



Pillar 3 Disclosure Report

Quarter ended December 2020

Maybank Singapore Limited

Incorporated in Singapore

Company Registration Number: 201804195C

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1 INTRODUCTION

The Monetary Authority of Singapore (“MAS”) has designated Maybank Singapore Limited (“MSL”) as a Domestic Systemically Important Bank (“D-SIB”) in Singapore since 2015. As such, MSL is subject to the reporting of MAS Notice 637 “Risk Based Capital Adequacy Requirements for Banks Incorporated in Singapore” (“MAS Notice 637”). The following disclosures are made pursuant to MAS Notice 637.

MSL recognises the importance of MAS Notice 637 in promoting market discipline by requiring disclosures of key information relating to regulatory capital and risk exposures on a consistent and comparable basis that will enable stakeholders to better understand and assess a reporting bank’s business and risk profile vis-à-vis other banks.

For the purpose of calculating its risk-weighted assets, MSL applies the Internal Ratings-Based Approach (“IRBA”) and Standardised Approach (“SA”) to relevant credit exposures to ascertain its credit risk-weighted assets. For market risk and operational risk, MSL applies the SA and Basic Indicator Approach to compute the market risk-weighted assets and operational risk-weighted assets respectively.

The numbers in this document are presented in Singapore dollars and rounded to the nearest million, unless otherwise stated.

2 ATTESTATION STATEMENT PURSUANT TO MAS NOTICE 637 - DISCLOSURE REQUIREMENTS (PILLAR 3)

The Pillar 3 disclosures as at 31 December 2020 have been prepared in accordance with the internal control processes approved by the MSL Board of Directors.



Dr John Lee Hin Hock
Country CEO and CEO of Maybank Singapore
16 April 2021

3 CAPITAL ADEQUACY

MSL's approach to capital management is driven by its strategic objectives and takes into account all relevant regulatory, economic and commercial environments in which MSL and the Maybank Group operate. MSL regards having a strong capital position as essential to the bank's business strategy and competitive position. As such, implications on the bank's capital position are taken into account by the Board and senior management prior to implementing any major business decision in order to preserve the bank's overall capital strength.

The quality and composition of capital are key factors in the Board and senior management's evaluation of the bank's capital adequacy position. MSL places strong emphasis on the quality of its capital and accordingly holds a higher amount of its capital in the form of common equity which is permanent and has the highest loss absorption capability on a going concern basis.

The Board maintains oversight of the regulatory capital of MSL in line with regulatory requirements under the MAS Notice 637 and expectations of various stakeholders such as regulators. To date, MSL has complied with all externally-imposed regulatory capital requirements throughout the financial period.

3.1 Key Metrics

The following table provides an overview of the key prudential regulatory metrics related to regulatory capital, leverage ratio and liquidity standards for MSL.

The bank's CET1 ratio, tier 1 ratio and total capital ratio as at December 2020 have remained largely unchanged, with increases of 0.2, 0.2 and 0.6 percentage points respectively as compared to the previous quarter, as a result of a decrease in intercompany exposures, partially offset by an increase in credit RWA arising from changes to models for retail exposures on the Advanced Internal Ratings-Based Approach.

Liquidity coverage ratio on Country Group basis has decreased by 9 percentage points as compared to the previous quarter due to a higher rise in total net cash outflows largely coming from increased wholesale funding, relative to the increase in High Quality Liquid Assets.

SGD million		(a)	(b)	(c)	(d)	(e)
		31 Dec 2020	30 Sep 2020	30 Jun 2020	31 Mar 2020	31 Dec 2019
	Available amount (amounts)					
1	CET1 capital	2,033	2,035	2,021	2,003	2,517
2	Tier 1 capital	2,033	2,035	2,021	2,003	2,517
3	Total capital	2,638	2,598	2,564	2,544	2,559
	Risk weighted assets (amounts)					
4	Total RWA	14,589	14,836	13,700	13,714	13,836
	Risk-based capital ratios as a percentage of RWA					
5	CET1 ratio (%)	13.9	13.7	14.8	14.6	18.2
6	Tier 1 ratio (%)	13.9	13.7	14.8	14.6	18.2
7	Total capital ratio (%)	18.1	17.5	18.7	18.5	18.5
	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 (%)	0.0	0.0	0.0	0.0	0.0
10	Bank G-SIB and/or D-SIB additional requirements (%)	-	-	-	-	-
11	Total of bank CET1 specific buffer requirements (%) (row 8 + row 9 + row 10)	2.5	2.5	2.5	2.5	2.5
12	CET1 available after meeting the Reporting Bank's minimum capital requirements (%)	5.9	5.7	6.8	6.6	8.5
	Leverage Ratio (SGD million / %)					
13	Total Leverage Ratio exposure measure	41,085	41,245	41,117	39,110	39,882
14	Leverage Ratio (%) (row 2 / row 13)	4.9	4.9	4.9	5.1	6.3

SGD million		(a)	(b)	(c)	(d)	(e)
		31 Dec 2020	30 Sep 2020	30 Jun 2020	31 Mar 2020	31 Dec 2019
	Liquidity Coverage Ratio (SGD million / %)¹					
15	Total High Quality Liquid Assets	22,400	21,389	16,883	16,611	15,792
16	Total net cash outflow	12,595	11,412	12,361	11,162	12,527
17	Liquidity Coverage Ratio (%)	179	188	137	153	129
	Net Stable Funding Ratio (SGD million / %)²					
18	Total available stable funding	42,578	42,312	40,806	39,987	41,109
19	Total required stable funding	33,060	32,636	32,825	34,439	34,319
20	Net Stable Funding Ratio (%)	129	130	124	116	120

¹ MSL is subject to the reporting of MAS Notice 649 Liquidity Coverage Ratio on Country Group basis (consisting of Malayan Banking Berhad, Singapore Branch and Maybank Singapore Limited). Data presented are based on simple averages of daily observations for the respective quarter.

² MSL is subject to the reporting of MAS Notice 652 Net Stable Funding Ratio on Country Group basis (consisting of Malayan Banking Berhad, Singapore Branch and Maybank Singapore Limited).

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

The Basel III standards introduced the Countercyclical Capital Buffer (“CCyB”) framework to achieve a broader macro prudential goal of protecting the banking sector from periods of excess aggregate credit growth.

The CCyB is applied on a discretionary basis by banking supervisors in the respective jurisdictions.

The table below provides an overview of the geographical distribution of the risk-weighted assets (“RWA”) in private sector credit exposures relevant to the calculation of the countercyclical capital buffer.

The Basel III CCyB is calculated as the weighted average of the buffers in effect in the jurisdictions to which banks have private sector credit exposures, subject to the relevant transitional caps under MAS Notice 637.

MSL attributes private sector credit exposures to jurisdictions based primarily on the jurisdiction of risk of each obligor or its guarantor, if applicable.

The determination of an obligor’s jurisdiction of risk is based on the look-through approach, taking into consideration factors such as the economic activity and availability of parental support.

SGD million	(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%	26		
Luxembourg	0.50%	*		
Norway	1.00%	*		
Others		12,453		
Total		12,480	0.0%	*

*Amount is less than 0.5

4 LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES

4.1 Differences between Accounting and Regulatory Scopes of Consolidation and Mapping of Financial Statement Categories with Regulatory Risk Categories

The following table shows the breakdown of the amount reported in the financial statements by regulatory risk categories.

SGD million	(a)	(b)	(c)	(d)	(e)	(f)
	Carrying amounts as reported in balance sheet of published financial statements	Carrying amounts of items -				
subject to credit risk requirements		subject to CCR requirements	subject to securitisation framework	subject to market risk requirements		
Assets						
Cash and balance with a central bank	1,270	1,270	-	-	-	-
Singapore Government securities and treasury bills	5,588	5,588	-	-	-	-
Debt securities	249	249	-	-	-	-
Balances and placements with and loans to banks	7,531	179	7,352	-	-	-
Bills receivable	9	9	-	-	-	-
Loans and advances to non-bank customers	22,374	22,374	-	-	-	-
Amount due from related corporations	1,284	1,284	-	-	-	-
Other assets	312	253	59	-	58	-
Intangible assets	100	100	-	-	-	-
Right-of-use assets	53	53	-	-	-	-
Property, plant and equipment	20	20	-	-	-	-
Total Assets	38,790	31,379	7,411	-	58	-
Liabilities						
Deposits and balances of banks	150	-	-	-	-	150

SGD million	(a)	(b)	(c)	(d)	(e)	(f)
	Carrying amounts as reported in balance sheet of published financial statements	Carrying amounts of items -				
		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
Amounts due to central bank	956	-	-	-	-	956
Deposits of non-bank customers	34,600	-	-	-	-	34,600
Bills payable	78	-	-	-	-	78
Amount due to related corporations	7	-	-	-	-	7
Current tax payable	12	-	-	-	-	12
Other liabilities	382	-	68	-	68	314
Lease liabilities	53	-	-	-	-	53
Deferred tax liabilities	18	-	-	-	-	18
Subordinated notes	500	-	-	-	-	500
Total Liabilities	36,756	-	68	-	68	36,688

The sum of amounts disclosed under columns (b) to (f) for the above table can exceed the amounts disclosed under column (a) as some of the assets and liabilities can be subject to regulatory capital charges for credit risk, counterparty risk and market risk.

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

The following table provides information on the main sources of differences between regulatory exposure amounts and carrying amounts in the financial statements. Items subject to market risk requirements have not been included in the table below as they are computed based on notional positions in the relevant underlying instruments.

