2020

HSBC Bank Canada

Regulatory Capital & Risk Management

Pillar 3 Supplementary Disclosures

As at June 30, 2020

HSBC

Contents

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 2019 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 2019 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.

On 12 January 2018, OSFI announced its decision to update the existing capital floor for institutions using advanced approaches for credit risk and operational risk. The capital floor of 90%, based on the Basel I capital accord was replaced by a more risk-sensitive capital floor based on the standardized approach under Basel II framework, with floor factor set at 75%.

From Q1 2019, disclosure is based on OSFI's Pillar 3 disclosure requirements (April 2017), including Capital disclosure requirement and Leverage ratio disclosure requirement.

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.

Starting 1 January 2019, counterparty credit risk exposures arising from derivatives are calculated under Standardized Approach for Counterparty Credit Risk (SA-CCR), a new BCBS approach adopted by OSFI. Capital requirements for exposures to Central Counterparties (CCPs) have also been revised. The impact of these changes on credit risk RWA, Credit Valuation Adjustment (CVA) RWA and Leverage Ratio is immaterial.

In response to challenges posed by COVID-19 and current market conditions, OSFI announced a number of measures to support the Canadian banks in supplying credit to the economy, maintain stability and public confidence during an expected period of disruption. OSFI lowered the capital floor factor from 75% to 70% effective Q1 2020, which is expected to stay in place until the domestic implementation of the capital floor as part of Basel III reforms in Q1 2023. In addition, transitional arrangement for expected credit loss provisioning have been introduced for a portion of allowances that would otherwise be included in Tier 2 capital to instead be included in Common Equity Tier 1 (CET1) capital. The adjustment is dynamically measured as the increase in Stage 1 and Stage 2 allowances relative to the baseline level as at 31 December 2019, after tax effects and subject to a scaling factor of 70% in 2020, 50% in 2021 and 25% in 2022.

For leverage ratio, central bank reserves and sovereign-issued securities that qualify as High Quality Liquid assets (HQLA) under the Liquidity Adequacy Requirements Guideline can be temporarily excluded from the leverage ratio exposure measure, until 30 April 2021. In Pillar 3 disclosures, banks are expected to separately make available each of the CET1, Tier 1, Total Capital, and Leverage ratios had the transitional arrangement not been applied.

Road map to Pillar 3 disclosure requirement

Section	Identifier	Table and templates	Frequency	2019 Annual Report
Capital disclosure	CC1	Composition of Regulatory Capital	Quarterly	
Overview of risk management	OVA	Bank risk management approach	Annually	27-31
	OV1	Overview of RWA	Quarterly	
Linkages between financial statements and regulatory exposures	LI1	Differences between accounting and regulatory scopes of consolidation and mapping of financial statements with regulatory risk categories	na[1]	
	LI2	Main sources of differences between regulatory exposure amounts and carrying values in financial statements		
	LIA	Explanations of differences between accounting and regulatory exposure amounts		
Credit risk	CRA	General information about credit risk	Annually	31-32
	CR1	Credit quality of assets	Semi-annually	34
	CR2	Changes in stock of defaulted loans and debt securities	na[1]	
	CRB	Additional disclosure related to the credit quality of assets	Annually	
	CRC	CRC – Qualitative disclosure requirements related to credit risk mitigation techniques	Annually	44
	CR3	Credit risk mitigation techniques – overview	Semi-annually	
	CRD	Qualitative disclosures on banks' use of external credit ratings under the standardized approach for credit risk	na[1]	
	CR4	Standardized approach – credit risk exposure and Credit Risk Mitigation (CRM) effects	Semi-annually	
	CR5	Standardized approach – exposures by asset classes and risk weights	Semi-annually	
	CRE	Qualitative disclosures related to IRB models	na[1]	
	CR6	IRB Credit risk exposures by portfolio and PD range	Semi-annually	
	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	na[1]	
	CR10	IRB (specialized lending and equities under the simple risk weight method)	Semi-annually	
Counterparty credit risk	CCRA	Qualitative disclosure related to counterparty credit risk	Annually	68-69
	CCR1	Analysis of counterparty credit risk (CCR) exposure by approach	Semi-annually	
	CCR2	Credit valuation adjustment (CVA) capital charge	Semi-annually	
	CCR3	Standardized approach of CCR exposures by regulatory portfolio and risk weights	na[2]	
	CCR4	IRB – CCR exposures by portfolio and PD scale	Semi-annually	
	CCR5	Composition of collateral for CCR exposure	na[1]	
	CCR6	Credit derivatives exposures	Semi-annually	
	CCR7	RWA flow statements of CCR exposures under the Internal Model Method (IMM)	na[2]	
	CCR8	Exposures to central counterparties	Semi-annually	
Securitization	SECA	Qualitative disclosure requirements related to securitization exposures	na[2]	
	SEC1	Securitization exposures in the banking book		
	SEC2	Securitization exposures in the trading book		
	SEC3	Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as originator or as sponsor		
	SEC4	Securitization exposures in the banking book and associated capital requirements – bank acting as investor		
Market risk	MRA	Qualitative disclosure requirements related to market risk	Annually	
	MRB	Qualitative disclosures for banks using the Internal Models Approach (IMA)	Annually	
	MR1	Market risk under standardised approach	Semi-annually	
	MR2	RWA flow statements of market risk exposures under an IMA	Quarterly	
	MR3	IMA values for trading portfolios	Semi-annually	
	MR4	Comparison of VaR estimates with gains/losses	Semi-annually	
Leverage Ratio	LR1	Summary comparison of accounting assets vs. leverage ratio exposure measure	Quarterly	
	LR2	Leverage Ratio Common Disclosure Template	Quarterly	

