

Pillar 3 Disclosure Report

31 December 2020

United Overseas Bank Limited
Incorporated in the Republic of Singapore

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Notes:

- 1 The pillar 3 disclosure report is presented in Singapore dollars.
- 2 Certain figures in this report may not add up to the respective totals due to rounding.
- 3 Amounts less than \$500,000 in absolute term are shown as "#".

1 Introduction

UOB Group's Pillar 3 Disclosure Report ("The Report") is prepared in accordance with the Monetary Authority of Singapore ("MAS") Notice to Banks No. 637 "Risk Based Capital Adequacy Requirements for Banks Incorporated in Singapore".

The Report is governed by the Group Pillar 3 Disclosure Policy which specifies the Group's Pillar 3 disclosure requirements, frequency of disclosure, medium of disclosure, and the roles and responsibilities of various parties involved in the disclosure reporting. The Policy is reviewed at least annually and approved by the Board.

The Report facilitates an assessment of the Group's capital adequacy and provides an overview of the Group's risk profile.

In accordance with the Monetary Authority of Singapore Notice 637 – Notice on Risk Based Capital Adequacy requirements for Banks incorporated in Singapore and on behalf of the Board of Directors and Senior Management of UOB Group, I hereby attest that UOB Group's Pillar 3 Disclosures Report for the financial year ended 31 December 2020 has been prepared in accordance with the internal control processes approved by the Board.

**Wee Ee Cheong**

Deputy Chairman and Chief Executive Officer

Date: 25 February 2021

3 Risk Management Approach

Please refer to UOB Annual Report 2020, Risk Management section – Maintaining a Sound Risk Culture.

4 Key Metrics

The table below provides an overview of the Group's key prudential metrics related to regulatory capital, leverage ratio and liquidity standards.

\$m		31 Dec 2020	30 Sep 2020	30 Jun 2020	31 Mar 2020	31 Dec 2019
Available capital (amounts)¹						
1	CET1 capital	33,231	32,308	32,481	32,748	32,366
2	Tier 1 capital	35,610	34,688	34,860	35,127	34,745
3	Total capital	41,390	40,548	39,592	39,939	39,352
Risk weighted assets (amounts)¹						
4	Total RWA	225,441	230,595	232,037	231,900	226,318
Risk-based capital ratios as a percentage of RWA						
5	CET1 ratio (%)	14.7	14.0	14.0	14.1	14.3
6	Tier 1 ratio (%)	15.8	15.0	15.0	15.1	15.4
7	Total capital ratio (%)	18.4	17.6	17.1	17.2	17.4
Additional CET1 buffer requirements as a percentage of RWA						
8	Capital conservation buffer requirement (2.5% from 2019) (%)	2.5	2.5	2.5	2.5	2.5
9	Countercyclical buffer requirement (%)	0.1	0.1	0.1	0.1	0.2
10	G-SIB and/or D-SIB additional requirement (%)	-	-	-	-	-
11	Total of CET1 specific buffer requirements (%) (row 8 + row 9 + row 10)	2.6	2.6	2.6	2.6	2.7
12	CET1 available after meeting the Reporting Bank's minimum capital requirements (%)	7.8	7.0	7.0	7.1	7.4
Leverage Ratio¹						
13	Total Leverage Ratio exposure measure	478,233	469,563	477,488	475,001	452,859
14	Leverage Ratio (%) (row 2/ row 13)	7.4	7.4	7.3	7.4	7.7
Liquidity Coverage Ratio						
15	Total High Quality Liquid Assets	71,722	69,495	73,323	60,817	57,419
16	Total net cash outflow	51,554	54,578	54,061	43,899	38,859
17	Liquidity Coverage Ratio (%)	139	127	136	139	149
Net Stable Funding Ratio						
18	Total available stable funding	271,103	262,477	258,317	253,901	249,651
19	Total required stable funding	217,444	215,915	217,477	233,779	223,998
20	Net Stable Funding Ratio (%)	125	122	119	109	111

¹ For Capital Adequacy and Leverage Ratios' commentaries, please refer to the Group Financial Report available on UOB's website at www.UOBgroup.com/investor-relations/financial/index.html.

5 Composition of Capital

5.1 Reconciliation of Regulatory Capital to Balance Sheet

Table 1 and Table 2 are mandatory disclosures prescribed in MAS Notice 637 requirements.

Table 1 shows the reconciliation between the Group's published consolidated balance sheet and the regulatory capital components. Details of the regulatory capital components are set out in Table 2, as referenced.

The scope of consolidation for accounting and regulatory purposes is similar, except that subsidiaries which carry out insurance business are not consolidated for regulatory purpose. The list of the Group's major insurance subsidiaries can be found in the Group's Annual Report. As at 31 December 2020, both the total assets and the total equities of each of these subsidiaries were less than \$1 billion.

Compared with 30 June 2020, key movements in the items under the column "Under regulatory scope of consolidation" were mainly from retained earnings, higher Tier 2 capital instruments and higher eligible provisions.

Table 1 - Reconciliation of Balance Sheet to Regulatory Capital as at 31 December 2020

\$m	Balance Sheet per Published Financial Statements	Under regulatory scope of consolidation ²	Reference in Table 2
Equity			
Share capital and other capital	7,420		
<i>of which paid-up ordinary shares</i>		5,043	A
<i>of which AT1 capital instruments</i>		2,377	B
Retained earnings	24,109	23,957	C
<i>of which unrealised fair value gains/losses on financial liabilities and derivative liabilities arising from changes in own credit risk</i>		27	D1
Other reserves	9,372	8,942	E
<i>of which unrealised fair value gains/losses on financial liabilities and derivative liabilities arising from changes in own credit risk</i>		(2)	D2
Equity attributable to equity holders of the Bank	40,901		
Non-controlling interests	230		
<i>of which NCI that meets criteria for inclusion in</i>			
- CET1 capital		15	F1
- AT1 capital		2	F2
- T2 capital		3	F3
Total equity	41,131		
Liabilities			
Deposits and balances of banks	15,977		
Deposits and balances of customers	324,598		
Bills and drafts payable	792		
Derivative financial liabilities	11,519		
Other liabilities	7,379		
Tax payable	374		
Deferred tax liabilities	436		
Debts issued	29,608		
<i>of which T2 capital instruments</i>		4,287	G
Total liabilities	390,683		

5.1 Reconciliation of Regulatory Capital to Balance Sheet (cont'd)

Table 1 - Reconciliation of Balance Sheet to Regulatory Capital as at 31 December 2020

\$m	Balance Sheet per Published Financial Statements	Under regulatory scope of consolidation ²	Reference in Table 2
Assets			
Cash, balances and placements with central banks	36,798		
Singapore Government treasury bills and securities	8,103		
Other government treasury bills and securities	13,890		
Trading securities	4,215		
Placements and balances with banks	40,284		
Loans to customers	277,201		
<i>of which provisions eligible for inclusion in T2 capital</i>		1,490	H
Derivative financial assets	11,368		
Investment securities ³	25,217		
<i>of which investments in PE/VC held beyond the relevant holding period</i>		5	I1
Other assets	5,033		
<i>of which investments in PE/VC held beyond the relevant holding period</i>		#	I2
Deferred tax assets	429		
<i>of which amount related to deferred tax assets (net of deferred tax liabilities, where permissible)</i>		500	J
Investment in associates and joint ventures ³	1,210		
<i>of which amount related to goodwill</i>		12	K1
<i>of which investments in PE/VC held beyond the relevant holding period</i>		28	I3
Investment properties	964		
Fixed assets	2,959		
Intangible assets	4,143		
<i>of which amount related to goodwill</i>		4,143	K2
Total Assets	431,814		

² The full balance sheet per regulatory scope of consolidation is available in section 9.1.

³ This includes the Bank's major stake investments in financial institutions.

5.1 Reconciliation of Regulatory Capital to Balance Sheet (cont'd)

Table 2 lists the regulatory capital components and the corresponding regulatory adjustments.

(a) 'Amount' refers to components of capital calculated in accordance with MAS Notice 637, and include both on- and off-balance sheet items.

(b) 'Reference in Table 1' links the respective line item to Table 1.

Regulatory adjustments that are deducted against capital are reflected as positive numbers.

Table 2 - Capital Components as at 31 December 2020

\$m		Amount	Reference in Table 1
Common Equity Tier 1 capital: instruments and reserves			
1	Paid-up ordinary shares and share premium (if applicable)	5,043	A
2	Retained earnings	23,957	C
3*	Accumulated other comprehensive income and other disclosed reserves	8,942	E
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	15	F1
6	Common Equity Tier 1 capital before regulatory adjustments	37,957	
Common Equity Tier 1 capital: regulatory adjustments			
7	Valuation adjustment pursuant to Part VIII of MAS Notice 637 ⁴	-	
8	Goodwill, net of associated deferred tax liability	4,155	K1+K2
9*	Intangible assets, net of associated deferred tax liability	-	
10*	Deferred tax assets that rely on future profitability	500	J
11	Cash flow hedge reserve	-	
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	25	D1+ D2
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)	-	
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	46	
26A	PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630	46	I1 + I2 + I3
26B	Capital deficits in subsidiaries and associates that are regulated financial institutions	-	
26C	Any other items which the Authority may specify	-	
27	Regulatory adjustments applied in calculation of CET1 Capital due to insufficient AT1 Capital to satisfy required deductions	-	
28	Total regulatory adjustments to CET1 Capital	4,726	
29	Common Equity Tier 1 capital (CET1)	33,231	
Additional Tier 1 capital: instruments			

⁴ All prudent valuation adjustments have been made for financial reporting purpose.

5.1 Reconciliation of Regulatory Capital to Balance Sheet (cont'd)

Table 2 - Capital Components as at 31 December 2020

\$m		Amount	Reference in Table 1
30	AT1 capital instruments and share premium (if applicable)	2,377	B
31	of which: classified as equity under the Accounting Standards	2,377	
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	2	F2
35	of which: instruments issued by subsidiaries subject to phase out	-	
36	Additional Tier 1 capital before regulatory adjustments	2,379	
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 Reporting Bank does not hold a major stake	-	
40	Investments in AT1 capital instruments of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	-	
41	National specific regulatory adjustments which the Authority may specify	-	
42	Regulatory adjustments applied in calculation of AT1 Capital due to insufficient Tier 2 Capital to satisfy required deductions	-	
43	Total regulatory adjustments to Additional Tier 1 capital	-	
44	Additional Tier 1 capital (AT1)	2,379	
45	Tier 1 capital (T1 = CET1 + AT1)	35,610	
Tier 2 capital: instruments and provisions			
46	Tier 2 capital instruments and share premium (if applicable)	4,287	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	3	F3
49	of which: instruments issued by subsidiaries subject to phase out	-	
50	Provisions	1,490	H
51	Tier 2 capital before regulatory adjustments	5,780	
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)	5,780	
59	Total capital (TC = T1 + T2)	41,390	
60	Floor-adjusted total risk weighted assets	225,441	
Capital ratios (as a percentage of floor-adjusted risk weighted assets)			
61	Common Equity Tier 1 CAR	14.7%	
62	Tier 1 CAR	15.8%	
63	Total CAR	18.4%	

5.1 Reconciliation of Regulatory Capital to Balance Sheet (cont'd)

Table 2 - Capital Components as at 31 December 2020

\$m		Amount	Reference in Table 1
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)	-	
68	Common Equity Tier 1 available after meeting the Reporting Bank's minimum capital requirements	7.8%	
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, Tier 2 capital and other TLAC liabilities of unconsolidated financial institutions in which the bank does not hold a major stake	354	
73	Investments in ordinary shares of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	1,639	
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)	504	
77	Cap on inclusion of provisions in Tier 2 under standardised approach	437	row 50
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	1,053	row 50
79	Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	1,240	
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)	-	

⁴ All prudent valuation adjustments have been made for financial reporting purpose.

* These elements are subject to a more conservative definition relative to those set out under the Basel III capital standards.

5.2 Main Features of Regulatory Instruments

The following disclosure is based on the prescribed template as set out in MAS Notice 637. This disclosure shall be updated on a semi-annual basis and to be read in conjunction with the notes at <https://www.UOBgroup.com/investor-relations/capital-and-funding-information/group-securities.html>.

The salient features for non-public offerings have been included below, though further details are not published on the UOB website as they are not meaningful nor relevant.

Key Features of Regulatory Capital Instruments as at 31 December 2020

1 Issuer	United Overseas Bank Limited	United Overseas Bank Limited
2 Unique Identifier (ISIN code)	SG1M31001969	SGXF48097749
3 Governing law(s) of the instrument	Singapore	Singapore
Regulatory treatment		
4 Transitional Basel III rules	Core Equity	Additional Tier 1
5 Post-transitional Basel III rules	Core Equity	Additional Tier 1
6 Eligible at solo/group/group&solo	Group & Solo	Group & Solo
7 Instrument type	Ordinary Share	Perpetual Capital Security
8 Amount recognised in regulatory capital (<i>in millions</i>)	S\$5,043 million	S\$749 million
9 Principal amount (<i>in millions</i>)	n.a.	S\$750 million
10 Accounting classification	Equity	Equity
11 Original date of issuance	20 July 1970	17 July 2019
12 Perpetual or dated	Perpetual	Perpetual
13 Original maturity date	No maturity	No maturity
14 Issuer call subject to prior supervisory approval	n.a.	Yes
15 Optional call date	n.a.	17 July 2026
Tax/ regulatory event call	n.a.	Yes
Redemption price	n.a.	Par
16 Subsequent call dates, if applicable	n.a.	Each distribution payment date thereafter
Coupons / dividends		
17 Fixed or floating ⁽¹⁾	Discretionary dividend amount	Fixed
18 Coupon rate and any related index	n.a.	3.58% paid semi-annually on 17 January and 17 July
19 Existence of a dividend stopper	n.a.	Yes
20 Fully discretionary, discretionally or mandatory	Fully discretionary	Fully discretionary
21 Existence of step up or incentive to redeem	n.a.	No
22 Non-cumulative or cumulative	Non-cumulative	Non-cumulative
23 Convertible or non-convertible	n.a.	Non-convertible
24 If convertible, conversion trigger	n.a.	n.a.
25 If convertible, fully or partially	n.a.	n.a.
26 If convertible, conversion rate	n.a.	n.a.
27 If convertible, mandatory or optional conversion	n.a.	n.a.
28 If convertible, specify instrument type convertible into	n.a.	n.a.
29 If convertible, specify issuer of instrument it converts into	n.a.	n.a.
30 Write-down feature	n.a.	Yes
31 If write-down, write-down triggers(s)	n.a.	Point of non-viability at the discretion of the Regulator
32 If write-down, full or partial	n.a.	Partial
33 If write-down, permanent or temporary	n.a.	Permanent
34 If temporary write-down, description of write-up mechanism	n.a.	n.a.
35 Position in subordination hierarchy in liquidation (<i>instrument type immediately senior to instrument</i>)	Additional Tier 1 instruments	Tier 2 instruments
36 Non compliant transitioned features	No	No
37 If yes, specify non compliant features	n.a.	n.a.

(1) Details on re-fixing of the dividend/interest rate on the first call date are available in the UOB website.

5.2 Main Features of Regulatory Instruments (cont'd)

Key Features of Regulatory Capital Instruments as at 31 December 2020

1 Issuer	United Overseas Bank Limited	United Overseas Bank Limited
2 Unique Identifier (ISIN code)	XS1699845068	SG72C9000002
3 Governing law(s) of the instrument	Singapore	Singapore
Regulatory treatment		
4 Transitional Basel III rules	Additional Tier 1	Additional Tier 1
5 Post-transitional Basel III rules	Additional Tier 1	Additional Tier 1
6 Eligible at solo/group/group&solo	Group & Solo	Group & Solo
7 Instrument type	Perpetual Capital Security	Perpetual Capital Security
8 Amount recognised in regulatory capital (<i>in millions</i>)	S\$879 million	S\$748 million
9 Principal amount (<i>in millions</i>)	US\$650 million	S\$750 million
10 Accounting classification	Equity	Equity
11 Original date of issuance	19 October 2017	18 May 2016
12 Perpetual or dated	Perpetual	Perpetual
13 Original maturity date	No maturity	No maturity
14 Issuer call subject to prior supervisory approval	Yes	Yes
15 Optional call date	19 October 2023	18 May 2021
Tax/ regulatory event call	Yes	Yes
Redemption price	Par	Par
16 Subsequent call dates, if applicable	Each distribution payment date thereafter	Each distribution payment date thereafter
Coupons / dividends		
17 Fixed or floating ⁽¹⁾	Fixed	Fixed
18 Coupon rate and any related index	3.875% paid semi-annually on 19 April and 19 October	4.00% paid semi-annually on 18 May and 18 November
19 Existence of a dividend stopper	Yes	Yes
20 Fully discretionary, discretionally or mandatory	Fully discretionary	Fully discretionary
21 Existence of step up or incentive to redeem	No	No
22 Non-cumulative or cumulative	Non-cumulative	Non-cumulative
23 Convertible or non-convertible	Non-convertible	Non-convertible
24 If convertible, conversion trigger	n.a.	n.a.
25 If convertible, fully or partially	n.a.	n.a.
26 If convertible, conversion rate	n.a.	n.a.
27 If convertible, mandatory or optional conversion	n.a.	n.a.
28 If convertible, specify instrument type convertible into	n.a.	n.a.
29 If convertible, specify issuer of instrument it converts into	n.a.	n.a.
30 Write-down feature	Yes	Yes
31 If write-down, write-down triggers(s)	Point of non-viability at the discretion of the Regulator	Point of non-viability at the discretion of the Regulator
32 If write-down, full or partial	Partial	Partial
33 If write-down, permanent or temporary	Permanent	Permanent
34 If temporary write-down, description of write-up mechanism	n.a.	n.a.
35 Position in subordination hierarchy in liquidation (<i>instrument type immediately senior to instrument</i>)	Tier 2 instruments	Tier 2 instruments
36 Non compliant transitioned features	No	No
37 If yes, specify non compliant features	n.a.	n.a.

