

2023

HSBC Bank Canada

Regulatory Capital & Risk Management

Pillar 3 Supplementary Disclosures

As at June 30, 2023



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Notes to users

Regulatory Capital and Risk Management Pillar 3 Disclosures

The Office of the Superintendent of Financial Institutions ("OSFI") supervises HSBC Bank Canada (the "Bank") on a consolidated basis. OSFI has approved the Bank's application to apply the Advanced Internal Ratings Based ("AIRB") approach to credit risk on our portfolio and the Standardized Approach for measuring Operational Risk. Please refer to the Annual Report and Accounts 2022 for further information on the Bank's risk and capital management framework. Further information regarding HSBC Group Risk Management Processes can be found in HSBC Holdings plc Capital and Risk Management Pillar 3 Disclosures available on HSBC Group's investor relations web site.

The Pillar 3 Supplemental Disclosures are additional summary descriptions and quantitative financial information which supplement those already made in the Annual Report and Accounts 2022 for the disclosure requirements under OSFI's Pillar 3 Disclosure Requirements Advisory issued September 29, 2006 consistent with the "International Convergence of Capital Measurement and Capital Standards" ('Basel II') issued by the Basel Committee on Banking Supervision (BCBS) in June 2006 and the "Composition of capital disclosure requirements" ('Basel III') issued by the BCBS in June 2012 under OSFI's advisory letter requirements issued in July 2013 and revised in May 2018.

The Basel rules are structured around three "pillars":

- Pillar 1 - defines the Minimum capital requirements,
- Pillar 2 - requires banks to have robust Internal Capital Adequacy Assessment Processes (ICAAP) which will be part of regulators' Supervisory review
- Pillar 3 - defines the Market discipline/ disclosures required by Banks which should be consistent and comparable across Banks.

Pillar 3 complements the other two pillars of Basel framework i.e. minimum capital requirements and the supervisory review process. Its aim is to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess certain specified information on the scope of application of Basel 2/2.5 ('the Basel rules'), capital, particular risk exposures, risk assessment processes, and hence the capital adequacy of the institution.

The supervisory objectives of BCBS are to promote safety and soundness in the financial system and maintain an appropriate level of capital in the system, enhance competitive equality, constitute a more comprehensive approach to addressing risks, and focus on internationally active banks.

On June 26, 2012, the BCBS issued the Basel III rules on the information banks must publicly disclose when detailing the composition of their capital, which set out a framework to ensure that the components of banks capital bases are publicly disclosed in standardised formats across and within jurisdictions for banks subject to Basel III.

Basel III builds on Basel II. It also increases the level of risk-weighted assets for significant investments and deferred tax amounts due to temporary timing differences under defined thresholds, exposures to large or unregulated financial institutions meeting specific criteria, exposures to centralized counterparties and exposures that give rise to wrong way risk. In addition Basel III places a greater emphasis on common equity by introducing a new category of capital, Common Equity Tier 1 (CET1), which consists primarily of common shareholders equity net of regulatory adjustments. These regulatory adjustments include goodwill, intangible assets, deferred tax assets, pension assets and investments in financial institutions over certain thresholds. Overall, the Basel III rules increase the level of regulatory deductions relative to Basel II.

This report is unaudited and all amounts are in rounded millions of Canadian dollars, unless otherwise indicated. Balances reported in this Pillar 3 document reflect the OSFI Capital Adequacy Requirements (CAR) guidelines.

From Q2 2023, disclosure is based on OSFI's Pillar 3 disclosure requirements (April 2023), including Capital disclosure requirement and Leverage ratio disclosure requirement.

In the second quarter of 2023, the bank implemented the Basel III reforms according to the final Capital Adequacy Requirements ('CAR') Guideline and Leverage Requirements ('LR') Guideline issued by OSFI, apart from the chapters related to market risk and credit valuation adjustment ('CVA') which will take effect in the first quarter of 2024. The resulting increase in risk-weighted assets ('RWA') accompanied by increase in capital floor adjustment is a reflection of the following notable changes in the revised CAR Guideline:

- For internal ratings based ('IRB') portfolios, removal of a 6% scaling factor from IRB RWA.
- Implementation of a revised wholesale exposure at default ('EAD') model leading to lower IRB RWA on average.
- For the capital floor based on RWA calculated using the standardized approach ('SA'), inclusion for the first time a revised operational risk RWA based on a framework driven by income and historical losses.
- The revised SA is more risk sensitive, in particular, wholesale exposures secured by real estate collateral and loans granted for land acquisition, development and construction ('ADC') can be assigned a risk weight as high as 150%.
- Reduction of the capital floor factor from 70% to 65%, requiring for a phase-in to 72.5% by 2026 with an annual increment of 2.5%.

The revisions to the existing Pillar 3 disclosure effective in the second quarter of 2023 has incorporated the above changes.

Road map to Pillar 3 disclosure requirement

Section	Identifier	Table and templates	Frequency	2022 Annual Report
Capital disclosure	CC1	Composition of Regulatory Capital	Quarterly	
Overview of risk management	OVA	Bank risk management approach	Annually	24-28
	OV1	Overview of risk weighted asset	Quarterly ³	
	KM1	Key Metrics	Quarterly	
Comparison of modelled & standardised RWA	CMS1	Comparison of modelled and standardised RWA at risk level	Quarterly ¹	
	CMS2	Comparison of modelled and standardised at asset class level	Quarterly ¹	
Credit risk	CRA	General information about credit risk	Annually	28-32
	CR1	Credit quality of assets	Quarterly	
	CRC	CRC – Qualitative disclosure requirements related to credit risk mitigation techniques	Annually	42-43
	CR3	Credit risk mitigation techniques – overview	Quarterly	
	CR4	Standardized approach – credit risk exposure and Credit Risk Mitigation (CRM) effects	Quarterly	
	CR5	Standardized approach – exposures by asset classes and risk weights	Quarterly	
	CRE	Qualitative disclosures related to IRB models	na ¹	
	CR6	IRB Credit risk exposures by portfolio and PD range	Quarterly	
	CR7	IRB – Effect on RWA of credit derivatives used as CRM techniques	na ²	
	CR8	RWA flow statements of credit risk exposures under IRB	Quarterly	
	CR9	IRB – Backtesting of probability of default (PD) per portfolio	Annual ¹	
	CR10	Specialized lending on slotting approach and Equities under simple risk-weight method	Quarterly ³	
Counterparty credit risk	CCRA	Qualitative disclosure related to counterparty credit risk	Annually	69-70
	CCR1	Analysis of counterparty credit risk (CCR) exposure by approach	Quarterly	
	CCR2	Credit valuation adjustment (CVA) capital charge (CCR2)	Quarterly ³	
	CCR3	Standardized approach of CCR exposures by regulatory portfolio and risk weights	na ²	
	CCR4	IRB – CCR exposures by portfolio and PD scale	Quarterly	
	CCR5	Composition of collateral for CCR exposure	Quarterly	
	CCR6	Credit derivatives exposures	na ¹	
	CCR8	Exposures to central counterparties (CCPs)	Quarterly ³	
Securitization	SECA	Qualitative disclosure requirements related to securitization exposures	na ²	
Market risk	MRA	Qualitative disclosure requirements related to market risk	Annually	51-52
	MRB	Qualitative disclosures for banks using the Internal Models Approach (IMA)	Annually	51-52
	MR1	Market risk under standardised approach	Quarterly	
	MR2	RWA flow statements of market risk exposures under an IMA	Quarterly	
	MR3	IMA values for trading portfolios	Quarterly	
Operational Risk	MR4	Comparison of VaR estimates with gains/losses	Quarterly	
	ORA	General qualitative information on a bank's operational risk framework	Annually	
	OR1	Historical losses	Annually	
	OR2	Business indicator and subcomponents	Annually	
Interest Rate Risk in the Banking	OR3	Minimum required operational risk capital	Annually	
	IRRBB	IRRBB Disclosure	Annually	49-50
Leverage ratio	LR1	Summary comparison of accounting assets vs leverage ratio exposure measure	Quarterly	
Leverage ratio	LR2	Leverage ratio common disclosure template	Quarterly	