1. *Non D-SIBs are permitted to adopt and disclose any of the above listed tables that are relevant in reflecting the risks and activities of the institution. We assessed accordingly and decided not to adopt this particular table*
2. *Table does not have any reportable values as at 30th June 2020*

Table 1 : Composition of Regulatory Capital (CC1)

		All-in Basis [1]	
		At	
		30 Jun 2020	31 Mar 2020
	Common Equity Tier 1 capital: instruments and reserves ($m)		
1	Directly issued qualifying common share capital (and equivalent for non-joint stock companies) plus related stock surplus	**1,725**	1,725
2	Retained earnings	**3,622**	3,652
3	Accumulated other comprehensive income (and other reserves)	**272**	135
4	Directly issued capital subject to phase out from CET1 (only applicable to non-joint stock companies)	**—**	—
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	**—**	—
6	Common Equity Tier 1 capital before regulatory adjustments	**5,619**	5,512
	Common Equity Tier 1 capital: regulatory adjustments ($m)		
28	Total regulatory adjustments to Common Equity Tier 1	**(256)**	(346)
29	Common Equity Tier 1 capital (CET1)	**5,363**	5,166
29a	Common Equity Tier 1 capital (CET1) with transitional arrangements for ECL provisioning not applied	**5,269**	5,161
	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	*of which: instruments issued by subsidiaries subject to phase out*	**—**	—
36	Additional Tier 1 capital before regulatory adjustments	**1,100**	1,100
	Additional Tier 1 capital: regulatory adjustments ($m)		
43	Total regulatory adjustments to Additional Tier 1 capital	**—**	—
44	Additional Tier 1 capital (AT1)	**1,100**	1,100
45	Tier 1 capital (T1 = CET1 + AT1)	**6,463**	6,266
45a	Tier 1 capital with transitional arrangements for ECL provisioning not applied	**6,369**	6,261
	Tier 2 capital: instruments and allowances ($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	**11**	33
48	Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	**—**	—
49	– of which: instruments issued by subsidiaries subject to phase out	**—**	—
50	Impairment allowances	**4**	4
51	Tier 2 capital before regulatory adjustments	**1,015**	1,037
	Tier 2 capital: regulatory adjustments ($m)		
57	Total regulatory adjustments to Tier 2 capital	**—**	—
58	Tier 2 capital (T2)	**1,015**	1,037
59	Total capital (TC = T1 + T2)	**7,478**	7,303
59a	Total capital with transitional arrangements for ECL provisioning not applied	**7,478**	7,303
60	Total risk-weighted assets (RWA)	**43,731**	43,128
	Capital ratios (%)[1]		
61	Common Equity Tier 1 (as percentage of risk-weighted assets)	**12.3**	12.0
61a	Common Equity Tier 1 with transitional arrangements for ECL provisioning not applied	**12.1**	12.0
62	Tier 1 (as percentage of risk-weighted assets)	**14.8**	14.5
62a	Tier 1 with transitional arrangements for ECL provisioning not applied	**14.6**	14.5
63	Total capital (as percentage of risk-weighted assets)	**17.1**	16.9
63a	Total capital with transitional arrangements for ECL provisioning not applied	**17.1**	16.9
	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
	Current cap on CET1 instruments subject to phase out arrangements (%)		
80	Current cap on CET1 instruments subject to phase out arrangements	**20**	20
81	Amounts excluded from CET1 due to cap (excess over cap after redemptions and maturities)	**na**	na
82	Current cap on AT1 instruments subject to phase out arrangements	**20**	20
83	Amounts excluded from AT1 due to cap (excess over cap after redemptions and maturities)	—	—
84	Current cap on T2 instruments subject to phase out arrangements	**20**	20
85	Amounts excluded from T2 due to cap (excess over cap after redemptions and maturities)	—	—

