < 100.00	689	333	7%	676	13.11%	509	38%	2.5	1,059	157%	34	
100.00 (Default)	1,002	22	57%	1,014	100.00%	171	43%	1.5	-	0%	436	
Sub-total	9,700	5,731	10%	9,622	13.15%	4,594	38%	2.4	7,126	74%	530	790
Total (all portfolios)	233,634	110,550	23%	259,739	2.10%	9,531	44%	1.9	120,609	46%	2,362	4,405

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

13.4 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 2021											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet ^{1/}	Off-Balance Sheet ^{2/}	Average CCF (%)	EAD ^{3/} (S\$ million)	Average PD ^{4/} (%)	Number of Obligors ^{5/}	Average LGD ^{4/} (%)	Average Maturity ^{6/} (In years)	RWA (S\$ million)	RWA Density ^{7/} (%)	Expected Losses (S\$ million)	TEP ^{8/} (S\$ million)
	(S\$ million)											
Residential Mortgage												
PD Range												
0.00 to < 0.15	4,448	540	66%	4,807	0.10%	13,309	10%		117	2%	#	
0.15 to < 0.25	16,952	1,966	75%	18,417	0.16%	45,180	10%		674	4%	3	
0.25 to < 0.50	12,938	1,515	70%	13,999	0.25%	44,306	10%		726	5%	4	
0.50 to < 0.75	15,780	1,483	71%	16,832	0.50%	51,061	10%		1,446	9%	9	
0.75 to < 2.50	8,517	800	72%	9,097	1.11%	34,072	10%		1,352	15%	11	
2.50 to < 10.00	2,339	308	88%	2,610	3.60%	7,873	11%		816	31%	11	
10.00 to < 100.00	656	28	92%	682	21.83%	7,068	12%		460	67%	18	
100.00 (Default)	996	9	35%	999	100.00%	8,775	16%		689	69%	177	
Sub-total	62,626	6,649	72%	67,443	2.22%	211,644	10%		6,280	9%	233	259
Qualifying Revolving Retail												
PD Range												
0.00 to < 0.15	433	6,197	43%	3,092	0.06%	543,914	80%		108	4%	2	
0.15 to < 0.25	355	1,737	45%	1,140	0.15%	171,325	80%		82	7%	1	
0.25 to < 0.50	2	267	49%	133	0.31%	24,000	85%		19	14%	#	
0.50 to < 0.75	270	814	48%	660	0.51%	93,018	78%		122	19%	3	
0.75 to < 2.50	280	310	57%	458	1.42%	58,723	79%		193	42%	5	
2.50 to < 10.00	226	150	64%	322	4.67%	47,219	80%		315	98%	12	
10.00 to < 100.00	126	55	76%	168	21.30%	20,373	82%		356	211%	29	
100.00 (Default)	13	-	0%	13	100.00%	2,519	82%		-	0%	13	
Sub-total	1,705	9,530	45%	5,986	1.30%	961,091	80%		1,195	20%	65	28
Retail Small Business												
PD Range												
0.00 to < 0.15	234	230	57%	365	0.10%	4,061	25%		24	6%	#	
0.15 to < 0.25	1,645	469	54%	1,896	0.17%	9,871	27%		196	10%	1	
0.25 to < 0.50	371	25	50%	383	0.35%	1,494	27%		65	17%	#	
0.50 to < 0.75	551	75	58%	594	0.50%	4,101	33%		149	25%	1	
0.75 to < 2.50	1,442	93	67%	1,505	1.20%	7,728	31%		519	35%	5	
2.50 to < 10.00	576	42	72%	606	4.54%	4,991	35%		328	54%	10	
10.00 to < 100.00	256	17	83%	271	26.18%	2,632	41%		245	90%	29	
100.00 (Default)	325	3	1%	325	100.00%	2,071	40%		598	184%	106	
Sub-total	5,400	954	57%	5,945	7.56%	36,949	31%		2,124	36%	152	132

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

	31 Dec 2021											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On- Balance Sheet ^{1/}	Off- Balance Sheet ^{2/}	Average CCF (%)	EAD ^{3/} (S\$ million)	Average PD ^{4/} (%)	Number of Obligors ^{5/}	Average LGD ^{4/} (%)	Average Maturity ^{6/} (In years)	RWA (S\$ million)	RWA Density ^{7/} (%)	Expected Losses (S\$ million)	TEP ^{8/} (S\$ million)
	(S\$ million)											
Other Retail												
PD Range												
0.00 to < 0.15	569	2,397	99%	2,948	0.05%	14,365	4%		24	1%	#	
0.15 to < 0.25	3,561	1,425	95%	4,909	0.19%	33,238	10%		193	4%	1	
0.25 to < 0.50	202	20	49%	212	0.30%	3,223	13%		16	7%	#	
0.50 to < 0.75	3,341	857	99%	4,187	0.50%	7,499	8%		250	6%	2	
0.75 to < 2.50	7,741	1,609	99%	9,333	1.49%	5,308	9%		999	11%	12	
2.50 to < 10.00	3,531	659	96%	4,165	5.00%	1,616	8%		499	12%	16	
10.00 to < 100.00	8,589	1,106	99%	9,686	12.98%	1,531	11%		1,966	20%	129	
100.00 (Default)	59	2	67%	60	100.00%	347	30%		70	115%	16	
Sub-total	27,593	8,075	98%	35,500	4.78%	67,127	9%		4,017	11%	176	67
Corporate												
PD Range												
0.00 to < 0.15	107	402	100%	509	0.05%	394	2%	1.0	2	0%	#	
0.15 to < 0.25	416	325	100%	741	0.20%	398	6%	1.0	30	4%	#	
0.25 to < 0.50	-	-	-	-	-	-	-	-	-	NA	-	
0.50 to < 0.75	651	193	100%	845	0.50%	152	5%	1.0	56	7%	#	
0.75 to < 2.50	1,316	263	100%	1,579	1.48%	209	6%	1.0	186	12%	1	
2.50 to < 10.00	1,032	69	100%	1,101	5.00%	63	7%	1.0	234	21%	4	
10.00 to < 100.00	1,137	306	100%	1,443	12.00%	197	13%	1.1	815	57%	22	
100.00 (Default)	-	#	100%	#	100.00%	1	51%	1.0	-	0%	#	
Sub-total	4,659	1,558	100%	6,218	4.15%	1,414	7%	1.0	1,323	21%	27	17
Total (all portfolios)	101,983	26,766	71%	121,092	3.29%	1,278,225	14%		14,939	12%	653	503