1. Table effective from reporting period as at 31st Dec 2023.

2. Table does not have any reportable values as at 30 Jun 2023.

3. Table continued from previous OSFI Pillar 3 guidelines.

Table 1 : Key metrics (KM1)

		At				
		30 Jun 2023	31 Mar 2023	31 Dec 2022	30 Sep 2022	30 Jun 2022
Available capital (\$m)						—
1	Common Equity Tier 1 capital (CET1)	5,718	5,467	5,198	4,919	4,789
1a	Common Equity Tier 1 capital (CET1) with transitional arrangements for ECL provisioning not applied	—	—	5,179	4,902	4,781
2	Tier 1 capital	6,818	6,567	6,298	6,019	5,889
2a	Tier 1 capital with transitional arrangements for ECL provisioning not applied	—	—	6,279	6,002	5,881
3	Total capital	7,821	7,627	7,337	7,037	6,892
3a	Total capital with transitional arrangements for ECL provisioning not applied	—	—	7,337	7,037	6,892
Risk Weighted Asset (\$m)						
4	Total risk-weighted assets (RWA)	44,519	44,086	44,656	44,481	43,222
4a	Total risk-weighted assets (pre-floor)	36,661	42,163	42,292	42,055	41,075
Risk-based capital ratios as a percentage of RWA (%)						
5	Common Equity Tier 1 ratio	12.8	12.4	11.6	11.1	11.1
5a	Common Equity Tier 1 with transitional arrangements for ECL provisioning not applied	—	—	11.6	11.0	11.1
5b	Common Equity Tier 1 ratio (pre-floor)	15.6	13.0	12.3	11.7	11.7
6	Tier 1 ratio	15.3	14.9	14.1	13.5	13.6
6a	Tier 1 with transitional arrangements for ECL provisioning not applied	—	—	14.1	13.5	13.6
6b	Tier 1 ratio (pre-floor)	18.6	15.6	14.9	14.3	14.3
7	Total capital ratio	17.6	17.3	16.4	15.8	15.9
7a	Total capital with transitional arrangements for ECL provisioning not applied	—	—	16.4	15.8	15.9
7b	Total capital ratio (pre-floor)	21.3	18.1	17.3	16.7	16.8
Additional CET1 buffer requirements as a percentage of RWA (%)						
8	Capital conservation buffer requirement (2.5% from 2019)	—	—	—	—	—
9	Countercyclical buffer requirement	—	—	—	—	—
10	Bank G-SIB and/or D-SIB additional requirements	na	na	na	na	na
11	Total of bank CET1 specific buffer requirements (%) (row 8 + row 9 + row 10)	—	—	—	—	—
12	CET1 available after meeting the bank's minimum capital requirements	12.8	12.4	11.6	11.1	11.1
Basel III Leverage ratio (%)						
13	Total Basel III leverage ratio exposure measure	131,227	129,224	132,762	140,721	131,656
14	Basel III leverage ratio (row 2 / row 13)	5.2	5.1	4.7	4.3	4.5
14a	Basel III leverage ratio (row 2a / row 13) with transitional arrangements for ECL provisioning not applied	—	—	4.7	4.3	4.5

Composition of capital

Table 2 : Composition of Regulatory Capital (CC1)

		At	
		30 Jun 2023	31 Mar 2023
Common Equity Tier 1 capital: instruments and reserves (\$m)			
1	Directly issued qualifying common share capital (and equivalent for non-joint stock companies) plus related stock surplus	1,125	1,125
2	Retained earnings	4,879	4,683
3	Accumulated other comprehensive income (and other reserves)	(797)	(642)
4	Directly issued capital subject to phase out from CET1 (only applicable to non-joint stock companies)	—	—
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	—	—
6	Common Equity Tier 1 capital before regulatory adjustments	5,207	5,166
Common Equity Tier 1 capital: regulatory adjustments (\$m)			
28	Total regulatory adjustments to Common Equity Tier 1	511	301
29	Common Equity Tier 1 capital (CET1)	5,718	5,467
Additional Tier 1 capital: instruments			
30	Directly issued qualifying Additional Tier 1 instruments plus related stock surplus	1,100	1,100
31	– of which: classified as equity under applicable accounting standards	1,100	1,100
32	– of which: classified as liabilities under applicable accounting standards	—	—
33	Directly issued capital instruments subject to phase out from Additional Tier 1	—	—
34	Additional Tier 1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in group AT1)	—	—
35	<i>of which: instruments issued by subsidiaries subject to phase out</i>	—	—
36	Additional Tier 1 capital before regulatory adjustments	1,100	1,100
Additional Tier 1 capital: regulatory adjustments (\$m)			
43	Total regulatory adjustments to Additional Tier 1 capital	—	—
44	Additional Tier 1 capital (AT1)	1,100	1,100
45	Tier 1 capital (T1 = CET1 + AT1)	6,818	6,567
Tier 2 capital: instruments and allowances (\$m)			
46	Directly issued qualifying Tier 2 instruments plus related stock surplus	1,000	1,000
47	Directly issued capital instruments subject to phase out from Tier 2	—	—
48	(amount allowed in group Tier 2)	—	—
49	– of which: instruments issued by subsidiaries subject to phase out	—	—
50	Impairment allowances	3	60
51	Tier 2 capital before regulatory adjustments	1,003	1,060
Tier 2 capital: regulatory adjustments (\$m)			
57	Total regulatory adjustments to Tier 2 capital	—	—
58	Tier 2 capital (T2)	1,003	1,060
59	Total capital (TC = T1 + T2)	7,821	7,627
60	Total risk-weighted assets (RWA)	44,519	44,086
61	Common Equity Tier 1 (as percentage of risk-weighted assets)	12.8	12.4
62	Tier 1 (as percentage of risk-weighted assets)	15.3	14.9
63	Total capital (as percentage of risk-weighted assets)	17.6	17.3
OSFI all-in target (%)			
69	Common Equity Tier 1 capital all-in target ratio	7.0	7.0
70	Tier 1 capital all-in target ratio	8.5	8.5
71	Total capital all-in target ratio	10.5	10.5

Table 3 : Overview of Risk Weighted Assets (OV1)

		At		
		30 Jun 2023	31 Mar 2023	30 Jun 2023
		RWA ⁷ \$m	RWA ¹ \$m	Capital requirements ² \$m
1	Credit risk (excluding counterparty credit risk)	32,159	36,486	2,573
2	– of which Standardized approach (SA) ³	1,398	1,811	112
3	– of which internal rating based (F-IRB) approach	7,445	–	596
4	– of which supervisory slotting approach	339	279	27
5	– of which internal rating based (A-IRB) approach	22,977	34,396	1,838
6	Counterparty credit risk	437	613	35
7	– of which Standardized approach for counterparty credit risk (SA-CCR)	427	613	34
8	– of which internal model method (IMM)	–	–	–
9	– of which other CCR	10	–	1
10	Credit valuation adjustment (CVA) ⁴	245	271	20
	Equity positions in banking book ⁵	–	15	–
11	Equity investments in funds – look-through approach	24	25	2
12	Equity investments in funds – mandate-based approach	–	–	–
13	Settlement risk	–	–	–
14	Securitisation exposures in banking book	–	–	–
15	– of which IRB ratings based approach (RBA)	–	–	–
16	– of which securitisation external ratings-based approach (SEC-ERBA), including internal assessment approach (IAA)	–	–	–
17	– of which securitisation standardised approach (SEC-SA)	–	–	–
18	Market risk	932	687	75
19	– of which Standardized approach (SA)	117	101	9
20	– of which internal model method (IMM)	815	586	65
21	Capital charge for switch between trading book and banking book	–	–	–
22	Operational risk	2,864	4,066	229
23	Amounts below the thresholds for deduction (subject to 250% risk weight)	–	–	–
24	Output floor applied	0.65	0.70	–
25	Floor adjustment (before application of transitional cap)	7,858	1,923	–
26	Floor adjustment (after application of transitional cap) ⁶	7,858	1,923	629
27	Total (1 + 6 + 10 + 11 + 12 + 13 + 14 + 18 + 21 + 22 + 23 + 26)	44,519	44,086	3,562

1. RWA includes 6% adjustment to IRB risk-weighted assets for scaling factor which is removed under BASEL III reforms starting Jun 2023

2. 'Capital requirement' represents the minimum total capital charge set at 8% of RWAs by the OSFI Capital Adequacy Requirements (CAR) guidelines

3. Amount includes Other assets not included in standardized or IRB approaches

4. Starting Q1 2019, OSFI has allowed a 0.7 scalar to be applied to the exposure amount determined under SA-CCR for the purpose of calculating CVA

5. Amount includes banking book equity exposure which are not material and risk weighted @100% in accordance with OSFI CAR guidelines

6. The Bank is subject to a regulatory capital floor prescribed by OSFI

7. Basel 3 Reforms impact can be referred to Notes to users

Credit Risk

Credit risk is the risk of financial loss if a customer or counterparty fails to meet an obligation under contract. Credit risk arises principally from direct lending, trade finance and the leasing business, but also from other products such as guarantees and credit derivatives.