SGD million		(a)	(b)	(c)
		Total	Items subject to -	
			credit risk requirements	CCR requirements
1	Asset carrying amount under regulatory scope of consolidation ³	38,790	31,379	7,411
2	Liabilities carrying amount under regulatory scope of consolidation ³	68	-	68
3	Total net amount under regulatory scope of consolidation	38,722	31,379	7,343
4	Off-balance sheet amounts		3,779	-
5	Differences due to derivatives and securities financing transaction		-	(7,028)
6	Differences due to consideration of provision		237	2
7	Other differences		(420)	-
8	Exposure amounts considered for regulatory purposes	35,292	34,975	317

³ The total column excludes amounts subject to deduction from capital or not subject to regulatory capital requirements.

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

MSL's regulatory scope of consolidation is identical to its accounting scope of consolidation. However, the key differences between the carrying amounts in the financial statements and regulatory exposure amounts under each framework are:

- a) Off-balance sheet amounts include contingent liabilities and undrawn portions of committed facilities after application of credit conversion factors.
- b) Derivative regulatory exposures include potential future exposures.
- c) In the financial statements, the carrying value of assets are net of allowances. However, for regulatory reporting, the carrying value of assets are gross of allowances under IRBA and net of specific allowances under SA.
- d) Other differences could include differences arising from the recognition of credit risk mitigation, inclusion of repurchase agreement for counterparty credit risk, etc.

4.4 Prudent Valuation Adjustments

The following table provides a breakdown of the constituent elements of prudent valuation adjustment (“PVA”). Valuation adjustments relating to mid-market value and unearned credit spreads have been taken in financial reporting.

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

*Amount is less than 0.5

5 COMPOSITION OF CAPITAL

5.1 Reconciliation of Regulatory Capital to Balance Sheet

The table below provides the link between MSL's balance sheet in the financial statement and the composition of capital disclosure template.

SGD million	Amount	Cross Reference to Section 5.2
Assets		
Cash and balance with a central bank	1,270	
Singapore Government securities and treasury bills	5,588	
Debt securities	249	
Balances and placements with and loans to banks	7,531	
Bills receivable	9	
Loans and advances to non-bank customers	22,374	
of which: Total allowances admitted as eligible T2 capital	105	a
Amount due from related corporations	1,284	
Other assets	312	
Intangible assets	100	
Right-of-use assets	53	
Property, plant and equipment	20	
Total Assets	38,790	
Liabilities		
Deposits and balances of banks	150	
Amounts due to central bank	956	
Deposits of non-bank customers	34,600	
Bills payable	78	
Amount due to related corporations	7	
Current tax payable	12	
Other liabilities	382	
Lease liabilities	53	
Deferred tax liabilities	18	
Subordinated notes	500	e
Total Liabilities	36,756	
Net Assets	2,034	

SGD million	Amount	Cross Reference to Section 5.2
Equity		
Share capital and other capital	2,000	
of which: Amount eligible as CET1 Capital	2,000	b
Total Reserve	34	
of which: Retained earnings	5	c
of which: Disclosed reserve	28	d
Total Equity	2,034	

5.2 Composition of Regulatory Capital

The following table provides a breakdown of the constituent components of regulatory capital and the corresponding regulatory adjustments.

SGD million		Amount	Cross Reference to Section 5.1
Common Equity Tier 1 capital: instruments and reserves			
1	Paid-up ordinary shares and share premium (if applicable)	2,000	b
2	Retained earnings	5	c
3 [#]	Accumulated other comprehensive income and other disclosed reserves	28	d
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	-	
6	Common Equity Tier 1 capital before regulatory adjustments	2,033	
Common Equity Tier 1 capital: regulatory adjustments			
7	Valuation adjustment pursuant to Part VIII of MAS Notice 637	-	
8	Goodwill, net of associated deferred tax liability	-	
9 [#]	Intangible assets, net of associated deferred tax liability	-	
10 [#]	Deferred tax assets that rely on future profitability	-	
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	-	
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		

SGD million		Amount	Cross Reference to Section 5.1
26	National specific regulatory adjustments	-	
26A	PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630	-	
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	-	
29	Common Equity Tier 1 capital (CET1)	2,033	
Additional Tier 1 capital: instruments			
30	AT1 capital instruments and share premium (if applicable)	-	
31	of which: classified as equity under the Accounting Standards	-	
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	-	
35	of which: instruments issued by subsidiaries subject to phase out	-	
36	Additional Tier 1 capital before regulatory adjustments	-	
Additional Tier 1 capital: regulatory adjustments			
37	Investments in own AT1 capital instruments	-	
38	Reciprocal cross-holdings in AT1 capital instruments of financial institutions	-	
39	Investments in AT1 capital instruments of unconsolidated financial institutions in which the Reporting Bank does not hold a major stake	-	
40	Investments in AT1 capital instruments of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	-	
41	National specific regulatory adjustments which the Authority may specify	-	
42	Regulatory adjustments applied in calculation of AT1 Capital due to insufficient Tier 2 Capital to satisfy required deductions	-	
43	Total regulatory adjustments to Additional Tier 1 capital	-	
44	Additional Tier 1 capital (AT1)	-	
45	Tier 1 capital (T1 = CET1 + AT1)	2,033	
Tier 2 capital: instruments and provisions			
46	Tier 2 capital instruments and share premium (if applicable)	500	e
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	-	
49	of which: instruments issued by subsidiaries subject to phase out	-	
50	Provisions	105	a

SGD million		Amount	Cross Reference to Section 5.1
51	Tier 2 capital before regulatory adjustments	605	
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 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 (incl 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)	605	
59	Total capital (TC = T1 + T2)	2,638	
60	Floor-adjusted total risk weighted assets	14,589	
Capital ratios (as a percentage of floor-adjusted risk weighted assets)			
61	Common Equity Tier 1 CAR	13.9%	
62	Tier 1 CAR	13.9%	
63	Total CAR	18.1%	
64	Bank-specific buffer requirement	9.0%	
65	of which: capital conservation buffer requirement	2.5%	
66	of which: bank specific countercyclical buffer requirement	0.0%	
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	5.9%	
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 Reporting Bank does not hold a major stake	-	
73	Investments in ordinary shares of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries)	-	
74	Mortgage servicing rights (net of associated deferred tax liability)		
75	Deferred tax assets arising from temporary differences (net of associated deferred tax liability)		

SGD million		Amount	Cross Reference to Section 5.1
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)	61	
77	Cap on inclusion of provisions in Tier 2 under standardised approach	61	
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	44	
79	Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	48	
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)	-	
Items marked with a hash [#] are elements where a more conservative definition has been applied relative to those set out under the Basel III capital standards.			

5.3 Main Features of Regulatory Capital Instruments

1	Issuer	Maybank Singapore Limited	Maybank Singapore Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N.A.	SGXZ25494378
3	Governing law(s) of the instrument	Singapore	Singapore
4	Transitional Basel III rules	Common Equity Tier 1	Tier 2
5	Post-transitional Basel III rules	Common Equity Tier 1	Tier 2
6	Eligible at solo/group/group&solo	Group and Solo	Group and Solo
7	Instrument type (types to be specified by each jurisdiction)	Ordinary Shares	T2 Subordinated Notes
8	Amount recognised in regulatory capital (Currency in millions, as of most recent reporting date)	S\$2,000 million	S\$500 million
9	Par value of instrument	N.A.	N.A.
10	Accounting classification	Shareholder's Equity	Liability - amortised cost
11	Original date of issuance	05 November 2018	26 March 2020
12	Perpetual or dated	Perpetual	Dated
13	Original maturity date	No maturity	26 March 2030
14	Issuer call subject to prior supervisory approval	No	Yes
15	Optional call date, contingent call dates and redemption amount	N.A.	26 March 2025
16	Subsequent call dates, if applicable	N.A.	N.A.
	Coupons / dividends		
17	Fixed or floating dividend/coupon	N.A.	Fixed
18	Coupon rate and any related index	N.A.	3.70%, subject to reset if call option is not exercised in accordance with the Subscription Agreement.
19	Existence of a dividend stopper	N.A.	No
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary	Mandatory
21	Existence of step up or other incentive to redeem	N.A.	No
22	Noncumulative or cumulative	N.A.	N.A.
23	Convertible or non-convertible	Non-convertible	Non-convertible

24	If convertible, conversion trigger (s)	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	No	Yes
31	If write-down, write-down trigger(s)	N.A.	A “Trigger Event” is defined as the earlier of (a) MAS notifying the bank in writing that it is of the opinion that a write-off or conversion is necessary, without which the bank would become non-viable; and (b) a decision by the MAS to make a public sector injection of capital, or equivalent support, without which the bank would have become non-viable, as determined by MAS.

32	If write-down, full or partial	N.A.	Full -> Trigger Event Write-off Amount means the amount of interest and/or principal to be written-off as the MAS may direct, or as the bank shall determine in accordance with the MAS, which is required to be written-off for the Trigger Event to cease to continue. For the avoidance of doubt, the write-off will be effected in full even in the event that the amount written-off is not sufficient for the Trigger Event to cease to continue.
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 (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned)	Represents the most subordinated claim upon occurrence of liquidation of the bank	Subject to the insolvency laws of Singapore and other applicable laws, in the event of a winding-up of the bank, the rights of the Noteholders to payment of principal and interest on the Notes and any other obligations in respect of the Notes: (i) are subordinated in right of payment to the claims of all unsubordinated creditors of the Issuer, (ii) rank senior in right of payment to the rights and claims of creditors in respect of Subordinated Indebtedness, and (iii) rank pari passu in right of payment with the rights and claims of creditors in respect of Tier 2 capital securities.
36	Non-compliant transitioned features	No	No
37	If yes, specify non-compliant features	N.A.	N.A.