1. *"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*

Table 2 : Overview of Risk Weighted Assets (OV1)

		At		
		30 Jun 2020	31 Mar 2020	**30 Jun 2020**
		RWA[1]	RWA	**Capital requirements**[2]
		$m	$m	**$m**
1	Credit risk (excluding counterparty credit risk)	**36,613**	35,213	**2,929**
2	– of which Standardized approach (SA) [3]	**2,066**	1,855	**165**
3	– of which internal rating based (IRB) approach	**34,547**	33,358	**2,764**
4	Counterparty credit risk	**2,451**	3,429	**196**
4a	– of which credit valuation adjustment (CVA)[4]	**819**	1,036	**65**
5	– of which Standardized approach for counterparty credit risk (SA-CCR)	**1,632**	2,393	**131**
6	– of which internal model method (IMM)	**—**	—	**—**
7	Equity positions in banking book[5]	**—**	6	**—**
8	Equity investments in funds – look-through approach	**17**	—	**1**
9	Equity investments in funds – mandate-based approach	**—**	—	**—**
10	Equity investments in funds – fall-back approach	**—**	—	**—**
11	Settlement risk	**—**	—	**—**
12	Securitisation exposures in banking book	**—**	—	**—**
13	– of which IRB ratings based approach (RBA)	**—**	—	**—**
14	– of which IRB supervisory formula approach (SFA)	**—**	—	**—**
15	– of which SA/ simplified supervisory formula approach (SSFA)	**—**	—	**—**
16	Market risk	**783**	611	**63**
17	– of which Standardized approach (SA)	**108**	82	**9**
18	– of which internal model method (IMM)	**675**	529	**54**
19	Operational risk	**3,867**	3,869	**309**
20	– of which Basic indicator approach	**—**	—	**—**
21	– of which Standardized approach	**3,867**	3,869	**309**
22	– of which Advanced measurement approach	**—**	—	**—**
23	Amounts below the thresholds for deduction (subject to 250% risk weight)			**—**
24	Floor adjustment[6]	**—**	—	**—**
25	Total RWA (1+4+7+8+9+10+11+12+16+19+23+24)	**43,731**	43,128	**3,498**

1. *RWA includes 6% adjustment to IRB risk-weighted assets for scaling factor*
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*

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 3 : Credit quality of assets (CR1)

		a	b	c	d
		Gross carrying values of			
		Defaulted exposures	**Non - defaulted exposures**	**Allowances/ impairments**	**Net values (a+b-c)**
		$m	**$m**	**$m**	**$m**
1	Debt securities	**—**	**21,418**	**1**	**21,417**
2	Loans	**426**	**79,910**	**532**	**79,804**
3	Off-balance sheet exposures	**76**	**50,399**	**66**	**50,409**
4	**Total at 30 Jun 2020**	**502**	**151,727**	**599**	**151,630**
1	Debt securities	—	23,689	1	23,688
2	Loans	334	66,448	272	66,510
3	Off-balance sheet exposures	89	48,086	27	48,148
4	Total at 31 Dec 2019	423	138,223	300	138,346

Table 4 : Credit risk mitigation techniques – overview (CR3)

		Exposures unsecured: carrying amount	Exposures secured: carrying amount [2]	Exposures secured by collateral	Exposures secured by guarantees / credit derivatives
		$m	$m	$m	$m
1	Loans	**21,274**	**59,062**	**58,029**	**1,033**
2	Debt securities	**9,142**	**12,276**	**12,276**	**—**
3	**Total at 30 Jun 2020**[1]	**30,416**	**71,338**	**70,305**	**1,033**
4	Of which defaulted	**102**	**324**	**301**	**23**
1	Loans	8,712	58,070	57,358	712
2	Debt securities	12,221	11,468	11,468	—
3	Total at 31 Dec 2019[1]	20,933	69,538	68,826	712
4	Of which defaulted	82	252	251	1