Table 4 : Credit quality of assets (CR1)

		a	b	c	d	e	f	g
		Gross carrying values of		Allowances/ impairments	Of which ECL accounting provisions for credit losses on SA exposures		Of which ECL accounting provisions for credit losses on IRB exposures	Net values (a+b-c)
		Defaulted exposures	Non - defaulted exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General		
		\$m	\$m		\$m	\$m	\$m	\$m
1	Loans	369	82,261	339	–	3	336	82,291
2	Debt securities	–	22,924	–	–	–	–	22,924
3	Off-balance sheet exposures	169	52,252	35	–	–	35	52,386
4	Total at 30 Jun 2023	538	157,437	374	–	3	371	157,601
1	Loans	302	84,746	344	–	8	336	23,427
2	Debt securities	–	23,427	–	–	–	–	84,704
3	Off-balance sheet exposures	143	52,676	34	–	–	34	52,785
4	Total at 31 Dec 2022	445	160,849	378	–	8	370	160,916

Table 5 : Credit risk mitigation techniques – overview (CR3)

	a	b	c	d	e
	Exposures unsecured: carrying amount	Exposures to be secured: carrying amount ²	Exposures secured by collateral	Exposures secured by financial guarantees ³	Exposures secured by credit derivatives
	\$m	\$m	\$m	\$m	\$m
1 Loans	16,541	66,089	63,879	2,210	—
2 Debt securities	10,902	12,022	12,022	—	—
3 Total at 30 Jun 2023	27,443	78,111	75,901	2,210	—
4 Of which defaulted	184	184	184	—	—
1 Loans	14,572	70,477	65,448	5,029	—
2 Debt securities	10,814	12,613	11,729	884	—
3 Total at 31 Dec 2022	25,386	83,090	77,177	5,913	—
4 Of which defaulted	55	246	227	19	—

1. Amount equals to the carrying value gross of allowances.

2. Amount represents the gross carrying value of the exposure secured (fully or partially by either collateral or guarantees).

3. With the implementation of Basel III reforms, parental support is either through PD substitution under guarantees or LGD adjustment under collateral.

Table 6 : Standardized approach – credit conversion factor ('CCF') and credit risk mitigation ('CRM') effects (CR4)

	Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and RWA density	
	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWAs	RWA density
	\$m	\$m	\$m	\$m	\$m	%
Asset classes						
1 Sovereigns and their central banks	120	—	120	—	7	6
2 Public sector entities (PSEs) ³	—	—	241	—	—	—
3 Multilateral development banks	—	—	—	—	—	—
4 Banks ³	410	—	805	—	161	20
Of which: securities firms and other financial institutions treated as banks	—	—	395	—	79	20
5 Covered bonds	—	—	—	—	—	—
6 Corporates	682	456	45	46	91	100
Of which: securities firms and other financial institutions treated as corporates	—	—	—	—	—	—
Of which: specialised lending	—	—	—	—	—	—
7 Subordinated debt, equity and other capital	11	—	11	—	28	250
8 Retail	21	—	21	—	16	75
12 Defaulted exposures	1	—	—	—	—	—
13 Other assets	1,428	—	1,428	—	1,095	77
14 Total at 30 Jun 2023	2,673	456	2,671	46	1,398	52
1 Sovereigns and their central banks	—	—	—	—	—	—
6 Corporates	608	643	607	—	118	19
7 Regulatory Retail Portfolios	463	2,617	461	—	346	75
10 Equity	—	—	—	—	—	—
13 Other assets ²	2,516	—	2,516	—	1,972	78
14 Total at 31 Dec 2022	3,587	3,260	3,584	—	2,436	68

1. CCF - Credit Conversion Factor, CRM - Credit Risk Mitigation.

2. Comprises exposures subject to credit risk framework but are not included in standardized or IRB approaches including settlement risk and other balance sheet assets that are risk-weighted at 100%.

3. Exposures post-CCF and CRM including risk transfer-in amounts.

Table 7: Standardized approach – exposures by asset class and risk weight (CR5)

Risk weight ('RW') %		0	20	50	75	100	150	250	Total credit exposure amount (post-CCF and post-CRM)
		\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Asset classes									
1	Sovereigns and their central banks	113	—	—	—	7	—	—	120
2	Public sector entities (PSEs)	241	—	—	—	—	—	—	241
3	Multilateral development banks	—	—	—	—	—	—	—	—
4	Banks	—	805	—	—	—	—	—	805
—	Of which: securities firms and other financial institutions treated as banks	—	—	—	—	—	—	—	—
5	Covered bonds	—	—	—	—	—	—	—	—
6	Corporates	—	—	—	—	91	—	—	91
—	Of which: securities firms and other financial institutions treated as corporates	—	—	—	—	—	—	—	—
—	Of which: specialised lending	—	—	—	—	—	—	—	—
7	Subordinated debt, equity and other capital	—	—	—	—	—	—	11	11
8	Retail	—	—	—	21	—	—	—	21
12	Defaulted exposures	—	—	—	—	—	—	—	—
13	Other assets	408	26	—	—	930	—	64	1,428
14	Total at 30 Jun 2023	762	831	—	21	1,028	—	75	2,717
1	Sovereigns and their central banks	—	—	—	—	—	—	—	—
6	Corporates	205	356	—	—	46	—	—	607
7	Regulatory Retail Portfolios	—	—	—	460	1	—	—	461
10	Equity	—	—	—	—	—	—	—	—
13	Other assets	513	174	—	—	1,758	—	71	2,516
14	Total at 31 Dec 2022	718	530	—	460	1,805	—	71	3,584

Table 8: Standardized approach – exposures by asset class and risk weight (CR5) Contd.

		a	b	c	d
Risk weight ('RW') %		On-balance sheet exposure	Off-balance sheet exposure (pre-CCF)	Weighted average CCF	Exposures post-CCF and CRM ¹
		\$m	\$m		\$m
1	Less than 40	958	—	100	1,593
2	40–70	—	—	—	—
3	75	21	—	100	21
4	85	—	—	—	—
5	90–100	1,619	456	63	1,028
6	105–130	—	—	—	—
7	150	—	—	—	—
8	250	75	—	100	75
9	400	—	—	—	—
10	1250	—	—	—	—
11	Total at 30 Jun 2023	2,673	456	87	2,717
1	Less than 40	1295	643	100	1,294
2	40–70	—	—	—	—
3	75	463	2,617	15	461
4	85	—	—	—	—
5	90–100	1,758	—	100	1,758
6	105–130	—	—	—	—
7	150	—	—	—	—
8	250	71	—	100	71
9	400	—	—	—	—
10	1250	—	—	—	—
11	Total at 31 Dec 2022	3,587	3,260	52	3,584

1. Exposures post-CCF and CRM includes risk transfer-in amounts.

Table 9: A-IRB – Credit risk exposures by portfolio and PD range (CR6)