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

	30 Jun 2021											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet ^{1/}	Off-Balance Sheet ^{2/}	Average CCF (%)	EAD ^{3/} (S\$ million)	Average PD ^{4/} (%)	Number of Obligors ^{5/}	Average LGD ^{4/} (%)	Average Maturity ^{6/} (In years)	RWA (S\$ million)	RWA Density ^{7/} (%)	Expected Losses (S\$ million)	TEP ^{8/} (S\$ million)
	(S\$ million)											
Residential Mortgage												
PD Range												
0.00 to < 0.15	4,553	564	67%	4,930	0.10%	14,126	10%		120	2%	#	
0.15 to < 0.25	16,058	1,565	73%	17,196	0.16%	43,927	10%		629	4%	3	
0.25 to < 0.50	12,350	1,345	69%	13,275	0.25%	44,219	10%		690	5%	3	
0.50 to < 0.75	15,323	1,154	69%	16,115	0.50%	50,662	10%		1,385	9%	8	
0.75 to < 2.50	8,701	796	75%	9,298	1.12%	35,387	10%		1,389	15%	11	
2.50 to < 10.00	2,492	192	76%	2,639	3.74%	8,326	10%		801	30%	11	
10.00 to < 100.00	868	58	92%	921	22.55%	7,254	13%		664	72%	26	
100.00 (Default)	653	6	19%	655	100.00%	3,894	15%		444	68%	100	
Sub-total	60,998	5,680	71%	65,029	1.86%	207,795	10%		6,122	9%	162	184
Qualifying Revolving Retail												
PD Range												
0.00 to < 0.15	351	6,254	44%	3,070	0.06%	553,583	80%		109	4%	2	
0.15 to < 0.25	311	1,799	43%	1,085	0.15%	179,834	80%		77	7%	1	
0.25 to < 0.50	2	268	50%	135	0.31%	24,209	86%		19	14%	#	
0.50 to < 0.75	248	843	46%	633	0.51%	95,239	78%		117	18%	2	
0.75 to < 2.50	269	316	55%	442	1.42%	58,574	79%		186	42%	5	
2.50 to < 10.00	240	147	62%	330	4.64%	49,114	80%		318	97%	12	
10.00 to < 100.00	138	55	77%	182	20.57%	21,724	82%		382	210%	31	
100.00 (Default)	16	-	0%	16	100.00%	2,386	82%		-	0%	16	
Sub-total	1,575	9,682	45%	5,893	1.39%	984,663	80%		1,208	21%	69	32
Retail Small Business												
PD Range												
0.00 to < 0.15	274	237	57%	409	0.10%	4,544	26%		28	7%	#	
0.15 to < 0.25	1,632	479	52%	1,882	0.17%	9,362	28%		204	11%	1	
0.25 to < 0.50	294	25	54%	307	0.35%	1,177	28%		52	17%	#	
0.50 to < 0.75	586	74	58%	630	0.50%	4,136	35%		167	26%	1	
0.75 to < 2.50	1,496	81	62%	1,545	1.20%	7,954	30%		514	33%	5	
2.50 to < 10.00	624	36	74%	651	4.57%	5,266	38%		381	59%	11	
10.00 to < 100.00	323	14	91%	336	29.38%	2,729	43%		315	94%	42	
100.00 (Default)	131	2	0%	131	100.00%	1,304	45%		168	129%	48	
Sub-total	5,360	948	56%	5,891	4.85%	36,472	31%		1,829	31%	108	72

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

	30 Jun 2021											
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	On-Balance Sheet ^{1/}	Off-Balance Sheet ^{2/}	Average CCF (%)	EAD ^{3/} (\$ million)	Average PD ^{4/} (%)	Number of Obligors ^{5/}	Average LGD ^{4/} (%)	Average Maturity ^{6/} (In years)	RWA (\$ million)	RWA Density ^{7/} (%)	Expected Losses (\$ million)	TEP ^{8/} (\$ million)
	(S\$ million)											
Other Retail												
PD Range												
0.00 to < 0.15	698	2,154	99%	2,837	0.05%	15,117	5%		28	1%	#	
0.15 to < 0.25	3,559	1,318	94%	4,795	0.19%	30,921	9%		172	4%	1	
0.25 to < 0.50	208	12	59%	215	0.30%	3,567	13%		16	7%	#	
0.50 to < 0.75	3,699	926	98%	4,610	0.50%	7,813	8%		277	6%	2	
0.75 to < 2.50	7,489	1,828	100%	9,309	1.50%	5,159	8%		904	10%	11	
2.50 to < 10.00	4,066	882	100%	4,946	5.00%	1,873	8%		591	12%	19	
10.00 to < 100.00	6,917	1,238	100%	8,153	12.96%	1,647	8%		1,232	15%	83	
100.00 (Default)	50	#	38%	50	100.00%	200	30%		40	78%	15	
Sub-total	26,686	8,358	98%	34,915	4.38%	66,297	8%		3,260	9%	131	60
Corporate												
PD Range												
0.00 to < 0.15	101	378	99%	476	0.05%	355	2%	1.0	2	0%	#	
0.15 to < 0.25	528	285	100%	812	0.20%	402	4%	1.0	24	3%	#	
0.25 to < 0.50	-	-	-	-	-	-	-	-	-	NA	-	
0.50 to < 0.75	669	173	100%	842	0.50%	160	6%	1.0	60	7%	#	
0.75 to < 2.50	1,252	243	100%	1,494	1.40%	212	6%	1.0	174	12%	2	
2.50 to < 10.00	1,363	345	100%	1,709	5.00%	76	7%	1.1	364	21%	6	
10.00 to < 100.00	1,311	297	100%	1,608	12.65%	331	11%	1.0	785	49%	20	
100.00 (Default)	#	-	0%	#	100.00%	1	51%	1.0	-	0%	#	
Sub-total	5,224	1,721	100%	6,941	4.55%	1,537	7%	1.0	1,409	20%	28	20
Total (all portfolios)	99,843	26,389	71%	118,669	2.88%	1,296,764	14%		13,828	12%	498	368

- ^{1/} 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)
- ^{2/} Off-balance sheet refers to the exposure value without taking into account valuation adjustments and impairment allowances, CCFs and the effect of CRM
- ^{3/} EAD refers to the amount relevant for the capital requirements calculation, after taking into account the effects of CCFs and CRM
- ^{4/} Refers to the PD and LGD associated with each obligor grade, weighted by EAD
- ^{5/} Number of obligors refers to the number of accounts, except for Retail Small Business which refers to the number of counterparties
- ^{6/} 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
- ^{7/} Total RWA divided by the exposures post-CCF and post-CRM
- ^{8/} Refers to the total eligible provisions attributed to the respective portfolios
- # Represents amounts of less than \$0.5 million

13.5 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 to Customers and Debt Securities, categorised by status followed by form of instrument.

		31 Dec 2021				
		(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 ^{2/}
1	Loans to customers	153,694	132,985	121,230	3,604	-
2	Debt Securities	27,908	137	-	136	-
3	Total	181,602	133,122	121,230	3,740	-
4	Of which: Defaulted	1,404	1,333	1,111	50	-

		30 Jun 2021				
		(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 ^{2/}
1	Loans to customers	141,168	130,185	118,885	3,214	-
2	Debt Securities	28,570	142	-	141	-
3	Total	169,738	130,327	118,885	3,355	-
4	Of which: Defaulted	1,049	1,170	776	63	-

^{1/} 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

^{2/} Not applicable since the Group does not recognise credit derivatives as a form of CRM instrument for exposures

13.6 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.

14. BACKTESTING OF PD FOR PORTFOLIOS UNDER IRB APPROACH

14.1 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.

31 Dec 2021											
(a)	(b)	(c)			(d)	(e)	(f)		(g)	(h)	(i)
		External Ratings					Number of Obligor				
		S&P	Fitch	Moody's	PD ^{1/} (%)	Arithmetic PD of Obligor ^{2/} (%)	Dec-20	Dec-21	Defaulted Obligor	Of which: New Defaulted Obligor ^{3/}	Historical Annual Default Rate ^{4/} (%)
Sovereign											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.00%	0.01%	44	44	-	-	-
	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	NA	NA	-	-	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	NA	NA	-	-	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.11%	1.11%	2	2	-	-	-
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	6.42%	6.42%	2	-	-	-	-
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	NA	11.10%	1	3	-	-	-
Total					0.01%	0.55%	49	49	-	-	-
Bank											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.05%	0.06%	268	262	-	-	-
	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%	23	25	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	26	21	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.80%	1.46%	18	21	-	-	-
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	6.40%	5.45%	20	3	-	-	-
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	12.05%	12.13%	45	50	-	-	-
Total					0.14%	1.80%	400	382	-	-	-
Corporate											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.10%	0.11%	811	973	-	-	0.08%
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	0.18%	0.17%	5	4	-	-	-
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.37%	552	636	1	1	0.07%
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	555	600	-	-	0.19%
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.44%	1.44%	1,069	897	1	-	0.46%
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.40%	4.09%	490	400	8	-	2.49%
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	13.84%	11.33%	369	451	1	-	1.64%
Total					0.72%	2.16%	3,851	3,961	11	1	0.60%

