



Pillar 3 Quantitative Disclosure Report

For the Financial Year Ended 31 December 2016

United Overseas Bank Limited
Incorporated in the Republic of Singapore



INTRODUCTION

This Pillar 3 quantitative report is prepared in accordance to the Monetary Authority of Singapore (“MAS”) Notice 637 on Risk Based Capital Adequacy Requirements for banks incorporated in Singapore. The disclosures are to facilitate the understanding of the UOB Group’s risk profile and assessment of the Group’s capital adequacy.

SUMMARY OF EXPOSURE AT DEFAULT (EAD) AND RISK WEIGHTED ASSETS (RWA)

	EAD \$ million	RWA \$ million
Credit Risk		
Internal Ratings-Based (IRB) Approach		
Corporate	153,205	113,347
Sovereign	33,069	1,327
Bank	41,601	7,905
Residential Mortgage ^a	71,804	11,387
Qualifying Revolving Retail ^a	10,940	2,711
Other Retail ^a	20,754	4,804
Equity	1,456	5,309
Securitisation	131	183
Total IRB Approach	332,960	146,973
Standardised Approach^b		
Corporate	11,611	11,304
Sovereign	2,173	169
Bank	1,841	510
Regulatory Retail	1,366	1,052
Residential Mortgage	1,935	835
Commercial Real Estate	2,780	2,822
Fixed Assets	3,094	3,094
Other Exposures	7,452	3,200
Total Standardised Approach	32,252	22,986
Credit Valuation Adjustment		1,674
Central Counterparties		864
Investments approved under section 32 of the Banking Act (below threshold for deduction)		6,664
Total Credit Risk		179,160
Market Risk		
Standardised Approach		23,138
Operational Risk		
Standardised Approach		13,261
Total		215,559

^a Credit exposures under Advanced IRB Approach.

^b Amount under Standardised Approach refers to credit exposure where IRB Approach is not applicable, or portfolios that will eventually adopt IRB Approach.

Based on the Group’s Total RWA, the Group’s minimum capital requirement as at 31 December 2016 is \$21,556 million.

Credit risk is the risk of loss arising from any failure by a borrower or counterparty to meet its financial obligations when such obligations fall due.

The Group Credit Committee is delegated the authority by the Board of Directors to oversee all credit matters. It maintains oversight on the effectiveness of the Group's credit and country risk management structure including framework, people, processes, information, infrastructure, methodologies and systems.

Credit risk exposures are managed through a robust credit underwriting, structuring and monitoring process. The process includes monthly review of all non-performing and special mention loans, ensuring credit quality and the timely recognition of asset impairment. In addition, credit review and audit are performed regularly to proactively manage any delinquency, minimise undesirable concentrations, maximise recoveries, and ensure that credit policies and procedures are complied with. Past dues and credit limit excesses are tracked and analysed by business and product lines.

Country risk arises where the Group is unable to receive payments from customers as a result of political or economic events in the country. These events include political and social unrest, nationalisation and expropriation of assets, government repudiation of external indebtedness, and currency depreciation or devaluation.

Credit exposure

The Group's maximum exposure to credit risk of on-balance sheet and off-balance sheet financial instruments, before taking into account any collateral held, other credit enhancements and netting arrangements, is shown in the table below:

	Average ^a \$ million	End \$ million
Balances and placements with central banks	26,550	22,080
Singapore Government treasury bills and securities	6,667	6,877
Other government treasury bills and securities	11,759	10,638
Trading debt securities	2,763	2,982
Placements and balances with banks	35,096	40,033
Loans to customers	212,305	221,734
Derivative financial assets	6,195	6,982
Investment debt securities	8,468	8,779
Others	5,041	3,872
	314,844	323,977
Contingent liabilities	21,845	24,599
Commitments (excluding operating lease and capital commitments)	136,431	136,077
	473,120	484,653

^a Average balances are computed based on quarter-end exposure.

As a fundamental credit principle, the Group generally does not grant credit facilities solely on the basis of the collateral provided. All credit facilities are granted based on the credit standing of the borrower, source of repayment and debt servicing ability.

Collateral is taken whenever possible to mitigate the credit risk assumed. The value of the collateral is monitored periodically. The frequency of valuation depends on the type, liquidity and volatility of the collateral value. The main types of collateral taken by the Group are cash, marketable securities, real estate, equipment, inventory and receivables. Policies and processes are in place to monitor collateral concentration.