	Original on-balance sheet gross exposure	Off-balance sheet exposure pre-CCF	Average CCF	EAD post-CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	RWA	RWA density	Expected loss	Provisions
PD scale	\$m	\$m	%	\$m	%		%	years	\$m	%	\$m	\$m
Sovereign												
0.00 to <0.15	26,111	1,457	97	26,683	0.01	86	7.0	1.71	189	0.7	—	1
0.15 to <0.25	—	—	—	—	—	—	—	—	—	—	—	—
0.25 to <0.50	1	1	61	1	0.37	3	38.0	2.00	1	45.5	—	—
0.50 to <0.75	—	—	—	—	—	—	—	—	—	—	—	—
0.75 to <2.50	165	2	99	166	2.16	6	10.0	3.40	10	6.2	—	—
2.50 to <10.00	—	—	—	—	—	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	—
Sub-total	26,277	1,460	97	26,850	0.02	95	7.0	1.72	200	0.7	—	1
Corporates												
0.00 to <0.15	1,937	2,000	66	2,588	0.10	326	40.4	1.88	597	23.1	1	4
0.15 to <0.25	3,721	3,073	70	4,744	0.22	1,043	34.1	1.72	1,407	29.7	4	3
0.25 to <0.50	6,436	3,671	74	7,528	0.37	983	32.2	1.57	2,664	35.4	9	8
0.50 to <0.75	4,710	3,424	71	5,785	0.63	863	33.1	1.64	2,805	48.5	11	9
0.75 to <2.50	11,408	7,201	74	13,689	1.30	2,527	33.3	1.53	8,424	61.5	50	35
2.50 to <10.00	1,749	1,128	74	2,137	4.73	530	32.0	1.25	1,931	90.3	30	21
10.00 to <100.00	331	235	73	411	13.51	122	31.0	1.21	503	122.5	17	10
100.00 (Default)	273	106	78	296	100.00	70	47.3	1.21	527	178.0	121	121
Sub-total	30,565	20,838	72	37,178	1.90	6,464	33.7	1.58	18,858	50.7	243	211
Wholesale AIRB - Total at 30 Jun 2023	56,842	22,298	81	64,028	1.12	6,559	22.0	1.64	19,058	29.8	243	212

Table 10: F-IRB – Credit risk exposures by portfolio and PD range (CR6)

	Original on-balance sheet gross exposure	Off-balance sheet exposure pre-CCF	Average CCF	EAD post-CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	RWA	RWA density	Expected loss	Provisions
PD scale	\$m	\$m	%	\$m	%		%	years	\$m	%	\$m	\$m
Banks												
0.00 to <0.15	1,764	784	87	2,218	0.06	162	30.8	2.07	337	15.2	—	—
0.15 to <0.25	12	1	98	12	0.22	11	45.0	0.16	4	31.2	—	—
0.25 to <0.50	5	20	27	7	0.37	2	45.0	1.00	4	53.9	—	—
0.50 to <0.75	1	—	91	1	0.63	3	40.3	0.42	—	58.3	—	—
0.75 to <2.50	—	—	—	—	—	—	—	—	—	—	—	—
2.50 to <10.00	2	—	100	2	3.05	2	45.0	2.50	3	157.7	—	—
10.00 to <100.00	—	—	—	—	—	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	—
Sub-total	1,784	805	87	2,240	0.07	180	30.9	2.06	348	15.5	—	—
Corporates												
0.00 to <0.15	2,890	9,018	53	6,266	0.09	407	36.6	1.84	1,245	19.9	2	3
0.15 to <0.25	1,536	2,514	57	2,290	0.22	214	34.4	2.26	825	36.0	2	2
0.25 to <0.50	1,481	1,690	64	2,040	0.37	237	34.9	2.62	1,050	51.5	3	3
0.50 to <0.75	921	1,198	70	1,481	0.63	104	34.6	2.04	742	50.1	3	6
0.75 to <2.50	2,245	4,764	56	3,911	1.43	483	34.0	1.94	2,468	63.3	15	13
2.50 to <10.00	322	320	69	442	4.07	68	32.0	1.95	445	100.6	6	4
10.00 to <100.00	127	58	86	158	12.83	15	40.0	1.55	279	176.9	8	5
100.00 (Default)	12	44	79	44	100.00	9	40.0	1.00	43	98.3	10	7
Sub-total	9,534	19,606	57	16,632	0.98	1,537	35.2	2.03	7,097	39.5	49	43
Wholesale FIRB - Total at 30 Jun 2023	11,318	20,411	59	18,872	0.89	1,717	34.7	2.04	7,445	39.5	49	43

Table 11: A-IRB – Credit risk exposures by portfolio and PD range (CR6) (continued)

PD scale	Original on-balance sheet gross exposure \$m	Off-balance sheet exposure pre-CCF \$m	Average CCF %	EAD post-CRM and post-CCF \$m	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA \$m	RWA density %	Expected loss \$m	Provisions \$m
Retail Residential Mortgages												
0.00 to <0.15	20,030	—	100	20,030	0.05	44,205	19.6	—	557	2.8	2	22
0.15 to <0.25	8,534	—	100	8,534	0.16	15,227	20.8	—	607	7.1	3	29
0.25 to <0.50	1,493	—	100	1,493	0.28	3,071	18.8	—	150	10.0	1	3
0.50 to <0.75	1,697	—	100	1,697	0.58	2,985	20.9	—	313	18.4	2	8
0.75 to <2.50	310	—	100	310	2.07	564	21.9	—	138	44.4	1	—
2.50 to <10.00	704	—	100	704	3.06	1,373	19.7	—	355	50.3	4	4
10.00 to <100.00	140	—	100	140	17.80	264	19.7	—	146	104.4	5	3
100.00 (Default)	60	—	100	60	100.00	91	35.0	—	2	2.5	21	14
Sub-total	32,968	—	100	32,968	0.46	67,780	20.0	—	2,268	6.9	39	83
HELOC												
0.00 to <0.15	823	4,179	73	3,669	0.05	22,663	13.1	—	71	1.9	—	2
0.15 to <0.25	—	—	100	—	0.18	2	15.5	—	—	0.0	—	—
0.25 to <0.50	307	158	97	453	0.29	2,477	13.5	—	33	7.3	—	1
0.50 to <0.75	3	—	100	3	0.56	3	15.5	—	—	12.5	—	—
0.75 to <2.50	127	17	113	163	1.02	903	13.6	—	29	17.7	—	1
2.50 to <10.00	95	58	98	150	6.26	711	13.3	—	74	49.3	1	1
10.00 to <100.00	8	10	89	17	31.01	82	13.8	—	14	81.3	1	—
100.00 (Default)	7	12	41	8	100.00	102	32.5	—	—	5.3	2	1
Sub-total	1,370	4,434	77	4,463	0.60	26,943	13.2	—	221	5.0	4	6
Retail Qualifying revolving exposures												
0.00 to <0.15	181	2,982	98	3,090	0.07	182,239	85.8	—	116	3.7	2	1
0.15 to <0.25	89	679	96	734	0.21	69,330	86.9	—	71	9.7	1	1
0.25 to <0.50	—	—	0	—	0.00	—	0.0	—	—	0.0	—	—
0.50 to <0.75	80	188	98	262	0.58	31,647	88.4	—	58	22.3	1	2
0.75 to <2.50	89	70	100	159	1.34	19,108	89.8	—	68	42.7	2	3
2.50 to <10.00	110	44	99	153	4.20	18,399	89.7	—	146	95.6	6	8
10.00 to <100.00	32	9	95	39	21.18	5,056	88.1	—	81	206.4	7	4
100.00 (Default)	4	5	51	5	100.00	1,082	81.0	—	13	268.8	3	2
Sub-total	585	3,977	97	4,442	0.60	326,861	86.4	—	553	12.4	22	21
Retail SME												
0.00 to <0.15	2	21	96	22	0.09	779	93.4	—	5	21.7	—	—
0.15 to <0.25	3	88	88	80	0.22	1,912	75.7	—	26	33.1	—	—
0.25 to <0.50	3	8	105	12	0.38	170	37.2	—	3	23.0	—	—
0.50 to <0.75	2	2	100	4	0.58	420	100.0	—	3	78.4	—	—
0.75 to <2.50	183	19	99	199	1.92	1,643	56.8	—	144	72.4	2	2
2.50 to <10.00	3	2	93	4	6.24	205	65.3	—	4	97.3	—	—
10.00 to <100.00	16	6	113	25	15.54	827	66.2	—	31	121.3	3	1
100.00 (Default)	3	—	97	3	100.00	392	67.4	—	3	100.0	—	2
Sub-total	215	146	97	—	3.20	6,348	64.1	—	219	62.6	5	5
Retail Other												
0.00 to <0.15	50	488	88	473	0.05	7,900	66.7	—	71	15.0	—	—
0.15 to <0.25	92	113	93	191	0.15	2,571	54.0	—	61	31.8	—	—
0.25 to <0.50	668	1	100	669	0.30	4,328	37.2	—	230	34.4	1	2
0.50 to <0.75	60	11	100	71	0.59	793	48.6	—	46	65.3	—	—
0.75 to <2.50	208	2	100	210	1.81	7,647	42.5	—	139	66.2	2	1
2.50 to <10.00	41	7	98	47	4.39	398	43.7	—	48	102.6	1	1
10.00 to <100.00	19	4	148	33	28.29	6,106	48.6	—	59	177.4	5	1
100.00 (Default)	8	2	80	8	100.00	4,708	89.8	—	4	52.4	7	1
Sub-total	1,146	628	96	1,702	1.55	34,451	49.1	—	658	38.7	16	6
Total Retail at 30 Jun2023	36,284	9,185	97	43,575	0.55	462,383	28.0	—	3,919	9.0	81	110