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)*

Table 5 : 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	**—**	**—**	**—**	**—**	**—**	**—**
6	Corporates	**392**	**554**	**392**	**—**	**203**	**52**
7	Regulatory Retail Portfolios	**334**	**2,360**	**333**	**—**	**250**	**75**
10	Equity	**—**	**—**	**—**	**—**	**—**	**—**
13	Other assets[2]	**2,556**	**—**	**2,556**	**—**	**1,613**	**63**
14	**Total at 30 Jun 2020**	**3,282**	**2,914**	**3,281**	**—**	**2,066**	**63**
1	Sovereigns and their central banks	—	—	—	—	—	—
6	Corporates	420	550	420	—	351	84
7	Regulatory Retail Portfolios	407	2,168	405	—	305	75
10	Equity	—	—	—	—	—	—
13	Other assets[2]	1,837	—	1,837	—	1,005	55
14	Total at 31 Dec 2019	2,664	2,718	2,662	—	1,661	62

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%.*

Table 6: 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	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
6	Corporates	**77**	**140**	**—**	**—**	**175**	**—**	**—**	**392**
7	Regulatory Retail Portfolios	**—**	**—**	**—**	**331**	**2**	**—**	**—**	**333**
10	Equity	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
13	Other assets	**994**	**166**	**—**	**—**	**1,273**	**—**	**123**	**2,556**
14	**Total at 30 Jun 2020**	**1,071**	**306**	**—**	**331**	**1,450**	**—**	**123**	**3,281**
1	Sovereigns and their central banks	—	—	—	—	—	—	—	—
6	Corporates	—	87	—	—	333	—	—	420
7	Regulatory Retail Portfolios	—	—	—	403	2	—	—	405
10	Equity	—	—	—	—	—	—	—	—
13	Other assets	764	201	—	—	810	—	62	1,837
14	Total at 31 Dec 2019	764	288	—	403	1,145	—	62	2,662