5.2 Main Features of Regulatory Instruments (cont'd)

Key Features of Regulatory Capital Instruments as at 31 December 2020

1 Issuer	United Overseas Bank Limited	United Overseas Bank Limited
2 Unique Identifier (ISIN code)	XS2230275633	US91127LAC46 / US91127KAC62
3 Governing law(s) of the instrument	Singapore	Singapore
Regulatory treatment		
4 Transitional Basel III rules	Tier 2	Tier 2
5 Post-transitional Basel III rules	Tier 2	Tier 2
6 Eligible at solo/group/group&solo	Group & Solo	Group & Solo
7 Instrument type	Subordinated Debt	Subordinated Debt
8 Amount recognised in regulatory capital (<i>in millions</i>)	S\$789 million	S\$837 million
9 Principal amount (<i>in millions</i>)	US\$600 million	US\$600 million
10 Accounting classification	Liability	Liability
11 Original date of issuance	16 September 2020	15 April 2019
12 Perpetual or dated	Dated	Dated
13 Original maturity date	16 March 2031	15 April 2029
14 Issuer call subject to prior supervisory approval	Yes	Yes
15 Optional call date	16 March 2026	15 April 2024
Tax/ regulatory event call	Yes	Yes
Redemption price	Par	Par
16 Subsequent call dates, if applicable	Not applicable. One time call only.	Not applicable. One time call only.
Coupons / dividends		
17 Fixed or floating ⁽¹⁾	Fixed	Fixed
18 Coupon rate and any related index	1.75% paid semi-annually on 16 March and 16 September	3.75% paid semi-annually on 15 April and 15 October
19 Existence of a dividend stopper	No	No
20 Fully discretionary, discretionally or mandatory	Mandatory	Mandatory
21 Existence of step up or incentive to redeem	No	No
22 Non-cumulative or cumulative	Cumulative	Cumulative
23 Convertible or non-convertible	Non-convertible	Non-convertible
24 If convertible, conversion trigger	n.a.	n.a.
25 If convertible, fully or partially	n.a.	n.a.
26 If convertible, conversion rate	n.a.	n.a.
27 If convertible, mandatory or optional conversion	n.a.	n.a.
28 If convertible, specify instrument type convertible into	n.a.	n.a.
29 If convertible, specify issuer of instrument it converts into	n.a.	n.a.
30 Write-down feature	Yes	Yes
31 If write-down, write-down triggers(s)	Point of non-viability at the discretion of the Regulator	Point of non-viability at the discretion of the Regulator
32 If write-down, full or partial	Partial	Partial
33 If write-down, permanent or temporary	Permanent	Permanent
34 If temporary write-down, description of write-up mechanism	n.a.	n.a.
35 Position in subordination hierarchy in liquidation (<i>instrument type immediately senior to instrument</i>)	Unsubordinated and unsecured obligations	Unsubordinated and unsecured obligations
36 Non compliant transitioned features	No	No
37 If yes, specify non compliant features	n.a.	n.a.

5.2 Main Features of Regulatory Instruments (cont'd)

Key Features of Regulatory Capital Instruments as at 31 December 2020

1 Issuer	United Overseas Bank Limited	United Overseas Bank Limited
2 Unique Identifier (ISIN code)	SG79A8000002	XS1485603408
3 Governing law(s) of the instrument	Singapore	Singapore
Regulatory treatment		
4 Transitional Basel III rules	Tier 2	Tier 2
5 Post-transitional Basel III rules	Tier 2	Tier 2
6 Eligible at solo/group/group&solo	Group & Solo	Group & Solo
7 Instrument type	Subordinated Debt	Subordinated Debt
8 Amount recognised in regulatory capital (<i>in millions</i>)	S\$797 million	S\$808 million
9 Principal amount (<i>in millions</i>)	S\$750 million	US\$600 million
10 Accounting classification	Liability	Liability
11 Original date of issuance	27 February 2017	8 September 2016
12 Perpetual or dated	Dated	Dated
13 Original maturity date	27 February 2029	8 March 2027
14 Issuer call subject to prior supervisory approval	Yes	Yes
15 Optional call date	27 February 2024	8 March 2022
Tax/ regulatory event call	Yes	Yes
Redemption price	Par	Par
16 Subsequent call dates, if applicable	Not applicable. One time call only.	Not applicable. One time call only.
Coupons / dividends		
17 Fixed or floating ⁽¹⁾	Fixed	Fixed
18 Coupon rate and any related index	3.50% paid semi-annually on 27 February and 27 August	2.88% paid semi-annually on 8 March and 8 September
19 Existence of a dividend stopper	No	No
20 Fully discretionary, discretionally or mandatory	Mandatory	Mandatory
21 Existence of step up or incentive to redeem	No	No
22 Non-cumulative or cumulative	Cumulative	Cumulative
23 Convertible or non-convertible	Non-convertible	Non-convertible
24 If convertible, conversion trigger	n.a.	n.a.
25 If convertible, fully or partially	n.a.	n.a.
26 If convertible, conversion rate	n.a.	n.a.
27 If convertible, mandatory or optional conversion	n.a.	n.a.
28 If convertible, specify instrument type convertible into	n.a.	n.a.
29 If convertible, specify issuer of instrument it converts into	n.a.	n.a.
30 Write-down feature	Yes	Yes
31 If write-down, write-down triggers(s)	Point of non-viability at the discretion of the Regulator	Point of non-viability at the discretion of the Regulator
32 If write-down, full or partial	Partial	Partial
33 If write-down, permanent or temporary	Permanent	Permanent
34 If temporary write-down, description of write-up mechanism	n.a.	n.a.
35 Position in subordination hierarchy in liquidation (<i>instrument type immediately senior to instrument</i>)	Unsubordinated and unsecured obligations	Unsubordinated and unsecured obligations
36 Non compliant transitioned features	No	No
37 If yes, specify non compliant features	n.a.	n.a.

5.2 Main Features of Regulatory Instruments (cont'd)

Key Features of Regulatory Capital Instruments as at 31 December 2020

1 Issuer	United Overseas Bank Limited	United Overseas Bank Limited
2 Unique Identifier (ISIN code)	XS1480822516	XS1379133058
3 Governing law(s) of the instrument	Singapore	Singapore
Regulatory treatment		
4 Transitional Basel III rules	Tier 2	Tier 2
5 Post-transitional Basel III rules	Tier 2	Tier 2
6 Eligible at solo/group/group&solo	Group & Solo	Group & Solo
7 Instrument type	Subordinated Debt	Subordinated Debt
8 Amount recognised in regulatory capital (<i>in millions</i>)	S\$122 million	S\$933 million
9 Principal amount (<i>in millions</i>)	HK\$700 million	US\$700 million ⁽²⁾
10 Accounting classification	Liability	Liability
11 Original date of issuance	26 August 2016	16 & 24 March 2016
12 Perpetual or dated	Dated	Dated
13 Original maturity date	26 August 2028	16 September 2026
14 Issuer call subject to prior supervisory approval	Yes	Yes
15 Optional call date	26 August 2023	16 September 2021
Tax/ regulatory event call	Yes	Yes
Redemption price	Par	Par
16 Subsequent call dates, if applicable	Not applicable. One time call only.	Not applicable. One time call only.
Coupons / dividends		
17 Fixed or floating ⁽¹⁾	Fixed	Fixed
18 Coupon rate and any related index	3.19% paid quarterly on 26 August, 26 November, 26 February and 26 May	3.5% paid semi-annually on 16 March and 16 September
19 Existence of a dividend stopper	No	No
20 Fully discretionary, discretionally or mandatory	Mandatory	Mandatory
21 Existence of step up or incentive to redeem	No	No
22 Non-cumulative or cumulative	Cumulative	Cumulative
23 Convertible or non-convertible	Non-convertible	Non-convertible
24 If convertible, conversion trigger	n.a.	n.a.
25 If convertible, fully or partially	n.a.	n.a.
26 If convertible, conversion rate	n.a.	n.a.
27 If convertible, mandatory or optional conversion	n.a.	n.a.
28 If convertible, specify instrument type convertible into	n.a.	n.a.
29 If convertible, specify issuer of instrument it converts into	n.a.	n.a.
30 Write-down feature	Yes	Yes
31 If write-down, write-down triggers(s)	Point of non-viability at the discretion of the Regulator	Point of non-viability at the discretion of the Regulator
32 If write-down, full or partial	Partial	Partial
33 If write-down, permanent or temporary	Permanent	Permanent
34 If temporary write-down, description of write-up mechanism	n.a.	n.a.
35 Position in subordination hierarchy in liquidation (<i>instrument type immediately senior to instrument</i>)	Unsubordinated and unsecured obligations	Unsubordinated and unsecured obligations
36 Non compliant transitioned features	No	No
37 If yes, specify non compliant features	n.a.	n.a.

(2) US\$500m 3.5% subordinated notes were first issued on 16 March 2016. This was followed by a re-tap for US\$200m on 24 March 2016, which was consolidated and formed a single series with the US\$500m tranche issued on 16 March 2016.

6 Leverage Ratio

The Basel III framework introduced Leverage Ratio as a non-risk-based backstop limit to supplement the risk-based capital requirements. It aims to constrain the build-up of excess leverage in the banking sector, with additional safeguards against model risk and measurement errors. Leverage ratio is expressed as Tier 1 Capital against Exposure Measure, which comprises on- and off-balance sheet items. Other than the difference in scope for consolidation and aggregation under SFRS and MAS Notice 637, there are no material differences between total balance sheet assets (net of on-balance sheet derivative and SFT assets) as reported in the financial statements and Exposure Measure of on-balance sheet items.

6.1 Leverage Ratio Summary Comparison Table

The following disclosure is presented in prescribed templates under MAS Notice 637 Annex 11F and 11G.

Reconciliation of Balance Sheet Assets to Exposure Measure⁵

\$m		31 Dec 2020
1	Total consolidated assets as per published financial statements	431,814
2	Adjustment for investments in entities that are consolidated for accounting purposes but are outside the regulatory scope of consolidation	(584)
3	Adjustment for fiduciary assets recognised on the balance sheet in accordance with the Accounting Standards but excluded from the calculation of the exposure measure	-
4	Adjustment for derivative transactions	3,576
5	Adjustment for SFTs	757
6	Adjustment for off-balance sheet items	47,371
7	Other adjustments	(4,701)
8	Exposure measure	478,233

⁵ Computed using quarter-end balances

6.2 Leverage Ratio Common Disclosure Template

Exposure Measure Components⁵

\$m		31 Dec 2020	30 Sep 2020
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)	403,618	398,453
2	Asset amounts deducted in determining Tier 1 capital	(4,701)	(4,719)
3	Total exposure measures of on-balance sheet items (excluding derivative transactions and SFTs)	398,917	393,734
Derivative exposure measures			
4	Replacement cost associated with all derivative transactions (net of the eligible cash portion of variation margins)	9,622	11,191
5	Potential future exposure associated with all derivative transactions	5,268	6,438
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	-	-
8	CCP leg of trade exposures excluded	-	-
9	Adjusted effective notional amount of written credit derivatives	-	-
10	Further adjustments in effective notional amounts and deductions from potential future exposures of written credit derivatives	-	-
11	Total derivative exposure measures	14,890	17,629
SFT exposure measures			
12	Gross SFT assets (with no recognition of accounting netting), after adjusting for sales accounting	16,298	10,762
13	Eligible netting of cash payables and cash receivables	-	-
14	SFT counterparty exposures	757	248
15	SFT exposure measures where a Reporting Bank acts as an agent in the SFTs	-	-
16	Total SFT exposure measures	17,055	11,010
Exposure measures of off-balance sheet items			
17	Off-balance sheet items at notional amount	219,925	218,971
18	Adjustments for calculation of exposure measures of off-balance sheet items	(172,554)	(171,781)
19	Total exposure measures of off-balance sheet items	47,371	47,190
Capital and Total exposures			
20	Tier 1 capital	35,610	34,688
21	Total exposures	478,233	469,563
Leverage ratio			
22	Leverage ratio	7.4%	7.4%

⁵ Computed using quarter-end balances

As at 31 December 2020 the Group's leverage ratio was 7.4%, unchanged quarter-on-quarter.

7 Macprudential Supervisory Measures

7.1 Geographical Distribution of Credit Exposures Used in the Countercyclical Capital Buffer

To achieve the broader macroprudential goal of protecting the banking sector from periods of excess aggregate credit growth, the Basel III standards introduced the Countercyclical Capital Buffer (CCyB) framework. The CCyB is applied on a discretionary basis by banking supervisors in the respective jurisdictions.

The Group's countercyclical buffer is computed as the weighted average of effective CCyB in jurisdictions where the Group has private sector credit exposures and the geographical distribution of the private sector credit exposures is based on where the ultimate risk of the exposure resides. Following mandatory disclosure under MAS Notice 637 provides an overview of the Group's private sector credit exposures by geographical breakdown.

Countercyclical Capital Buffer as at 31 December 2020

\$m	(a)	(b)	(c)	(d)
Geographical breakdown	Country-specific countercyclical buffer requirement	RWA for private sector credit exposures used in the computation of the countercyclical buffer	Bank-specific countercyclical buffer requirement	Countercyclical buffer amount
Hong Kong	1.00%	20,277		
Luxembourg	0.25%	542		
Sum		20,819		
Total		181,472	0.1%	254

Countercyclical Capital Buffer as at 30 June 2020

\$m	(a)	(b)	(c)	(d)
Geographical breakdown	Country-specific countercyclical buffer requirement	RWA for private sector credit exposures used in the computation of the countercyclical buffer	Bank-specific countercyclical buffer requirement	Countercyclical buffer amount
Hong Kong	1.00%	21,953		
Luxembourg	0.25%	547		
Sum		22,500		
Total		187,552	0.1%	273

7.2 Disclosure of G-SIB Indicators

The Basel Committee on Banking Supervision (BCBS) assesses the systemic importance of banks in a global context and has developed an indicator-based methodology for identifying Global Systemically Important Banks (G-SIBs). The 12 indicators are based on cross-jurisdictional activity, size, interconnectedness, substitutability/financial institution infrastructure and complexity.

Although UOB is not a G-SIB, it is required under MAS Notice 637 to disclose these 12 indicators on an annual basis. The indicators have been prepared in accordance with the instructions issued by the BCBS. Further details on the 12 indicators and assessment methodology are available at BCBS website: <http://www.bis.org/bcbs/gsib/>

G-SIB Indicators of UOB Group as at 31 December 2020 ⁶

	Category	Indicators used for assessing G-SIBs	\$m
1	Cross-jurisdictional activity	Cross-jurisdictional claims	225,277
2		Cross-jurisdictional liabilities	137,005
3	Size	Total exposures as defined for use in the Basel III leverage ratio ⁷	482,934
4	Interconnectedness	Intra-financial system assets	107,344
5		Intra-financial system liabilities	51,946
6		Securities outstanding	81,514
7	Substitutability/ financial institution infrastructure	Assets under custody	19,919
8		Payments activity	4,504,006
9		Underwritten transactions in debt and equity markets	9,267
10	Complexity	Notional amount of over-the-counter derivatives	780,262
11		Level 3 assets	5,223
12		Trading and available-for-sale securities	7,980

⁶ Previous disclosures are available at UOB website: www.UOBgroup.com/investor-relations/financial/index.html.

⁷ Total exposures differ from the total exposures disclosed under Leverage Ratio as the computation required by the BCBS for purpose of the G-SIB assessment exercise excludes regulatory adjustments.

8 Overview of RWA

The table below lists the Group's RWA by risk type and approach, as prescribed under MAS Notice 637. The minimum capital requirement is stated at 10.0% of RWA.