Table 12: IRB – Credit risk exposures by portfolio and PD range (CR6)

PD scale	Original on- balance sheet gross exposure \$m	Off-balance sheet exposure pre-CCF \$m	Average CCF %	EAD post- CRM and post-CCF \$m	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWAs \$m	RWA density %	Expected loss \$m	Provisions \$m
Sovereign												
0.00 to <0.15	27,849	1,231	39	28,331	0.01	88	7.1	1.76	224	0.8	—	1
0.15 to <0.25	—	2	41	1	0.37	3	20.6	1.22	—	18.9	—	—
0.25 to <0.50	—	—	—	—	—	—	—	—	—	—	—	—
0.50 to <0.75	—	—	—	—	—	—	—	—	—	—	—	—
0.75 to <2.50	—	—	—	—	—	—	—	—	—	—	—	—
2.50 to <10.00	—	—	—	—	—	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	—
Sub-total	27,849	1,233	39	28,332	0.01	91	7.1	1.76	224	0.8	—	1
Banks												
0.00 to <0.15	2,136	988	51	2,634	0.05	149	17.7	2.13	220	8.4	—	—
0.15 to <0.25	29	2	20	30	0.22	5	35.0	0.07	6	19.6	—	—
0.25 to <0.50	16	12	—	16	0.37	2	46.7	1	9	52.4	—	—
0.50 to <0.75	1	3	20	2	0.63	5	31.1	1.04	1	54.1	—	—
0.75 to <2.50	—	50	20	10	2.25	1	27.2	2.5	9	94.1	—	—
2.50 to <10.00	—	—	—	—	—	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	—
Sub-total	2,182	1,055	48	2,692	0.06	162	18.1	2.1	245	9.1	—	—
Corporates												
0.00 to <0.15	5,380	11,815	44	10,561	0.09	783	42.3	1.88	2,468	23.4	4.0	4.0
0.15 to <0.25	7,142	6,980	42	10,083	0.22	1,338	35.5	1.91	3,530	35.0	8.0	7.0
0.25 to <0.50	8,590	6,801	43	11,509	0.37	1,324	34.8	1.73	4,992	43.4	15.0	21.0
0.50 to <0.75	6,248	6,024	41	8,712	0.63	1,071	33.4	1.75	4,735	54.3	18.0	27.0
0.75 to <2.50	10,659	7,782	43	13,965	1.23	2,690	33.1	1.76	9,685	69.4	56.0	58.0
2.50 to <10.00	1,805	1,199	48	2,382	4.75	588	31.2	1.54	2,370	99.5	35.0	23.0
10.00 to <100.00	577	328	43	719	15.31	133	34.2	1.48	1,136	158.0	38.0	27.0
100.00 (Default)	261	128	53	328	100.00	82	38.8	1.09	541	164.8	100.0	100.0
Sub-total	40,662	41,057	43	58,259	1.46	8,009	35.5	1.78	29,457	50.6	274.0	267.0
Wholesale AIRB - Total at 31 Dec 2022	70,693	43,345	43	89,283	0.96	8,262	26.0	1.78	29,926	33.5	274	268

PD scale	Original on-balance sheet gross exposure \$m	Off-balance sheet exposure pre-CCF \$m	Average CCF %	EAD post-CRM and post-CCF \$m	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWAs \$m	RWA density %	Expected loss \$m	Provisions \$m
Retail Residential Mortgages												
0.00 to <0.15	20,518	—	—	20,518	0.06	44,228	18.0	—	654	3.2	2.3	8.0
0.15 to <0.25	6,329	—	—	6,329	0.19	11,176	19.7	—	501	7.9	2.3	16.2
0.25 to <0.50	3,807	—	—	3,807	0.32	6,233	17.7	—	399	10.5	2.1	9.0
0.50 to <0.75	1,142	—	—	1,142	0.55	2,067	19.4	—	194	17.0	1.2	3.6
0.75 to <2.50	1,431	—	—	1,431	1.57	2,569	18.7	—	469	32.7	5.0	6.6
2.50 to <10.00	523	—	—	523	4.60	1,029	18.2	—	314	60.0	5.0	3.2
10.00 to <100.00	149	—	—	149	25.51	243	16.9	—	155	104.0	6.4	4.0
100.00 (Default)	30	—	—	30	100.00	65	16.4	—	66	220.0	—	14.8
Sub-total	33,929	—	—	33,929	0.47	67,610	18.4	—	2,752	8.1	23.0	66.2
HELOC												
0.00 to <0.15	5	—	—	5	0.07	12	19.4	—	—	—	—	—
0.15 to <0.25	4	—	—	4	0.20	7	15.0	—	—	—	—	—
0.25 to <0.50	726	3,240	26	1,552	0.38	18,665	18.5	—	197	12.6	1.1	3.7
0.50 to <0.75	119	327	28	211	0.53	1,346	15.6	—	28	13.4	0.2	0.6
0.75 to <2.50	410	754	33	660	0.99	5,520	19.4	—	166	25.1	1.3	2.9
2.50 to <10.00	117	83	30	142	4.16	895	18.8	—	82	57.9	1.1	1.6
10.00 to <100.00	24	5	33	25	26.84	135	18.2	—	28	112.5	1.2	—
100.00 (Default)	5	9	—	5	100.00	84	17.4	—	10	229.6	—	0.7
Sub-total	1,410	4,418	27	2,604	1.18	26,664	18.5	—	511	19.6	4.0	11.0
Retail Qualifying revolving												
0.00 to <0.15	—	—	—	—	—	—	—	—	—	—	—	—
0.15 to <0.25	—	—	—	—	—	—	—	—	—	—	—	—
0.25 to <0.50	38	706	19	169	0.31	40,300	54.0	—	15	8.8	0.3	—
0.50 to <0.75	—	—	—	—	—	—	—	—	—	—	—	—
0.75 to <2.50	55	145	26	93	1.17	13,955	70.5	—	30	32.1	0.8	1.2
2.50 to <10.00	48	38	40	63	4.12	5,556	76.1	—	53	85.6	1.9	4.1
10.00 to <100.00	5	8	29	7	24.47	832	72.5	—	16	207.0	1.2	0.8
100.00 (Default)	1	3	—	1	100.00	283	72.3	—	13	938.2	—	0.6
Sub-total	147	900	21	333	2.22	60,926	63.2	—	127	38.0	4.2	6.6
Retail SME												
0.00 to <0.15	—	—	—	—	—	—	—	—	—	—	—	—
0.15 to <0.25	—	—	—	—	—	—	—	—	—	—	—	—
0.25 to <0.50	—	—	—	—	—	—	—	—	—	—	—	—
0.50 to <0.75	115	111	100	226	0.63	1,610	53.2	—	102	45.1	0.7	1.0
0.75 to <2.50	91	26	99	117	2.19	696	54.7	—	89	76.1	1.4	0.7
2.50 to <10.00	14	11	97	25	7.88	463	41.5	—	17	69.5	0.8	0.4
10.00 to <100.00	6	9	100	14	23.71	1,097	32.1	—	11	77.3	1.1	0.9
100.00 (Default)	2	—	—	2	100.00	247	58.2	—	14	761.8	0.1	1.1
Sub-total	228	157	100	384	2.91	4,113	52.1	—	233	60.7	4.0	4.0
Retail Other												
0.00 to <0.15	66	—	—	66	0.12	421	61.0	—	12	18.3	—	0.8
0.15 to <0.25	—	—	—	—	—	—	—	—	—	—	—	—
0.25 to <0.50	133	460	25	246	0.26	10,324	34.5	—	44	17.9	0.2	0.4
0.50 to <0.75	322	116	30	357	0.53	7,627	52.6	—	146	40.9	1.0	1.1
0.75 to <2.50	40	50	27	53	1.49	1,081	33.2	—	22	41.4	0.3	0.4
2.50 to <10.00	46	7	43	49	3.25	655	31.1	—	23	46.5	0.5	0.6
10.00 to <100.00	11	5	66	14	20.30	9,255	35.6	—	11	76.3	1.0	0.6
100.00 (Default)	1	1	—	1	100.00	2,299	36.5	—	5	451.0	0.4	0.3
Sub-total	619	639	26	786	1.14	31,662	44.7	—	263	33.4	3.0	4.3
Total Retail at 31 Dec 2022	36,333	6,114	28	38,036	0.57	190,975	19.7	—	3,886	10.2	38.0	92.0