In extending credit facilities to small and medium-sized enterprises, personal guarantees are often taken as a form of moral support to ensure moral commitment from the principal shareholders and directors.

Corporate guarantees are often obtained when the borrower's credit worthiness is not sufficient to justify an extension of credit.

Exposures arising from foreign exchange, derivatives and securities financing transactions are typically mitigated through agreements such as the International Swaps and Derivatives Association (ISDA) Master Agreements, the Credit Support Annex (CSA) and the Global Master Repurchase Agreements (GMRA). Such agreements help to minimise credit exposure by allowing us to offset what we owe to a counterparty against what is due from that counterparty in the event of a default.

Major On-balance sheet credit exposures

	Loans to customers (gross) \$ million	Government treasury bills and securities \$ million	Placements and balances with banks \$ million	Debt securities \$ million	Total \$ million
Analysed by geography^a					
Singapore	125,529	6,877	1,326	1,851	135,583
Malaysia	25,767	1,265	1,955	1,402	30,389
Thailand	13,226	2,970	1,285	37	17,518
Indonesia	11,857	875	1,860	25	14,617
Greater China	27,232	1,932	18,007	990	48,161
Others	22,051	3,596	15,600	7,456	48,703
Total	225,662	17,515	40,033	11,761	294,971

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

	Loans to customers (gross) \$ million	Government treasury bills and securities \$ million	Placements and balances with banks \$ million	Debt securities \$ million	Total \$ million
Analysed by industry					
Transport, storage and communication	9,780	-	-	1,501	11,281
Building and construction	52,281	-	-	359	52,640
Manufacturing	15,747	-	-	2,153	17,900
Financial institutions, investment and holding companies	15,519	-	40,033	4,229	59,781
General commerce	30,269	-	-	1,017	31,286
Professionals and private individuals	26,950	-	-	-	26,950
Housing loans	61,451	-	-	-	61,451
Government	-	17,515	-	-	17,515
Others	13,665	-	-	2,502	16,167
Total	225,662	17,515	40,033	11,761	294,971

Contingent liabilities

	\$ million
Analysed by geography^a	
Singapore	11,806
Malaysia	2,691
Thailand	1,206
Indonesia	1,140
Greater China	3,534
Others	4,222
Total	24,599

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

	\$ million
Analysed by industry	
Transport, storage and communication	817
Building and construction	6,660
Manufacturing	2,347
Financial institutions, investment and holding companies	4,186
General commerce	8,765
Professionals and private individuals	138
Others	1,686
Total	24,599

Commitments (excluding operating lease and capital commitments)

	\$ million
Analysed by geography^a	
Singapore	71,928
Malaysia	12,097
Thailand	10,120
Indonesia	5,542
Greater China	22,733
Others	13,657
Total	136,077

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

	\$ million
Analysed by industry	
Transport, storage and communication	4,381
Building and construction	23,886
Manufacturing	18,999
Financial institutions, investment and holding companies	12,637
General commerce	41,904
Professionals and private individuals	19,776
Housing Loan	4,441
Others	10,053
Total	136,077

Credit exposures by residual contractual maturity

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

	Up to 7 days \$ million	Over 7 days to 1 month \$ million	Over 1 to 3 months \$ million	Over 3 to 12 months \$ million	Over 1 to 3 years \$ million	Over 3 years \$ million	No specific maturity \$ million	Total \$ million
Balances and placements with central banks Singapore	6,799	2,875	2,099	3,085	-	-	7,222	22,080
Government treasury bills and securities	-	-	-	2,449	1,843	2,461	124	6,877
Other government treasury bills and securities	253	1,157	2,593	1,666	2,704	2,243	22	10,638
Trading debt securities	146	8	420	1,565	95	647	101	2,982
Placements and balances with banks	14,545	7,159	9,837	5,069	1,983	46	1,394	40,033
Loans to customers	12,427	17,788	13,599	20,257	35,878	114,533	7,252	221,734
Derivative financial assets	-	-	-	-	-	-	6,982	6,982
Investment debt securities	-	50	547	789	2,299	4,856	238	8,779
Others	-	-	-	-	-	-	3,872	3,872
Total	34,170	29,037	29,095	34,880	44,802	124,786	27,207	323,977