Total RWA was \$5.2 billion lower quarter-on-quarter mainly driven by lower credit RWA arising from improved asset mix and model enhancements.

\$m		(a)	(b)	(c)	
		RWA			Minimum capital requirements
		As at 31 Dec 2020	As at 30 Sep 2020	As at 31 Dec 2020	
1	Credit risk (excluding CCR)	185,476	190,204	18,548	
2	<i>of which: Standardised Approach</i>	26,268	26,113	2,627	
3	<i>of which: F-IRBA</i>	136,324	140,940	13,632	
4	<i>of which: supervisory slotting approach</i>	4,724	4,810	472	
5	<i>of which: A-IRBA</i>	18,160	18,341	1,816	
6	CCR	4,052	3,841	405	
7	<i>of which: Current Exposure Method</i>	3,181	3,012	318	
8	<i>of which: CCR internal models method</i>	-	-	-	
9	<i>of which: other CCR</i>	511	334	51	
9a	<i>of which: CCP</i>	360	495	36	
10	CVA	2,491	2,552	249	
11	Equity exposures under the simple risk weight method	-	-	-	
11a	Equity exposures under the IMM	-	-	-	
12	Equity investments in funds – look through approach	53	84	5	
13	Equity investments in funds – mandate-based approach	3,152	3,300	315	
14	Equity investments in funds – fall back approach	#	#	#	
14a	Equity investment in funds – partial use of an approach	-	-	-	
15	Unsettled transactions	-	-	-	
16	Securitisation exposures in the banking book	357	343	36	
17	<i>of which: SEC-IRBA</i>	-	-	-	
18	<i>of which: SEC-ERBA, including IAA</i>	284	265	28	
19	<i>of which: SEC-SA</i>	73	78	7	
20	Market risk	9,426	9,907	943	
21	<i>of which: SA(MR)</i>	9,426	9,907	943	
22	<i>of which: IMA</i>	-	-	-	
23	Operational risk	16,336	16,328	1,634	
24	Amounts below the thresholds for deduction (subject to 250% risk weight)	4,098	4,036	410	
25	Floor adjustment	-	-	-	
26	Total	225,441	230,595	22,544	

9 Linkages between Financial Statements and Regulatory Exposures

9.1 Differences between Accounting and Regulatory Scopes of Consolidation and Mapping of Financial Statements Categories with Regulatory Risk Categories

The following table shows the differences between the accounting and regulatory scopes of consolidation, and provides a breakdown of the Group's assets and liabilities by regulatory risk categories.

As at 31 December 2020

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Carrying values of items:						
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation ⁸	Subject to credit risk requirements	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
\$m							
Assets							
Cash, balances and placements with central banks	36,798	36,798	32,874	1,307	-	3,006	-
Singapore Government treasury bills and securities	8,103	8,103	8,032	-	-	71	-
Other government treasury bills and securities	13,890	13,886	12,324	-	-	1,562	-
Trading securities	4,215	4,215	-	-	-	4,215	-
Placements and balances with banks	40,284	40,230	26,641	10,200	-	10,149	-
Loans to customers	277,201	277,202	271,343	4,792	986	4,202	-
Derivative financial assets	11,368	11,361	-	11,361	-	9,971	-
Investment securities	25,217	24,283	22,964	-	1,854	-	5
Other assets	5,033	4,916	4,914	#	2	-	#
Deferred tax assets	429	429	-	-	-	-	429
Investment in associates and joint ventures	1,210	1,210	1,170	-	-	-	40
Investment in subsidiaries	-	45	45	-	-	-	-
Investment properties	964	964	964	-	-	-	-
Fixed assets	2,959	2,905	2,905	-	-	-	-
Intangible assets	4,143	4,143	-	-	-	-	4,143
Total assets	431,814	431,230	384,176	27,660	2,842	33,176	4,617
Liabilities							
Deposits and balances of:							
Banks	15,977	15,977	-	4,469	-	1,163	11,420
Customers	324,598	324,604	-	4	-	148	324,457
Bills and drafts payable	792	792	-	-	-	-	792
Derivative financial liabilities	11,519	11,517	-	11,517	-	10,021	-
Other liabilities	7,379	7,188	-	1	-	-	7,187
Tax payable	374	366	-	-	-	-	366
Deferred tax liabilities	436	427	-	-	-	-	427
Debts issued	29,608	29,608	-	-	-	272	29,336
Total liabilities	390,683	390,479	-	15,991	-	11,604	373,985

⁸ The amounts shown in column (b) do not equal the sum of the amounts shown in columns (c) to (g) as some of the items are subject to capital requirements from more than one risk category.

9.2 Main Sources of Differences between Regulatory Exposure Amounts and Carrying Amounts in Financial Statements

The following table illustrates the main differences between the regulatory exposure amounts and the carrying values in the financial statements in respect of the assets and liabilities subject to credit risk, CCR and securitisation framework requirements.

It is not meaningful to include items subject to market risk requirements as they are based on a different exposure measurement approach.

As at 31 December 2020

\$m		(a)	(b)	(c)	(d)
		Total	Items subject to:		
			Credit risk requirements	CCR requirements	Securitisation framework
1	Asset carrying amount under regulatory scope of consolidation (as per Table 11-4) ⁹	426,613	384,176	27,660	2,842
2	Liabilities carrying amount under regulatory scope of consolidation (as per Table 11-4) ⁹	16,494	-	15,991	-
3	Total net amount under regulatory scope of consolidation	410,119	384,176	11,669	2,842
4	Off-balance sheet amount	217,730	48,898	888	65
5	Differences in derivatives and securities financing transactions	-	-	24,825	-
6	Differences due to consideration of provisions	-	4,356	-	-
7	Differences due to other differences	-	(2,951)	(832)	-
8	Exposures amounts considered for regulatory purposes	473,936	434,479	36,550	2,907

⁹ The total column excludes amounts subject to deduction from capital or not subject to regulatory capital requirements.

9.3 Qualitative Disclosure of Differences between Carrying Amounts in Financial Statements and Regulatory Exposure Amounts

The main differences between accounting amounts as reported in financial statements and regulatory exposure amounts are:

- (i) off-balance sheet exposures including contingent liabilities and commitments after application of Credit Conversion Factor
- (ii) securities financing transactions counterparty exposures and potential future exposures for derivatives, offset by netting under enforceable netting agreements
- (iii) differences due to consideration of provisions
- (iv) differences due to other differences, including recognition of credit risk mitigation.

The valuation process adopted by the Group is governed by the valuation, market data and valuation adjustment policies. These policies set the methodologies and controls for the valuation of financial assets and liabilities where mark-to-market or mark-to-model is required. These policies apply to all assets and liabilities classified as fair value through profit and loss ("FVPL") and fair value through other comprehensive income ("FVOCI"). The valuation processes incorporating the market rates, the methodologies and models, including the analysis of the valuation are regularly reviewed by Group Risk Management.

All valuation models are independently validated by Group Risk Management and approved by the Asset and Liabilities Committee ("ALCO"). The inputs used for valuation are independently verified by checking against information from market sources. These are applicable to products or instruments with liquid markets or those traded on exchanges. Where market prices are not liquid, additional techniques will be used such as historical estimation or available proxies such as reasonableness checks.

The valuation process is further supplemented by valuation adjustments for valuation uncertainties. Valuation adjustment methodologies and adjustments are approved by ALCO. The valuation adjustments set aside include bid/offer adjustments, illiquidity adjustments, parameter adjustments, model uncertainties and other day 1 valuation adjustments where applicable.

9.4 Prudent Valuation Adjustments

The table below provides the breakdown of the constituent elements of the Group's prudent valuation adjustment.

This prudent valuation adjustment is applicable for all assets and liabilities measured at fair value (Marked to market or Marked to model) and for which valuation adjustments are required.

The main contributions to the prudent valuation adjustment are Day 1 break fund cost for Callable Structured Notes, model uncertainty for Interest Rate Callables, bid mid for interest rate and illiquidity for fixed income.

Significant changes in valuation adjustments are in model uncertainty for interest rate structures, illiquidity in fixed income and bid mid for interest rate.

As at 31 December 2020

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
		Equity	Interest rates	FX	Credit	Commodities	Total	of which: in the trading book	of which: in the banking book
\$m									
1	Closeout uncertainty	7	13	4	#	2	25	15	10
2	of which: Mid-market value	#	12	4	-	#	16	13	2
3	of which: Closeout cost	7	1	-	#	1	9	2	8
4	of which: Concentration	-	-	-	-	-	-	-	-
5	Early termination	-	5	-	-	-	5	5	-
6	Model risk	#	10	1	-	-	11	11	-
7	Operational risk	-	-	-	-	-	-	-	-
8	Investing and funding costs	-	8	-	-	-	8	8	-
9	Unearned credit spreads	-	3	-	1	-	4	4	-
10	Future administrative costs	-	-	-	-	-	-	-	-
11	Other	-	-	-	-	-	-	-	-
12	Total adjustment	7	38	5	1	2	53	43	10

9.4 Prudent Valuation Adjustments (cont'd)

As at 31 December 2019

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
		Equity	Interest rates	FX	Credit	Commodities	Total	of which: in the trading book	of which: in the banking book
\$m									
1	Closeout uncertainty	5	7	4	#	#	16	8	8
2	of which: Mid-market value	#	6	4	-	#	10	8	2
3	of which: Closeout cost	5	1	-	#	-	6	#	6
4	of which: Concentration	-	-	-	-	-	-	-	-
5	Early termination	-	7	-	1	-	7	7	-
6	Model risk	#	#	#	-	-	1	1	-
7	Operational risk	-	-	-	-	-	-	-	-
8	Investing and funding costs	-	8	-	-	-	8	8	-
9	Unearned credit spreads	-	-	-	1	-	1	1	-
10	Future administrative costs	-	-	-	-	-	-	-	-
11	Other	-	-	-	-	-	-	-	-
12	Total adjustment	5	21	4	2	#	33	25	8

10 Credit Risk

10.1 General Qualitative Disclosures on Credit Risk

Please refer to UOB Annual Report 2020, Risk Management section – Credit Risk.

10.2 Credit Quality of Assets

Please refer to UOB Annual Report 2020, Risk Management section – Credit Risk and summary of significant accounting policies under the notes to financial statements.

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

A default on the obligor is considered to have occurred when either or both of the followings have taken place:

- The obligor is unlikely to pay its credit obligations to the Group in full, without recourse by the bank to actions such as realising security (if held).
- The obligor is past due more than 90 days on any credit obligation to the Group. Overdrafts will be considered as being past due once the outstanding has breached an advised limit.

As at 31 December 2020

		(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Gross carrying amount of		Allowances and impairments	of which: allowances for standardised approach exposures		of which: allowances for IRBA exposures	Net values (a+b-c)
		Defaulted exposures	Non-defaulted exposures		of which: specific allowances	of which: general allowances		
\$m								
1	Loans	4,520	276,866	4,185	126	419	3,640	277,201
2	Debt securities	16	42,576	60	-	30	30	42,532
3	Off-balance sheet exposures	60	65,573	265	-	47	218	65,368
4	Total	4,596	385,015	4,510	126	496	3,888	385,101

As at 30 June 2020

		(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Gross carrying amount of		Allowances and impairments	of which: allowances for standardised approach exposures		of which: allowances for IRBA exposures	Net values (a+b-c)
		Defaulted exposures	Non-defaulted exposures		of which: specific allowances	of which: general allowances		
\$m								
1	Loans	4,529	276,164	3,699	125	365	3,209	276,994
2	Debt securities	44	41,286	76	-	21	55	41,254
3	Off-balance sheet exposures	24	62,780	220	#	42	178	62,584
4	Total	4,597	380,230	3,995	125	428	3,442	380,832

10.3 Changes in Stock of Defaulted Loans and Debt Securities

The table below provides the change in defaulted exposures, the flows between non-defaulted and defaulted exposure categories and reductions in the defaulted exposures due to write-offs.

As at 31 December 2020

\$m		(a)
1	Defaulted loans and debt securities at end of the previous semi-annual reporting period	4,573
2	Loans and debt securities that have defaulted since the previous semi-annual reporting period	858
3	Returned to non-defaulted status	(131)
4	Amounts written-off	(287)
5	Other changes	(477)
6	Defaulted loans and debt securities at end of the semi-annual reporting period (1+2+3+4+5)	4,536

The decrease in defaulted loans and debt securities in the second half of 2020 was mainly due to higher outflow of defaulted loans from write-off, returned to non-defaulted status and other changes relative to the inflow of new defaulted loans. Other changes mainly comprise of recoveries and foreign exchange.

10.4 Additional Disclosures Related to the Credit Quality of Assets

Please refer to UOB Annual Report 2020, Risk Management section – Credit Risk and summary of significant accounting policies under the notes to the financial statements.

The following tables show the Group's exposures analysed by geographical areas, industry and residual maturity:

Major On-balance sheet credit exposures as at 31 December 2020

\$m	Loans to customers (gross)	Government treasury bills and securities	Placements and balances with banks	Debt securities	Total
Analysed by geography^a					
Singapore	143,333	8,103	1,072	3,241	155,749
Malaysia	29,691	5,922	3,453	3,034	42,100
Thailand	20,625	1,368	2,983	3,546	28,522
Indonesia	10,470	1,978	2,365	28	14,841
Greater China	44,195	3,412	17,579	3,105	68,291
Others	33,073	1,210	12,832	11,775	58,890
Total	281,387	21,993	40,284	24,729	368,393

^a By borrower's country of incorporation / operation (for non-individuals) and residence (for individuals).

\$m	Loans to customers (gross)	Government treasury bills and securities	Placements and balances with banks	Debt securities	Total
Analysed by industry					
Transport, storage and communication	11,411	–	–	1,221	12,632
Building and construction	71,702	–	–	820	72,522
Manufacturing	20,194	–	–	1,000	21,194
Financial institutions, investment and holding companies	31,259	–	40,284	9,747	81,290
General commerce	34,488	–	–	922	35,410
Professionals and private individuals	27,637	–	–	–	27,637
Housing loans	68,562	–	–	–	68,562
Government	–	21,993	–	–	21,993
Others	16,134	–	–	11,019	27,153
Total	281,387	21,993	40,284	24,729	368,393

10.4 Additional Disclosures Related to the Credit Quality of Asset (cont'd)

Major On-balance sheet credit exposures as at 31 December 2019

\$m	Loans to customers (gross)	Government treasury bills and securities	Placements and balances with banks	Debt securities	Total
Analysed by geography^a					
Singapore	138,666	6,199	2,222	2,134	149,221
Malaysia	29,554	3,846	7,117	2,619	43,136
Thailand	19,585	4,087	1,897	53	25,622
Indonesia	11,466	1,145	2,025	14	14,650
Greater China	41,423	3,480	25,792	2,882	73,577
Others	27,982	2,607	13,787	7,361	51,737
Total	268,676	21,364	52,840	15,063	357,943

^a By borrower's country of incorporation / operation (for non-individuals) and residence (for individuals).

\$m	Loans to customers (gross)	Government treasury bills and securities	Placements and balances with banks	Debt securities	Total
Analysed by industry					
Transport, storage and communication	11,036	–	–	789	11,825
Building and construction	66,992	–	–	526	67,518
Manufacturing	19,380	–	–	921	20,301
Financial institutions, investment and holding companies	26,098	–	52,840	6,747	85,685
General commerce	32,713	–	–	717	33,430
Professionals and private individuals	29,458	–	–	–	29,458
Housing loans	68,586	–	–	–	68,586
Government	–	21,364	–	–	21,364
Others	14,413	–	–	5,363	19,776
Total	268,676	21,364	52,840	15,063	357,943

10.4 Additional Disclosures Related to the Credit Quality of Assets (cont'd)

Contingent liabilities

\$m	31 December 2020	31 December 2019
Analysed by geography^a		
Singapore	11,719	16,565
Malaysia	2,584	2,759
Thailand	1,869	1,892
Indonesia	1,197	1,238
Greater China	5,296	4,489
Others	4,452	5,419
Total	27,117	32,362

^a By borrower's country of incorporation / operation (for non-individuals) and residence (for individuals).

\$m	31 December 2020	31 December 2019
Analysed by industry		
Transport, storage and communication	1,591	1,559
Building and construction	8,643	8,270
Manufacturing	3,535	3,376
Financial institutions, investment and holding companies	2,782	9,006
General commerce	7,956	7,703
Professionals and private individuals	247	172
Others	2,363	2,276
Total	27,117	32,362

10.4 Additional Disclosures Related to the Credit Quality of Assets (cont'd)

Commitments (excluding operating lease and capital commitments)

\$m	31 December 2020	31 December 2019
Analysed by geography^a		
Singapore	77,385	81,671
Malaysia	13,926	13,293
Thailand	14,385	13,449
Indonesia	5,790	5,628
Greater China	25,892	28,349
Others	22,624	18,390
Total	160,002	160,780

^a By borrower's country of incorporation / operation (for non-individuals) and residence (for individuals).