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

(a)	(b)	(c)			31 Dec 2021		(f)		(g)	(h)	(i)
		External Ratings			(d)	(e)	Number of Obligors		Defaulted Obligors	Of which: New Defaulted Obligors ^{3/}	Historical Annual Default Rate ^{4/} (%)
		S&P	Fitch	Moody's	PD ^{1/} (%)	Arithmetic PD of Obligors ^{2/} (%)	Dec-20	Dec-21			
Corporate IPRE											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.14%	0.13%	12	17	-	-	-
	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%	34	37	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	82	85	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.34%	1.43%	291	346	1	-	0.19%
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	3.96%	4.53%	136	141	1	-	0.36%
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	11.10%	11.10%	13	9	1	-	4.77%
Total					1.18%	2.17%	568	635	3	-	0.30%
Corporate Small Business											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.12%	0.11%	318	329	1	-	0.08%
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	0.16%	0.17%	819	861	12	-	0.28%
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.36%	0.36%	272	293	-	-	0.08%
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.52%	492	511	12	-	0.42%
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.44%	1.46%	1,236	1,207	13	-	0.46%
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.40%	4.42%	820	751	28	-	1.51%
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	13.29%	24.41%	495	479	40	-	3.62%
Total					2.69%	4.05%	4,452	4,431	106	-	0.84%

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

31 Dec 2020											
(a)	(b)	(c) External Ratings			(d)	(e)	(f) Number of Obligors		(g)	(h)	(i)
		S&P	Fitch	Moody's	PD ^{1/} (%)	Arithmetic PD of Obligors ^{2/} (%)	Dec- 19	Dec- 20	Defaulted Obligors	Of which: New Defaulted Obligors ^{3/}	Historical Annual Default Rate ^{4/} (%)
Sovereign											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.00%	0.03%	34	44	-	-	-
	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	NA	NA	-	-	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	NA	NA	-	-	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.11%	1.11%	1	2	-	-	-
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	6.42%	6.42%	2	2	-	-	-
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	NA	11.10%	2	1	-	-	-
Total					0.01%	0.95%	39	49	-	-	-
Bank											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.05%	0.06%	277	268	-	-	-
	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%	19	23	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	23	26	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.84%	1.51%	28	18	-	-	-
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	6.17%	5.80%	26	20	-	-	-
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	11.10%	11.10%	43	45	-	-	-
Total					0.16%	1.70%	416	400	-	-	-
Corporate											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.09%	0.11%	992	811	7	1	0.09%
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	0.19%	0.18%	6	5	-	-	-
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.37%	533	552	2	-	0.07%
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	578	555	4	-	0.21%
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.42%	1.43%	822	1,069	10	1	0.51%
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	5.27%	4.62%	240	490	7	-	2.60%
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	13.14%	11.22%	383	369	3	-	1.81%
Total					0.60%	2.03%	3,554	3,851	33	2	0.65%

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

(a)	(b)	(c)			31 Dec 2020		(f)	(g)	(h)	(i)	
		External Ratings			(d)	(e)					
		S&P	Fitch	Moody's	PD ^{1/} (%)	Arithmetic PD of Obligors ^{2/} (%)	Dec- 19	Dec- 20	Defaulted Obligors	Of which: New Defaulted Obligors ^{3/}	Historical Annual Default Rate ^{4/} (%)
Corporate IPRE											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.14%	0.13%	16	12	-	-	-
	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%	40	34	-	-	-
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.54%	97	82	-	-	-
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.35%	1.44%	276	291	-	-	0.16%
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.14%	4.40%	126	136	-	-	0.29%
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	11.23%	11.95%	11	13	-	-	4.19%
Total					1.10%	2.04%	566	568	-	-	0.25%
Corporate Small Business											
PD Range											
	0.00 to < 0.15	AAA to BBB	AAA to BBB	Aaa to Baa2	0.11%	0.12%	454	318	-	-	0.04%
	0.15 to < 0.25	BBB to BBB-	BBB to BBB-	Baa2 to Baa3	0.16%	0.17%	803	819	-	-	0.08%
	0.25 to < 0.50	BBB- to BB+	BBB- to BB+	Baa3 to Ba1	0.37%	0.36%	293	272	1	-	0.09%
	0.50 to < 0.75	BB+	BB+	Ba1	0.54%	0.52%	590	492	-	-	0.09%
	0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.44%	1.47%	1,059	1,236	2	-	0.36%
	2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.41%	4.38%	634	820	4	-	1.19%
	10.00 to < 100.00	B- to C-	B- to C-	B3 to C3	13.10%	22.88%	499	495	17	-	2.87%
Total					2.28%	3.78%	4,332	4,452	24	-	0.59%

^{1/} Refers to PD associated with each obligor grade, weighted by EAD

^{2/} Arithmetic mean of PDs by the number of obligors within the PD range

^{3/} 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

^{4/} Refers to the average of the annual observed default rate (ODR) over a minimum of the last five years. For Sovereign, ODR was based on four years as the model adoption and migration to F-IRBA took place in Q4 2017

14.2 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 2021											
(a)	(b)	(c) External Ratings ^{1/}			(d) PD ^{2/} (%)	(e) Arithmetic PD of Obligors ^{3/} (%)	(f) Number of Obligors		(g) Defaulted Obligors	(h) Of which: New Defaulted Obligors ^{4/}	(i) Historical Annual Default Rate ^{5/} (%)
		S&P	Fitch	Moody's			Dec-20	Dec-21			
Residential Mortgage											
PD Range											
	0.00 to < 0.15				0.09%	0.08%	14,176	13,300	29	-	0.08%
	0.15 to < 0.25				0.16%	0.16%	44,278	45,111	155	-	0.12%
	0.25 to < 0.50				0.25%	0.25%	44,350	44,071	431	1	0.29%
	0.50 to < 0.75				0.50%	0.50%	51,702	50,601	802	5	0.47%
	0.75 to < 2.50				1.13%	1.16%	36,209	33,625	765	1	0.89%
	2.50 to < 10.00				3.80%	4.22%	8,640	7,549	485	7	2.51%
	10.00 to < 100.00				24.62%	24.92%	7,268	5,434	2,359	-	20.72%
Total					0.96%	1.48%	206,623	199,691	5,026	14	1.25%
Qualifying Revolving Retail											
PD Range											
	0.00 to < 0.15				0.06%	0.06%	544,394	543,914	412	3	0.08%
	0.15 to < 0.25				0.16%	0.15%	144,518	171,325	105	2	0.13%
	0.25 to < 0.50				0.29%	0.29%	74,197	24,000	174	-	0.29%
	0.50 to < 0.75				0.57%	0.57%	99,359	93,018	354	7	0.55%
	0.75 to < 2.50				1.44%	1.40%	79,243	58,723	764	23	1.23%
	2.50 to < 10.00				5.00%	5.00%	58,266	47,219	1,576	33	4.09%
	10.00 to < 100.00				23.32%	25.37%	21,127	20,373	2,091	8	18.17%
Total					1.14%	1.05%	1,021,104	958,572	5,476	76	0.92%
Retail Small Business											
PD Range											
	0.00 to < 0.15				0.10%	0.10%	4,852	4,061	18	-	0.10%
	0.15 to < 0.25				0.17%	0.18%	9,054	9,861	64	-	0.32%
	0.25 to < 0.50				0.35%	0.35%	1,102	1,494	11	-	0.46%
	0.50 to < 0.75				0.50%	0.50%	4,360	4,070	126	1	0.58%
	0.75 to < 2.50				1.19%	1.28%	7,774	7,662	207	2	1.06%
	2.50 to < 10.00				4.61%	4.88%	5,590	4,881	320	1	3.09%
	10.00 to < 100.00				33.16%	29.28%	2,713	2,381	626	-	18.81%
Total					3.06%	3.42%	35,445	34,410	1,372	4	2.60%