Table 13 : RWA flow statements of credit risk exposures under the IRB approach (CR8)

		a RWA amounts
1	RWA at the beginning of the period - 1 Apr 2023	34,396
2	Asset size ¹	(167)
3	Asset quality	—
4	Model updates	—
5	Methodology and policy ²	(3,486)
6	Acquisitions and disposals	—
7	Foreign exchange movements	—
8	Other ³	(321)
9	RWA at the end of the period - 30 Jun 2023	30,422

1. Foreign exchange movements are embedded in the asset size

2. Primarily impact of Basel III reforms on IRB Risk weighted Assets

3. Firm-size adjustment for corporate SMEs is resumed

Table 14: Specialized lending on slotting approach and Equities under simple risk-weight method (CR10)

		Specialized Lending - Other than HVCRE ²									
Regulatory categories ¹	Regulatory maturity	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount					RWA	Expected loss
					PF ²	OF	CF	IPRE	Total		
Strong	Less than 2.5 years	—	—	50	—	—	—	—	—	—	—
	Equal to or more than 2.5 years	404	72	70	358	—	—	118	476	333	1
Good	Less than 2.5 years	—	—	70	—	—	—	—	—	—	—
	Equal to or more than 2.5 years	1	—	90	—	—	—	1	1	—	—
Satisfactory		4	1	115	—	—	—	5	5	6	—
Weak		—	—	250	—	—	—	—	—	—	—
Default		—	—	0	—	—	—	—	—	—	—
	Total at 30 Jun 2023	409	73		358	—	—	124	482	339	1
Strong	Less than 2.5 years	—	—	50	—	—	—	—	—	—	—
	Equal to or more than 2.5 years	375	98	70	415	—	—	—	415	291	2
Good	Less than 2.5 years	—	—	70	—	—	—	—	—	—	—
	Equal to or more than 2.5 years	1	—	90	—	—	—	1	1	1	—
Satisfactory		4	—	115	—	—	—	4	4	5	—
Weak		—	—	250	—	—	—	—	—	—	—
Default		—	—	0	—	—	—	—	—	—	—
	Total at 31 Dec 2022	380	98		415	—	—	5	420	297	2

1. Regulatory categories are defined under paragraph 88 of OSFI CAR guidelines

2. HVCRE: High-volatility commercial real estate, PF: Project finance, OF: Object finance, CF: Commodities finance & IPRE: Income producing real estate

Counterparty Credit Risk (CCR)

Counterparty credit risk ('CCR') arises for derivatives and SFTs. It is calculated in both trading and non-trading books, and is the risk that a counterparty may default before settlement of the transaction. CCR is generated primarily in our wholesale global businesses.

Table 15: Analysis of counterparty credit risk exposure by approach (excluding CVA Charge & centrally cleared exposures)- CCR1

	a	b	c	d	e	f
	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	Alpha used for computing regulatory EAD (Multiplier)	EAD post CRM	post-CRM RWAs
	\$m	\$m	\$m		\$m	\$m
1 SA-CCR (for derivatives)	263	1,011	—	1.4	1,783	414
2 Internal Model Method (for derivatives and SFTs)	—	—	—	—	—	—
3 Simple Approach for credit risk mitigation (for SFTs)	—	—	—	—	—	—
4 Comprehensive Approach for credit risk mitigation (for SFTs)	—	—	—	—	107	13
5 VaR for SFTs	—	—	—	—	—	—
6 Total at 30 Jun 2023	263	1,011	—	1.4	1,890	427
1 SA-CCR (for derivatives)	396	1,246	—	1.4	2,299	580
2 Internal Model Method (for derivatives and SFTs)	—	—	—	—	—	—
3 Simple Approach for credit risk mitigation (for SFTs)	—	—	—	—	—	—
4 Comprehensive Approach for credit risk mitigation (for SFTs)	—	—	—	—	240	33
5 VaR for SFTs	—	—	—	—	—	—
6 Total at 31 Dec 2022	396	1,246	—	1.4	2,539	613

Table 16: Credit valuation adjustment (CVA) capital charge (CCR2)

	At 30 Jun 2023		At 31 Dec 2022	
	EAD post-CRM	RWA	EAD post-CRM	RWA
	\$m	\$m	\$m	\$m
1 Total portfolios subject to the Advanced CVA capital charge	—	—	—	—
2 – VaR component (including the 3 × multiplier)	—	—	—	—
3 – Stressed VaR component (including the 3 × multiplier)	—	—	—	—
4 All portfolios subject to the Standardized CVA capital charge	1,249	245	1,609	291
5 Total subject to the CVA capital charge	1,249	245	1,609	291

1. OSFI has allowed a 0.7 scalar to be applied to the exposure amount determined under SA-CCR for the purpose of calculating CVA.

Table 17: CCR exposures by portfolio and PD scale - AIRB (CCR4)

PD scale	EAD post-CRM \$m	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA \$m	RWA density %
Sovereign							
0.00 to <0.15	485	0.02	54	10.0	0.36	3	0.6
0.15 to <0.25	1	0.63	1	10.0	1.75	—	15.1
0.25 to <0.50	—	—	—	—	—	—	—
0.50 to <0.75	—	—	—	—	—	—	—
0.75 to <2.50	—	—	—	—	—	—	—
2.50 to <10.00	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—
Sub-total	486	0.02	55	10.0	0.36	3	0.7
Corporates							
0.00 to <0.15	73	0.06	31	52.0	1.02	10	14.2
0.15 to <0.25	209	0.22	60	52.0	2.08	85	40.8
0.25 to <0.50	15	0.37	54	52.0	1.84	9	61.4
0.50 to <0.75	39	0.63	57	52.0	1.30	27	69.8
0.75 to <2.50	57	1.46	135	52.0	1.72	61	106.4
2.50 to <10.00	6	5.43	16	52.0	1.10	9	155.9
10.00 to <100.00	—	11.45	10	52.0	1.00	3	211.4
100.00 (Default)	—	—	—	—	—	—	0.0
Sub-total	339	0.52	363	52.0	1.73	204	51.1
AIRB Total at 30 Jun 2023	885	0.24	418	29.0	0.98	207	23.4

Table 18: CCR exposures by portfolio and PD scale - FIRB (CCR4)