\$m	31 December 2020	31 December 2019
Analysed by industry		
Transport, storage and communication	6,556	6,364
Building and construction	27,193	26,587
Manufacturing	24,322	23,714
Financial institutions, investment and holding companies	18,007	17,970
General commerce	38,739	44,016
Professionals and private individuals	25,049	23,907
Housing Loans	4,117	3,430
Others	16,019	14,792
Total	160,002	160,780

10.4 Additional Disclosures Related to the Credit Quality of Assets (cont'd)

Credit exposures by residual contractual maturity

The following table shows the Group's credit exposures by remaining contractual maturities.

As at 31 December 2020

\$m	Up to 7 days	Over 7 days to 1 month	Over 1 to 3 months	Over 3 to 12 months	Over 1 to 3 years	Over 3 years	No specific maturity	Total
Balances and placements with central banks	8,569	8,691	10,755	2,238	-	-	5,731	35,984
Singapore Government treasury bills and securities	-	-	-	1,637	3,102	3,364	-	8,103
Other government treasury bills and securities	273	403	1,140	2,453	5,302	4,322	(3)	13,890
Trading debt securities	-	23	424	711	245	890	-	2,293
Placements and balances with banks	11,507	7,056	11,819	7,658	1,015	99	1,130	40,284
Loans to customers	15,903	32,873	20,355	25,166	51,716	125,151	6,037	277,201
Derivative financial assets	-	-	-	-	-	-	11,368	11,368
Investment debt securities	-	120	1,243	5,028	8,543	7,543	(41)	22,436
Others	-	-	-	-	-	-	3,096	3,096
Total	36,252	49,166	45,736	44,891	69,923	141,369	27,318	414,655

The majority of the Group's off-balance sheet credit exposures are short term commitments with maturity of less than 1 year.

10.4 Additional Disclosures Related to the Credit Quality of Assets (cont'd)

As at 31 December 2019

\$m	Up to 7 days	Over 7 days to 1 month	Over 1 to 3 months	Over 3 to 12 months	Over 1 to 3 years	Over 3 years	No specific maturity	Total
Balances and placements with central banks	8,579	3,445	4,457	2,026	-	-	6,405	24,912
Singapore Government treasury bills and securities	-	35	104	828	1,992	3,240	-	6,199
Other government treasury bills and securities	678	340	1,450	3,306	5,838	3,463	90	15,165
Trading debt securities	-	23	258	860	128	1,136	-	2,405
Placements and balances with banks	11,017	11,644	14,142	13,749	1,438	320	530	52,840
Loans to customers	19,104	26,327	19,019	22,298	43,836	127,301	7,573	265,458
Derivative financial assets	-	-	-	-	-	-	6,408	6,408
Investment debt securities	-	153	637	3,346	4,084	4,457	(19)	12,658
Others	-	-	-	-	-	-	2,690	2,690
Total	39,378	41,967	40,067	46,413	57,316	139,917	23,677	388,735

The majority of the Group's off-balance sheet credit exposures are short term commitments with maturity of less than 1 year.

10.4 Additional Disclosures Related to the Credit Quality of Assets (cont'd)

The following tables show the Group's impaired exposures, related allowances and write-offs analysed by geographical areas and industry.

As at 31 December 2020

\$m	Impaired Exposure	Specific allowance	Write-off
Analysed by geography^a			
Singapore	2,182	841	96
Malaysia	581	171	14
Thailand	673	269	54
Indonesia	522	222	43
Greater China	328	89	31
Others	234	73	23
Non-performing loans	4,520	1,665	261
Debt securities, contingent items and others	88	27	42
Total	4,608	1,692	303

^a By borrower's country of incorporation/operation (for non-individuals) and residence (for individuals).

\$m	Impaired Exposure	Specific allowance	Write-off
Analysed by industry			
Transport, storage and communication	581	230	25
Building and construction	637	162	16
Manufacturing	785	277	59
Financial institutions, investment and holding companies	36	22	-
General commerce	1,035	443	73
Professionals and private individuals	290	94	37
Housing loans	808	202	33
Others	348	235	18
Non-performing loans	4,520	1,665	261
Debt securities, contingent items and others	88	27	42
Total	4,608	1,692	303

10.4 Additional Disclosures Related to the Credit Quality of Assets (cont'd)

As at 31 December 2019

\$m	Impaired Exposure	Specific allowance	Write-off
Analysed by geography^a			
Singapore	2,183	822	34
Malaysia	612	174	8
Thailand	550	200	37
Indonesia	463	178	37
Greater China	101	24	2
Others	227	100	11
Non-performing loans	4,136	1,498	129
Debt securities, contingent items and others	161	128	8
Total	4,297	1,626	137

^a By borrower's country of incorporation/operation (for non-individuals) and residence (for individuals).

\$m	Impaired Exposure	Specific allowance	Write-off
Analysed by industry			
Transport, storage and communication	650	354	6
Building and construction	618	149	20
Manufacturing	712	276	22
Financial institutions, investment and holding companies	39	23	-
General commerce	658	262	15
Professionals and private individuals	309	82	24
Housing loans	776	144	40
Others	374	208	2
Non-performing loans	4,136	1,498	129
Debt securities, contingent items and others	161	128	8
Total	4,297	1,626	137

10.4 Additional Disclosures Related to the Credit Quality of Assets (cont'd)

The following tables show the Group's past due but not impaired exposures analysed by ageing.

As at 31 December 2020

\$m	Past due but not impaired exposure			
	< 30 days	30 - 59 days	60 – 90 days	Total
Total	3,372	798	340	4,510

As at 31 December 2019

\$m	Past due but not impaired exposure			
	< 30 days	30 - 59 days	60 – 90 days	Total
Total	3,850	535	618	5,003

The following tables show the Group's restructured impaired exposure.

As at 31 December 2020

\$m	Restructured impaired exposure
Total	914

As at 31 December 2019

\$m	Restructured impaired exposure
Total	809

10.5 Qualitative disclosure related to Credit Risk Mitigation techniques

Please refer to UOB Annual Report 2020, Risk Management section – Credit Risk.

10.6 Overview of CRM Techniques

The following table provides information on the extent of usage of CRM techniques.

Compared with 30 June 2020, the increase in secured exposures were from both higher collateral and financial guarantees received.

As at 31 December 2020

		(a)	(b)	(c)	(d)	(e)
		Exposures Unsecured	Exposures Secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
\$m						
1	Loans	140,836	136,365	114,497	16,696	-
2	Debt Securities	41,381	1,151	37	1,114	-
3	Total	182,217	137,516	114,534	17,810	-
4	Of which: defaulted	1,346	1,640	1,542	-	-

As at 30 June 2020

		(a)	(b)	(c)	(d)	(e)
		Exposures Unsecured	Exposures Secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
\$m						
1	Loans	142,925	134,069	112,094	15,378	-
2	Debt Securities	40,196	1,058	-	1,058	-
3	Total	183,121	135,127	112,094	16,436	-
4	Of which: defaulted	1,163	1,785	1,658	-	-

10.7 Qualitative disclosure on the use of external credit ratings under the Standardised Approach Credit Risk

Please refer to UOB Annual Report 2020, Risk Management section – Credit Risk.

10.8 SA(CR) and SA(EQ) – Credit Risk Exposure and CRM Effects

The following table illustrates the effects of CRM on the calculation of Group's capital requirements for credit exposures under SA(CR) and SA(EQ).

Compared with 30 June 2020, the increase in RWA were mainly due to higher exposures in Central government and central bank, Corporate and Other exposures asset classes.

As at 31 December 2020

	Asset classes and others	(a)	(b)	(c)	(d)	(e)	(f)
		Exposures before CCF and CRM		Exposures post-CCF and post-CRM		RWA and RWA density	
		On-balance sheet amount \$m	Off-balance sheet amount \$m	On-balance sheet amount \$m	Off-balance sheet amount \$m	RWA \$m	RWA density %
1	Cash items	2,077	-	2,077	-	9	0
2	Central government and central bank	2,308	55	2,308	55	444	19
3	PSE	3,360	1,525	3,666	351	641	16
4	MDB	373	18	373	3	-	-
5	Bank	688	168	806	15	346	42
6	Corporate	10,328	13,802	8,645	1,807	10,312	99
7	Regulatory retail	1,994	1,700	1,628	19	1,235	75
8	Residential mortgage	1,972	11	1,972	6	850	43
9	CRE	1,733	979	1,661	43	1,703	100
10	Equity - SA(EQ)	1,426	169	1,426	169	2,739	172
11	Past due exposures	203	2	202	#	257	127
12	Higher-risk categories	-	-	-	-	-	-
13	Other exposures	8,960	2,614	7,309	423	7,731	100
14	Total	35,422	21,043	32,073	2,892	26,268	75

As at 30 June 2020

	Asset classes and others	(a)	(b)	(c)	(d)	(e)	(f)
		Exposures before CCF and CRM		Exposures post-CCF and post-CRM		RWA and RWA density	
		On-balance sheet amount \$m	Off-balance sheet amount \$m	On-balance sheet amount \$m	Off-balance sheet amount \$m	RWA \$m	RWA density %
1	Cash items	2,338	-	2,338	-	13	1
2	Central government and central bank	1,583	32	1,583	32	160	10
3	PSE	2,971	1,798	3,251	358	742	21
4	MDB	375	1	464	-	-	-
5	Bank	730	87	863	38	380	42
6	Corporate	10,120	13,881	8,422	1,788	10,070	99
7	Regulatory retail	2,058	1,758	1,715	25	1,306	75
8	Residential mortgage	2,096	12	2,096	7	890	42
9	CRE	1,889	889	1,808	47	1,855	100
10	Equity - SA(EQ)	1,363	178	1,363	178	2,658	173
11	Past due exposures	215	2	214	#	269	126
12	Higher-risk categories	-	-	-	-	-	-
13	Other exposures	8,888	2,217	6,952	460	7,411	100
14	Total	34,625	20,855	31,069	2,934	25,754	76

10.9 SA(CR) and SA(EQ) – Exposures by Asset Classes and Risk Weights

The following table provides a breakdown of Group's credit risk exposures under SA(CR) and SA(EQ) by asset class and risk weight.

Compared with 30 June 2020, the increase in exposures were mainly from the Central government and central bank, Corporate and Other exposures asset classes.

As at 31 December 2020

\$m		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
	Risk weight Asset classes and others	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposure amount (post-CCF and post-CRM)
		1	Cash items	2,034	-	43	-	-	-	-	-
2	Central government and central bank	1,475	-	-	-	888	-	-	-	-	2,363
3	PSE	2,514	-	367	-	1,136	-	-	-	-	4,017
4	MDB	377	-	-	-	-	-	-	-	-	377
5	Bank	-	-	226	-	589	-	6	-	-	822
6	Corporate	-	-	123	-	83	-	10,246	-	-	10,452
7	Regulatory retail	-	-	-	-	-	1,647	-	-	-	1,647
8	Residential mortgage	-	-	-	1,706	-	82	191	-	-	1,979
9	CRE	-	-	-	-	-	-	1,703	-	-	1,703
10	Equity - SA(EQ)	-	-	-	-	-	-	-	-	1,595	1,595
11	Past due exposures	-	-	-	-	-	-	92	110	-	202
12	Higher-risk categories	-	-	-	-	-	-	-	-	-	-
13	Other exposures	-	-	-	-	-	-	7,731	-	-	7,731
14	Total	6,400	-	759	1,706	2,697	1,729	19,970	110	1,595	34,965

As at 30 June 2020

\$m		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
	Risk weight Asset classes and others	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposure amount (post-CCF and post-CRM)
		1	Cash items	2,274	-	63	-	-	-	-	-
2	Central government and central bank	1,294	-	-	-	321	-	-	-	-	1,615
3	PSE	1,649	-	794	-	1,166	-	-	-	-	3,609
4	MDB	464	-	-	-	-	-	-	-	-	464
5	Bank	-	-	272	-	608	-	21	-	-	902
6	Corporate	-	-	132	-	70	-	10,009	-	-	10,210
7	Regulatory retail	-	-	-	-	-	1,741	-	-	-	1,741
8	Residential mortgage	-	-	-	1,837	-	75	191	-	-	2,103
9	CRE	-	-	-	-	-	-	1,855	-	-	1,855
10	Equity - SA(EQ)	-	-	-	-	-	-	-	-	1,541	1,541
11	Past due exposures	-	-	-	-	-	-	104	110	-	214
12	Higher-risk categories	-	-	-	-	-	-	-	-	-	-
13	Other exposures	-	-	-	-	-	-	7,411	-	-	7,411
14	Total	5,682	-	1,261	1,837	2,164	1,816	19,592	110	1,541	34,003

10.10 Qualitative disclosure for Internal Ratings-Based Approach models

Please refer to UOB Annual Report 2020, Risk Management section – Credit Risk.

10.11 IRBA – Credit Risk Exposures by Portfolio and PD Range

The following table provides the main parameters used for the calculation of capital requirements for credit exposures under IRBA.

(A) Main parameters used for calculations of capital requirements for credit exposures under FIRB

As at 31 December 2020

PD range %	(a) Original on-balance sheet gross exposures \$m	(b) Off-balance sheet exposures pre-CCF \$m	(c) Average CCF %	(d) EAD post-CRM and post-CCF \$m	(e) Average PD %	(f) Number of Obligors	(g) Average LGD %	(h) Average Maturity Years	(i) RWA \$m	(j) RWA density %	(k) EL \$m	(l) TEP \$m
Sovereign												
0.00 to < 0.15	54,562	2,729	18	58,736	0.0	24	45	1.5	2,693	5	4	
0.15 to <0.25	398	-	-	398	0.2	2	45	1.7	163	41	#	
0.25 to <0.50	-	-	-	-	-	-	-	-	-	-	-	
0.50 to <0.75	104	-	-	104	0.6	2	45	0.9	61	58	#	
0.75 to < 2.50	149	-	-	149	0.9	2	45	4.0	171	115	1	
2.50 to < 10.00	-	-	-	-	-	-	-	-	-	-	-	
10.00 to <100.00	15	-	-	15	18.5	1	45	0.0	32	221	1	
100.00 (Default)	-	-	-	-	-	-	-	-	-	-	-	
Sub-total	55,228	2,729	18	59,402	0.0	31	45	1.5	3,121	5	7	52
Bank												
0.00 to < 0.15	25,453	1,579	73	26,764	0.0	164	45	0.7	2,976	11	5	
0.15 to <0.25	3,309	150	2	3,312	0.2	24	45	0.6	1,170	35	3	
0.25 to <0.50	1,366	594	14	1,449	0.3	14	45	0.4	708	49	2	
0.50 to <0.75	87	87	57	137	0.6	6	45	1.9	126	92	#	
0.75 to < 2.50	553	77	17	566	1.0	13	45	0.5	456	81	2	
2.50 to < 10.00	442	26	20	447	4.3	7	45	0.3	573	128	9	
10.00 to <100.00	17	5	76	21	18.6	11	42	0.2	44	209	2	
100.00 (Default)	-	-	-	-	-	-	-	-	-	-	-	
Sub-total	31,226	2,518	52	32,697	0.2	239	45	0.7	6,053	19	24	101
Corporate												
0.00 to < 0.15	9,503	23,503	18	14,751	0.1	232	45	2.1	3,436	23	5	
0.15 to <0.25	4,642	6,828	19	7,538	0.2	189	44	1.6	2,933	39	7	
0.25 to <0.50	16,414	23,200	17	24,245	0.4	539	44	1.9	13,823	57	41	
0.50 to <0.75	7,043	15,557	19	10,899	0.5	339	41	2.0	6,942	64	23	
0.75 to < 2.50	22,592	33,104	15	27,139	1.2	1,599	39	1.6	21,627	80	132	
2.50 to < 10.00	10,618	13,687	14	7,244	4.9	716	42	1.3	9,452	130	148	
10.00 to <100.00	2,808	3,732	18	1,266	19.3	355	31	1.3	2,069	163	78	
100.00 (Default)	1,560	263	36	1,653	100.0	120	43	1.6	-	-	712	
Sub-total	75,180	119,874	17	94,735	2.9	4,089	42	1.8	60,281	64	1,145	1,780
Corporate small business												
0.00 to < 0.15	16	20	3	56	0.1	5	44	2.9	25	45	#	
0.15 to <0.25	78	925	10	191	0.2	198	31	1.7	41	22	#	
0.25 to <0.50	899	2,138	7	1,117	0.4	468	36	1.6	424	38	2	
0.50 to <0.75	679	1,918	9	896	0.5	478	38	1.9	453	51	2	
0.75 to < 2.50	8,187	8,419	10	8,479	1.4	3,078	38	2.0	6,219	73	45	
2.50 to < 10.00	7,061	4,673	10	6,006	5.2	2,498	37	1.8	6,084	101	116	
10.00 to <100.00	1,384	897	9	1,075	20.1	561	37	1.8	1,870	174	80	
100.00 (Default)	868	133	9	879	100.0	222	41	2.0	-	-	364	
Sub-total	19,172	19,124	9	18,699	8.2	7,508	38	1.9	15,116	81	608	555
Specialised lending - IPRE												
0.00 to < 0.15	-	-	-	-	-	-	-	-	-	-	-	
0.15 to <0.25	7,986	2,781	66	9,817	0.2	134	45	2.3	4,248	43	8	
0.25 to <0.50	28,130	5,378	55	31,099	0.4	383	45	2.1	18,476	59	53	
0.50 to <0.75	6,909	1,312	54	7,616	0.5	132	45	2.3	5,521	72	18	
0.75 to < 2.50	17,250	2,022	46	18,184	1.2	727	45	1.9	17,197	95	99	
2.50 to < 10.00	3,763	393	40	3,920	4.0	403	45	2.2	5,612	143	71	
10.00 to <100.00	277	4	64	279	24.3	21	45	2.0	699	250	31	
100.00 (Default)	528	13	5	529	100.0	45	45	1.5	-	-	238	
Sub-total	64,843	11,904	55	71,445	1.6	1,845	45	2.1	51,753	72	518	898
Total (sum of portfolios)	245,649	156,149	19	276,977	2.0	13,712	43	1.7	136,324	49	2,302	3,387

