

Pillar 3 Quantitative Disclosure

In compliance with the requirements under Basel Pillar 3 and the Monetary Authority of Singapore (MAS) Notice 637 Public Disclosure, various additional quantitative and qualitative disclosures have been included in the Annual Report under the sections on 'Capital Management', 'Risk Management', 'Remuneration', 'Pillar 3 Quantitative Disclosure*', 'Management Discussion and Analysis' and 'Notes to the Financial Statements'. The disclosures are to facilitate the understanding of the UOB Group's risk profile and assessment of the Group's capital adequacy.

Scope of Application

In accordance with the accounting standards for financial reporting, all subsidiaries of the Group are fully consolidated from the date the Group obtains control until the date such control ceases. The Group's investment in associates is accounted for using the equity method from the date the Group obtains significant influence over the associates until the date such significant influence ceases.

However, for the purpose of computing capital adequacy requirements at the Group level, investments in a subsidiary that carries out insurance business as an insurer are excluded from the consolidated financial statements of the Group. In compliance with MAS Notice 637 on capital adequacy, such investments are deducted from regulatory capital.

The transfer of funds or regulatory capital within the Group is generally subject to regulatory approval.

* Semi-annual updates are available on UOB's website at www.UOBGroup.com

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 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	6,799	2,875	2,099	3,085	–	–	7,222	22,080
Singapore 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 less than 1 year.

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



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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 Includes 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 Recognised 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 \$ million	Equity (SRW method) \$ 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 \$ million	Asset-backed securities \$ million
0 to 50	26	92 ^b
1250	5	8 ^c
Total	31	100

a Securitisation exposures purchased in the Banking Book

b Includes off balance-sheet exposures of \$30 million

c Includes off balance-sheet exposures of \$1 million

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

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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 and 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



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Movement of Specific Allowances by Industry

	Balance as at 1 January 2016 \$ million	Net charge to income statement \$ million	Net write-off \$ million	Exchange and other movements \$ million	Balance as 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

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 the 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	

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

Gains and Losses

	Unrealised gains/(losses) eligible as CET1 capital \$ million	Realised gains/(losses) during the period \$ million
Total	1,095	41