PD scale	EAD post-CRM \$m	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA \$m	RWA density %
Banks							
0.00 to <0.15	554	0.05	25	45	0.99	84	15.2
0.15 to <0.25	—	—	—	—	—	—	—
0.25 to <0.50	—	—	—	—	—	—	—
0.50 to <0.75	—	—	—	—	—	—	—
0.75 to <2.50	—	—	—	—	—	—	—
2.50 to <10.00	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—
Sub-total	554	0.05	25	45.0	0.99	84	15.2
Corporates							
0.00 to <0.15	267	0.07	187	42.0	0.89	41	15.2
0.15 to <0.25	69	0.22	44	40.8	0.89	20	29.9
0.25 to <0.50	35	0.37	21	40.0	1.41	15	43.4
0.50 to <0.75	25	0.63	31	42.8	0.93	14	56.1
0.75 to <2.50	54	1.28	130	41.1	1.20	45	83.0
2.50 to <10.00	1	5.70	2	40.0	1.00	1	123.5
10.00 to <100.00	—	13.00	1	40.0	1.00	—	173.3
100.00 (Default)	—	—	—	—	—	—	0.0
Sub-total	451	0.30	416	41.6	0.97	136	30.1
FIRB - Total at 30 Jun 2023	1,005	0.16	441	43.5	0.98	220	21.9

Table 19: CCR exposures by portfolio and PD scale (CCR4)

PD scale	EAD post-CRM \$m	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA \$m	RWA density %
Sovereign							
0.00 to <0.15	380	0.02	59	10.0	0.47	3	0.7
0.15 to <0.25	—	—	—	—	—	—	—
0.25 to <0.50	—	—	—	—	—	—	—
0.50 to <0.75	—	—	—	—	—	—	—
0.75 to <2.50	—	—	—	—	—	—	—
2.50 to <10.00	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—
Sub-total	380	0.02	59	10.0	0.47	3	0.7
Banks							
0.00 to <0.15	933	0.04	37	27.9	0.66	59	6.3
0.15 to <0.25	—	—	—	—	—	—	—
0.25 to <0.50	—	—	—	—	—	—	—
0.50 to <0.75	—	—	—	—	—	—	—
0.75 to <2.50	—	—	—	—	—	—	—
2.50 to <10.00	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—
Sub-total	933	0.04	37	27.9	0.66	59	6.3
Corporates							
0.00 to <0.15	725	0.07	245	52.00	1.10	143	19.8
0.15 to <0.25	139	0.22	102	52.00	1.21	60	43.1
0.25 to <0.50	84	0.37	71	52.00	1.27	48	57.5
0.50 to <0.75	68	0.63	83	52.00	1.21	52	75.3
0.75 to <2.50	200	1.58	294	52.00	1.44	229	115.0
2.50 to <10.00	7	5.62	16	52.00	1.31	12	173.3
10.00 to <100.00	3	11.11	12	52.00	1.00	7	222.7
100.00 (Default)	—	—	—	0.00	—	—	—
Sub-total	1,226	0.44	823	52.00	1.18	551	45.0
Grand-total at 31 Dec 2022	2,539	0.23	919	36.80	0.89	613	24.1

Table 20: Composition of collateral for CCR exposure (CCR5)

	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
	\$m	\$m	\$m	\$m	\$m	\$m
1 Cash – domestic currency	—	19	—	635	—	—
2 Cash – other currencies	—	240	—	52	—	—
3 Domestic sovereign debt	—	114	38	105	—	47
4 Other sovereign debt	—	—	—	—	—	—
5 Government agency debt	—	—	—	—	—	—
6 Corporate bonds	—	—	—	—	—	—
7 Equity securities	—	—	—	—	—	—
8 Other collateral	—	—	—	—	—	—
9 Total at 30 Jun 2023	—	373	38	792	—	47
1 Cash – domestic currency	—	219	—	591	—	—
2 Cash – other currencies	—	61	—	406	—	—
3 Domestic sovereign debt	—	210	21	—	—	101
4 Other sovereign debt	—	—	—	—	—	—
5 Government agency debt	—	—	—	—	—	—
6 Corporate bonds	—	—	—	—	—	—
7 Equity securities	—	—	—	—	—	—
8 Other collateral	—	—	—	—	—	—
9 Total at 31 Dec 2022	—	490	21	997	—	101

Table 21: Exposures to central counterparties (CCPs) - CCR8

		At 30 Jun 2023		At 31 Dec 2022	
		EAD post-CRM	RWA	EAD post-CRM	RWA
		\$m	\$m	\$m	\$m
1	Exposures to QCCPs (total)	348	10	440	13
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	282	5	320	7
3	– OTC derivatives	279	5	239	5
4	– exchange-traded derivatives	1	–	–	–
5	– securities financing transactions	2	–	81	2
6	– netting setts where cross-products netting has been approved	–	–	–	–
7	Segregated initial margin	47	1	101	1
8	Non-segregated initial margin	–	–	–	–
9	Pre-funded default fund contributions	19	4	19	5
10	Unfunded default fund contributions	–	–	–	–
11	Exposures to non- QCCPs (total)	–	–	–	–
12	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	–	–	–	–
13	– OTC derivatives	–	–	–	–
14	– exchange-traded derivatives	–	–	–	–
15	– securities financing transactions	–	–	–	–
16	– netting setts where cross-products netting has been approved	–	–	–	–
17	Segregated initial margin	–	–	–	–
18	Non-segregated initial margin	–	–	–	–
19	Pre-funded default fund contributions	–	–	–	–
20	Unfunded default fund contributions	–	–	–	–

1. QCCP - Qualifying Central Counterparty

Market Risk

Market Risk is the risk that movements in market factors, such as foreign exchange rates, interest rates, credit spread, equity prices and commodity prices will reduce the value of our portfolios.

Table 22: Market risk under standardised approach (MR1)

		At		
		30 Jun 2023	31 Dec 2022	30 Jun 2023
		RWA	RWA	Capital requirements
		\$m	\$m	\$m
Outright products				
1	Interest rate risk (general and specific)	117	136	9
2	Equity risk (general and specific)	–	–	–
3	Foreign exchange risk	–	–	–
4	Commodity risk	–	–	–
Options				
6	Delta-plus method	–	–	–
7	Scenario approach	–	–	–
8	Securitisation	–	–	–
9	Total	117	136	9

Table 23 : RWA flow statement of market risk exposures under Internal Model Approach (MR2)

		VaR	Stressed VaR	Other	Total RWA
		\$m	\$m	\$m	\$m
1	RWA at the beginning of the period - 1 Apr 2023	255	255	76	586
2	Movement in risk levels ¹	142	142	(55)	229
3	Model updates/changes	–	–	–	–
4	Methodology and policy	–	–	–	–
8	RWA at the end of the period - 30 Jun 2023	397	397	21	815

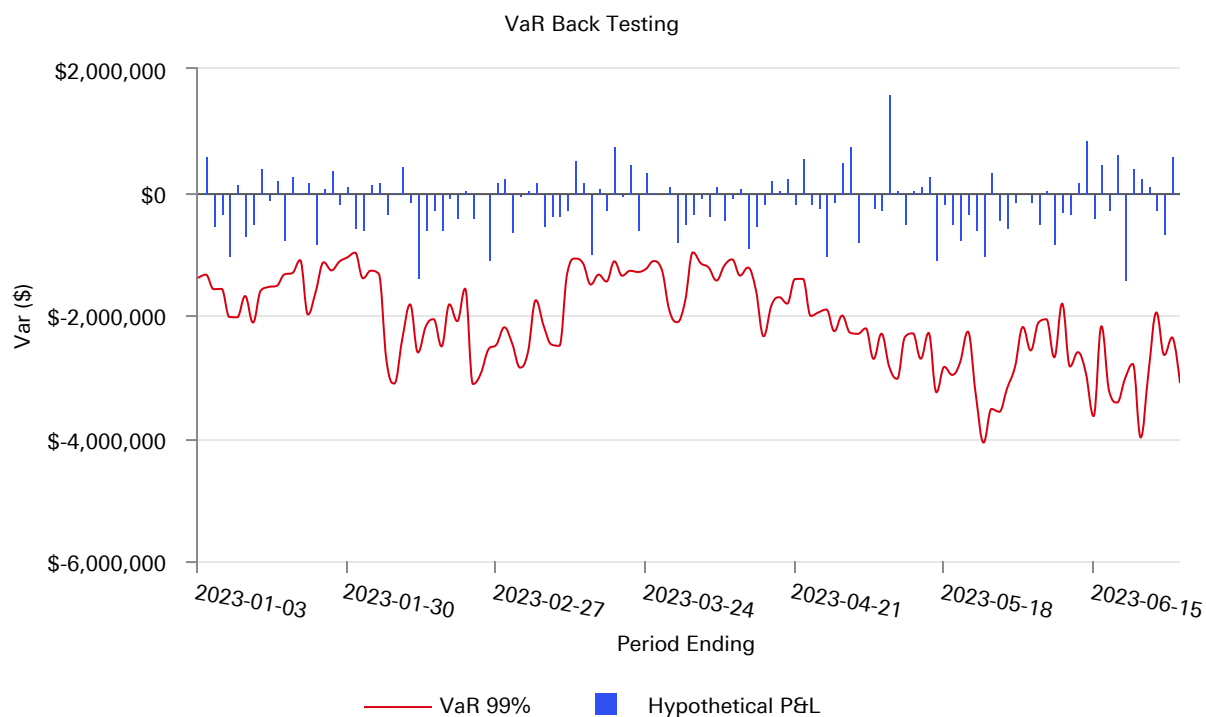
1. Movement due to position changes; foreign exchange movements are embedded in the movement in risk levels