6 LEVERAGE RATIO

The leverage ratio has been introduced under the Basel III framework as a non-risk based backstop limit to supplement the risk-based capital requirements. Its primary aim is to constrain the build-up of excess leverage in the banking sector.

The bank's leverage ratio as at December 2020 remained at 4.9%, same as the previous quarter. The ratio is well above the 3% regulatory minimum ratio prescribed by MAS, effective 1 January 2018.

6.1 Leverage Ratio

SGD million	31 Dec 2020	30 Sep 2020
Capital and Total exposures		
Tier 1 Capital	2,033	2,035
Total Exposures	41,085	41,245
Leverage ratio (%)		
Leverage ratio	4.9	4.9

6.2 Leverage Ratio Summary Comparison Table

SGD million		Amount
	Item	31 Dec 2020
1	Total consolidated assets as per published financial statements	38,790
2	Adjustment for investments in entities that are consolidated for accounting purposes but are outside the regulatory scope of consolidation	-
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	28
5	Adjustment for SFTs	21
6	Adjustment for off-balance sheet items	2,246
7	Other adjustments	-
8	Exposure measure	41,085

6.3 Leverage Ratio Common Disclosure Template

The following table provides a detailed breakdown of the components of the leverage ratio denominator.

The decrease in the exposure measure was mainly due to decrease in amount due from the parent bank, largely offset by the increase in exposure arising from SFTs.

SGD million		Amount	
	Item	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)	31,372	36,841
2	Asset amounts deducted in determining Tier 1 capital	-	-
3	Total exposure measures of on-balance sheet items (excluding derivative transactions and SFTs)	31,372	36,841
	Derivative exposure measures		
4	Replacement cost associated with all derivative transactions (net of the eligible cash portion of variation margins)	63	61
5	Potential future exposure associated with all derivative transactions	28	21
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	91	82
	SFT exposure measures		
12	Gross SFT assets (with no recognition of accounting netting), after adjusting for sales accounting	7,355	1,398
13	Eligible netting of cash payables and cash receivables	-	-
14	SFT counterparty exposures	21	9
15	SFT exposure measures where a Reporting Bank acts as an agent in the SFTs	-	-
16	Total SFT exposure measures	7,376	1,407
	Exposure measures of off-balance sheet items		
17	Off-balance sheet items at notional amount	10,979	11,594
18	Adjustments for calculation of exposure measures of off-balance sheet items	(8,733)	(8,679)
19	Total exposure measures of off-balance sheet items	2,246	2,915
	Capital and Total exposures		
20	Tier 1 capital	2,033	2,035
21	Total exposures	41,085	41,245
	Leverage ratio		
22	Leverage ratio	4.9%	4.9%

7 RISK MANAGEMENT APPROACH

Risk management is a core discipline of MSL to ensure overall soundness of the bank. The management of risk in MSL broadly takes place at different hierarchical levels and is emphasised through various levels of committees, business lines, control and reporting functions.

Under the bank’s risk governance structure, the Board of Directors (“BOD”) has overall responsibility for the oversight of the risk management of MSL. The Board-level Risk Management and Compliance Committee (“RMCC”) assists the BOD to set the risk appetite and review the risk management frameworks, policies, and credit underwriting standards to steer MSL in risk taking activities.

In addition to Board oversight, there are several Executive-level risk management committees - Singapore Management Committee (“SMC”), Executive Risk Management Committee (“ERC”), Credit Committee Singapore (“CCS”), Non-Financial Risk Committee (“NFRC”) and Asset and Liability Management Committee (“ALCO”) - to assist and support BOD and RMCC’s risk oversight.

Functions	Key Responsibilities
Board & Board-level Risk Management Committee	
Board of Directors	Ultimate governing body responsible for understanding the major risks faced by the bank, setting acceptable levels of risk taking and ensuring that Senior Management takes the steps necessary to identify, measure, control and monitor these risks.
Risk Management and Compliance Committee	Assist the BOD in the execution of its duties and responsibilities.
Executive-level Risk Management Committees	
Executive Risk Management Committee	Assist and support the RMCC in its operations.
Senior Management & Working / Operating Level Committees	
Senior Management & Working / Operating Level Committees	Ensure the management of risk is in line with the approved risk appetite and strategy, risk frameworks and policies, and risk management practices.

The bank adopts Maybank Group’s risk frameworks and policies with further customisation to suit local regulatory and business environment. For more details on Maybank’s Risk Management Approach, please refer to the Maybank Group’s [Annual Report](#) as follows:

Annual Report

Chapter	Details Covered
Risk Driver (page 33)	Risk drivers significant to the bank, principal risks to the financial services industry.
Group Risk Management (page 62)	Strategies and processes to manage, hedge and mitigate risk.
Statement on Risk Management and Internal Control (page 88)	Risk management framework, risk appetite, risk governance & oversight, risk & compliance culture, risk management practices and processes, compliance framework, Shariah governance framework, stress testing, responsible lending, and cyber and technology risk management policy and guidelines.

Further details can be found in Maybank Group's [Pillar 3 disclosure](#):

Maybank Group's Pillar 3 Disclosure

Section	Details Covered
Internal Capital Adequacy Assessment Process (page 13)	Stress testing and risk measurements.
Risk Management (page 15)	Risk management framework, risk appetite and risk governance & oversight.

8 OVERVIEW OF RISK-WEIGHTED ASSETS

The following table presents the bank's RWA by approaches and risk types, as prescribed under MAS Notice 637. The minimum capital requirement is expressed as 10% of RWA. The bank's RWA comprises Credit RWA, Operational RWA and Market RWA.

The quarter-on-quarter decrease in credit RWA was largely contributed by a drop in intercompany exposures, partially offset by an increase in credit RWA arising from model updates for retail exposures on the Advanced Internal Ratings-Based Approach.

SGD million		(a)	(b)	(c)
		RWA		Minimum capital requirements
		31 Dec 2020	30 Sep 2020	31 Dec 2020
1	Credit risk (excluding CCR)	13,312	13,586	1,331
2	of which: Standardised Approach	4,795	6,390	480
3	of which: F-IRBA	4,537	4,654	454
4	of which: supervisory slotting approach	-	-	-
5	of which: A-IRBA	3,980	2,542	398
6	CCR	81	33	8
7	of which: Current Exposure Method	32	31	3
8	of which: CCR internal models method	-	-	-
9	of which: other CCR	49	2	5
9a	of which: CCP	-	-	-
10	CVA	29	33	3
11	Equity exposures under the simple risk weight method	-	-	-
11a	Equity exposures under the IMM	-	-	-
12	Equity investments in funds - look-through approach	-	-	-
13	Equity investments in funds - mandate-based approach	-	-	-
14	Equity investments in funds - fall back approach	-	-	-
14a	Equity investments in funds - partial use of an approach	-	-	-
15	Unsettled transactions	-	-	-
16	Securitisation exposures in the banking book	-	-	-
17	of which: SEC-IRBA	-	-	-
18	of which: SEC-ERBA, including IAA	-	-	-
19	of which: SEC-SA	-	-	-
20	Market risk	5	5	1

SGD million		(a)	(b)	(c)
		RWA		Minimum capital requirements
		31 Dec 2020	30 Sep 2020	31 Dec 2020
21	of which: SA(MR)	5	5	1
22	of which: IMA	-	-	-
23	Operational risk	1,162	1,179	116
24	Amounts below the thresholds for deduction (subject to 250% risk weight)	-	-	-
25	Floor adjustment	-	-	-
26	Total	14,589	14,836	1,459

9 GENERAL QUALITATIVE DISCLOSURES ON CREDIT RISK

Credit risk is the risk of loss of principal or income arising from the failure of a borrower or counterparty to perform their contractual obligations in accordance with agreed terms.

The bank's credit risk management is supported by policies which cover credit risk management process in accordance with the standards established by the Maybank Group in order to manage credit risk in a structured, systematic and consistent manner. Credit policies are supplemented by operational procedures and guidelines to ensure consistency in identifying, assessing, underwriting, measuring, reporting and controlling credit risk.

Monitoring of credit exposures, portfolio performance and external environment factors potentially affecting the bank is part of the bank's efforts in managing credit risk. Relevant reports on exposures, performance and external credit trends are submitted to the relevant risk committees periodically.

The Credit Authority Limits ("AL") Policy governs the administration of the authority limits for various areas including credit extension, renewals and NPL management. The AL Policy adopts a risk-based approach taking into consideration the risk rating and total credit exposures of the borrower.

The bank engages in various types of credit stress testing typically driven by regulators or internal requirements. The Board / ERC and senior management exercise effective oversight on the stress test process and results to ensure that the requirements set out within the relevant policies are met.

10 CREDIT QUALITY OF ASSETS

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

SGD million		(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		
1	Loans	187	22,451	255	19	57	180	22,383
2	Debt securities	-	5,837	*	-	*	-	5,836
3	Off-balance sheet exposures	*	8,670	*	-	*	*	8,670
4	Total	187	36,958	256	19	58	180	36,889

*Amount is less than 0.5

A default by an obligor is deemed to have occurred when the obligor is assessed to be unlikely to pay its credit obligations in full or the obligor is past due for more than 90 days on its credit obligations to the bank.