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

(a)	(b)	(c)			31 Dec 2021		(g)	(h)	(i)		
		External Ratings ^{1/}			(d)	(e)				(f) Number of Obligors	
		S&P	Fitch	Moody's	PD ^{2/} (%)	Arithmetic PD of Obligors ^{3/} (%)	Dec-20	Dec-21	Defaulted Obligors	Of which: New Defaulted Obligors ^{4/}	Historical Annual Default Rate ^{5/} (%)
Other Retail											
PD Range											
	0.00 to < 0.15				0.05%	0.09%	16,411	14,365	11	1	0.12%
	0.15 to < 0.25				0.19%	0.17%	33,085	33,236	31	3	0.12%
	0.25 to < 0.50				0.30%	0.28%	3,776	3,223	7	-	0.18%
	0.50 to < 0.75				0.50%	0.51%	7,777	7,495	33	2	0.40%
	0.75 to < 2.50				1.48%	1.32%	5,130	5,306	33	3	0.55%
	2.50 to < 10.00				4.99%	5.10%	1,724	1,602	51	-	1.74%
	10.00 to < 100.00				14.04%	15.55%	1,553	1,455	136	-	9.66%
Total					4.26%	0.75%	69,456	66,682	302	9	0.48%
Corporate											
PD Range											
	0.00 to < 0.15				0.05%	0.05%	396	402	-	-	-
	0.15 to < 0.25				0.20%	0.20%	399	418	-	-	-
	0.25 to < 0.50				NA	NA	-	-	-	-	-
	0.50 to < 0.75				0.50%	0.50%	172	160	-	-	-
	0.75 to < 2.50				1.54%	1.49%	204	227	-	-	-
	2.50 to < 10.00				5.00%	5.00%	85	68	-	-	-
	10.00 to < 100.00				11.84%	11.05%	229	209	-	-	0.13%
Total					4.94%	2.32%	1,485	1,484	-	-	0.02%

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

31 Dec 2020											
(a)	(b)	(c) External Ratings ^{1/}			(d)	(e)	(f) Number of Obligors		(g)	(h)	(i)
		S&P	Fitch	Moody's	PD ^{2/} (%)	Arithmetic PD of Obligors ^{3/} (%)	Dec-19	Dec-20	Defaulted Obligors	Of which: New Defaulted Obligors ^{4/}	Historical Annual Default Rate ^{5/} (%)
Residential Mortgage											
PD Range											
	0.00 to < 0.15				0.09%	0.08%	12,465	14,176	5	-	0.07%
	0.15 to < 0.25				0.15%	0.15%	36,619	44,278	27	-	0.09%
	0.25 to < 0.50				0.25%	0.25%	44,592	44,350	75	-	0.20%
	0.50 to < 0.75				0.50%	0.50%	46,327	51,702	128	-	0.33%
	0.75 to < 2.50				1.01%	1.10%	31,430	36,209	177	-	0.74%
	2.50 to < 10.00				3.74%	4.17%	8,286	8,640	120	2	2.13%
	10.00 to < 100.00				23.03%	25.11%	6,245	7,268	803	-	19.25%
Total					0.91%	1.44%	185,964	206,623	1,335	2	1.10%
Qualifying Revolving Retail											
PD Range											
	0.00 to < 0.15				0.06%	0.06%	549,233	544,394	381	1	0.08%
	0.15 to < 0.25				0.17%	0.16%	168,654	144,518	149	5	0.14%
	0.25 to < 0.50				0.30%	0.30%	85,035	74,197	245	1	0.29%
	0.50 to < 0.75				0.58%	0.58%	103,082	99,359	501	-	0.57%
	0.75 to < 2.50				1.36%	1.35%	95,130	79,243	1,014	27	1.27%
	2.50 to < 10.00				5.16%	5.10%	65,473	58,266	2,393	75	4.27%
	10.00 to < 100.00				23.09%	22.91%	22,650	21,127	3,278	9	19.21%
Total					1.24%	1.03%	1,089,257	1,021,104	7,961	118	0.97%
Retail Small Business											
PD Range											
	0.00 to < 0.15				0.10%	0.10%	2,510	4,852	6	-	0.07%
	0.15 to < 0.25				0.17%	0.17%	5,929	9,054	10	-	0.27%
	0.25 to < 0.50				0.35%	0.35%	1,160	1,102	3	-	0.39%
	0.50 to < 0.75				0.50%	0.50%	3,128	4,360	15	-	0.30%
	0.75 to < 2.50				1.17%	1.20%	5,687	7,774	45	2	0.86%
	2.50 to < 10.00				4.39%	4.96%	5,177	5,590	114	2	2.77%
	10.00 to < 100.00				31.66%	28.91%	2,496	2,713	345	-	18.27%
Total					2.90%	4.14%	26,087	35,445	538	4	2.44%

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

(a)	(b)	(c)			(d)		(e)		(f)		(g)	(h)	(i)
		External Ratings ^{1/}			PD ^{2/} (%)	Arithmetic PD of Obligors ^{3/} (%)	Number of Obligors		Defaulted Obligors	Of which: New Defaulted Obligors ^{4/}	Historical Annual Default Rate ^{5/} (%)		
		S&P	Fitch	Moody's			Dec-19	Dec-20					
Other Retail													
PD Range													
	0.00 to < 0.15				0.05%	0.05%	2,832	16,411	3	-	-	0.13%	
	0.15 to < 0.25				0.19%	0.16%	25,550	33,085	19	-	-	0.12%	
	0.25 to < 0.50				0.30%	0.29%	3,875	3,776	6	-	-	0.18%	
	0.50 to < 0.75				0.50%	0.51%	3,830	7,777	8	-	-	0.40%	
	0.75 to < 2.50				1.48%	1.25%	3,944	5,130	11	-	-	0.54%	
	2.50 to < 10.00				4.99%	4.86%	1,374	1,724	15	-	-	1.59%	
	10.00 to < 100.00				12.16%	14.43%	1,141	1,553	41	-	-	9.78%	
Total					4.25%	0.83%	42,546	69,456	103	-	-	0.49%	
Corporate													
PD Range													
	0.00 to < 0.15				0.05%	0.05%	353	396	-	-	-	-	
	0.15 to < 0.25				0.20%	0.20%	363	399	-	-	-	-	
	0.25 to < 0.50				NA	NA	-	-	-	-	-	-	
	0.50 to < 0.75				0.50%	0.50%	151	172	-	-	-	-	
	0.75 to < 2.50				1.40%	1.39%	214	204	-	-	-	-	
	2.50 to < 10.00				5.00%	5.00%	88	85	-	-	-	-	
	10.00 to < 100.00				12.69%	11.14%	193	229	1	-	-	0.17%	
Total					5.01%	2.24%	1,362	1,485	1	-	-	0.02%	

^{1/} Not applicable for A-IRBA Retail and Corporate asset classes

^{2/} Refers to PD associated with each obligor grade, weighted by EAD

^{3/} Arithmetic mean of PDs by the number of obligors within the PD range

^{4/} 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

^{5/} Refers to the average of the annual observed default rate (ODR) over a minimum of the last five years

15. 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.