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

Counterparty Credit Risk Exposures

	\$ million
Gross positive fair value of contracts	15,865
Netting effects	(5,287)
Exposure under current exposure method	10,578
Analysed by type:	
Interest rate contracts	3,695
Foreign exchange contracts and gold	4,385
Equity contracts	977
Credit derivative contracts	91
Precious metals and other commodity contracts	1,430
Collateral held	
Financial Collateral	(1,078)
Others	(12)
Net derivatives credit exposure	9,488

Credit Derivative Exposures

	Notional amounts bought \$ million	Notional amounts sold \$ million
Own credit portfolio	29	667
Intermediation portfolio	246	246
Total credit default swaps	275	913

Credit Exposures Secured by Eligible Collateral, Guarantees and Credit Derivatives

	Amount by which total exposures are covered by:	
	Eligible Collateral ^a \$ million	Credit Protection \$ million
Standardised		
Corporate	3,572	336
Sovereign	205	-
Bank	4	-
Retail	270	1
Commercial Real Estate	19	8
Others	1,218	4
Standardised Total	5,288	349
FIRB		
Corporate	22,276 ^b	14,188
Sovereign	1,284	-
Bank	4,438	265
FIRB Total	27,998	14,453
Total	33,286	14,802

^a The Group currently uses supervisory prescribed haircuts for eligible financial collateral

^b Include other eligible collateral of \$15,646 million

Credit Exposures Subject to Standardised Approach

Risk Weights %	Net Exposures ^a \$ million
0 to 35	9,296
50 to 75	2,417
100 and above	20,539
Total	32,252

^a Net exposures after credit mitigation and provisions

RWA based on the assessments of each recognized ECAI

ECAI	RWA \$ million
Moody's	376
S&P	170
Fitch	92
Total	638

ECAI: External Credit Assessment Institution

Credit Exposures Subject to Supervisory Risk Weight under IRB Approach

Risk Weights %	Specialised Lending	Equity (SRW Method)
	\$ million	\$ million
0 to 50	2,024	-
51 to 100	2,824	-
101 and above	1,048	1,378
Total	5,896	1,378

SRW: Simple Risk Weight

Securitisation Exposures ^a			
Risk Weights %	Mortgage-Backed Securities		Asset-Backed Securities
	\$ million		\$ million
0 to 50	26		92 ^b
1250	5		8 ^c
Total	31		100

^a Securitisation exposures purchased in Banking Book

^b Included off balance-sheet exposures of \$30m

^c Included off balance-sheet exposures of \$1m

CREDIT RISK PROFILE

The following tables show the breakdown of exposures by RWA and EAD using the respective internal rating scale for the model applicable to the asset classes:

Large Corporate, SME and Specialised Lending (IPRE) Exposures

CRR Band	PD Range %	Credit RWA \$ million	EAD \$ million	Exposure-weighted Average Risk Weights %
1 – 9	Up to 2.37	84,190	127,623	66
10 – 16	> 2.37	24,203	18,105	134
Default		-	1,580	-
Total		108,393	147,308	74

SME: Small and Medium-sized Enterprises

IPRE: Income Producing Real Estate

CRR: Customer Risk Rating

Specialised Lending (CF, PF, SF and UOB (Thai)'s IPRE) Exposures

CRR Band	Credit RWA \$ million	EAD \$ million	Exposure-weighted Average Risk Weights %
Strong	1,477	2,399	62
Good	1,616	1,855	87
Satisfactory	781	641	122
Weak	1,080	408	265
Default	-	594	-
Total	4,954	5,897	84

CF: Commodities Finance

PF: Project Finance

SF: Ship Finance

Sovereign Exposures

CRR Band	PD Range %	Credit RWA \$ million	EAD \$ million	Exposure-weighted Average Risk Weights %
1 – 9	Up to 0.28	1,114	32,877	3
10 – 16	> 0.28	213	192	111
Default		-	-	NA
Total		1,327	33,069	4

Bank Exposures

CRR Band	PD Range %	Credit RWA \$ million	EAD \$ million	Exposure-weighted Average Risk Weights %
1 – 9	Up to 0.28	4,453	35,556	13
10 – 16	> 0.28	3,452	6,045	57
Default		-	-	NA
Total		7,905	41,601	19

Equity (PD/LGD Method) Exposures

CRR Band	PD Range %	Credit RWA \$ million	EAD \$ million	Exposure-weighted Average Risk Weights %
1 – 9	Up to 0.28	23	21	109
10 – 16	> 0.28	191	57	335
Default		-	-	NA
Total		214	78	275