11 CHANGES IN STOCK OF DEFAULTED LOANS AND DEBT SECURITIES

SGD million		(a)
		31 Dec 2020
1	Defaulted loans and debt securities at end of the previous semi-annual reporting period	201
2	Loans and debt securities that have defaulted since the previous semi-annual reporting period	54
3	Returned to non-defaulted status	23
4	Amounts written-off	27
5	Other changes	(18)
6	Defaulted loans and debt securities at end of the semi-annual reporting period (1+2-3-4±5)	187

12 ADDITIONAL DISCLOSURES RELATED TO THE CREDIT QUALITY OF ASSETS

The bank's Core Credit Classification and Impairment Policy sets out the bank's standards on classification and impairment provisions for financing in accordance with the Maybank Group policy and MAS Notice 612 - Credit Files, Grading and Provisioning. Where country requirements differ from the Maybank Group, the more stringent policy shall apply.

Credit exposures are categorised as "Performing Loans" and "Non-Performing Impaired Loans" ("NPIL"). Classification of accounts leads to the required action on distressed accounts / borrowers where the bank can allocate the right amount of focus for early, preventive and remedial actions.

Loans / financing are classified as follows:

Classification	Description
Performing Loans	
Pass	This indicates that timely repayment of the outstanding credit facility is not in doubt. Repayment is prompt and the credit facility does not exhibit any potential weakness in repayment capability, business, cash flow or financial position of the borrower. The credit facilities may be further sub-categorised to Early Warning Signal ("EWS") and Watch List ("WL") for early care and account management purposes.
Special Mention Account ("SMA")	Accounts exhibiting potential weaknesses that, if not corrected in a timely manner, may adversely affect repayment by the borrower at a future date, and warrant close attention by a bank.
Non-Performing Impaired Loans ("NPIL")	
Substandard	Accounts exhibiting definable weaknesses, in respect of either the business, cash flow or financial position of the borrower that may jeopardise repayment on existing terms.
Doubtful	Accounts with more severe weakness than those in a substandard credit facility such that the prospects of full recovery are questionable and the prospects of a loss are high, but the exact amount remains undeterminable yet.
Bad (Loss)	Accounts where the outstanding credit facility is not collectable and little or nothing can be done to recover the outstanding amount from any collateral or from the borrower's assets generally.

Accounts are classified as NPIL under the following circumstances:

- Time Trigger - Borrowers that are past due for more than 90 days on their obligations to the bank.

- Judgmental Trigger - Borrowers that exhibit definable or more severe weaknesses and are unlikely to pay their obligations to the bank.

The following tables show the breakdown of credit risk exposures by geographical areas, industry and residual maturity.

12.1 Breakdown of Major Types of Credit Risk Exposures by Geographical Areas

SGD million	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Singapore Government securities & treasury bills	Debt securities	Balances and placements with and loans to banks	Bills Receivable & Loans and advances to non-bank customers	Credit commitments	Contingent liabilities	Total
Singapore	5,588	249	8,626	21,879	7,970	126	44,438
India	-	-	-	6	4	11	21
Malaysia	-	-	-	183	231	8	421
China	-	-	-	325	21	13	359
Hong Kong	-	-	13	49	10	13	85
Others	-	-	177	197	188	73	634
Total	5,588	249	8,817	22,638	8,423	243	45,958

12.2 Breakdown of Major Types of Credit Risk Exposures by Industry Sector

SGD million	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Singapore Government securities & treasury bills	Debt securities	Balances and placements with and loans to banks	Bills Receivable & Loans and advances to non-bank customers	Credit commitments	Contingent liabilities	Total
Building and Construction	-	-	-	1,362	491	37	1,890
Financial institutions	-	-	8,817	1,739	596	17	11,169
Manufacturing	-	-	-	692	261	32	985
Transport, storage & communication	-	-	-	535	243	21	799
Government & public sector	5,588	249	-	-	-	-	5,837
Housing & bridging loans	-	-	-	10,987	-	-	10,987
General commerce	-	-	-	1,672	1,232	127	3,031
Professional and private individuals	-	-	-	5,404	5,338	7	10,749
Others	-	-	-	247	263	2	512
Total	5,588	249	8,817	22,638	8,423	243	45,958

12.3 Breakdown of Major Types of Credit Risk Exposures by Residual Maturity

SGD million	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Up to 7 days	More than 7 days to 1 month	More than 1 to 3 months	More than 3 to 12 months	More than 1 to 3 years	More than 3 years	Total
Singapore Government treasury bills and securities	343	1,260	1,065	1,517	397	1,006	5,588
Debt securities	-	-	-	-	-	249	249
Balances and placements with and loans to banks	5,611	1,071	934	-	1200	-	8,817
Bills Receivable & Loans and advances to non-bank customers	1,396	734	212	242	1,115	18,940	22,638
Total	7,350	3,065	2,211	1,759	2,711	20,195	37,291

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

The following tables show the breakdown of impaired exposures and related allowances and write-offs by geographical areas and industry.

12.4 Breakdown by Geographical Areas

SGD million	(a)	(b)	(c)
	Impaired loans, advances and financing	Specific Allowance	Write-Offs
Singapore	184	87	50
Malaysia	3	2	*
China	*	*	-
Others	1	*	*
Total	187	89	51

*Amount is less than 0.5

12.5 Breakdown by Industry

SGD million	(a)	(b)	(c)
	Impaired loans, advances and financing	Specific Allowance	Write-Offs
Building and Construction	37	18	4
Financial institutions	*	*	6
Manufacturing	9	8	3
Transport, storage & communication	2	1	1
Housing & bridging loans	59	11	-
General commerce	46	35	12
Professional and private individuals	26	11	23
Others	8	4	3
Total	187	89	51

*Amount is less than 0.5

The following table shows the ageing analysis of past due exposures.

12.6 Ageing Analysis of Past Due Loan Exposures

SGD million	(a)
	31 Dec 2020
Within 30 days	131
More than 30 to 90 days	22
More than 90 days	187
Total	341

12.7 Restructured Exposures

A restructured facility is one whose principal terms and conditions have been modified due to an increase in the credit risk / deterioration in creditworthiness of the customer and / or to assist the borrower to overcome / alleviate financial difficulties. Restructured accounts are classified as impaired, i.e. minimum “substandard” grade, depending on the financial condition of the borrower and the ability of the borrower to repay based on the restructured terms.

SGD million	(a)
	31 Dec 2020
Impaired	20
Non-impaired	22
Total	42

13 QUALITATIVE DISCLOSURES RELATED TO CRM TECHNIQUES

The bank may use various risk mitigation methods such as collateral, netting arrangements, credit insurance and guarantees to mitigate potential credit losses. When assessing whether a collateral is acceptable, the bank sets criteria including legal certainty and enforceability, marketability and valuations of the collateral.

The bank's Collateral Policy prescribes the list of acceptable collaterals, valuation method and frequency, loan-to-value ("LTV") in order to be recognised as secured, insurance requirements, etc.

Derivatives, repurchase agreements ("REPO"), etc. are typically governed and documented under market-standard documentation, such as International Swaps & Derivatives Association ("ISDA") Agreements and Master Repurchase Agreements. The master agreement provides general terms and conditions that are applied to all transactions which it governs.

Regular valuation of collateral is performed and the bank performs regular analysis of its collateral concentration. Collateral values are also adjusted during stress testing to ascertain the impact on recovery and loss.

Where necessary, recovery processes are in place to assist with the disposal of collateral. A panel of service providers (valuers, auctioneers, agents, brokers and solicitors) is maintained to assist the bank with the disposal of foreclosed properties / assets under impaired loans.

14 OVERVIEW OF CRM TECHNIQUES

The following table provides information on the extent of usage of Credit Risk Mitigation (“CRM”) techniques.

SGD million		(a)	(b)	(c)	(d)	(e)
		Exposures unsecured	Exposures secured ⁴	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Loans	5,554	16,828	16,824	5	-
2	Debt securities	5,836	-	-	-	-
3	Total	11,470	16,828	16,824	5	-
4	Of which: defaulted	28	70	70	-	-

⁴ This refers to carrying amount of exposures which have at least one credit risk mitigation mechanism, collateral or financial guarantees associated with them as per the requirements of credit risk mitigation techniques set out in MAS Notice 637.

15 QUALITATIVE DISCLOSURES ON THE USE OF EXTERNAL CREDIT RATINGS UNDER THE SA(CR)

Credit exposures to sovereigns and banks under the SA are risk-weighted using external ratings, subject to the regulatory prescribed risk weights by asset classes set out in MAS Notice 637. The approved External Credit Assessment Institutions (“ECAI”) are Fitch Ratings, Moody’s Investors Service, and Standard & Poor’s (“S&P”).

16 CREDIT RISK EXPOSURES UNDER STANDARDISED APPROACH

16.1 SA(CR) and SA(EQ) - Credit Risk Exposure and CRM Effects

The following table provides an overview of the effects of CRM on the calculation of the bank's capital requirements for SA(CR).

SGD million		(a)	(b)	(c)	(d)	(e)	(f)
		Exposures before CCF and CRM		Exposures post-CCF and post-CRM		RWA and RWA density	
Asset Classes and others		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
1	Cash items	73	-	73	-	-	-
2	Central government and central bank	6,794	-	6,794	-	-	-
3	PSE	250	-	250	-	-	-
4	MDB	-	-	-	-	-	-
5	Bank	1,467	4	1,467	4	655	45%
6	Corporate	369	548	340	56	396	100%
7	Regulatory retail	2,607	2,452	2,519	112	1,973	75%
8	Residential mortgage	376	109	375	40	152	37%
9	CRE	983	71	981	23	1,004	100%
10	Equity - SA(EQ)	-	-	-	-	-	-
11	Past due exposures	43	2	25	*	32	131%
12	Higher-risk categories	-	-	-	-	-	-
13	Other exposures	643	595	531	52	583	100%
14	Total	13,606	3,781	13,356	286	4,795	35%

*Amount is less than 0.5

16.2 SA(CR) and SA(EQ) - Exposures by Asset Classes and Risk Weights

The following table presents the breakdown of credit risk exposures under the SA(CR) by asset class and risk weight.