Specialised Lending Portfolio (S\$ million)		31 Dec 2021			EAD ^{3/}					Expected Losses
		On-Balance Sheet ^{1/}	Off-Balance Sheet ^{2/}	Risk Weight (%)	PF	OF	CF	Total	RWA	
Regulatory Categories	Remaining Maturities									
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		1,897	1,773	115%	2,383	12	140	2,535	3,090	71
Weak		309	42	250%	340	-	-	340	902	27
Default		192	189	-	530	79	3	612	-	306
Total		2,398	2,004		3,253	91	143	3,487	3,992	404

Specialised Lending Portfolio (S\$ million)		30 Jun 2021			EAD ^{3/}					Expected Losses
		On-Balance Sheet ^{1/}	Off-Balance Sheet ^{2/}	Risk Weight (%)	PF	OF	CF	Total	RWA	
Regulatory Categories	Remaining Maturities									
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		2,013	1,456	115%	2,475	183	117	2,775	3,383	78
Weak		479	113	250%	564	-	-	564	1,494	45
Default		27	-	-	29	79	34	142	-	71
Total		2,519	1,569		3,068	262	151	3,481	4,877	194

^{1/} 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)

^{2/} Off-balance sheet refers to the exposure value without taking into account the effects of CCFs and CRM

^{3/} EAD refers to the amount relevant for capital requirements calculated by taking into account the effects of CCFs and CRM

16. COUNTERPARTY CREDIT RISK

16.1 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 2021					
		(a)	(b)	(c)	(d)	(e)	(f)
Counterparty Credit Risk Exposure by Approach		Replacement Cost	Potential Future Exposure	Effective EPE	Alpha factor (α)	EAD ^{1/}	RWA
(S\$ million)							
1	CEM (For derivatives)	4,731	7,605			6,522	2,050
2	CCR Internal models method (For derivatives and SFTs)			-		-	-
3	FC(SA) for SFTs					-	-
4	FC(CA) for SFTs					5,428	305
5	VaR for SFTs					-	-
6	Total						2,355

		30 Jun 2021					
		(a)	(b)	(c)	(d)	(e)	(f)
Counterparty Credit Risk Exposure by Approach		Replacement Cost	Potential Future Exposure	Effective EPE	Alpha factor (α)	EAD ^{1/}	RWA
(S\$ million)							
1	CEM (For derivatives)	5,251	8,005			6,925	2,312
2	CCR Internal models method (For derivatives and SFTs)			-		-	-
3	FC(SA) for SFTs					-	-
4	FC(CA) for SFTs					5,044	250
5	VaR for SFTs					-	-
6	Total						2,562

^{1/} EAD refers to the amount relevant for capital requirements calculation, after taking into account the effects of CRM

16.2 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.

31 Dec 2021		
	(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	5,952	3,440
4 Total portfolios subject to the CVA risk capital requirement	5,952	3,440
<hr/>		
30 Jun 2021		
	(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	6,322	4,105
4 Total portfolios subject to the CVA risk capital requirement	6,322	4,105

^{1/} EAD refers to the amount relevant for capital requirements calculation, after taking into account the effects of CRM

16.3 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.

All derivative exposures to CCPs are currently treated under the Current Exposure Method (CEM), with regulatory prescribed add-on in addition to the net replacement cost of the derivatives.

		31 Dec 2021	
S\$ million		(a) EAD	(b) RWA
1	Total exposures to qualifying CCPs		653
2	Exposures to qualifying CCPs	5,764	281
3	arising from: OTC derivative transactions;	5,751	280
4	arising from: Exchange-traded derivative transactions;	13	1
5	arising from: SFTs; and	-	-
6	arising from: Netting sets ^{1/}	-	-
7	Segregated collateral ^{2/}	95	
8	Non-segregated collateral	1,724	371
9	Pre-funded default fund contributions	11	1
10	Unfunded default fund contributions	-	-
11	Total exposures to non-qualifying CCPs		12
12	Exposures to non-qualifying CCPs	-	-
13	arising from: OTC derivative transactions;	-	-
14	arising from: Exchange-traded derivative transactions;	-	-
15	arising from: SFTs; and	-	-
16	arising from: Netting sets ^{1/}	-	-
17	Segregated collateral ^{2/}	-	
18	Non-segregated collateral	12	12
19	Pre-funded default fund contributions	-	-
20	Unfunded default fund contributions	-	-

16.3 Exposures to Central Counterparties (continued)

30 Jun 2021		
S\$ million	(a)	(b)
	EAD	RWA
1		608
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		13
12		
13		
14		
15		
16		
17		
18		
19		
20		

^{1/} Refers to netting assets where cross-product netting has been approved

^{2/} Refers to collateral which is held in a bankruptcy remote manner

Represents amounts of less than \$0.5 million

16.4 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.

S\$ million	31 Dec 2021								Total EAD ^{1/}
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
	Risk Weight								
	0%	10%	20%	50%	75%	100%	150%	Others	
Asset Class									
Sovereign	716	-	-	-	-	-	-	-	716
PSE	-	-	-	-	-	-	-	-	-
MDB	-	-	-	-	-	-	-	-	-
Bank	-	-	184	-	-	-	-	-	184
Corporate	-	-	1	4	-	36	-	-	41
Regulatory	-	-	-	-	-	-	-	-	-
Retail	-	-	-	-	-	-	-	-	-
Others ^{2/}	-	-	-	-	-	293	-	-	293
Total	716	-	185	4	-	329	-	-	1,234

S\$ million	30 Jun 2021								Total EAD ^{1/}
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
	Risk Weight								
	0%	10%	20%	50%	75%	100%	150%	Others	
Asset Class									
Sovereign	836	-	-	-	-	-	-	-	836
PSE	-	-	-	-	-	-	-	-	-
MDB	-	-	-	-	-	-	-	-	-
Bank	-	-	52	-	-	-	-	-	52
Corporate	-	-	#	3	-	65	-	-	68
Regulatory Retail	-	-	-	-	-	-	-	-	-
Others ^{2/}	-	-	-	-	-	110	-	-	110
Total	836	-	52	3	-	175	-	-	1,066

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

^{2/} Includes other exposures not included in the above asset classes

Represents amounts of less than \$0.5 million

16.5 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.

	31 Dec 2021						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD ^{1/} (S\$ million)	Average PD ^{2/} (%)	Number of Obligors ^{3/}	Average LGD ^{2/} (%)	Average Maturity ^{4/} (In years)	RWA (S\$ million)	RWA Density ^{5/} (%)
Sovereign							
PD Range							
0.00 to < 0.15	2,577	0.00%	6	33%	0.7	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
Sub-total	2,577	0.00%	6	33%	0.7	1	0%
Bank							
PD Range							
0.00 to < 0.15	4,160	0.04%	132	27%	0.6	306	7%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	139	0.37%	11	23%	0.5	39	28%
0.50 to < 0.75	25	0.54%	9	45%	1.6	20	83%
0.75 to < 2.50	-	-	-	-	-	-	NA
2.50 to < 10.00	#	3.20%	1	45%	0.0	#	129%
10.00 to < 100.00	-	-	-	-	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	4,324	0.06%	153	27%	0.6	365	8%
Corporate							
PD Range							
0.00 to < 0.15	2,109	0.09%	165	41%	1.5	491	23%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	151	0.37%	92	44%	2.4	98	65%
0.50 to < 0.75	36	0.54%	55	45%	1.9	25	69%
0.75 to < 2.50	96	1.49%	80	45%	3.6	121	126%
2.50 to < 10.00	82	5.46%	35	45%	1.2	120	147%
10.00 to < 100.00	34	11.10%	30	45%	2.7	74	215%
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	2,508	0.50%	457	42%	1.7	929	37%