PD: Probability of Default

LGD: Loss Given Default

Retail (Residential Mortgage) Exposures

PD Band %	Credit RWA \$ million	EAD \$ million	Exposure-weighted Average Risk Weights %	Exposure-weighted Average LGD %	Undrawn \$ million
Up to 1	4,482	53,063	8	13	3,212
>1 to 2	1,570	8,069	19	12	210
>2	4,740	10,017	47	13	566
Default	595	655	91	20	-
Total	11,387	71,804	16	13	3,988

Retail (QRRE) Exposures

PD Band %	Credit RWA \$ million	EAD \$ million	Exposure-weighted Average Risk Weights %	Exposure-weighted Average LGD %	Undrawn \$ million
Up to 1	527	7,088	7	50	5,179
>1 to 2	296	1,871	16	32	1,424
>2	1,808	1,936	93	59	546
Default	80	45	179	68	-
Total	2,711	10,940	25	48	7,149

QRRE: Qualifying Revolving Retail Exposures

Retail (Other Retail) Exposures

PD Band %	Credit RWA \$ million	EAD \$ million	Exposure- weighted Average Risk Weights %	Exposure- weighted Average LGD %	Undrawn \$ million
Up to 1	1,589	13,304	12	17	2,041
>1 to 2	591	2,253	26	22	526
>2	1,785	4,954	36	21	408
Default	839	243	345	47	-
Total	4,804	20,754	23	19	2,975

Expected Loss and Actual Loss by Asset Class

Actual loss consists of impairment loss allowance and write-off to the Group's income statement for the financial year ended 31 December 2016.

Asset Class	Actual loss \$ million	Expected Loss ^a (as at 31 December 2015) \$ million
Corporate	623	730
Sovereign	-	7
Bank	-	27
Retail	162	361
Total	785	1,125

^a Excludes defaulted exposures.

Comparison of Actual Loss and Expected Loss by Asset Class

The actual loss for the Group's IRB portfolio in 2016 was lower than the Expected Loss (EL) that was estimated for 2016 at the end of December 2015. The Group continues to be proactive in its risk management approach to ensure that actual losses remained within the Group's expectations.

EL is the estimated credit loss from defaults over a one-year horizon. EL is the product of PD, LGD and EAD. A comparison of actual loss and expected loss provides an indication of the predictive power of the IRB models used by the Group. However, they are not directly comparable due to the following reasons:

- EL as at 31 December 2015 is a measure of expected credit loss based on the credit exposure as at that date. On the other hand, impairment loss allowance and write-offs are accounting entries relating to a fluctuating portfolio over the course of the financial year. Moreover, write-offs may relate to defaults from prior years.
- EL is estimated based on non-default exposures only, while impairment loss allowance is an accounting estimate of likely loss from defaulted exposures. Write-offs are recorded on defaulted exposures when no further recovery is possible.

Total Loans & Advances (By Performing and Non-performing)

	\$ million
Performing Loans	
Neither past due nor impaired	217,600
Past due but not impaired	4,734
Non-Performing Loans	3,328
Total Gross Loans	225,662
Specific Allowances	1,219
General Allowances	2,709
Total Net Loans	221,734

Past due but not impaired Loans

	< 30 days \$ million	30 - 59 days \$ million	60 – 90 days \$ million	Total \$ million
Analysed by past due period and geography^a				
Singapore	1,571	639	386	2,596
Malaysia	741	196	83	1,020
Thailand	469	83	40	592
Indonesia	58	71	70	199
Greater China	32	16	14	62
Others	208	38	19	265
Total	3,079	1,043	612	4,734

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

	< 30 days \$ million	30 - 59 days \$ million	60 – 90 days \$ million	Total \$ million
Analysed by past due period and industry				
Transport, storage and communication	163	15	29	207
Building and construction	585	101	33	719
Manufacturing	247	52	32	331
Financial institutions, investment and holding companies	75	6	1	82
General commerce	780	104	83	967
Professionals and private individuals	475	256	149	880
Housing Loans	600	478	281	1,359
Others	154	31	4	189
Total	3,079	1,043	612	4,734