SGD million		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Risk weight		0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposure amount (post-CCF and post-CRM)
Asset Classes and others											
1	Cash items	73	-	-	-	-	-	-	-	-	73
2	Central government and central bank	6,794	-	-	-	-	-	-	-	-	6,794
3	PSE	250	-	-	-	-	-	-	-	-	250
4	MDB	-	-	-	-	-	-	-	-	-	-
5	Bank	-	-	268	-	1,203	-	-	-	-	1,471
6	Corporate	-	-	-	-	-	-	396	-	-	396
7	Regulatory retail	-	-	-	-	-	2,631	-	-	-	2,631
8	Residential mortgage	-	-	-	405	-	2	9	-	-	416
9	CRE	-	-	-	-	-	-	1,004	-	-	1,004
10	Equity - SA(EQ)	-	-	-	-	-	-	-	-	-	-
11	Past due exposures	-	-	-	-	-	-	9	15	-	25
12	Higher-risk categories	-	-	-	-	-	-	-	-	-	-
13	Other exposures	-	-	-	-	-	-	583	-	-	583
14	Total	7,118	-	268	405	1,203	2,632	2,002	15	-	13,642

17 QUALITATIVE DISCLOSURES FOR IRBA MODELS

The bank has obtained approval from MAS to use internal credit models for evaluating the majority of its credit risk exposures. For the RWA computation of corporate portfolios, the bank adopts the Foundation Internal Ratings-Based Approach (“F-IRBA”) (for approved scorecards), which relies on its own internal Probability of Default (“PD”) estimates and applies supervisory estimates of Loss Given Default (“LGD”) and Exposure At Default (“EAD”), while the retail portfolios mainly adopt the Advanced Internal Ratings-Based Approach (“A-IRBA”) relying on internal estimates of PD, LGD and EAD.

In line with the requirements in MAS Notice 637 for capital adequacy purposes, the parameters are calibrated to a full economic cycle experience to reflect the long-run, cycle-neutral estimations.

- **Probability of Default**

PD represents the probability of a borrower defaulting within the next 12 months. The first level of estimation is based on the portfolio’s Observed Default Rate of recent years’ data. The average long-run default experience covering crisis periods (e.g. 2001-2002) is reflected through the Central Tendency calibration for the Basel estimated PD.

- **Loss Given Default**

LGD measures the economic loss the bank would incur in the event of a borrower defaulting. Among others, it takes into account post default pathways, cure probability, direct and indirect costs associated with the workout, recoveries from borrower and collateral liquidation.

LGD is calibrated to loss experiences during a period of economic crisis whereby for most portfolios, the estimated loss during crisis years is expected to be higher than that during a normal economic period. The crisis period LGD, known as Downturn LGD, is used as an input for RWA calculation.

- **Exposure At Default**

EAD is linked to facility risk, namely the expected gross exposure of a facility should a borrower default. The “race-to-default” is captured by Credit Conversion Factor (“CCF”), which should reflect the expected increase in exposure amount due to additional drawdown by a borrower facing financial difficulties leading to default.

17.1 Application of Internal Ratings

Internal ratings are used in the following areas:

- **Credit Approval**

The bank adopts a risk-based approval approach where the approval level of a loan application is determined based on the internal rating of the borrower, Expected Loss (“EL”) and the quantum of exposure being requested.

- **Risk Management and Setting of Risk Tolerances for Credit Portfolios**

Internal ratings are used extensively in the bank’s policies to ensure consistent application of the rating systems, estimates and processes among the various units in the bank. For example, borrowers with higher risk grades are subjected to more frequent reviews to ensure close monitoring and tracking of these borrowers.

Reports on the risk rating portfolio distribution and sectoral outlook versus borrower risk profile within each sector are produced regularly and monitored by the bank.

- **Internal Capital Allocation and Pricing**

The bank has emplaced risk-based capital management, including the Internal Capital Adequacy Assessment Process (“ICAAP”), and uses regulatory capital charge for decision making and budgeting. Internal ratings are used as a basis for pricing credit facilities.

- **Provisioning**

The bank adopts the internal ratings generated to derive Expected Credit Loss (“ECL”) for provisioning purposes.

- **Corporate Governance**

Internal ratings, default and loss estimates are used in reports to provide meaningful analysis on areas relating to credit and profitability at all levels within the bank. This analysis is especially useful for senior management.

17.2 Non-Retail Portfolio

Non-retail exposures comprise mainly the bank’s commercial banking borrowers. The general approach adopted by the bank can be categorised into the following categories:

- Default History Based (“Good-Bad” Analysis)**
 This approach is adopted when the bank has sufficient default data. Under this approach, a statistical method is employed to determine the likelihood of default on existing exposures. Scorecards under the bank’s Credit Risk Rating System (“CRRS”) models were developed using this approach.
- Expert Judgement Approach**
 The default experience for some exposures, for example in real estate, is insufficient for the bank to perform the required analysis to develop a robust statistical model. Hence, another approach known as experts’ judgement approach is opted to develop the scorecard. Under this approach, the qualitative, quantitative and factor weights are determined by the Maybank Group’s credit experts.

17.3 Credit Risk Models and Tools

- Credit Risk Rating System (“CRRS”)**
 The Borrower Risk Rating (“BRR”), which is a component of CRRS, is a borrower-specific rating element that provides an estimate of the likelihood of the borrower going into default over the next 12 months. The BRR estimates the borrower risk and is independent of the type or nature of facilities and collaterals offered.

For reference, each grade can be mapped to a set of external agency ratings, such as the S&P. This is illustrated in Table 1 below which contains the mapping of internal rating grades of corporate borrowers with S&P’s rating grades.

Table 1: Rating Grades

Risk Category	Rating Grade	S&P Equivalent
Very Low	1-5	AAA to BBB+
Low	6-10	BBB+ to BB+
Medium	11-15	BB+ to B+
High	16-21	B+ to C

17.4 Retail Portfolio

The bank has adopted the A-IRBA for retail exposures, which consist of residential mortgages, qualifying revolving retail exposures and other retail exposures. These exposures are managed on a portfolio basis premised on homogenous risk characteristics.

This approach calls for a more extensive reliance on the bank's own internal experience (based on historical data) by estimating all three main components of RWA calculation, namely PD, EAD and LGD, based on historical data.

17.5 Independent Model Validation

The use of models will give rise to model risk, which is defined as the risk of a model not performing the tasks or able to capture the risks it was designed for. Any model not performing in line with expectations may potentially result in financial loss, incorrect business decisions, misstatement of external financial disclosures, or damage to the reputation.

To manage this risk, the Model Risk Management ("MRM") framework was introduced in 2019 to provide an overall governance as well as clear roles and responsibilities throughout the model lifetime in order to manage new models being introduced mainly to support business analytics and decision making. As part of the MRM, model validation is performed to assess whether a model is performing according to expectations. The model validation function at the Maybank Group is distinct from the model development function and model users, with the objective to provide the required independence in performing the function. In line with regulatory requirements, all credit IRBA models used for capital calculation and finance models used for FRS 9 are subject to independent validation by the Model Validation team. Additionally, as part of best practice, other significant models such as market risk models used for valuation and pricing are also subject to independent validation. Approval and oversight of model validation are governed by a technical committee and the relevant risk committees. The technical committee known as Model Validation and Acceptance Committee ("MVAC") meets regularly and its membership is drawn from Risk and Business stakeholders.

In general, validation techniques include both quantitative and qualitative analysis to test the appropriateness and robustness of the models used. Validation of the models covers activities that evaluate and examine the rating system and the estimation process and methods for deriving the risk components. For instance, for credit risk models, the risk components are PD, LGD and EAD. The process involves validating whether risk models are capable of discriminating ('discriminatory or rank ordering power') and are giving consistent and predictive estimates ('calibration') of the relevant risk parameters.

Model validation is conducted at two stages:

- Pre-implementation model validation which is conducted prior to launch of the model; and
- Post-implementation validation which is performed at least on an annual basis for models used for IRBA capital calculation. For other types of models deemed less risky and not subject to regulatory requirements, post-implementation validation may be performed on a less frequent basis.

In addition to annual review, frequent monitoring is performed by the model owners to ensure that the models are performing as expected, and that the assumptions used in model development remain appropriate.

As part of overall governance, validation processes are also subject to regular independent reviews by Internal Audit.