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

	31 Dec 2021						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD ^{1/} (S\$ million)	Average PD ^{2/} (%)	Number of Obligors ^{3/}	Average LGD ^{2/} (%)	Average Maturity ^{4/} (In years)	RWA (S\$ million)	RWA Density ^{5/} (%)
Corporate (IPRE)							
PD Range							
0.00 to < 0.15	1	0.14%	3	45%	2.4	1	37%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	34	0.37%	12	45%	2.3	21	62%
0.50 to < 0.75	37	0.54%	17	45%	2.2	27	72%
0.75 to < 2.50	59	1.24%	39	45%	2.1	57	99%
2.50 to < 10.00	1	3.20%	1	45%	3.0	1	145%
10.00 to < 100.00	-	-	-	-	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	132	0.82%	72	45%	2.2	107	81%
Corporate Small Business							
PD Range							
0.00 to < 0.15	4	0.10%	16	45%	0.2	1	18%
0.15 to < 0.25	#	0.15%	4	45%	0.1	#	15%
0.25 to < 0.50	1	0.37%	21	45%	1.1	#	42%
0.50 to < 0.75	285	0.54%	26	45%	0.1	170	59%
0.75 to < 2.50	3	1.42%	68	45%	1.6	3	92%
2.50 to < 10.00	1	5.52%	29	45%	1.7	1	123%
10.00 to < 100.00	#	14.29%	13	45%	4.2	1	179%
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	294	0.58%	177	45%	0.1	175	59%
Total (all portfolios)	9,835	0.18%	865	33%	0.9	1,577	16%

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

30 Jun 2021							
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD ^{1/} (S\$ million)	Average PD ^{2/} (%)	Number of Obligors ^{3/}	Average LGD ^{2/} (%)	Average Maturity ^{4/} (In years)	RWA (S\$ million)	RWA Density ^{5/} (%)
Sovereign							
PD Range							
0.00 to < 0.15	1,895	0.00%	6	29%	1.2	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
Sub-total	1,895	0.00%	6	29%	1.2	1	0%
Bank							
PD Range							
0.00 to < 0.15	4,396	0.04%	127	28%	0.6	348	8%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	242	0.37%	8	22%	0.3	65	27%
0.50 to < 0.75	102	0.54%	13	45%	0.9	75	73%
0.75 to < 2.50	-	-	-	-	-	-	NA
2.50 to < 10.00	1	3.20%	1	45%	0.0	1	129%
10.00 to < 100.00	-	-	-	-	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	4,741	0.07%	149	28%	0.6	489	10%
Corporate							
PD Range							
0.00 to < 0.15	2,126	0.09%	153	40%	1.7	498	23%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	305	0.37%	83	41%	2.2	195	64%
0.50 to < 0.75	59	0.54%	56	45%	2.9	48	82%
0.75 to < 2.50	162	1.63%	116	45%	2.8	191	118%
2.50 to < 10.00	82	6.01%	30	45%	1.5	128	156%
10.00 to < 100.00	#	11.10%	26	45%	0.0	#	183%
100.00 (Default)	35	100.00%	1	45%	3.2	-	0%
Sub-total	2,769	1.67%	465	41%	1.8	1,060	38%

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

30 Jun 2021							
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Corporate (IPRE)	EAD ^{1/} (S\$ million)	Average PD ^{2/} (%)	Number of Obligors ^{3/}	Average LGD ^{2/} (%)	Average Maturity ^{4/} (In years)	RWA (S\$ million)	RWA Density ^{5/} (%)
Corporate (IPRE)							
PD Range							
0.00 to < 0.15	7	0.14%	4	45%	1.4	2	28%
0.15 to < 0.25	-	-	-	-	-	-	NA
0.25 to < 0.50	50	0.37%	12	45%	2.6	32	65%
0.50 to < 0.75	80	0.54%	21	45%	2.6	62	78%
0.75 to < 2.50	72	1.42%	42	45%	2.1	75	104%
2.50 to < 10.00	4	3.20%	1	45%	1.2	6	121%
10.00 to < 100.00	-	-	-	-	-	-	NA
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	213	0.84%	80	45%	2.4	177	83%
Corporate Small Business							
PD Range							
0.00 to < 0.15	#	0.14%	21	45%	0.2	#	17%
0.15 to < 0.25	#	0.16%	6	45%	0.1	#	16%
0.25 to < 0.50	1	0.37%	19	45%	1.2	#	46%
0.50 to < 0.75	262	0.54%	21	45%	0.1	158	60%
0.75 to < 2.50	2	1.29%	59	45%	2.2	2	83%
2.50 to < 10.00	2	4.50%	27	45%	2.2	3	135%
10.00 to < 100.00	#	18.27%	9	45%	0.7	#	144%
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	267	0.59%	162	45%	0.1	163	61%
Total (all portfolios)	9,885	0.54%	862	33%	1.1	1,890	19%

^{1/} EAD refers to the amount relevant for capital requirements calculation, after taking into account the effects of CRM

^{2/} Refers to the PD and LGD associated with each obligor grade, weighted by EAD

^{3/} Number of obligors refers to the number of counterparties

^{4/} Refers to the effective maturity of the exposures to the obligor in years, weighted by EAD

^{5/} Total RWA divided by the exposures post-CRM

Represents amounts of less than \$0.5 million

16.6 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 31 December 2021.

	31 Dec 2021						
	(a) EAD ^{1/} (S\$ million)	(b) Average PD ^{2/} (%)	(c) Number of Obligors ^{3/}	(d) Average LGD ^{2/} (%)	(e) Average Maturity ^{4/} (In years)	(f) RWA (S\$ million)	(g) RWA Density ^{5/} (%)
Corporate							
PD Range							
0.00 to < 0.15	4	0.05%	43	2%	0.8	#	0%
0.15 to < 0.25	11	0.20%	63	4%	1.0	#	3%
0.25 to < 0.50	-	-	-	-	-	-	NA
0.50 to < 0.75	17	0.50%	40	4%	0.8	1	5%
0.75 to < 2.50	9	1.66%	58	2%	0.7	#	5%
2.50 to < 10.00	1	5.00%	15	3%	2.0	#	11%
10.00 to < 100.00	21	10.71%	89	20%	2.5	20	92%
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	63	3.97%	308	9%	1.4	21	33%
Total (all portfolios)	63	3.97%	308	9%	1.4	21	33%
	30 Jun 2021						
	(a) EAD ^{1/} (S\$ million)	(b) Average PD ^{2/} (%)	(c) Number of Obligors ^{3/}	(d) Average LGD ^{2/} (%)	(e) Average Maturity ^{4/} (In years)	(f) RWA (S\$ million)	(g) RWA Density ^{5/} (%)
Corporate							
PD Range							
0.00 to < 0.15	6	0.05%	45	3%	0.6	#	1%
0.15 to < 0.25	11	0.20%	69	4%	0.9	#	3%
0.25 to < 0.50	-	-	-	-	-	-	NA
0.50 to < 0.75	7	0.50%	30	2%	0.5	#	3%
0.75 to < 2.50	15	1.25%	59	4%	0.5	1	7%
2.50 to < 10.00	13	5.00%	25	2%	1.4	1	6%
10.00 to < 100.00	34	11.03%	92	16%	2.5	26	75%
100.00 (Default)	-	-	-	-	-	-	NA
Sub-total	86	5.45%	320	8%	1.5	28	33%
Total (all portfolios)	86	5.45%	320	8%	1.5	28	33%

^{1/} EAD refers to the amount relevant for capital requirements calculation, after taking into account the effects of CRM

^{2/} Refers to the PD and LGD associated with each obligor grade, weighted by EAD

^{3/} Number of obligors refers to the number of accounts

^{4/} Refers to the maturity of the exposures to the obligor in years, weighted by EAD

^{5/} Total RWA divided by the exposures post-CRM

Represents amounts of less than \$0.5 million

16.7 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 Counterparties (CCP).