Table 24: IMA values for trading portfolios¹ (MR3)

		At	
		30 Jun 2023	31 Dec 2022
		\$'000	\$'000
VaR			
1	Maximum value	19,171	9,483
2	Average value	10,587	5,785
3	Minimum value	3,966	3,685
4	Period end	12,203	4,468
Stressed VaR			
5	Maximum value	16,319	10,204
6	Average value	9,940	5,194
7	Minimum value	5,709	3,901
8	Period end	10,260	4,018
Incremental Risk Charge			
9	Maximum value	—	—
10	Average value	—	—
11	Minimum value	—	—
12	Period end	—	—
Comprehensive Risk capital charge			
13	Maximum value	—	—
14	Average value	—	—
15	Minimum value	—	—
16	Period end	—	—
17	Floor (standardized measurement method)	—	—

1. These are the maximum, average and minimum values in the second quarter of the year.

Table 25: Comparison of VaR estimates with gains/losses (MR4)



Leverage

Table 26: Summary comparison of accounting assets vs. leverage ratio exposure measure (LR1)

		At	
		30 Jun 2023	31 Mar 2023
		\$m	\$m
1	Total consolidated assets as per published financial statements	121,146	128,302
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	—	—
3	Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference	—	—
4	Adjustment for fiduciary assets recognised on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure	—	—
5	Adjustments for derivative financial instruments	(4,517)	(4,680)
6	Adjustment for securities financing transactions (i.e. repurchase agreements and similar secured lending)	16	116
7	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	14,430	14,936
8	Other adjustments ¹	152	(5,912)
9	Leverage ratio exposure measure	131,227	132,762

1. With OSFI pandemic relief ended, central bank reserve are included in leverage exposures starting April 1, 2023. Asset amounts deducted in determining Basel III Tier 1 capital are also included as a deduction.

Table 27: Leverage Ratio Common Disclosure Template (LR2)

		At	
		30 Jun 2023	31 Mar 2023
		\$m	\$m
On-balance sheet exposures			
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral) ¹	110,592	107,563
2	Gross up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework (IFRS)	—	—
3	(Deductions of receivables assets for cash variation margin provided in derivative transactions)	(687)	(679)
4	(Asset amounts deducted in determining Basel III Tier 1 capital)	511	303
5	Total on-balance sheet exposures (excluding derivatives and SFTs) (Sum of lines 1 to 4)	110,416	107,187
Derivative exposures			
6	Replacement cost associated with all derivative transactions (i.e. net of eligible cash variation margin)	562	637
7	Add-on amounts for PFE associated with all derivative transactions	1,500	1,680
8	(Exempted CCP-leg of client cleared trade exposures)	—	—
9	Adjusted effective notional amount of written credit derivatives	—	—
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	—	—
11	Total derivative exposures (sum of lines 6 to 10)	2,062	2,317
Securities financing transaction exposures			
12	Gross SFT assets recognized for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions	5,997	6,480
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(1,694)	(1,550)
14	Counterparty credit risk (CCR) exposure for SFTs	16	32
15	Agent transaction exposures	—	—
16	Total securities financing transaction exposures (sum of lines 12 to 15)	4,319	4,962
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	52,430	51,841
18	(Adjustments for conversion to credit equivalent amounts)	(38,000)	(37,083)
19	Off-balance sheet items (sum of lines 17 and 18)	14,430	14,758
Capital and Total Exposures			
20	Tier 1 capital	6,818	6,567
21	Total Exposures (sum of lines 5, 11, 16 and 19)	131,227	129,224
Leverage Ratios (%)			
22	Leverage ratio	5.2	5.1

1. With OSFI pandemic relief ended, central bank reserve are included in leverage exposures starting April 1, 2023. Asset amounts deducted in determining Basel III Tier 1 capital are also included as a deduction.

Glossary

- **OSFI** - Office of the Superintendent of Financial Institutions
- **\$** - Canadian dollar
- **Gross carrying values**: The gross value is the accounting value before any any credit conversion factor (CCF), credit risk mitigation (CRM) techniques or allowance/impairments.
- **Probability of Default (PD)** - An estimate of the likelihood of a customer defaulting on any credit related obligation within a 1 year time horizon, expressed as a percentage.
- **Loss Given Default (LGD)** - An estimate of the economic loss, expressed as a percentage (0%-100%) of the exposure at default, that the Bank will incur in the event a borrower defaults
- **Exposure At Default (EAD)** - An estimate of the amount of exposure to a customer at the time of default.
- **Standardized Approach for credit risk** - Under this approach, banks use a standardized set of risk-weights as prescribed by OSFI to calculate credit risk capital requirements. The standardized risk-weights are based on external credit assessments, where available, and other risk-related factors, including exposure asset class, collateral, etc.
- **Advanced Internal Ratings Based (AIRB) approach for credit risk** - Under this approach, banks use their own internal historical experience of PD, LGD, EAD and other key risk assumptions to calculate credit risk capital requirements.
- **Foundation Internal Ratings Based (FIRB) approach for credit risk** - Under this approach, banks use their own estimates of PD and their own calculation of maturity (M) and rely on supervisory estimates for other risk components.
- **Home Equity Lines of Credit (HELOC)** - Revolving personal lines of credit secured by home equity.
- **SA-CCR** - The standardised approach (SA-CCR) for measuring exposure at default for counterparty credit risk.
- **Credit Value adjustment (CVA)** - Credit valuation adjustment ('CVA') risk is the risk of adverse moves in the CVAs taken for expected credit losses on derivative transactions.
- **VaR - Value at Risk** - Value at risk ('VaR') is a technique that estimates the potential losses on risk positions in the trading portfolio as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence.
- **All-in regulatory capital** assumes that all Basel III regulatory adjustments are applied effective January 1, 2013 and that the capital value of instruments which no longer qualify as regulatory capital under Basel III rules will be phased out at a rate of 10% per year from January 1, 2013 and continuing to January 1, 2022.
- **Transitional regulatory capital** assumes that all Basel III regulatory capital adjustments are phased in from January 1, 2014 to January 1, 2018 and that the capital value of instruments which no longer qualify as regulatory capital under Basel III rules will be phased out at a rate of 10% per year from January 1, 2013 and continuing to January 1, 2022.
- **Asset size**: organic changes in book size and composition (including origination of new businesses and maturing loans) but excluding changes in book size due to acquisitions and disposal of entities.
- **Asset quality**: changes in the assessed quality of the bank's assets due to changes in borrower risk, such as rating grade migration or similar effects.
- **Model updates**: changes due to model implementation, changes in model scope, or any changes intended to address model weaknesses.
- **Methodology and policy**: changes due to methodological changes in calculations driven by regulatory policy changes, including both revisions to existing regulations and new regulations.
- **Acquisitions and disposals**: changes in book sizes due to acquisitions and disposal of entities.
- **ECL**: expected credit loss