18 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 Foundation IRBA.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	Original on-balance sheet gross exposures	Off-balance sheet exposures pre-CCF	Average CCF	EAD post-CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	RWA	RWA density	EL	TEP
PD Range	(SGD million)		(%)	(SGD million)	(%)	(Count)	(%)	(Years)	(SGD million)	(%)	(SGD million)	
Corporate												
0.00 to < 0.15	66	161	17%	93	0.12%	71	42%	3.1	35	38%	*	
0.15 to < 0.25	65	105	10%	76	0.20%	71	38%	3.0	33	44%	*	
0.25 to < 0.50	588	374	8%	616	0.34%	203	41%	3.8	438	71%	1	
0.50 to < 0.75	355	218	27%	415	0.54%	113	41%	3.4	340	82%	1	
0.75 to < 2.50	1,283	1,048	29%	1,583	1.52%	470	41%	3.4	1,818	115%	10	
2.50 to < 10.00	441	274	13%	476	4.23%	200	42%	3.6	751	158%	8	
10.00 to < 100.00	74	244	17%	117	12.46%	458	42%	3.9	257	221%	6	
100.00 (Default)	73	52	0%	73	100.00%	42	43%	3.7	-	-	32	
Sub-total	2,945	2,475	20%	3,451	3.96%	1,627	41%	3.5	3,672	106%	58	83
Corporate Small Business												
0.00 to < 0.15	50	71	6%	55	0.14%	32	39%	4.3	21	38%	*	
0.15 to < 0.25	7	31	4%	9	0.20%	16	41%	3.4	4	43%	*	
0.25 to < 0.50	229	240	6%	243	0.38%	70	43%	3.9	202	83%	*	
0.50 to < 0.75	81	45	13%	87	0.55%	33	41%	3.8	61	70%	*	
0.75 to < 2.50	348	326	11%	386	1.46%	130	42%	3.9	398	103%	2	
2.50 to < 10.00	125	59	18%	135	3.78%	35	41%	3.8	161	119%	2	
10.00 to < 100.00	8	4	-	8	11.99%	4	43%	2.8	19	221%	*	
100.00 (Default)	-	-	-	-	-	-	-	-	-	-	-	
Sub-total	848	777	10%	923	1.44%	320	42%	3.9	865	94%	5	9
Total (all portfolios)	3,794	3,252	18%	4,374	3.43%	1,947	41%	3.6	4,537	104%	64	92

*Amount is less than 0.5

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

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	Original on-balance sheet gross exposures	Off-balance sheet exposures pre-CCF	Average CCF	EAD post-CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	RWA	RWA density	EL	TEP
PD Range	(SGD million)		(%)	(SGD million)	(%)	(Count)	(%)	(Years)	(SGD million)	(%)	(SGD million)	
Residential Mortgage												
0.00 to < 0.15	132	25	100%	157	0.13%	251	22%		11	7%	*	
0.15 to < 0.25	1,919	132	100%	2,051	0.22%	5,744	23%		211	10%	1	
0.25 to < 0.50	5,169	444	100%	5,613	0.36%	9,315	23%		822	15%	5	
0.50 to < 0.75	2,737	426	100%	3,163	0.59%	4,132	23%		659	21%	4	
0.75 to < 2.50	797	271	100%	1,069	1.42%	1,580	23%		394	37%	3	
2.50 to < 10.00	525	163	100%	688	3.76%	819	23%		456	66%	6	
10.00 to < 100.00	69	*	100%	69	24.61%	169	22%		94	136%	4	
100.00 (Default)	64	-	-	64	100.00%	123	29%		130	203%	9	
Sub-total	11,412	1,462	100%	12,873	1.29%	21,848	23%		2,776	22%	32	13
Qualifying Revolving Retail												
0.00 to < 0.15	-	-	-	-	-	-	-		-	-	-	
0.15 to < 0.25	*	1	60%	*	0.24%	50	90%		*	12%	*	
0.25 to < 0.50	79	745	60%	525	0.37%	65,260	90%		88	17%	2	
0.50 to < 0.75	42	536	62%	373	0.59%	38,638	90%		90	24%	2	
0.75 to < 2.50	154	918	56%	671	1.30%	70,576	90%		293	44%	8	
2.50 to < 10.00	39	208	56%	155	4.59%	17,709	90%		166	107%	6	
10.00 to < 100.00	17	45	48%	39	16.95%	4,214	90%		83	214%	6	
100.00 (Default)	7	6	100%	13	100.00%	700	90%		17	133%	10	
Sub-total	338	2,460	58%	1,777	2.23%	197,144	90%		738	42%	34	24

*Amount is less than 0.5

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	Original on-balance sheet gross exposures	Off-balance sheet exposures pre-CCF	Average CCF	EAD post-CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	RWA	RWA density	EL	TEP
PD Range	(SGD million)		(%)	(SGD million)	(%)	(Count)	(%)	(Years)	(SGD million)	(%)	(SGD million)	
Other Retail												
0.00 to < 0.15	576	-	-	576	0.10%	16,736	33%		51	9%	*	
0.15 to < 0.25	721	-	-	721	0.19%	18,201	35%		102	14%	*	
0.25 to < 0.50	609	10	59%	615	0.38%	14,641	36%		142	23%	1	
0.50 to < 0.75	115	3	43%	117	0.61%	2,413	38%		37	32%	*	
0.75 to < 2.50	226	8	35%	229	1.26%	4,732	38%		99	43%	1	
2.50 to < 10.00	47	3	38%	48	3.90%	1,045	40%		29	60%	1	
10.00 to < 100.00	6	-	-	6	21.61%	148	35%		5	80%	*	
100.00 (Default)	1	*	100%	1	100.00%	32	72%		2	122%	1	
Sub-total	2,301	25	47%	2,313	0.53%	57,717	35%		466	20%	5	2
Total (all portfolios)	14,051	3,946	74%	16,963	1.28%	255,539	31%		3,980	23%	71	39

*Amount is less than 0.5

19 EFFECT ON RWA OF CREDIT DERIVATIVES USED AS CRM

The bank does not recognise credit derivatives as a credit risk mitigant under the F-IRBA or A-IRBA.

20 IRBA - RWA FLOW STATEMENT FOR CREDIT RISK EXPOSURES

The table below presents the drivers of movement in Credit RWA under IRBA for the quarter.

The bank's RWAs increased by S\$1,321 million quarter-on-quarter, mainly driven by model updates for retail exposures on the A-IRBA.

SGD million		(a)
		RWA amounts
1	RWA as at end of previous quarter	7,196
2	Asset size	(54)
3	Asset quality	19
4	Model updates	1,360
5	Methodology and policy	-
6	Acquisitions and disposals	-
7	Foreign exchange movements	(4)
8	Other	-
9	RWA as at end of quarter	8,517

21 IRBA - BACKTESTING OF PD PER PORTFOLIO

The following table provides backtesting data to validate the reliability of PD calculations, and compares the PD used in F-IRBA capital calculations with the effective default rates of the bank's obligors.

(a)	(b)	(c)	(d)	(e)	(f)	(g) (h)		(i)	(j)	(k)
PD Range	Standard & Poor's Ratings Services	Fitch Rating	Moody's Investors Services	Weighted Average PD by obligors	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
						End of previous annual reporting period	End of the annual reporting period			
Corporate asset sub-class and Corporate small business asset sub-class										
0.00 to < 0.15	AAA to A	AAA to A	Aaa to A2	0.13%	0.12%	125	103	2	-	0.64%
0.15 to < 0.25	A-	A-	A3	0.20%	0.20%	83	87	2	-	0.81%
0.25 to < 0.50	BBB+ to BBB	BBB+ to BBB	Baa1 to Baa2	0.35%	0.35%	292	274	4	-	0.98%
0.50 to < 0.75	BBB-	BBB-	Baa3	0.55%	0.55%	198	146	3	-	0.93%
0.75 to < 2.50	BB+ to B+	BB+ to B+	Ba1 to B1	1.51%	1.44%	632	605	3	-	0.99%
2.50 to < 10.00	B to CCC	B to CCC	B2 to Caa2	4.13%	3.96%	242	237	7	-	4.26%
10.00 to < 100.00	CCC- to C	CCC- to C	Caa3 to Ca	12.42%	13.70%	393	466	9	-	8.58%

The following table provides backtesting data to validate the reliability of PD calculations, and compares the PD used in A-IRBA capital calculations with the effective default rates of the bank's obligors.

(a) PD Range	(b) Standard & Poor's Ratings Services	(c) Fitch Rating	(d) Moody's Investors Services	(e) Weighted Average PD by obligors	(f) Arithmetic average PD by obligors	(g) & (h) Number of obligors		(i) Defaulted obligors in the annual reporting period	(j) of which: new defaulted obligors in the annual reporting period	(k) Average historical annual default rate
						End of previous annual reporting period	End of the annual reporting period			
Residential mortgage asset sub-class										
0.00 to < 0.15				0.13%	0.13%	90	263	1	-	-
0.15 to < 0.25				0.22%	0.22%	6,611	5,767	4	-	0.07%
0.25 to < 0.50				0.36%	0.35%	8,509	9,376	4	-	0.09%
0.50 to < 0.75				0.59%	0.59%	4,164	4,161	3	-	0.12%
0.75 to < 2.50				1.42%	1.36%	1,251	1,607	8	-	0.49%
2.50 to < 10.00				3.76%	3.87%	757	825	12	-	2.45%
10.00 to < 100.00				24.61%	24.52%	139	169	19	-	18.07%
QRRE asset sub-class										
0.00 to < 0.15				-	-	2	-	-	-	-
0.15 to < 0.25				0.24%	0.24%	768	50	-	-	0.05%
0.25 to < 0.50				0.37%	0.37%	87,809	65,262	50	1	0.18%
0.50 to < 0.75				0.59%	0.59%	35,624	38,639	655	-	0.57%
0.75 to < 2.50				1.30%	1.32%	70,347	70,585	161	7	0.73%
2.50 to < 10.00				4.59%	4.51%	20,635	17,710	135	-	2.09%
10.00 to < 100.00				16.95%	16.83%	3,379	4,215	334	23	10.57%
Other retail exposures asset sub-class										
0.00 to < 0.15				0.10%	0.10%	34,316	16,736	7	-	0.04%
0.15 to < 0.25				0.19%	0.19%	10,799	18,201	3	-	0.08%
0.25 to < 0.50				0.38%	0.37%	7,514	14,641	17	-	0.19%
0.50 to < 0.75				0.61%	0.61%	2,100	2,413	7	3	0.89%

(a)	(b)	(c)	(d)	(e)	(f)	(g) (h)		(i)	(j)	(k)
PD Range	Standard & Poor's Ratings Services	Fitch Rating	Moody's Investors Services	Weighted Average PD by obligors	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
						End of previous annual reporting period	End of the annual reporting period			
0.75 to < 2.50				1.26%	1.28%	3,535	4,732	27	-	1.38%
2.50 to < 10.00				3.90%	3.94%	806	1,045	51	1	2.91%
10.00 to < 100.00				21.61%	21.90%	160	148	28	-	19.45%

22 SPECIALISED LENDING AND EQUITIES UNDER THE SIMPLE RISK WEIGHT METHOD

The bank does not have specialised lending or equities exposures under the Simple Risk Weight Method.