10.11 IRBA – Credit Risk Exposures by Portfolio and PD Range (cont'd)
As at 30 June 2020

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
PD range %	Original on-balance sheet gross exposures \$m	Off-balance sheet exposures pre-CCF \$m	Average CCF %	EAD post-CRM and post-CCF \$m	Average PD %	Number of Obligors	Average LGD %	Average Maturity Years	RWA \$m	RWA density %	EL \$m	TEP \$m
Sovereign												
0.00 to < 0.15	47,739	1,018	100	50,848	0.0	23	45	1.4	2,424	5	4	
0.15 to <0.25	418	-	-	418	0.2	2	45	2.0	184	44	#	
0.25 to <0.50	-	-	-	-	-	-	-	-	-	-	-	
0.50 to <0.75	120	-	-	120	0.6	2	45	0.9	70	58	#	
0.75 to < 2.50	125	-	-	125	0.9	2	45	3.8	141	113	1	
2.50 to < 10.00	-	-	-	-	-	-	-	-	-	-	-	
10.00 to <100.00	13	#	-	13	18.5	1	45	0.0	28	221	1	
100.00 (Default)	-	-	-	-	-	-	-	-	-	-	-	
Sub-total	48,415	1,018	100	51,524	0.0	30	45	1.4	2,847	6	6	38
Bank												
0.00 to < 0.15	33,883	3,281	19	34,620	0.0	167	45	0.8	4,203	12	7	
0.15 to <0.25	2,592	202	22	2,639	0.2	17	45	0.6	917	35	3	
0.25 to <0.50	1,643	52	28	1,658	0.3	16	45	0.4	794	48	3	
0.50 to <0.75	209	94	57	263	0.6	8	45	1.6	229	87	1	
0.75 to < 2.50	506	82	10	515	1.0	15	45	0.8	382	74	2	
2.50 to < 10.00	533	28	20	449	4.3	9	45	0.4	558	124	9	
10.00 to <100.00	14	2	83	16	18.7	16	41	0.1	32	200	1	
100.00 (Default)	-	-	-	-	-	-	-	-	-	-	-	
Sub-total	39,380	3,741	20	40,160	0.1	248	45	0.7	7,115	18	25	96
Corporate												
0.00 to < 0.15	10,456	14,464	23	14,005	0.1	123	44	1.7	2,764	20	5	
0.15 to <0.25	4,143	7,445	16	6,837	0.2	114	45	1.8	2,891	42	6	
0.25 to <0.50	15,426	22,257	20	22,904	0.4	482	43	1.8	12,890	56	39	
0.50 to <0.75	6,276	13,535	20	9,323	0.5	388	37	1.7	4,985	53	18	
0.75 to < 2.50	26,554	41,994	12	33,138	1.2	1,807	42	1.5	27,318	82	166	
2.50 to < 10.00	10,159	13,337	15	7,205	5.0	734	41	1.3	9,147	127	145	
10.00 to <100.00	2,854	2,919	13	1,166	20.0	297	35	1.5	2,180	187	84	
100.00 (Default)	1,540	310	16	1,589	100.0	124	43	1.6	-	-	679	
Sub-total	77,409	116,261	16	96,168	2.9	4,069	42	1.6	62,176	65	1,142	1,621
Corporate small business												
0.00 to < 0.15	10	13	17	66	0.1	4	45	3.7	35	53	#	
0.15 to <0.25	91	932	8	216	0.2	189	32	2.0	64	30	#	
0.25 to <0.50	745	2,005	9	1,028	0.4	456	37	1.8	432	42	1	
0.50 to <0.75	787	1,844	9	1,112	0.5	489	39	1.8	558	50	2	
0.75 to < 2.50	7,581	8,980	11	8,783	1.4	3,039	39	2.0	6,745	77	48	
2.50 to < 10.00	7,319	4,886	10	6,576	5.4	2,463	37	1.8	7,019	107	130	
10.00 to <100.00	1,274	840	12	1,049	19.0	519	37	1.7	1,916	183	75	
100.00 (Default)	786	142	5	793	100.0	223	42	2.0	-	-	330	
Sub-total	18,593	19,643	10	19,624	7.6	7,382	38	1.9	16,770	85	587	479
Specialised lending - IPRE												
0.00 to < 0.15	-	-	-	-	-	-	-	-	-	-	-	
0.15 to <0.25	6,218	2,735	63	7,953	0.2	118	45	2.5	3,621	46	7	
0.25 to <0.50	23,469	4,161	57	25,837	0.4	322	45	2.0	15,338	59	45	
0.50 to <0.75	7,978	1,729	58	8,981	0.5	125	45	2.5	6,774	75	21	
0.75 to < 2.50	21,335	2,555	43	22,445	1.2	808	45	2.0	21,316	95	119	
2.50 to < 10.00	4,094	614	35	4,309	3.8	455	45	2.4	6,171	143	74	
10.00 to <100.00	295	44	61	322	22.5	19	45	2.1	801	249	33	
100.00 (Default)	410	6	11	411	100.0	46	45	1.5	-	-	185	
Sub-total	63,800	11,843	55	70,259	1.5	1,893	45	2.2	54,020	77	484	747
Total (sum of portfolios)	247,596	152,506	19	277,734	1.9	13,622	43	1.6	142,928	51	2,244	2,982

10.11 IRBA – Credit Risk Exposures by Portfolio and PD Range (cont'd)

(B) Main parameters used for calculations of capital requirements for credit exposures under AIRB

As at 31 December 2020

PD range %	(a) Original on-balance sheet gross exposures \$m	(b) Off-balance sheet exposures pre-CCF \$m	(c) Average CCF %	(d) EAD post-CRM and post-CCF \$m	(e) Average PD %	(f) Number of Obligors	(g) Average LGD %	(h) Average Maturity Years	(i) RWA \$m	(j) RWA density %	(k) EL \$m	(l) TEP \$m
Residential mortgage												
0.00 to < 0.15	506	270	104	787	0.1	7,902	25		37	5	#	
0.15 to <0.25	22,244	751	100	22,996	0.2	42,077	12		1,087	5	5	
0.25 to <0.50	22,206	2,148	64	23,591	0.3	93,189	12		1,682	7	9	
0.50 to <0.75	15,046	778	99	15,816	0.7	31,597	11		1,694	11	11	
0.75 to < 2.50	10,039	426	37	10,197	1.3	59,433	16		2,451	24	20	
2.50 to < 10.00	1,753	115	54	1,815	3.8	17,252	23		1,254	69	16	
10.00 to <100.00	1,541	33	39	1,554	25.1	8,469	21		1,696	109	92	
100.00 (Default)	829	#	0	829	100.0	3,992	24		427	51	203	
Sub-total	74,164	4,521	76	77,585	2.1	251,067	13		10,330	13	356	372
QRRE												
0.00 to < 0.15	615	4,290	24	1,657	0.1	359,484	48		50	3	1	
0.15 to <0.25	492	4,604	54	2,969	0.2	596,970	58		190	6	3	
0.25 to <0.50	272	3,768	48	2,071	0.3	575,545	46		145	7	3	
0.50 to <0.75	457	1,287	51	1,113	0.6	193,628	49		149	13	3	
0.75 to < 2.50	1,036	1,990	67	2,366	1.3	371,004	48		583	25	16	
2.50 to < 10.00	718	487	58	998	5.6	207,831	63		851	85	35	
10.00 to <100.00	301	243	61	450	26.4	109,436	59		661	147	70	
100.00 (Default)	55	#	95	55	100.0	10,954	73		75	136	35	
Sub-total	3,946	16,668	46	11,680	2.4	2,060,265	52		2,704	23	166	80
Other retail exposures (excluding exposures to small business)												
0.00 to < 0.15	39	262	37	135	0.1	2,452	31		11	8	#	
0.15 to <0.25	1,045	126	42	1,098	0.2	27,737	13		53	5	#	
0.25 to <0.50	29	98	53	81	0.3	983	23		10	13	#	
0.50 to <0.75	4,771	516	53	5,046	0.6	23,776	10		423	8	3	
0.75 to < 2.50	3,299	682	76	3,815	1.7	26,066	7		330	9	4	
2.50 to < 10.00	545	140	74	649	4.7	59,639	44		450	69	14	
10.00 to <100.00	387	67	53	422	24.8	62,311	47		419	99	48	
100.00 (Default)	105	#	0	105	100.0	11,969	42		223	213	31	
Sub-total	10,219	1,891	60	11,351	3.0	211,570	13		1,919	17	100	67
Other retail small business exposures												
0.00 to < 0.15	11	51	67	45	0.1	268	8		1	1	#	
0.15 to <0.25	646	640	67	1,075	0.2	3,766	21		94	9	#	
0.25 to <0.50	2,836	984	61	3,434	0.4	11,447	23		497	14	3	
0.50 to <0.75	1,155	363	56	1,360	0.5	5,254	23		245	18	2	
0.75 to < 2.50	3,427	1,103	52	4,000	1.3	14,606	27		1,282	32	15	
2.50 to < 10.00	1,233	250	43	1,340	4.9	5,395	29		602	45	19	
10.00 to <100.00	342	23	37	351	22.8	1,371	28		236	67	22	
100.00 (Default)	183	12	6	184	100.0	750	36		249	136	57	
Sub-total	9,835	3,425	57	11,789	3.4	42,856	25		3,207	27	118	110
Total (sum of portfolios)	98,164	26,505	54	112,405	2.4	2,337,049	18		18,160	16	740	629

As at 31 December 2020, the Group did not use credit derivatives as credit risk mitigant for exposures in its Banking book.

10.11 IRBA – Credit Risk Exposures by Portfolio and PD Range (cont'd)
As at 30 June 2020

PD range %	(a) Original on-balance sheet gross exposures \$m	(b) Off-balance sheet exposures pre-CCF \$m	(c) Average CCF %	(d) EAD post-CRM and post-CCF \$m	(e) Average PD %	(f) Number of Obligors	(g) Average LGD %	(h) Average Maturity Years	(i) RWA \$m	(j) RWA density %	(k) EL \$m	(l) TEP \$m
Residential mortgage												
0.00 to < 0.15	763	255	104	1,029	0.1	16,065	23		44	4	#	
0.15 to <0.25	18,299	619	100	18,918	0.2	46,490	14		1,031	5	5	
0.25 to <0.50	25,824	2,462	66	27,450	0.3	88,053	11		1,655	6	9	
0.50 to <0.75	15,857	660	99	16,510	0.7	37,320	12		2,024	12	13	
0.75 to < 2.50	8,304	399	36	8,448	1.3	48,910	13		1,799	21	15	
2.50 to < 10.00	1,790	72	42	1,820	4.2	17,831	24		1,384	76	19	
10.00 to <100.00	1,988	35	33	1,999	24.0	9,456	19		2,163	108	92	
100.00 (Default)	915	1	0	915	100.0	3,957	22		533	58	192	
Sub-total	73,740	4,504	74	77,090	2.3	247,763	13		10,634	14	345	333
QRRE												
0.00 to < 0.15	608	6,043	28	2,306	0.1	524,017	51		82	4	1	
0.15 to <0.25	265	1,921	32	874	0.2	161,112	45		46	5	1	
0.25 to <0.50	232	5,181	60	3,349	0.3	758,194	52		261	8	5	
0.50 to <0.75	711	1,747	55	1,666	0.6	317,622	55		266	16	6	
0.75 to < 2.50	841	1,934	67	2,141	1.5	321,833	44		542	25	15	
2.50 to < 10.00	583	508	61	895	5.5	202,414	59		713	80	29	
10.00 to <100.00	404	197	72	546	21.7	127,312	63		833	153	70	
100.00 (Default)	44	-	-	44	100.0	9,948	72		68	155	27	
Sub-total	3,686	17,530	46	11,820	2.3	2,116,371	51		2,811	24	154	65
Other retail exposures (excluding exposures to small business)												
0.00 to < 0.15	54	313	34	160	0.1	3,205	34		14	9	#	
0.15 to <0.25	1,155	124	40	1,204	0.2	28,992	13		59	5	#	
0.25 to <0.50	17	134	56	92	0.3	1,104	18		9	10	#	
0.50 to <0.75	4,949	575	50	5,236	0.6	25,582	10		448	9	3	
0.75 to < 2.50	2,884	622	77	3,362	1.7	17,859	6		262	8	3	
2.50 to < 10.00	604	152	75	718	5.2	70,441	48		551	77	20	
10.00 to <100.00	407	37	84	438	26.9	61,929	50		483	110	55	
100.00 (Default)	112	#	0	112	100.0	9,085	37		245	219	24	
Sub-total	10,182	1,957	58	11,323	3.2	214,833	14		2,070	18	106	55
Other retail small business exposures												
0.00 to < 0.15	10	55	69	48	0.1	264	6		1	1	#	
0.15 to <0.25	528	607	66	926	0.2	3,485	21		80	9	#	
0.25 to <0.50	2,534	1,022	60	3,144	0.4	10,886	24		474	15	3	
0.50 to <0.75	1,109	385	58	1,333	0.5	5,112	24		252	19	2	
0.75 to < 2.50	3,436	1,136	51	4,021	1.3	14,796	28		1,322	33	15	
2.50 to < 10.00	1,372	291	43	1,496	4.8	5,891	30		684	46	21	
10.00 to <100.00	300	22	46	310	21.2	1,247	27		195	63	18	
100.00 (Default)	203	12	5	203	100.0	770	35		371	182	51	
Sub-total	9,491	3,530	56	11,481	3.6	42,450	26		3,379	29	109	96
Total (sum of portfolios)	97,100	27,522	53	111,713	2.6	2,385,076	19		18,894	17	715	550

As at 30 June 2020, the Group did not use credit derivatives as credit risk mitigant for exposures in its Banking book.

10.12 IRBA – Effect on RWA of Credit Derivatives used as CRM

As at 31 December 2020, the Group did not use credit derivatives as credit risk mitigant for exposures under IRBA.

10.13 IRBA – RWA Flow Statement for Credit Risk Exposures

The following table presents changes in RWA corresponding to credit risk only (excluding CCR) over the quarterly reporting period for each of the key drivers.

Compared to September 2020, the decrease in Group's RWA was mainly due to slight improvement in asset quality, model enhancements and foreign currency translation.

As at 31 December 2020

		(a)
		RWA amounts
\$m		
1	RWA as at end of previous quarter	164,091
2	Asset size	(579)
3	Asset quality	(1,691)
4	Model updates	(1,519)
5	Methodology and policy	-
6	Acquisitions and disposals	-
7	Foreign exchange movements	(1,094)
8	Other	-
9	RWA as at end of quarter	159,208

10.14 IRBA – Backtesting of PD per portfolio

The following table shows the backtesting of PD of non-retail portfolios whose exposures are under F-IRBA for capital computation. The non-retail portfolio comprises of Sovereign, Bank, Corporate, Corporate Small Business, and Specialised Lending IPRE exposures. Refer to UOB Annual Report 2020, Risk Management section – Credit Risk for key models used, the scope of key models, as well as the percentage of RWA covered by non-retail exposures.