		31 Dec 2021					
		(a) Collateral used in derivative transactions		(c) Collateral used in derivative transactions		(e) Collateral used in SFTs ^{1/}	
		Fair value of collateral received		Fair value of collateral posted		Fair value of collateral received	
S\$ million		Segregated ^{2/}	Unsegregated	Segregated ^{2/}	Unsegregated	Fair value of collateral received	Fair value of collateral posted
1	Cash	-	1,664	95	3,124	2,065	3,045
2	Debt	-	690	-	227	2,513	2,410
3	Equity	-	849	-	-	-	-
4	Others ^{3/}	-	524	-	-	-	-
5	Total	-	3,727	95	3,351	4,578	5,455

		30 Jun 2021					
		(a) Collateral used in derivative transactions		(c) Collateral used in derivative transactions		(e) Collateral used in SFTs ^{1/}	
		Fair value of collateral received		Fair value of collateral posted		Fair value of collateral received	
S\$ million		Segregated ^{2/}	Unsegregated	Segregated ^{2/}	Unsegregated	Fair value of collateral received	Fair value of collateral posted
1	Cash	-	2,072	118	2,700	2,294	2,374
2	Debt	-	776	-	157	1,961	2,755
3	Equity	-	1,152	-	-	-	-
4	Others ^{3/}	-	971	-	-	-	-
5	Total	-	4,971	118	2,857	4,255	5,129

^{1/} Refers to Securities Financing Transaction (i.e. Repos and Reverse Repos), collateral for Jun-20 has been restated to align with Dec-20 position

^{2/} Refers to collateral held in a bankruptcy remote manner

^{3/} Includes collateral not reported in the other categories

16.8 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 second half of 2021 was mainly driven by lower single-name credit default swaps and lower index credit default swaps.

S\$ million	31 Dec 2021		30 Jun 2021		
	(a)	(b)	(a)	(b)	
	Protection Bought	Protection Sold	Protection Bought	Protection Sold	
Notional					
1	Single-name credit default swaps	752	421	1,164	601
2	Index credit default swaps	665	638	813	826
3	Total return swaps	20	-	-	-
4	Other credit derivatives	115	112	123	121
5	Total notional	1,552	1,171	2,100	1,548
Fair values					
6	Positive fair value (asset)	3	19	1	28
7	Negative fair value (liability)	20	3	28	1

17. SECURITISATION EXPOSURES

The Group has limited exposure to asset-backed securities and collateralised debt obligations and are not active in securitisation activities. As at 31 December 2021, there was no securitisation and re-securitisation exposure in the banking and trading books.

18. MARKET RISK TYPE UNDER STANDARDISED APPROACH

Market Risk RWA remained relatively stable during the second half of 2021.

31 Dec 2021		(a)
Market Risk by Standardised Approach		RWA
S\$ million		
Notional		
1	Interest rate risk (general and specific)	2,916
2	Equity risk (general and specific)	957
3	Foreign exchange risk	6,503
4	Commodity risk	-
Options		
5	Simplified approach	-
6	Delta-plus method	539
7	Scenario approach	766
8	Securitisation	-
9	Total	11,681

30 Jun 2021		(a)
Market Risk by Standardised Approach		RWA
S\$ million		
Notional		
1	Interest rate risk (general and specific)	3,087
2	Equity risk (general and specific)	789
3	Foreign exchange risk	6,816
4	Commodity risk	4
Options		
5	Simplified approach	-
6	Delta-plus method	824
7	Scenario approach	372
8	Securitisation	-
9	Total	11,892

There is no Market Risk exposure under Internal Model Approach as at 31 December 2021.

19. 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\$669 million, or approximately +11.4% of reported net interest income. The corresponding impact from a 100 bp decrease is an estimated reduction of S\$669 million in net interest income, or approximately -11.4% of reported net interest income.

20. LIQUIDITY COVERAGE RATIO

The Group is subjected to the Liquidity Coverage Ratio ("LCR") requirements under the MAS Notice 649. As at 1 January 2019, the Group is required to maintain daily all-currency and Singapore dollar ("SGD") LCR of at least 100% on an ongoing basis.

LCR aims to ensure that a Bank maintains an adequate level of unencumbered High Quality Liquid Assets ("HQLA") that can be quickly and easily converted into cash to meet any liquidity needs for a 30-calendar day liquidity stress scenario.

The following quarterly disclosures are made pursuant to the MAS Notice 651 "Liquidity Coverage Ratio Disclosure".

For 4Q21, the average SGD and all-currency LCRs for the Group were 324% and 159% respectively. Compared to 3Q21, the average SGD LCR increased by 5 percentage points largely driven by an increase in HQLA. The average all-currency LCR increased by 9 percentage points due similarly to an increase in HQLA.

The Group continues to focus on acquiring stable deposits and on maintaining a mix of HQLA comprising mainly of Level 1 central bank reserves and liquid sovereign bonds. The Asset & Liability Management Desk in Global Treasury manages the day-to-day liquidity needs of the Group, and is subject to liquidity limits and triggers that serve as risk control on the Group's liquidity exposure.

20. Liquidity Coverage Ratio (continued)

Average Group All Currency LCR for 4Q21

The data presented in the quantitative disclosure are simple averages of daily observations over the quarter. The number of data points in calculating the average figures is 92.

Group - ALL Currency (\$m)		Total Unweighted Value (average)	Total Weighted Value (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		70,437
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	156,788	13,183
3	Stable deposits	49,925	2,496
4	Less stable deposits	106,863	10,687
5	Unsecured wholesale funding, of which:	120,857	53,464
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	39,104	9,439
7	Non-operational deposits (all counterparties)	76,083	38,354
8	Unsecured debt	5,671	5,671
9	Secured wholesale funding		267
10	Additional requirements, of which:	75,615	42,931
11	Outflows related to derivative exposures and other collateral requirements	38,596	38,513
12	Outflows related to loss of funding on debt products	-	-
13	Credit and liquidity facilities	37,019	4,418
14	Other contractual funding obligations	1,391	1,391
15	Other contingent funding obligations	16,965	509
16	TOTAL CASH OUTFLOWS		111,744
CASH INFLOWS			
17	Secured lending (eg reverse repos)	2,261	330
18	Inflows from fully performing exposures	49,462	29,756
19	Other cash inflows	37,419	37,290
20	TOTAL CASH INFLOWS	89,143	67,376
			TOTAL ADJUSTED VALUE
21	TOTAL HQLA		70,437
22	TOTAL NET CASH OUTFLOWS		44,368
23	LIQUIDITY COVERAGE RATIO (%)		159

20. Liquidity Coverage Ratio (continued)

Average Group SGD LCR for 4Q21

The data presented in the quantitative disclosure are simple averages of daily observations over the quarter. The number of data points in calculating the average figures is 92.

Group - SGD (S\$m)		Total Unweighted Value (average)	Total Weighted Value (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		26,606
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	91,803	7,083
3	Stable deposits	41,936	2,097
4	Less stable deposits	49,866	4,987
5	Unsecured wholesale funding, of which:	26,206	9,908
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	11,055	2,680
7	Non-operational deposits (all counterparties)	15,151	7,228
8	Unsecured debt	-	-
9	Secured wholesale funding		
10	Additional requirements, of which:	30,179	15,114
11	Outflows related to derivative exposures and other collateral requirements	13,630	13,630
12	Outflows related to loss of funding on debt products	-	-
13	Credit and liquidity facilities	16,549	1,484
14	Other contractual funding obligations	867	867
15	Other contingent funding obligations	1,623	49
16	TOTAL CASH OUTFLOWS		33,020
CASH INFLOWS			
17	Secured lending (eg reverse repos)	768	-
18	Inflows from fully performing exposures	5,420	2,907
19	Other cash inflows	26,338	26,324
20	TOTAL CASH INFLOWS	32,526	29,230
			TOTAL ADJUSTED VALUE
21	TOTAL HQLA		26,606
22	TOTAL NET CASH OUTFLOWS		8,255
23	LIQUIDITY COVERAGE RATIO (%)		324

21. NET STABLE FUNDING RATIO

The Group is subjected to the Net Stable Funding Ratio ("NSFR") requirements under MAS Notice 652. The Group is required to maintain an all-currency NSFR of at least 100% on an ongoing basis.