23 QUALITATIVE DISCLOSURES RELATED TO CCR

Counterparty Credit Risk (“CCR”) [i.e. Pre-Settlement Risk (“PSR”)] is the risk that the counterparty in a trade will default before the settlement date, thereby prematurely ending the contract.

Replacement cost (i.e. the potential cost of replacing a transaction in conditions that are less favourable than those achieved in the original transaction) arises from fluctuations in the market price and when there is a need to complete the exchange and enter into a new contract with a different counterparty. This risk is applicable to treasury-related products.

The bank’s Non-Bank Institutional Counterparty Policy for Treasury (“NBIC”) sets out the requirements for treasury products, namely foreign exchange, derivatives, bond trading and REPO / reverse REPO.

The extension of credit limits and exposures to counterparties are subject to the bank’s prevailing underwriting standards and credit policies. Similar to other credit applications, counterparties are assigned the appropriate risk ratings in accordance with the bank’s Credit Rating Policy and the applications are subject to independent credit assessments by Credit Management Singapore (“CMS”). The setting of limits and tenor is also subject to additional criteria set out within the NBIC policy.

The bank actively monitors and manages the limits to ensure compliance to internal and regulatory requirements on single largest counterparty. The bank also takes the necessary actions and reports on counterparties experiencing issues with excess management and settlement failure.

24 ANALYSIS OF CCR BY APPROACH

The following table presents the methods used to calculate Counterparty Credit Risk regulatory requirements and the main parameters used within each method.

SGD million		(a)	(b)	(c)	(d)	(e)	(f)
		Replacement cost	Potential future exposure	Effective EPE	α used for computing regulatory EAD	EAD (post-CRM)	RWA
1	Current Exposure Method (for derivatives)	62	28			71	32
2	CCR internal models method (for derivatives and SFTs)			-	-	-	-
3	FC(SA) (for SFTs)					-	-
4	FC(CA) (for SFTs)					246	49
5	VaR for SFTs					-	-
6	Total						81

25 CVA RISK CAPITAL REQUIREMENTS

The following table provides an overview of the bank's Credit Valuation Adjustment ("CVA") risk capital requirements. The bank adopts the Standardised Method for CVA risk capital requirements.

SGD million		(a)	(b)
		EAD (post-CRM)	RWA
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	71	29
4	Total portfolios subject to the CVA risk capital requirement	71	29

26 CCR EXPOSURES BY PORTFOLIO AND RISK WEIGHTS

The following table provides a breakdown of the bank's CCR exposures calculated in accordance with the SA(CR), by asset class and risk weight.

SGD million	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Risk weight	0%	10%	20%	50%	75%	100%	150%	Others	Total Credit exposure
Asset classes									
Central government and central bank	-	-	-	-	-	-	-	-	-
PSE	-	-	-	-	-	-	-	-	-
MDB	-	-	-	-	-	-	-	-	-
Bank	-	-	268	43	-	-	-	-	311
Corporate	-	-	-	-	-	-	-	-	-
Regulatory retail	-	-	-	-	*	-	-	-	*
Other exposures	-	-	-	-	-	5	-	-	5
Total	-	-	268	43	*	5	-	-	316

*Amount is less than 0.5

27 CCR EXPOSURES BY PORTFOLIO AND RD RANGE

The following table provides the parameters used for the calculation of the bank's CCR capital requirements for IRBA models.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	EAD post-CRM	Average PD	Number of obligors	Average LGD	Average maturity	RWA	RWA density
PD Range	(SGD million)	(%)	(Count)	(%)	(Years)	(SGD million)	(%)
Corporate							
0.00 to < 0.15	*	0.05%	1	45%	1.00	*	11%
0.15 to < 0.25	*	0.20%	4	45%	1.00	*	32%
0.25 to < 0.50	*	0.30%	14	45%	1.00	*	41%
0.50 to < 0.75	*	0.55%	4	45%	1.00	*	58%
0.75 to < 2.50	*	0.87%	12	45%	1.00	*	72%
2.50 to < 10.00	-	-	-	-	-	-	-
10.00 to < 100.00	*	14.33%	4	45%	1.00	*	213%
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	1	0.85%	39	45%	1.00	1	59%
Corporate Small Business							
0.00 to < 0.15	*	0.14%	2	45%	1.00	*	23%
0.15 to < 0.25	-	-	-	-	-	-	-
0.25 to < 0.50	*	0.39%	1	45%	1.00	*	41%
0.50 to < 0.75	*	0.55%	3	45%	1.00	*	52%
0.75 to < 2.50	-	-	-	-	-	-	-
2.50 to < 10.00	*	5.31%	2	45%	1.00	*	109%
10.00 to < 100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	*	0.47%	8	45%	1.00	*	39%
Total (sum of portfolios)	1	0.76%	47	45%	1.00	1	54%

*Amount is less than 0.5

28 COMPOSITION OF COLLATERAL FOR CCR EXPOSURE

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

SGD million	(a)	(b)	(c)	(d)	(e)	(f)
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of collateral posted		Fair value of collateral received	Fair value of collateral posted
Segregated	Unsegregated	Segregated	Unsegregated			
Cash - domestic currency	-	-	-	-	150	5,483
Cash - other currencies	-	-	-	-	-	1,872
Domestic sovereign debt	-	-	-	-	4,182	150
Other sovereign debt	-	-	-	-	1,818	-
Government agency debt	-	-	-	-	836	-
Corporate bonds	-	-	-	-	463	-
Equity securities	-	-	-	-	-	-
Other collateral	-	-	-	-	34	-
Total	-	-	-	-	7,483	7,505

29 CREDIT DERIVATIVE EXPOSURES

The bank does not have credit derivatives exposure as at 31 December 2020.

30 EXPOSURE TO CENTRAL COUNTERPARTIES

The bank does not have exposure to central counterparties as at 31 December 2020.

31 SECURITISATION

The bank does not have securitisation exposure as at 31 December 2020.

32 QUALITATIVE DISCLOSURES RELATED TO MARKET RISK

The bank does not have a trading book as of 31 December 2020.

33 MARKET RISK UNDER STANDARDISED APPROACH

The table below shows the capital requirement for each component under the SA for market risk.

The market risk RWA was driven by foreign exchange risk in the banking book.

SGD million		(a)
		RWA
	Products excluding options	
1	Interest rate risk (general and specific)	-
2	Equity risk (general and specific)	-
3	Foreign exchange risk	5
4	Commodity risk	-
	Options	
5	Simplified approach	-
6	Delta-plus method	-
7	Scenario approach	-
8	Securitisation	-
9	Total	5

34 OPERATIONAL RISK

Operational Risk is the risk of losses attributable from failed or inadequate internal processes, human or people-related factors, systems or from external events. This is inclusive of the risk of the failure to comply with applicable regulations, laws, ethics or policies internal to Maybank.

The Operational Risk Management Methodology in MSL is embedded within the Three Lines of Defence to support the identification, assessment, mitigation and recovery of operational risks. The Three Lines of Defence comprise the Business Risk Owners (First Line), Independent Risk Stewards including Risk Management, Legal, Compliance, IT Risk (Second Line), and Internal Audit (Third Line).

This Methodology sets the baseline of standards for a homogeneous application of identification, assessment, monitoring and reporting of risks. This transcends an even method of measurement and management of operational risks and ensures consistency in the application of the operational risk capital model.

The management of operational risk in the bank is also guided by the MSL Non-Financial Risk Policy and its associated tools, such as the Risk Control Self-Assessment (“RCSA”), Key Risk Indicators (“KRI”) and Incident Management Data Collection (“IMDC”). Operational Risk Management also governs the bank’s mitigation of risks through the Business Continuity Management programme to ensure the bank’s resilience in the event of a disaster.

The Non-Financial Risk Committee and Executive Risk Committee in MSL govern operational risk and meet on a quarterly and monthly basis (respectively) to discuss, manage and direct existing and emerging operational risk issues as part of their agenda.

MSL uses the Basic Indicator Approach for the calculation of its Operational Risk capital, as part of the computation method spelt out in MAS Notice 637, Part IX, Division 2.

35 INTEREST RATE RISK IN THE BANKING BOOK (“IRRBB”)

IRRBB is defined as the risk of loss in earnings or economic value on banking book exposures arising from movements in interest rates.