As at 31 December 2020

PD range %	(c)			(d)	(e)	(f)		(g)	(h)	(i)
	S&P	Fitch's Rating	Moody's Rating	Weighted Average PD %	Arithmetic Average PD by Obligors %	Number of Obligors		Defaulted Obligors in the Annual Reporting Period	Of which new defaulted obligors in the Annual Reporting Period	Average Historical Annual Default Rate ¹⁰ %
						End of Previous Annual Reporting Period	End of Annual Reporting Period			
Sovereign										
0.00 to < 0.15	A	A	A2	0.0	0.0	23	24	-	-	0.0
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	2	2	-	-	0.0
0.25 to <0.50	BB+	BB+	Ba1	-	-	2	-	-	-	0.0
0.50 to <0.75	BB	BB	Ba2	0.6	0.6	-	2	-	-	0.0
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	0.9	0.9	2	2	-	-	0.0
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	-	-	-	-	-	-	0.0
10.00 to <100.00	B-	B-	B3	18.5	18.5	1	1	-	-	0.0
Bank										
0.00 to < 0.15	A	A	A2	0.0	0.1	167	164	-	-	0.0
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	22	24	-	-	0.0
0.25 to <0.50	BB+	BB+	Ba1	0.3	0.3	18	14	-	-	0.0
0.50 to <0.75	BB	BB	Ba2	0.6	0.6	7	6	-	-	0.0
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	1.0	1.1	15	13	-	-	0.0
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.3	4.3	11	7	-	-	0.0
10.00 to <100.00	B-	B-	B3	18.6	21.9	18	11	-	-	0.0
Corporate										
0.00 to < 0.15	A	A	A2	0.1	0.1	54	232	1	1	0.1
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	96	189	-	-	0.0
0.25 to <0.50	BB+	BB+	Ba1	0.4	0.4	472	539	-	-	0.1
0.50 to <0.75	BB	BB	Ba2	0.5	0.5	422	339	1	-	0.3
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	1.2	1.3	2,031	1,599	16	-	0.8
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.9	5.1	721	716	16	-	2.9
10.00 to <100.00	B-	B-	B3	19.3	22.4	294	355	5	-	2.9
Corporate Small Business										
0.00 to < 0.15	A	A	A2	0.1	0.1	4	5	-	-	0.0
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	200	198	-	-	0.1
0.25 to <0.50	BB+	BB+	Ba1	0.4	0.4	477	468	-	-	0.2
0.50 to <0.75	BB	BB	Ba2	0.5	0.5	519	478	1	-	0.1
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	1.4	1.4	3,090	3,078	12	-	0.4
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	5.2	5.1	2,362	2,498	22	-	1.5
10.00 to <100.00	B-	B-	B3	20.1	20.1	435	561	13	-	4.4
Specialised lending - IPRE										
0.00 to < 0.15	A	A	A2	-	-	-	-	-	-	0.0
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	128	134	-	-	0.1
0.25 to <0.50	BB+	BB+	Ba1	0.4	0.4	290	383	1	-	0.1
0.50 to <0.75	BB	BB	Ba2	0.5	0.5	118	132	1	-	0.1
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	1.2	1.4	902	727	-	-	0.3
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.0	3.9	474	403	1	-	1.1
10.00 to <100.00	B-	B-	B3	24.3	20.5	13	21	2	-	21.8

¹⁰ Average Historical Annual Default Rate % refers to average of annual observed default rate over a minimum of last five years.

As at 31 December 2019

PD range %	(c)			(d)	(e)	(f)		(g)	(h)	(i)
	S&P	Fitch's Rating	Moody's Rating	Weighted Average PD %	Arithmetic Average PD by Obligors %	Number of Obligors		Defaulted Obligors in the Annual Reporting Period	Of which new defaulted obligors in the Annual Reporting Period	Average Historical Annual Default Rate ¹⁰ %
						End of Previous Annual Reporting Period	End of Annual Reporting Period			
Sovereign										
0.00 to < 0.15	A	A	A2	0.0	0.0	22	23	-	-	0.0
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	2	2	-	-	0.0
0.25 to <0.50	BB+	BB+	Ba1	0.4	0.4	2	2	-	-	0.0
0.50 to <0.75	BB	BB	Ba2	-	-	-	-	-	-	0.0
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	0.9	0.9	2	2	-	-	0.0
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	-	-	-	-	-	-	0.0
10.00 to <100.00	B-	B-	B3	18.5	18.5	2	1	-	-	0.0
Bank										
0.00 to < 0.15	A	A	A2	0.1	0.1	162	167	-	-	0.0
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	25	22	-	-	0.0
0.25 to <0.50	BB+	BB+	Ba1	0.4	0.4	16	18	-	-	0.0
0.50 to <0.75	BB	BB	Ba2	0.6	0.6	8	7	-	-	0.0
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	1.3	1.2	20	15	-	-	0.0
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	4.3	4.3	12	11	-	-	0.0
10.00 to <100.00	B-	B-	B3	18.5	21.7	15	18	-	-	0.0
Corporate										
0.00 to < 0.15	A	A	A2	0.1	0.1	58	54	-	-	0.0
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	115	96	-	-	0.0
0.25 to <0.50	BB+	BB+	Ba1	0.4	0.4	498	472	-	-	0.1
0.50 to <0.75	BB	BB	Ba2	0.5	0.5	488	422	1	-	0.2
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	1.2	1.3	1,929	2,031	27	-	0.7
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	5.2	5.2	651	721	27	1	3.0
10.00 to <100.00	B-	B-	B3	18.1	21.0	363	294	19	-	3.1
Corporate Small Business										
0.00 to < 0.15	A	A	A2	0.1	0.1	1	4	-	-	0.0
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	179	200	-	-	0.1
0.25 to <0.50	BB+	BB+	Ba1	0.4	0.4	518	477	1	-	0.2
0.50 to <0.75	BB	BB	Ba2	0.5	0.5	559	519	-	-	0.1
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	1.4	1.4	2,833	3,090	8	1	0.4
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	5.2	5.3	2,271	2,362	34	2	1.6
10.00 to <100.00	B-	B-	B3	18.3	18.0	527	435	19	-	4.7
Specialised lending - IPRE										
0.00 to < 0.15	A	A	A2	-	-	-	-	-	-	0.0
0.15 to <0.25	BBB	BBB	Baa2	0.2	0.2	151	128	-	-	0.2
0.25 to <0.50	BB+	BB+	Ba1	0.4	0.4	319	290	-	-	0.1
0.50 to <0.75	BB	BB	Ba2	0.5	0.5	148	118	-	-	0.0
0.75 to < 2.50	BB- to B+	BB- to B+	Ba3 to B1	1.2	1.4	976	902	3	-	0.3
2.50 to < 10.00	B+ to B-	B+ to B-	B1 to B3	3.6	3.8	531	474	12	-	1.3
10.00 to <100.00	B-	B-	B3	19.7	21.1	13	13	1	-	23.5

¹⁰ Average Historical Annual Default Rate % refers to average of annual observed default rate over a minimum of last five years.

10.14 IRBA - Backtesting of PD per portfolio (cont'd)

The following table shows the backtesting of PD of retail portfolios whose exposures are under A-IRBA for capital computation. The retail portfolio comprises of Residential Mortgage, QRRE and Other Retail exposures. Refer to UOB Annual Report 2020, Risk Management section – Credit Risk for key models used, the scope of the key models as well as the percentage of RWA covered by the retail exposures.

The defaulted obligors for Other retail exposures asset sub-class (excluding exposure to small business) for PD range 10% to <100% in the Annual Reporting Period are mostly coming from non-borrowing accounts with overdue fees that do not meet the minimum balances. Without these accounts, there are only 6,253 defaulted obligors in the annual reporting period and 73 new defaulted obligors in the annual reporting period.

As at 31 December 2020

PD range %	(c) ¹¹			(d)	(e)	(f)		(g)	(h)	(i)
	S&P	Fitch's Rating	Moody's Rating	Weighted Average PD %	Arithmetic Average PD by Obligors %	Number of Obligors End of Previous Annual Reporting Period	Number of Obligors End of Annual Reporting Period	Defaulted Obligors in the Annual Reporting Period	defaulted obligors in the Annual Reporting Period	Average Historical Annual Default Rate ¹⁰ %
Residential mortgage										
0.00 to < 0.15				0.1	0.1	16,780	7,902	12	-	0.1
0.15 to <0.25				0.2	0.2	48,508	42,077	143	-	0.2
0.25 to <0.50				0.3	0.3	87,614	93,189	58	-	0.1
0.50 to <0.75				0.7	0.6	39,621	31,597	100	4	0.3
0.75 to < 2.50				1.3	1.3	45,406	59,433	198	8	0.6
2.50 to < 10.00				3.8	3.8	15,751	17,252	290	16	2.3
10.00 to <100.00				25.1	24.1	7,816	8,469	1,261	3	16.8
Qualifying Retail Revolving Exposure (QRRE)										
0.00 to < 0.15				0.1	0.1	499,538	359,484	390	-	0.1
0.15 to <0.25				0.2	0.2	165,425	596,970	250	-	0.1
0.25 to <0.50				0.3	0.3	726,367	575,545	946	93	0.1
0.50 to <0.75				0.6	0.7	331,034	193,628	1,996	-	0.5
0.75 to < 2.50				1.3	1.6	344,624	371,004	3,230	88	0.9
2.50 to < 10.00				5.6	5.4	219,899	207,831	7,734	235	3.3
10.00 to <100.00				26.4	24.6	127,990	109,436	23,088	23	16.3
Other retail exposures (excluding exposures to small business)										
0.00 to < 0.15				0.1	0.1	3,001	2,452	10	-	0.1
0.15 to <0.25				0.2	0.2	27,598	27,737	124	-	0.2
0.25 to <0.50				0.3	0.4	1,013	983	7	-	0.3
0.50 to <0.75				0.6	0.6	25,498	23,776	116	3	0.3
0.75 to < 2.50				1.7	1.3	20,871	26,066	116	-	0.4
2.50 to < 10.00				4.7	5.3	76,008	59,639	2,763	129	3.4
10.00 to <100.00				24.8	42.0	62,766	62,311	35,062	10,265	15.7
Other retail small business exposures										
0.00 to < 0.15				0.1	0.1	278	268	-	-	0.1
0.15 to <0.25				0.2	0.2	3,366	3,766	1	-	0.1
0.25 to <0.50				0.4	0.4	10,470	11,447	9	1	0.1
0.50 to <0.75				0.5	0.5	4,961	5,254	9	-	0.2
0.75 to < 2.50				1.3	1.3	14,934	14,606	90	6	0.7
2.50 to < 10.00				4.9	4.6	5,745	5,395	135	3	2.4
10.00 to <100.00				22.8	22.7	1,330	1,371	202	-	16.6

¹⁰ Average Historical Annual Default Rate % refers to average of annual observed default rate over a minimum of last five years.

¹¹ Not Applicable for A-IRBA Retail asset classes

As at 31 December 2019

PD range %	(c) ¹¹			(d) Weighted Average PD %	(e) Arithmetic Average PD by Obligor %	(f) Number of Obligor		(g) Defaulted Obligor in the Annual Reporting Period	(h) defaulted obligors in the Annual Reporting Period	(i) Average Historical Annual Default Rate ¹⁰ %
	S&P	Fitch's Rating	Moody's Rating			End of Previous Annual Reporting Period	End of Annual Reporting Period			
Residential mortgage										
0.00 to < 0.15				0.1	0.1	16,294	16,780	12	-	0.1
0.15 to < 0.25				0.2	0.2	45,666	48,508	151	-	0.1
0.25 to < 0.50				0.3	0.3	86,699	87,614	105	-	0.1
0.50 to < 0.75				0.7	0.6	39,348	39,621	132	6	0.3
0.75 to < 2.50				1.3	1.3	44,640	45,406	340	12	0.7
2.50 to < 10.00				3.9	3.7	16,377	15,751	488	13	2.4
10.00 to < 100.00				27.8	22.3	7,868	7,816	1,539	4	17.1
Qualifying Retail Revolving Exposure (QRRE)										
0.00 to < 0.15				0.1	0.1	480,888	499,538	392	-	0.1
0.15 to < 0.25				0.2	0.2	157,509	165,425	243	-	0.1
0.25 to < 0.50				0.3	0.3	724,082	726,367	1,201	111	0.1
0.50 to < 0.75				0.6	0.7	314,082	331,034	2,069	11	0.5
0.75 to < 2.50				1.5	1.5	348,549	344,624	3,893	132	0.9
2.50 to < 10.00				5.7	5.3	215,722	219,899	10,220	841	3.3
10.00 to < 100.00				24.6	23.7	127,959	127,990	26,811	26	16.5
Other retail exposures (excluding exposures to small business)										
0.00 to < 0.15				0.1	0.1	2,936	3,001	9	-	0.1
0.15 to < 0.25				0.2	0.2	29,547	27,598	148	-	0.2
0.25 to < 0.50				0.3	0.4	975	1,013	11	-	0.3
0.50 to < 0.75				0.6	0.6	24,765	25,498	139	5	0.3
0.75 to < 2.50				1.7	1.3	20,095	20,871	154	10	0.4
2.50 to < 10.00				5.2	5.4	72,771	76,008	3,237	272	3.4
10.00 to < 100.00				26.0	25.7	39,342	62,766	20,009	13,879	11.7
Other retail small business exposures										
0.00 to < 0.15				0.1	0.1	304	278	-	-	0.1
0.15 to < 0.25				0.2	0.2	3,382	3,366	2	-	0.1
0.25 to < 0.50				0.4	0.4	10,288	10,470	23	-	0.1
0.50 to < 0.75				0.5	0.5	4,976	4,961	20	-	0.2
0.75 to < 2.50				1.3	1.3	14,634	14,934	121	6	0.7
2.50 to < 10.00				4.7	4.5	5,438	5,745	173	10	2.4
10.00 to < 100.00				21.0	22.0	1,330	1,330	246	-	16.5

¹⁰ Average Historical Annual Default Rate % refers to average of annual observed default rate over a minimum of last five years.

¹¹ Not Applicable for A-IRBA Retail asset classes

10.15 IRBA – Specialised Lending

The following table provides the exposure amount and RWA of the Group's specialised lending portfolio under Supervisory Slotting Criteria.

Compared with 30 June 2020, the increase in exposures were mainly from Commodities Finance and Project Finance asset classes offset by a decrease in exposures to Income-Producing Real Estate and Object Finance asset classes.

As at 31 December 2020

\$m

Specialised lending											
Other than HVCRE											
Regulatory categories	Remaining maturity	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount					RWA	Expected Losses
					PF	OF	CF	IPRE	Total		
Strong	< 2.5 years	1,117	11,218	50%	479	-	1,188	229	1,897	1,005	-
	≥ 2.5 years	1,938	363	70%	1,972	-	43	193	2,207	1,638	9
Good	< 2.5 years	653	1,029	70%	346	5	52	418	821	609	3
	≥ 2.5 years	776	194	90%	413	4	-	497	914	872	7
Satisfactory		266	63	115%	58	2	-	246	306	373	9
Weak		85	#	250%	72	-	-	13	86	227	7
Default		163	2	-	-	90	32	41	163	-	82
Total		4,999	12,869		3,341	99	1,315	1,639	6,394	4,724	116

As at 30 June 2020

\$m

Specialised lending											
Other than HVCRE											
Regulatory categories	Remaining maturity	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount					RWA	Expected Losses
					PF	OF	CF	IPRE	Total		
Strong	< 2.5 years	879	13,134	50%	622	-	512	87	1,221	647	-
	≥ 2.5 years	1,779	439	70%	1,854	-	57	198	2,109	1,565	8
Good	< 2.5 years	628	1,440	70%	249	42	86	427	804	596	3
	≥ 2.5 years	944	427	90%	361	156	-	740	1,258	1,200	10
Satisfactory		361	67	115%	134	2	-	261	398	485	11
Weak		36	1	250%	-	-	-	36	36	96	3
Default		236	139	-	-	185	35	15	236	-	118
Total		4,864	15,647		3,221	386	690	1,764	6,061	4,589	154

11 Counterparty Credit Risk (CCR)

11.1 Qualitative disclosures related to CCR

Please refer to UOB Annual Report 2020, Risk Management section – Credit Risk.

11.2 Analysis of CCR Exposure by Approach

The following table provides the EAD, RWA and parameters used to calculate the Group's CCR regulatory requirements.

Compared with 30 June 2020, the increase in EAD and RWA mainly arose from Foreign exchange derivatives and repurchase transactions.

As at 31 December 2020

		(a)	(b)	(c)	(d)	(e)	(f)
		Replacement cost	Potential future exposure	Effective EPE	α used for computing regulatory EAD	EAD (post-CRM)	RWA
		\$m					
1	Current Exposure Method (for derivatives)	4,032	3,092			7,111	3,181
2	CCR internal models method (for derivatives and SFTs)			-	-	-	-
3	FC(SA) (for SFTs)					-	-
4	FC(CA) (for SFTs)					21,673	511
5	VaR for SFTs					-	-
6	Total						3,693

As at 30 June 2020

		(a)	(b)	(c)	(d)	(e)	(f)
		Replacement cost	Potential future exposure	Effective EPE	α used for computing regulatory EAD	EAD (post-CRM)	RWA
		\$m					
1	Current Exposure Method (for derivatives)	3,350	3,376			6,719	3,015
2	CCR internal models method (for derivatives and SFTs)			-	-	-	-
3	FC(SA) (for SFTs)					-	-
4	FC(CA) (for SFTs)					19,029	468
5	VaR for SFTs					-	-
6	Total						3,483

11.3 CVA Risk Capital Requirements

The following table provides the Group's CVA risk capital requirements calculated under the Standardised Approach.