Past due non-performing assets

	Current \$ million	< 90 days \$ million	90 - 180 days \$ million	> 180 days \$ million	Total \$ million
Analysed by past due period and geography^a					
Singapore	155	76	291	769	1,291
Malaysia	38	46	58	345	487
Thailand	30	44	53	233	360
Indonesia	25	103	53	457	638
Greater China	18	7	124	158	307
Others	12	4	35	194	245
Non-performing loan	278	280	614	2,156	3,328
Debt Securities, contingent items and others	65	5	32	50	152
Total	343	285	646	2,206	3,480

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

	Current \$ million	< 90 days \$ million	90 - 180 days \$ million	> 180 days \$ million	Total \$ million
Analysed by past due period and industry					
Transport, storage and communication	117	15	201	632	965
Building and construction	30	7	31	142	210
Manufacturing	6	19	39	252	316
Financial institutions, investment and holding companies	2	6	2	66	76
General commerce	28	20	35	368	451
Professionals and private individuals	56	59	45	124	284
Housing Loans	20	74	81	443	618
Others	19	80	180	129	408
Non-performing loan	278	280	614	2,156	3,328
Debt Securities, contingent items and others	65	5	32	50	152
Total	343	285	646	2,206	3,480

Movements in specific and general allowances

	Specific allowances \$ million	General allowances \$ million
The Group		
Balance at 1 January 2016	773	2,987
Currency translation adjustments	25	(1)
Net write-off	(555)	-
Bad debts recovery	(79)	-
Allowances for loans	1,048	(277)
Net charge to income statement	969	(277)
Interest income on impaired financial assets	7	-
Balance at 31 December 2016	1,219	2,709

Movement of specific allowances by industry

	Balance as at 1 January 2016 \$ million	Net Charge to income statement \$ million	Net Write-off \$ million	Exchange & other movements \$ million	Balance at 31 December 2016 \$ million
Transport, storage and communication	321	159	(139)	(4)	337
Building and construction	56	14	(10)	14	74
Manufacturing	103	94	(56)	21	162
Financial institutions, investment and holding companies	8	5	(4)	(7)	2
General commerce	128	193	(149)	16	188
Professionals and private individuals	71	88	(138)	48	69
Housing Loans	78	21	(9)	10	100
Others	8	395	(50)	(66)	287
Total	773	969	(555)	32	1,219

Allowances for credit and other losses

	\$ million
Specific allowances on:	
Loans	969
Investments	6
Others	16
General allowances	(398)
	594
Included in the allowances are the following:	
Bad debts written off	343
Bad debts recovery	(79)

* Figure does not add up to the respective totals due to rounding.

MARKET RISK

Capital requirements by market risk type under Standardised Approach:

Analysed by Risk Type	\$ million
Interest rate	818
Equity	23
Foreign Exchange	936
Commodity	74
Total	1,851

This comprises all Trading Book, Non-Trading Commodity and Non-Trading FX Exposures.

Equity Exposures in the Banking Book

The following table shows the value of the Equity exposures under IRB Approach in the banking book:

	SRW Method		PD/LGD Method	
	EAD \$ million	Exposure-weighted Average Risk Weights %	EAD \$ million	Exposure-weighted Average Risk Weights %
Listed securities	705	318	42	250
Other equity holdings	673	424	36	305
Total	1,378		78	

Note: The equity exposures are included in the investment securities table below.

Total equity exposures that were deducted from capital amounted to \$51 million.

Gains and Losses

	Unrealised Gains/(Losses) Eligible as CET1 Capital	Realised Gains/(Losses) during the Period
	\$ million	\$ million
Total	1,095	41

Investment Securities

	\$ million
Quoted securities	
Debt	6,750
Equity	806
Unquoted securities	
Debt	2,098
Equity	2,138
Allowance for impairment	(153)
Investment securities*	11,640

* Figure does not add up to the respective totals due to rounding.

BANKING BOOK INTEREST RATE RISK

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 economic value of equity ("EVE") sensitivity at 100 and 200 basis points parallel interest rate shocks were negative \$210 million and \$372 million respectively, computed based on the worst case of upward and downward parallel shifts of each yield curve. EVE is the present value of assets less present value of liabilities of the Group. 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. Loan prepayment is estimated based on past statistics and trends where possible and material. Behavioural assumptions based on historical trends are applied where appropriate, for deposits that do not have maturity dates. There may be some differences in the assumptions across geographical locations due to variation in local conditions.