IRRBB in MSL is subject to ALCO’s oversight. Banking book policies and limits are established to measure and manage the risk. Risk Management regularly reviews the risk exposures and works closely with lines of business to recommend strategies to mitigate any unwarranted risk exposures in accordance with the approved policies.

Singapore Dollar and US Dollar are the key material currencies within the banking book portfolio as at December 2020. Measurements are in place to gauge the maximum tolerance level of the adverse impact of market interest rate towards earnings and economic value. Across the rate shock scenarios prescribed by MAS Notice 637, the bank will experience the worst-case maximum impact of S\$146 million towards its economic value under the Short Rate Down Interest Rate Shock Scenario.

36 REMUNERATION

The bank's remuneration and rewards philosophy is aligned with its business strategies and values, and serves to foster a performance-oriented culture that delivers long-term sustainable returns for its stakeholders.

The bank has in place a comprehensive Total Rewards system which forms a holistic and strategic component of its integrated Talent Management framework, guiding it to effect "Reward Right" principles to drive positive outcomes and deliver exponential business results responsibly. The system not only supports the bank's strategy and business plan, but is also critical to improving employee productivity and engagement. By focusing on the right compensation, benefits and development support, it inspires employees to achieve their personal and professional aspirations.

Governed by sound principles, the bank's remuneration policies and practices are reviewed periodically to ensure alignment with regulatory requirements and to reinforce a high-performance culture. The aim is to attract, motivate and retain talent through market competitiveness and responsible values.

36.1 Components of Remuneration

The bank adopts a holistic Total Rewards Framework comprising three main elements, namely Total Compensation, Benefits & Well-Being, and Development & Career Opportunities.

36.1.1 Total Compensation

Total Compensation is based on two components, Fixed Pay and Variable Pay (i.e. Variable Bonus and Long-term Incentive Award), with targeted Pay Mix levels designed to align with the long-term performance goals and objectives of the organisation. The compensation framework provides a balanced approach between fixed and variable components that change according to the performance of the Group, business/corporate functions and individuals.

Component	Purpose
Fixed Pay	Attract and retain talent by providing competitive and equitable level of pay. Reviewed annually through internal and external benchmarking against relevant peers/ locations, aligned with market dynamics, differences in an individual's responsibilities, performance, achievements, skillsets, as well as competency level.
Variable Bonus	<u>Variable Bonus</u>

Component	Purpose
	<p>a) Reinforce a pay-for-performance culture and adherence to the Maybank Group's TIGER Core Values.</p> <p>b) Variable cash award design that is aligned with the long-term performance goals of the Group through deferral and claw-back policies.</p> <p>c) Based on the overall performance of the Maybank Group, business/corporate functions and individuals. Performance is measured using Balanced Scorecard.</p> <p><u>Long-term Incentive Award</u> Offered to eligible talent and senior management who have a direct line of responsibility in driving, leading and executing Maybank Group's business strategies and objectives.</p> <p><u>Deferral Policy</u> Any Variable Bonus in excess of certain thresholds will be deferred over a period of time. A Deferred Variable Bonus will lapse immediately upon termination of employment (including resignation) except in the event of ill health, disability, redundancy, retirement or death.</p> <p><u>Clawback Provision</u> The Board has the right to make adjustments or clawbacks to any Variable Bonus or Long-term Incentive Award if deemed appropriate based on risk management issues, financial misstatement, fraud, gross negligence or wilful misconduct.</p>

36.1.2 Benefits & Well-being

The bank believes in promoting employees' well-being through the provision of financial protection, health care benefits, paid time-off and programmes that support work-life integration. The benefits programmes, which blend all elements including cost optimisation and employee/job needs, are reviewed regularly in order to remain competitive in an increasingly dynamic business landscape. In light of the COVID-19 pandemic, working remotely has become a new normal. This is supported by a strong infrastructure built on innovative platforms, together with the right policies and systems to enable employees to perform their best.

36.1.3 Development and Career Opportunities

The bank continues to deploy best-in-class learning and development programmes to nurture its employees at all levels. A strong learning culture is grounded in a multitude of flexible and customisable learning and development programmes for employees' long-term relevance, competitive advantage and growth. Employees are also encouraged to assume personal ownership of their development by upgrading their skills and taking on stretch assignments as well as expanded responsibilities.

36.2 Long-Term Incentive Award - Employees' Share Grant Plan

In December 2018, the bank rolled out the Employees' Share Grant Plan ("ESGP") under the Long-Term Incentive Award to replace a previous scheme that expired in June 2018. The ESGP is valid for seven years and it serves as a long-term incentive for eligible talent and senior management.

Due to restrictions under the Malaysian foreign laws, regulatory requirements and/or systems and administrative constraints, Senior Management and other material risk takers are not eligible to participate in the ESGP.

Senior Management and other material risk takers are however eligible to participate in the Cash-settled Performance-based Employees' Share Grant Plan ("CESGP"). The CESGP is a cash plan where a cash amount (equivalent to the value of the Maybank reference shares) is awarded to eligible employees.

Vesting eligibility of the ESGP/ CESGP is subject to fulfilment of the ESGP/ CESGP vesting conditions as well as upon meeting the performance criteria at the Maybank Group and individual levels.

The first ESGP/ CESGP Award that was granted in December 2018 will vest in 2021, the second ESGP/ CESGP Award granted in September 2019 will vest in 2022, and the third ESGP/ CESGP Award which was granted in September 2020 will vest in 2023.

In the financial year 2020, the CESGP was awarded to Senior Management and other material risk takers. The cash payments, based on the value of 527,000 units and 149,000 units of Maybank shares for Senior Management and other material risk takers respectively, will be made to the employees by 2023 and is conditional upon employees fulfilling the payment criteria⁵.

36.3 Governance & Controls - Remuneration Practices

The bank's remuneration policies and practices comply with all statutory and regulatory

⁵ The total CESGP awarded to the eligible employees at award date is based on assumption that Maybank Group and the eligible employees have met average performance targets. The vesting date is conditional upon fulfilling the vesting criteria.

requirements, and are strengthened by sound risk management and controls, ensuring remuneration practices are carried out responsibly.

The bank has strong internal governance on the performance and remuneration of control functions which are measured and assessed independently from the business units to avoid any conflict of interests. The remuneration of employees in control functions is predominantly fixed to reflect the nature of their responsibilities. Annual reviews of their compensation are benchmarked internally and against the market to ensure they are competitive.

Based on sound Performance Management principles, the bank’s Key Performance Indicators (“KPIs”) continue to focus on outcomes and are aligned with business plans. Each of the Senior Officers and Other Material Risk Takers (“OMRT”) carry Risk, Governance and Compliance goals in their individual scorecards which are cascaded accordingly. The right KPI setting continues to shape the organisational culture while driving risk and compliance agendas effectively. Inputs from control functions and Board Committees are incorporated into the respective functional areas and individual performance results.

36.4 Remuneration of Senior Officers and Other Material Risk Takers

The bank’s key executives comprise Senior Management who by virtue of their roles and responsibilities would naturally be classified as material risk takers. These are individual employees or a group of employees collectively involved in strategic decision making and are accountable for the bank’s performance and risk profile.

Other material risk takers are individual employees or a group of employees who can collectively and materially commit significant amount of resources that have significant impact on the bank’s performance and risk profile.

The remuneration package of the CEO, Senior Management and other material risk takers are reviewed annually and submitted to the Maybank Group Nomination and Remuneration Committee (“NRC”) for recommendation to the Board for approval.

36.5 Remuneration Awarded During the Financial Year

Category		(a)	(b)
		Senior Management	Other Material Risk-takers
	Fixed remuneration		
1	Number of employees	13	16
2	Total fixed remuneration (row 3 + row 5 + row 7)	68.2%	76.1%
3	of which: cash-based	66.3%	76.1%
4	of which: deferred	-	-

Category		(a)	(b)
		Senior Management	Other Material Risk-takers
	Fixed remuneration		
5	of which: shares and other share-linked instruments	-	-
6	of which: deferred	-	-
7	of which: other forms of remuneration	1.9%	-
8	of which: deferred	-	-
	Variable remuneration		
9	Number of employees	13	16
10	Total variable remuneration (row 11 + row 13 + row 15)	31.8%	23.9%
11	of which: cash-based	30.5%	23.2%
12	of which: deferred	0.5%	-
13	of which: shares and other share-linked instruments	-	-
14	of which: deferred	-	-
15	of which: other forms of remuneration	1.3%	0.7%
16	of which: deferred	-	-
17	Total remuneration (Row 2 + Row 10)	100.0%	100.0%

36.6 Special Payments

Category	Guaranteed bonuses		Sign-on awards		Severance payments	
	Number of employees	Total amount	Number of employees	Total amount	Number of employees	Total amount
1 Senior Management	-	-	-	-	-	-
2 Other Material Risk-takers	-	-	-	-	-	-

36.7 Deferred Remuneration

		(a)	(b)	(c)	(d)	(e)
	Deferred and retained remuneration	Total outstanding deferred remuneration	of which: total outstanding deferred and retained remuneration exposed to ex post explicit and/or implicit adjustments	Total amendments during the year due to ex post explicit adjustments	Total amendments during the year due to ex post implicit adjustments	Total deferred remuneration paid out in the financial year
Senior Management						
1	Cash	0.5%	-	-	-	0.5%
2	Shares	-	-	-	-	-
3	Share-linked instruments	-	-	-	-	-
4	Other	-	-	-	-	-
Other material risk-takers						
5	Cash	-	-	-	-	-
6	Shares	-	-	-	-	-
7	Share-linked instruments	-	-	-	-	-
8	Other	-	-	-	-	-