As at 31 December 2020

		(a)	(b)
		EAD (post-CRM)	RWA
\$m			
	Total portfolios subject to the 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 the Standardised CVA capital requirement	6,212	2,491
4	Total portfolios subject to the CVA risk capital requirement	6,212	2,491

As at 30 June 2020

		(a)	(b)
		EAD (post-CRM)	RWA
\$m			
	Total portfolios subject to the 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 the Standardised CVA capital requirement	5,932	2,624
4	Total portfolios subject to the CVA risk capital requirement	5,932	2,624

11.4 Standardised Approach – CCR Exposures by Portfolio and Risk Weights

The following table provides a breakdown of the Group's CCR exposures under SA(CR) by asset class and risk weight.

Compared with 30 June 2020, the increase in exposures were mainly from the Corporate, Central government and central bank and MDB exposures asset classes.

As at 31 December 2020

\$m	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Risk weight									
Asset classes	0%	10%	20%	50%	75%	100%	150%	Others	Total Credit Exposure
Central government and central bank	143	-	-	2	-	-	-	-	145
PSE	28	-	3	37	-	-	-	-	67
MDB	106	-	-	14	-	-	-	-	120
Bank	-	-	2	76	-	-	-	-	78
Corporate	-	-	1	1	-	273	-	-	274
Regulatory retail	-	-	-	-	1	-	-	-	1
Other exposures	-	-	-	-	-	12	-	-	12
Total	277	-	6	130	1	285	-	-	698

As at 30 June 2020

\$m	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Risk weight									
Asset classes	0%	10%	20%	50%	75%	100%	150%	Others	Total Credit Exposure
Central government and central bank	104	-	-	3	-	-	-	-	108
PSE	-	-	15	29	-	-	-	-	43
MDB	77	-	-	6	-	-	-	-	83
Bank	-	-	6	76	-	-	-	-	82
Corporate	-	-	1	#	#	209	-	-	210
Regulatory retail	-	-	-	-	1	-	-	-	1
Other exposures	-	-	-	-	-	23	-	-	23
Total	181	-	21	115	1	232	-	-	550

11.5 IRBA – CCR Exposures by Portfolio and PD Range

The following table sets out the relevant parameters used for the calculations of CCR capital requirements for IRBA models.

Compared with 30 June 2020, the increase in EAD was mainly due to increase in repurchase transactions under the Bank and Corporate asset classes and Foreign exchange derivatives under the Corporate asset class.

11.5 IRBA – CCR Exposures by Portfolio and PD Range (cont'd)

(A) Main parameters used for calculations of CCR capital requirements for FIRB models

As at 31 December 2020

PD range %	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD post-CRM \$m	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA \$m	RWA density %
Sovereign							
0.00 to < 0.15	5,541	0.0	7	9	0.2	6	0
0.15 to <0.25	9	0.2	1	45	0.0	2	24
0.25 to <0.50	-	-	-	-	-	-	-
0.50 to <0.75	165	0.6	1	45	0.0	77	47
0.75 to < 2.50	-	-	-	-	-	-	-
2.50 to < 10.00	-	-	-	-	-	-	-
10.00 to <100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	5,716	0.0	9	10	0.2	85	1
Bank							
0.00 to < 0.15	12,298	0.1	136	14	0.3	590	5
0.15 to <0.25	1,240	0.2	24	11	0.1	86	7
0.25 to <0.50	467	0.4	12	13	0.1	63	13
0.50 to <0.75	5	0.6	3	45	0.3	3	63
0.75 to < 2.50	10	1.1	8	35	0.9	6	61
2.50 to < 10.00	4	4.3	4	45	0.5	6	142
10.00 to <100.00	3	18.5	1	30	1.0	5	177
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	14,027	0.1	188	14	0.3	759	5
Corporate							
0.00 to < 0.15	1,092	0.1	54	17	1.4	119	11
0.15 to <0.25	1,154	0.2	39	9	0.5	118	10
0.25 to <0.50	2,102	0.4	145	18	0.8	522	25
0.50 to <0.75	915	0.5	69	23	0.7	261	29
0.75 to < 2.50	1,986	1.3	313	13	0.6	520	26
2.50 to < 10.00	276	5.0	108	37	1.4	331	120
10.00 to <100.00	14	18.7	15	45	0.6	32	220
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	7,540	0.8	743	16	0.8	1,904	25
Corporate small business							
0.00 to < 0.15	19	0.1	5	44	0.2	2	13
0.15 to <0.25	2	0.2	24	44	0.1	#	17
0.25 to <0.50	2	0.4	44	41	1.2	1	41
0.50 to <0.75	3	0.5	43	43	3.2	2	75
0.75 to < 2.50	13	1.2	231	42	1.1	8	65
2.50 to < 10.00	14	5.4	172	43	2.0	18	126
10.00 to <100.00	#	21.6	35	37	0.3	1	171
100.00 (Default)	#	100.0	3	19	0.1	-	-
Sub-total	54	2.1	557	43	1.1	33	61
Specialised lending - IPRE							
0.00 to < 0.15	-	-	-	-	-	-	-
0.15 to <0.25	51	0.2	15	45	3.4	27	54
0.25 to <0.50	252	0.4	68	45	1.9	146	58
0.50 to <0.75	66	0.5	12	45	2.8	52	78
0.75 to < 2.50	180	1.2	51	45	2.0	173	96
2.50 to < 10.00	31	3.4	8	45	1.2	38	123
10.00 to <100.00	#	20.5	1	45	1.0	#	238
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	580	0.8	155	45	2.1	437	75
Total (sum of portfolios)	27,917	0.3	1,652	14	0.5	3,217	12

11.5 IRBA – CCR Exposures by Portfolio and PD Range (cont'd)

(A) Main parameters used for calculations of CCR capital requirements for FIRB models

As at 30 June 2020

PD range %	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD post- CRM \$m	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA \$m	RWA density %
Sovereign							
0.00 to < 0.15	5,279	0.0	7	7	0.2	8	0
0.15 to <0.25	7	0.2	1	45	0.0	2	24
0.25 to <0.50	-	-	-	-	-	-	-
0.50 to <0.75	176	0.6	1	45	0.0	82	47
0.75 to < 2.50	-	-	-	-	-	-	-
2.50 to < 10.00	-	-	-	-	-	-	-
10.00 to <100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	5,462	0.0	9	8	0.2	91	2
Bank							
0.00 to < 0.15	11,012	0.1	142	14	0.5	560	5
0.15 to <0.25	897	0.2	17	21	0.2	132	15
0.25 to <0.50	286	0.4	11	23	0.2	67	24
0.50 to <0.75	19	0.6	4	7	0.1	2	10
0.75 to < 2.50	34	1.4	8	4	0.4	3	8
2.50 to < 10.00	2	4.3	4	45	0.6	3	127
10.00 to <100.00	#	18.5	1	45	0.0	#	221
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	12,251	0.1	187	15	0.4	768	6
Corporate							
0.00 to < 0.15	712	0.1	27	20	1.8	95	13
0.15 to <0.25	1,200	0.2	34	11	0.8	167	14
0.25 to <0.50	1,884	0.4	134	20	0.9	535	28
0.50 to <0.75	654	0.5	85	16	0.7	142	22
0.75 to < 2.50	1,990	1.5	322	11	0.7	511	26
2.50 to < 10.00	174	4.8	106	45	1.6	250	143
10.00 to <100.00	6	26.3	21	43	1.7	15	240
100.00 (Default)	19	100.0	2	45	1.2	-	-
Sub-total	6,641	1.1	731	16	0.9	1,715	26
Corporate small business							
0.00 to < 0.15	71	0.1	3	45	0.3	14	19
0.15 to <0.25	1	0.2	31	45	0.7	#	24
0.25 to <0.50	2	0.4	46	41	0.7	1	36
0.50 to <0.75	3	0.5	49	44	0.3	1	45
0.75 to < 2.50	14	1.3	244	42	1.6	12	84
2.50 to < 10.00	10	6.4	183	43	2.6	14	137
10.00 to <100.00	1	19.6	25	39	1.2	2	188
100.00 (Default)	#	100.0	2	45	0.3	-	-
Sub-total	102	1.1	583	44	0.7	44	43
Specialised lending - IPRE							
0.00 to < 0.15	-	-	-	-	-	-	-
0.15 to <0.25	36	0.2	18	45	3.2	19	52
0.25 to <0.50	277	0.4	67	45	2.4	178	64
0.50 to <0.75	65	0.5	15	45	3.0	53	81
0.75 to < 2.50	171	1.2	56	45	2.2	167	98
2.50 to < 10.00	23	3.2	7	45	1.7	29	128
10.00 to <100.00	#	20.5	1	45	1.0	#	238
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	572	0.7	164	45	2.5	446	78
Total (sum of portfolios)	25,028	0.4	1,674	15	0.6	3,063	12

11.5 IRBA – CCR Exposures by Portfolio and PD Range (cont'd)

(B) Main parameters used for calculations of CCR capital requirements for AIRB models

As at 31 December 2020

PD range %	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD post- CRM \$m	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA \$m	RWA density %
Other retail small business exposures							
0.00 to < 0.15	#	0.1	1	81		#	15
0.15 to <0.25	#	0.2	37	52		#	22
0.25 to <0.50	#	0.4	52	66		#	45
0.50 to <0.75	#	0.5	23	66		#	51
0.75 to < 2.50	1	1.4	139	75		1	91
2.50 to < 10.00	#	3.0	142	83		1	122
10.00 to <100.00	#	24.3	7	73		#	182
100.00 (Default)	-	-	-	-		-	-
Sub-total	2	2.6	401	73		2	88
Total (sum of portfolios)	2	2.6	401	73		2	88

As at 30 June 2020

PD range %	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD post- CRM \$m	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA \$m	RWA density %
Other retail small business exposures							
0.00 to < 0.15	#	0.1	2	82		#	15
0.15 to <0.25	#	0.2	26	60		#	25
0.25 to <0.50	#	0.4	59	67		#	45
0.50 to <0.75	#	0.5	18	57		#	44
0.75 to < 2.50	#	1.5	127	71		#	88
2.50 to < 10.00	2	3.4	121	81		3	122
10.00 to <100.00	#	22.6	2	81		#	200
100.00 (Default)	-	-	-	-		-	-
Sub-total	3	2.6	355	77		3	103
Total (sum of portfolios)	3	2.6	355	77		3	103

11.6 Composition of Collateral for CCR Exposures

The following table provides the breakdown of all types of collateral posted or received by the Group to support or reduce the CCR exposures related to derivative transactions or to SFTs.

Compared with 30 June 2020, the increase in collateral posted and received for SFTs was in line with the increase in repurchase transactions.

As at 31 December 2020

	(a)	(b)	(c)	(d)	(e)	(f)
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
\$m	Segregated	Unsegregated	Segregated	Unsegregated		
Cash domestic currencies	-	#	-	309	1,409	1,460
Cash other currencies	-	493	-	2,095	3,432	15,480
Domestic sovereign debt	-	1	-	-	1,437	2,589
Other sovereign debt	-	60	-	317	8,399	497
Government agency debt	-	-	-	-	-	-
Corporate bonds	-	9	-	94	6,828	2,560
Equity securities	-	-	-	-	-	-
Other collateral	-	-	-	-	-	-
Total	-	563	-	2,815	21,505	22,586

As at 30 June 2020

	(a)	(b)	(c)	(d)	(e)	(f)
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
\$m	Segregated	Unsegregated	Segregated	Unsegregated		
Cash domestic currencies	-	2	-	321	1,303	1,345
Cash other currencies	-	300	-	2,260	2,944	13,677
Domestic sovereign debt	-	54	-	-	1,327	1,294
Other sovereign debt	-	76	-	1	6,792	271
Government agency debt	-	-	-	-	-	-
Corporate bonds	-	71	-	101	6,408	3,185
Equity securities	-	22	-	-	-	-
Other collateral	-	-	-	-	-	-
Total	-	524	-	2,683	18,774	19,772

11.7 Credit Derivative Exposures

The following table shows the breakdown of Group's exposures to credit derivative transactions by protection bought or sold.

Compared with 30 June 2020, the decrease in credit derivative exposures was mainly from total return swaps.

As at 31 December 2020

		(a)	(b)
		Protection bought	Protection sold
\$m			
	Notionals		
1	Single-name credit default swaps	13	-
2	Index credit default swaps	106	-
3	Total return swaps	677	-
4	Total notionals	796	-
	Fair values		
5	Positive fair value (asset)	#	-
6	Negative fair value (liability)	44	-

As at 30 June 2020

		(a)	(b)
		Protection bought	Protection sold
\$m			
	Notionals		
1	Single-name credit default swaps	42	-
2	Index credit default swaps	112	-
3	Total return swaps	876	-
4	Total notionals	1,029	-
	Fair values		
5	Positive fair value (asset)	#	-
6	Negative fair value (liability)	32	-

11.8 RWA flow statements under CCR internal models method

UOB does not use CCR Internal Models Method.

12 Securitisation

12.1 Qualitative disclosures related to securitisation exposures

Please refer to UOB Annual Report 2020, Risk Management section – Credit Risk.

12.2 Securitisation Exposures in the Banking Book

The following table shows the Group's securitisation exposures in the Banking Book.

Compared with 30 June 2020, the increase in securitisation exposures mainly arose from residential mortgage-backed securities.

		As at 31 Dec 2020	As at 30 Jun 2020
		(a)	
		UOB acts as investor	
		Traditional	
\$m			
1	Total retail	2,878	2,760
2	of which: residential mortgage	2,800	2,676
3	of which: credit card	78	84
4	Total wholesale	29	26
5	of which: commercial mortgage	29	26

Note: The group does not have any securitisation exposures where it acts as sponsor or originator.

12.3 Securitisation Exposures in the Trading Book

The Group currently has no securitisation exposures in the Trading book.

12.4 Securitisation Exposures in the Banking Book and associated Regulatory Capital Requirements – UOB acting as Originator or as Sponsor

The Group currently has no securitisation exposures in the Banking Book where the Group acts as sponsor.

12.5 Securitisation Exposures in the Banking Book and associated Regulatory Capital Requirements – UOB acting as Investor

The following table shows the exposure amounts, RWA and capital requirements of the Group's securitisation exposures in the Banking Book where the Group acts as an investor.

Compared with 30 June 2020, the increase in securitisation exposures mainly arose from residential mortgage-backed securities.

As at 31 December 2020

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
	Exposure values (by risk weight bands)				Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap				
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	SEC-IRBA	SEC-ERBA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA	SEC-SA	1250%
\$m																	
1 Total exposures	2,800	-	107	-	-	-	2,289	617	-	-	284	73	-	-	28	7	-
2 Traditional securitisation	2,800	-	107	-	-	-	2,289	617	-	-	284	73	-	-	28	7	-
3 of which: securitisation	2,800	-	107	-	-	-	2,289	617	-	-	284	73	-	-	28	7	-
4 of which: retail underlying	2,800	-	78	-	-	-	2,260	617	-	-	265	73	-	-	26	7	-
5 of which: wholesale	-	-	29	-	-	-	29	-	-	-	19	-	-	-	2	-	-
6 of which: resecuritisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 of which: senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8 of which: non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9 Synthetic securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 of which: securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 of which: retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12 of which: wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13 of which resecuritisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14 of which: senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15 of which: non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

12.5 Securitisation Exposures in the Banking book and associated Regulatory Capital Requirements – UOB acting as Investor (cont'd)

As at 30 June 2020

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
	Exposure values (by risk weight bands)				Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap				
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	SEC-IRBA	SEC-ERBA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA	SEC-SA	1250%
\$m																	
1	Total exposures	2,676	-	110	-	-	2,079	707	-	-	264	82	-	-	26	8	-
2	Traditional securitisation	2,676	-	110	-	-	2,079	707	-	-	264	82	-	-	26	8	-
3	of which: securitisation	2,676	-	110	-	-	2,079	707	-	-	264	82	-	-	26	8	-
4	of which: retail underlying	2,676	-	84	-	-	2,053	707	-	-	247	82	-	-	25	8	-
5	of which: wholesale	-	-	26	-	-	26	-	-	-	17	-	-	-	2	-	-
6	of which: resecuritisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	of which: senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	of which: non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	of which: securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	of which: retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	of which: wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	of which resecuritisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	of which: senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	of which: non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

13 Market Risk

13.1 Qualitative Disclosures related to Market Risk and Internal Model Approach (IMA)

Please refer to UOB Annual Report 2020, Risk Management section – Market Risk.