NSFR ensures that the Group maintains a stable funding profile in relation to the composition of its assets and off-balance sheet activities. It aims to promote resilience over a longer time horizon by funding its activities with stable sources of funding on an ongoing basis.

MAS has introduced adjustments to lower the required stable funding ("RSF") factors for all loans to non-financial corporates, retail customers and small business customers, that have a residual maturity of less than six months, from 50% to 25%, for the period between 8 April 2020 and 30 September 2021 (both dates inclusive). The adjustments have been phased back to 35% as of 1 October 2021, and will revert to 50% by 1 April 2022.

The following semi-annual disclosures are made pursuant to the MAS Notice 653 "Net Stable Funding Ratio Disclosure".

As at 31 December 2021, the all-currency NSFR for the Group was 121%. Compared to 30 September 2021, the all-currency NSFR decreased by 4 percentage points, mainly driven by the higher RSF factors mentioned above.

The Group continues to maintain a stable funding structure to support its asset growth. Funding strategies have been put in place to provide effective diversification and stability in funding sources across tenors, products and geographies. Liquidity limits and triggers serve as risk control on the Group's funding and liquidity exposure.

21. Net Stable Funding Ratio (continued)

Group All-Currency NSFR as at 30 Sep 2021

Group - ALL Currency (\$\$m)		Unweighted value by residual maturity				Weighted value
		No Maturity	< 6 months	6 months to <1 yr	≥ 1yr	
ASF Item						
1	Capital:	45,023	-	-	3,411	48,434
2	<i>Regulatory capital</i>	45,023	-	-	3,411	48,434
3	<i>Other capital instruments</i>	-	-	-	-	-
4	Retail deposits and deposits from small business customers:	127,952	33,084	3,867	62	150,986
5	<i>Stable deposits</i>	45,721	4,480	32	1	47,722
6	<i>Less stable deposits</i>	82,231	28,605	3,835	61	103,264
7	Wholesale funding:	83,626	94,310	11,813	8,335	72,202
8	<i>Operational deposits</i>	38,855	-	-	-	19,428
9	<i>Other wholesale funding</i>	44,771	94,310	11,813	8,335	52,774
10	Liabilities with matching interdependent assets	-	-	-	-	-
11	Other liabilities:	6,646		14,851		177
12	<i>NSFR derivative liabilities</i>			9,296		
13	<i>All other liabilities and equity not included in the above categories</i>	6,646	5,378	-	177	177
14	Total ASF					271,799
RSF Item						
15	Total NSFR high-quality liquid assets (HQLA)					6,888
16	Deposits held at other financial institutions for operational purposes	56	-	-	-	28
17	Performing loans and securities:	15,524	115,122	21,948	174,817	187,977
18	<i>Performing loans to financial institutions secured by Level 1 HQLA</i>	-	34	-	-	3
19	<i>Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions</i>	7,986	20,486	1,764	1,724	7,998
20	<i>Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:</i>	6,852	84,055	13,237	107,411	124,225
21	<i>With a risk weight of less than or equal to 35% under MAS Notice 637's standardised approach to credit risk</i>	-	-	-	-	-
22	<i>Performing residential mortgages, of which:</i>	-	1,888	1,769	57,924	41,476
23	<i>With a risk weight of less than or equal to 35% under MAS Notice 637's standardised approach to credit risk</i>	-	1,598	1,419	54,638	38,240
24	<i>Securities that are not in default and do not qualify as HQLA, including exchange-traded equities</i>	686	8,660	5,178	7,758	14,276
25	Assets with matching interdependent liabilities	-	-	-	-	-
26	Other assets:	15,019		29,386		20,406
27	<i>Physical trade commodities, including gold</i>	-				-
28	<i>Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs</i>			746		634
29	<i>NSFR derivative assets</i>			10,889		1,593
30	<i>NSFR derivative liabilities before deduction of variation margin posted</i>			10,845		542
31	<i>All other assets not included in the above categories</i>	15,019	4,715	80	2,112	17,637
32	Off-balance sheet items			202,688		1,783
33	Total RSF					217,083
34	Net Stable Funding Ratio (%)					125

21. Net Stable Funding Ratio (continued)

Group All-Currency NSFR at 31 Dec 2021

Group - ALL Currency (\$m)	Unweighted value by residual maturity				Weighted value
	No Maturity	< 6 months	6 months to <1 yr	≥ 1yr	
ASF Item					
1 Capital:	45,182	-	-	3,367	48,549
2 <i>Regulatory capital</i>	45,182	-	-	3,367	48,549
3 <i>Other capital instruments</i>	-	-	-	-	-
4 Retail deposits and deposits from small business customers:	131,126	33,989	2,712	91	153,674
5 <i>Stable deposits</i>	46,420	4,337	21	1	48,239
6 <i>Less stable deposits</i>	84,707	29,652	2,691	90	105,434
7 Wholesale funding:	90,360	96,106	8,652	6,727	72,239
8 <i>Operational deposits</i>	41,847	-	-	-	20,923
9 <i>Other wholesale funding</i>	48,513	96,106	8,652	6,727	51,316
10 Liabilities with matching interdependent assets	-	-	-	-	-
11 Other liabilities:	5,889		9,510		193
12 <i>NSFR derivative liabilities</i>			8,683		
13 <i>All other liabilities and equity not included in the above categories</i>	5,889	634	-	193	193
14 Total ASF					274,655
RSF Item					
15 Total NSFR high-quality liquid assets (HQLA)					6,811
16 Deposits held at other financial institutions for operational purposes	46	-	-	-	23
17 Performing loans and securities:	15,399	114,389	24,960	176,383	197,996
18 <i>Performing loans to financial institutions secured by Level 1 HQLA</i>	-	208	-	-	21
19 <i>Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions</i>	7,915	20,709	2,404	2,013	8,513
20 <i>Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:</i>	6,831	84,001	16,193	108,809	134,691
21 <i>With a risk weight of less than or equal to 35% under MAS Notice 637's standardised approach to credit risk</i>	-	-	-	-	-
22 <i>Performing residential mortgages, of which:</i>	-	1,821	1,781	58,506	41,938
23 <i>With a risk weight of less than or equal to 35% under MAS Notice 637's standardised approach to credit risk</i>	-	1,587	1,457	55,334	38,868
24 <i>Securities that are not in default and do not qualify as HQLA, including exchange-traded equities</i>	652	7,650	4,583	7,055	12,832
25 Assets with matching interdependent liabilities	-	-	-	-	-
26 Other assets:	15,800		24,025		20,899
27 <i>Physical trade commodities, including gold</i>	-				-
28 <i>Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs</i>			767		652
29 <i>NSFR derivative assets</i>			10,610		1,926
30 <i>NSFR derivative liabilities before deduction of variation margin posted</i>			10,401		520
31 <i>All other assets not included in the above categories</i>	15,800	651	90	1,506	17,801
32 Off-balance sheet items			212,288		1,900
33 Total RSF					227,629
34 Net Stable Funding Ratio (%)					121