13.2 Market Risk under Standardised Approach

The table below shows the components of the capital requirement under the standardised approach for market risk.

Compared with 30 June 2020, the decrease in RWA was mainly due to lower interest rate and options risk, offset by increase in commodity and foreign exchange risk.

As at 31 December 2020

\$m		(a)
		RWA
	Products excluding Options	
1	Interest Rate Risk (General and Specific)	2,753
2	Equity Risk (General and Specific)	25
3	Foreign Exchange Risk	4,722
4	Commodity Risk	621
	Options	
5	Simplified Approach	
6	Delta-Plus Method	
7	Scenario Approach	1,306
8	Securitisation	
9	Total	9,426

As at 30 June 2020

\$m		(a)
		RWA
	Products excluding Options	
1	Interest Rate Risk (General and Specific)	2,939
2	Equity Risk (General and Specific)	93
3	Foreign Exchange Risk	4,605
4	Commodity Risk	320
	Options	
5	Simplified Approach	
6	Delta-Plus Method	
7	Scenario Approach	1,569
8	Securitisation	
9	Total	9,526

13.3 RWA Flow Statements of Market Risk Exposures under IMA and IMA Values for Trading Portfolios

These disclosures are not applicable as the Group has not adopted IMA for market risk regulatory capital requirements.

13.4 Comparison of VaR Estimates with Gains or Losses

Please refer to UOB Annual Report 2020, Risk Management section – Market Risk.

14 Operational Risk

Please refer to UOB Annual Report 2020, Risk Management section – Operational Risk.

15 Interest Rate Risk in the Banking Book

Interest rate risk is the impact to earnings and economic value of the Group due to fluctuations in interest rates. Interest rate exposure arises from differences in the maturity and repricing dates of assets, liabilities and off-balance sheet items. These mismatches are actively monitored and managed as part of the overall interest rate risk management process which is conducted in accordance with the Group's policies as approved by the ALCO.

The Group's interest rate risk sensitivity is measured as changes in economic value of equity ("EVE") or net interest income ("NII") based on Basel IRRBB requirements. At 100 and 200 basis points parallel interest rate shocks, worst case results were negative \$903 million and \$1,779 million (FY2019: negative \$803 million and \$1,676 million) respectively, driven mainly by the Group's SGD and USD positions.

EVE is the present value of assets less present value of liabilities of the Group. NII is the simulated change in the Group's net interest income. The repricing profile of loans is generally based on the earliest possible repricing dates, taking into account the notice period to be served to the customers. Interest rate flooring effects are taken into consideration. Loan prepayment and time deposit early withdrawal rates are estimated based on past statistics and trends where possible and material. Behavioural assumptions based on historical trends are applied where appropriate. The average repricing maturity of core non-maturity deposits is determined through empirical models taking into account asset duration. Risk-free zero coupon curves are used for EVE discounting. Currencies are aggregated by scenarios. There may be some differences in the assumptions across geographical locations due to variation in local conditions.

Please refer to UOB Annual Report 2020, Risk Management section – Interest Rate Risk in the Banking Book for more information.

16 Liquidity Coverage Ratio Disclosures

16.1 Liquidity Coverage Ratio

The Liquidity Coverage Ratio (“LCR”) ensures that a Bank has sufficient unencumbered high quality liquid assets (“HQLA”) to survive a significant stress scenario for the next 30 days. The Group’s LCR disclosure is as per MAS Notice 651 “Liquidity Coverage Ratio Disclosure”.

Quarterly average All Currency LCR and Singapore Dollar LCR of 139% and 256% respectively were comfortably above the regulatory requirements of 100%. 92 calendar days’ data points were used in calculating the average figures. Compared to 3Q2020, increase in All Currency LCR was mainly due to increase in HQLA coupled with decrease in outflows from unsecured wholesale funding within 30days. Decrease in SGD Currency LCR was mainly due to decrease in other cash inflows within 30days; partially offset by increase in HQLA. The main drivers of LCR are the net cumulative outflow driven mainly by deposit profile and the portfolio of high quality liquid asset which would cause some volatility on a day to day basis. The Group’s HQLA composition comprised 93%¹² Level 1 HQLA and the remaining in Level 2A and 2B HQLA. Deposit strategies are regularly discussed in Group ALCO with monitoring on deposit concentration and currency mismatch etc. The Group’s exposures to derivatives and potential collateral calls were incorporated into the LCR outflows.

Daily liquidity management is centrally managed under Global Markets-Portfolio & Liquidity Management with regular discussion with Central Treasury and relevant Business Units. Liquidity limits and triggers were established to limit the Group’s liquidity exposure. Balance Sheet Risk Management oversees the liquidity risk management in the Group. Contingency funding plans are in place to identify potential liquidity crisis using a series of early warning indicators as well as crisis escalation process and related funding strategies.

Please refer to:

- UOB Annual Report 2020, Risk Management section – Liquidity Risk for governance of liquidity risk management, funding strategy and liquidity risk mitigation techniques.
- UOB Annual Report 2020, Note 44 Financial Risk Management section for Balance sheet and off-balance sheet items broken down into maturity buckets and resultant liquidity gaps.

¹² after LCR weighting

16.2 Average Group All Currency LCR

For the quarter ended 31 December 2020

\$m		Total Unweighted Value Average	Total Weighted Value Average
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		71,722
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	135,902	11,611
3	Stable deposits	34,917	1,746
4	Less stable deposits	100,985	9,865
5	Unsecured wholesale funding, of which:	114,948	56,754
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	19,425	4,593
7	Non-operational deposits (all counterparties)	92,192	48,829
8	Unsecured debt	3,331	3,331
9	Secured wholesale funding		95
10	Additional requirements, of which:	40,630	11,297
11	Outflows related to derivative exposures and other collateral requirements	7,228	5,796
12	Outflows related to loss of funding on debt products	1	1
13	Credit and liquidity facilities	33,401	5,501
14	Other contractual funding obligations	3,461	3,461
15	Other contingent funding obligations	9,462	662
16	TOTAL CASH OUTFLOWS		83,880
CASH INFLOWS			
17	Secured lending (eg reverse repos)	6,830	1,731
18	Inflows from fully performing exposures	39,972	25,353
19	Other cash inflows	6,360	5,242
20	TOTAL CASH INFLOWS	53,162	32,326
		Total Adjusted Value	
21	TOTAL HQLA		71,722
22	TOTAL NET CASH OUTFLOWS		51,554
23	LIQUIDITY COVERAGE RATIO (%)		139

16.3 Average Group SGD Currency LCR

For the quarter ended 31 December 2020

\$m		Total Unweighted Value Average	Total Weighted Value Average
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		31,766
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	94,164	7,820
3	Stable deposits	31,929	1,596
4	Less stable deposits	62,234	6,223
5	Unsecured wholesale funding, of which:	32,377	14,161
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	7,353	1,658
7	Non-operational deposits (all counterparties)	24,924	12,402
8	Unsecured debt	100	100
9	Secured wholesale funding		-
10	Additional requirements, of which:	16,589	5,803
11	Outflows related to derivative exposures and other collateral requirements	4,720	4,415
12	Outflows related to loss of funding on debt products	-	-
13	Credit and liquidity facilities	11,868	1,388
14	Other contractual funding obligations	1,072	1,072
15	Other contingent funding obligations	155	79
16	TOTAL CASH OUTFLOWS		28,935
CASH INFLOWS			
17	Secured lending (eg reverse repos)	552	0
18	Inflows from fully performing exposures	9,926	5,421
19	Other cash inflows	11,204	11,027
20	TOTAL CASH INFLOWS	21,682	16,448
			Total Adjusted Value
21	TOTAL HQLA		31,766
22	TOTAL NET CASH OUTFLOWS		12,486
23	LIQUIDITY COVERAGE RATIO (%)		256

17 Net Stable Funding Ratio Disclosures

The Net Stable Funding Ratio ("NSFR") measures the amount of available stable funding relative to the amount of required stable funding in a bank and promotes resilience over a longer time horizon. The bank is required to maintain a stable funding profile in relation to the composition of their assets and off-balance sheet activities.

The Group is subjected to NSFR standards effective January 2018. NSFR disclosure is as per MAS Notice 653 "Net Stable Funding Ratio Disclosure". NSFR for 30 September 2020 and 31 December 2020 were 122% and 125% respectively, above the regulatory requirement of 100%. Increase in NSFR in the 4th quarter & 3rd quarter was largely due to increase in other wholesale funding and retail & small business deposits. The main drivers of NSFR are the composition and profile of deposits and capital in relation to loans. Interdependent asset and liabilities reported include government funded loans and gold savings accounts backed by gold in accordance with criteria stated in MAS Notice 652.

As at 31 December 2020

\$m	ASF Item	Unweighted value by residual maturity				Weighted value
		No maturity	< 6 months	6 months to < 1 yr	≥ 1 yr	
1	Capital:	39,585	750	925	5,894	46,691
2	Regulatory capital	39,585	750	925	4,856	45,653
3	Other capital instruments	-	-	-	1,038	1,038
4	Retail deposits and deposits from small business customers:	99,686	49,103	5,680	951	142,069
5	Stable deposits	27,321	14,357	206	207	39,997
6	Less stable deposits	72,365	34,746	5,474	744	102,071
7	Wholesale funding:	78,957	106,204	10,471	12,951	81,806
8	Operational deposits	20,228	-	-	-	10,114
9	Other wholesale funding	58,729	106,204	10,471	12,951	71,692
10	Liabilities with matching interdependent assets	-	276	39	512	-
11	Other liabilities:	7,337		10,954		537
12	NSFR derivative liabilities			10,922		
13	All other liabilities and equity not included in the above categories	7,337	33	-	-	537
14	Total ASF					271,103
RSF Item						
15	Total NSFR high-quality liquid assets (HQLA)					3,596
16	Deposits held at other financial institutions for operational purposes	-	-	-	-	-
17	Performing loans and securities:	16,486	133,670	23,978	179,835	194,520
18	Performing loans to financial institutions secured by Level 1 HQLA	-	6,539	170	40	779
19	Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	5,897	25,314	4,301	7,159	15,336
20	Performing loans to non-financial corporates, loans to retail and small business customers, and loans to sovereigns, central banks and public sector entities (PSEs), of which:	7,297	92,633	14,995	98,232	113,893
21	With a risk weight of less than or equal to 35% under paragraphs 7.3.13 to 7.3.20 and 7.3.24 to 7.3.26 of MAS Notice 637	-	287	174	5,056	3,412
22	Performing residential mortgages, of which:	-	1,536	1,527	65,587	48,869
23	With a risk weight of less than or equal to 35% under paragraph 7.3.29 of MAS Notice 637	-	1,336	1,333	53,052	38,058
24	Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	3,293	7,649	2,985	8,817	15,643
25	Assets with matching interdependent liabilities	-	276	39	512	-
26	Other assets:	16,741		23,151		17,574
27	Physical traded commodities, including gold	1,364				1,159
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs			476		404
29	NSFR derivative assets			10,006		-
30	NSFR derivative liabilities before deduction of variation margin posted			12,669		633
31	All other assets not included in the above categories	15,377	-	-	-	15,377
32	Off-balance sheet items			182,054		1,754
33	Total RSF					217,444
34	Net Stable Funding Ratio (%)					125

As at 30 September 2020

\$m	ASF Item	Unweighted value by residual maturity				Weighted value
		No maturity	< 6 months	6 months to < 1 yr	≥ 1 yr	
1	Capital:	38,607	-	1,708	6,007	45,843
2	Regulatory capital	38,607	-	1,708	4,978	44,814
3	Other capital instruments	-	-	-	1,029	1,029
4	Retail deposits and deposits from small business customers:	96,312	50,055	5,871	1,053	140,062
5	Stable deposits	26,760	12,900	237	226	38,128
6	Less stable deposits	69,551	37,155	5,634	827	101,934
7	Wholesale funding:	71,406	107,119	12,858	8,733	75,991
8	Operational deposits	18,837	-	-	-	9,419
9	Other wholesale funding	52,569	107,119	12,858	8,733	66,572
10	Liabilities with matching interdependent assets	-	285	43	582	-
11	Other liabilities:	7,002		11,639		581
12	NSFR derivative liabilities			11,541		
13	All other liabilities and equity not included in the above categories	7,002	99	-	-	581
14	Total ASF					262,477
RSF Item						
15	Total NSFR high-quality liquid assets (HQLA)					3,564
16	Deposits held at other financial institutions for operational purposes	-	-	-	-	-
17	Performing loans and securities:	15,045	125,582	23,916	177,754	192,639
18	Performing loans to financial institutions secured by Level 1 HQLA	-	4,224	214	28	558
19	Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	4,535	24,206	3,543	6,661	14,394
20	Performing loans to non-financial corporates, loans to retail and small business customers, and loans to sovereigns, central banks and public sector entities (PSEs), of which:	7,293	86,290	14,930	96,844	112,750
21	With a risk weight of less than or equal to 35% under paragraphs 7.3.13 to 7.3.20 and 7.3.24 to 7.3.26 of MAS Notice 637	-	272	177	5,139	3,462
22	Performing residential mortgages, of which:	-	1,462	1,513	65,112	47,869
23	With a risk weight of less than or equal to 35% under paragraph 7.3.29 of MAS Notice 637	-	1,268	1,315	52,487	36,978
24	Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	3,217	9,399	3,715	9,109	17,067
25	Assets with matching interdependent liabilities	-	285	43	582	-
26	Other assets:	17,083		24,593		17,913
27	Physical traded commodities, including gold	1,767				1,502
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs			526		447
29	NSFR derivative assets			11,115		-
30	NSFR derivative liabilities before deduction of variation margin posted			12,952		648
31	All other assets not included in the above categories	15,316	-	-	-	15,316
32	Off-balance sheet items			183,097		1,800
33	Total RSF					215,915
34	Net Stable Funding Ratio (%)					122

Please refer to UOB Annual Report 2020, Remuneration section.

19 Abbreviations

The following abbreviated terms are used throughout this document.

A		E	
A-IRBA	Advanced Internal Ratings-Based Approach	EAD	Exposure at Default
ALCO	Asset and Liability Committee	EL	Expected Loss
AMA	Advanced Measurement Approach	EPE	Expected Positive Exposure
AT1	Additional Tier 1	EQ	Equity Exposures
ASF	Available Stable Funding	ES	Expected Shortfall
B		F	
BIA	Basic Indicator Approach	FC(SA)	Financial Collateral Simple Approach
C		FC(CA)	Financial Collateral Comprehensive Approach
CAR	Capital Adequacy Ratio	F-IRBA	Foundation Internal Ratings-Based Approach
CCF	Credit Conversion Factor	G	
CCP	Central Counterparty	G-SIB	Global Systemically Important Bank
CCR	Counterparty Credit Risk	H	
CCyB	Countercyclical Capital Buffer	HVCRE	High-Volatility Commercial Real Estate
CET1	Common Equity Tier 1	I	
CF	Commodities Finance	IAA	Internal Assessment Approach
CR	Credit Risk	IAM	Internal Assessment Method
CRE	Commercial Real Estate	IMA	Internal Models Approach
CRM	Credit Risk Mitigation	IMM	Internal Models Method
CVA	Credit Valuation Adjustment	IPRE	Income-Producing Real Estate
D		IRBA	Internal Ratings-Based Approach
D-SIB	Domestic Systemically Important Bank		

19 ABBREVIATIONS (cont'd)

L		S	
LGD	Loss Given Default	S&P	Standard & Poor's
M		SA	Standardised Approach
MDB	Multilateral Development Bank	SA(CR)	Standardised Approach to Credit Risk
MR	Market Risk	SA(EQ)	Standardised Approach for Equity Exposures
N		SA(MR)	Standardised Approach to Market Risk
NBFI	Non Bank Financial Institutions	SA(OR)	Standardised Approach to Operational Risk
NCI	Non-Controlling Interests	SEC-IRBA	Securitisation Internal Ratings-Based Approach
O		SEC-ERBA	Securitisation External Ratings-Based Approach
OF	Object Finance	SEC-SA	Securitisation Standardised Approach
P		SF	Supervisory Formula
PD	Probability of Default	SFRS	Singapore Financial Reporting Standards
PE/VC	Private Equity/Venture Capital	SFTs	Securities Financing Transactions
PF	Project Finance	SME	Small-and Medium-sized Enterprises
PSE	Public Sector Entity	T	
Q		T1	Tier 1
QRRE	Qualifying Revolving Retail Exposures	T2	Tier 2
R		TEP	Total Eligible Provisions
RBM	Ratings-Based Method	TLAC	Total Loss-Absorbing Capacity
RSF	Required Stable Funding	V	
RW	Risk Weight	VaR	Value-at-Risk
RWA	Risk-Weighted Assets		