Table 7: 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	RWA $m	RWA density %	Expected loss $m	Provisions $m
Sovereign												
0.00 to <0.15	**31,027**	**1,622**	**41**	**31,688**	**0.01**	**90**	**7.8**	**2.40**	**352**	**1.1**	**0.3**	**0.9**
0.15 to <0.25	**—**	**5**	**41**	**2**	**0.22**	**4**	**39.0**	**1.01**	**1**	**29.2**	**—**	**—**
0.25 to <0.50	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.50 to <0.75	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.75 to <2.50	**—**	**4**	**41**	**2**	**1.65**	**1**	**10.0**	**1.00**	**—**	**21.1**	**—**	**—**
2.50 to <10.00	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
10.00 to <100.00	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
100.00 (Default)	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	—	**—**
Sub-total	**31,027**	**1,631**	**43**	**31,692**	**0.01**	**95**	**7.8**	**2.40**	**353**	**1.1**	**0.3**	**0.9**
Banks												
0.00 to <0.15	**4,182**	**1,241**	**69**	**5,032**	**0.06**	**191**	**18.0**	**1.38**	**379**	**7.5**	**0.6**	**0.2**
0.15 to <0.25	**10**	**10**	**20**	**12**	**0.22**	**9**	**35.7**	**0.12**	**3**	**25.0**	**—**	**—**
0.25 to <0.50	**5**	**5**	**20**	**6**	**0.37**	**10**	**35.1**	**0.20**	**2**	**33.3**	**—**	**—**
0.50 to <0.75	**—**	**4**	**20**	**1**	**0.63**	**3**	**34.5**	**0.10**	**—**	**—**	**—**	**—**
0.75 to <2.50	**2**	**2**	**20**	**3**	**1.13**	**10**	**48.3**	**0.10**	**3**	**100.0**	**—**	**—**
2.50 to <10.00	**1**	**—**	**—**	**1**	**5.75**	**1**	**55.8**	**2.50**	**2**	**200.0**	**—**	**—**
10.00 to <100.00	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
100.00 (Default)	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Sub-total	**4,200**	**1,262**	**68**	**5,055**	**0.06**	**224**	**18.1**	**1.37**	**389**	**7.7**	**0.6**	**0.2**
Corporate – SME												
0.00 to <0.15	**276**	**648**	**42**	**547**	**0.09**	**114**	**41.7**	**1.84**	**96**	**17.6**	**0.2**	**0.3**
0.15 to <0.25	**826**	**800**	**42**	**1,161**	**0.22**	**673**	**31.5**	**1.82**	**296**	**25.5**	**0.8**	**1.0**
0.25 to <0.50	**1,281**	**1,026**	**41**	**1,702**	**0.37**	**709**	**31.5**	**2.11**	**612**	**36.0**	**2.0**	**3.3**
0.50 to <0.75	**1,569**	**1,395**	**41**	**2,142**	**0.63**	**682**	**31.6**	**1.90**	**953**	**44.5**	**4.3**	**6.5**
0.75 to <2.50	**4,525**	**2,755**	**43**	**5,699**	**1.26**	**1,785**	**30.9**	**1.84**	**3,209**	**56.3**	**22.2**	**26.6**
2.50 to <10.00	**920**	**630**	**43**	**1,189**	**4.99**	**516**	**28.6**	**1.66**	**922**	**77.5**	**16.6**	**15.7**
10.00 to <100.00	**411**	**218**	**43**	**506**	**15.15**	**187**	**30.9**	**1.66**	**617**	**121.9**	**23.0**	**24.0**
100.00 (Default)	**229**	**18**	**43**	**237**	**100.00**	**84**	**49.0**	**1.44**	**323**	**136.3**	**107.5**	**107.7**
Sub-total	**10,037**	**7,490**	**42**	**13,183**	**3.55**	**4,750**	**31.7**	**1.85**	**7,028**	**53.3**	**176.6**	**185.1**
Corporate – Other												
0.00 to <0.15	**3,403**	**8,912**	**43**	**7,263**	**0.08**	**359**	**45.5**	**1.99**	**1,718**	**23.7**	**2.6**	**5.5**
0.15 to <0.25	**2,940**	**4,808**	**44**	**5,061**	**0.22**	**457**	**38.5**	**1.89**	**1,928**	**38.1**	**4.3**	**5.4**
0.25 to <0.50	**4,539**	**4,335**	**42**	**6,368**	**0.37**	**379**	**35.3**	**1.86**	**2,894**	**45.4**	**8.3**	**10.8**
0.50 to <0.75	**4,402**	**3,748**	**42**	**5,973**	**0.63**	**543**	**33.7**	**1.72**	**3,271**	**54.8**	**12.7**	**18.7**
0.75 to <2.50	**7,480**	**7,076**	**42**	**10,445**	**1.32**	**1,182**	**36.2**	**1.90**	**8,255**	**79.0**	**50.4**	**65.0**
2.50 to <10.00	**1,940**	**1,723**	**44**	**2,694**	**4.97**	**310**	**36.1**	**1.74**	**3,208**	**119.1**	**47.2**	**84.0**
10.00 to <100.00	**532**	**496**	**44**	**749**	**18.51**	**93**	**37.4**	**1.70**	**1,225**	**163.6**	**52.7**	**56.2**
100.00 (Default)	**137**	**45**	**43**	**157**	**100.00**	**18**	**54.1**	**1.25**	**324**	**206.4**	**91.5**	**90.8**
Sub-total	**25,373**	**31,143**	**43**	**38,710**	**1.67**	**3,341**	**37.8**	**1.86**	**22,823**	**59.0**	**269.7**	**336.4**
Wholesale AIRB - Total at 30 Jun 2020	**70,637**	**41,526**	**43**	**88,640**	**1.26**	**8,410**	**25.0**	**2.03**	**30,593**	**34.5**	**447.2**	**522.6**

Table 7: 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	**16,261**	**1**	**—**	**16,261**	**0.06**	**38,817**	**17.0**	**—**	**492**	**3.0**	**1.7**	**3.1**
0.15 to <0.25	**4,969**	**—**	**—**	**4,969**	**0.19**	**10,306**	**18.0**	**—**	**360**	**7.2**	**1.7**	**1.7**
0.25 to <0.50	**3,020**	**—**	**—**	**3,020**	**0.32**	**5,662**	**17.1**	**—**	**310**	**10.3**	**1.7**	**2.6**
0.50 to <0.75	**1,079**	**—**	**—**	**1,079**	**0.55**	**2,104**	**18.1**	**—**	**172**	**15.9**	**1.1**	**0.7**
0.75 to <2.50	**1,303**	**—**	**—**	**1,303**	**1.62**	**2,609**	**17.3**	**—**	**404**	**31.0**	**3.7**	**2.2**
2.50 to <10.00	**503**	**—**	**—**	**503**	**4.66**	**1,119**	**16.5**	**—**	**274**	**54.5**	**3.9**	**6.0**
10.00 to <100.00	**209**	**—**	**—**	**209**	**26.00**	**418**	**16.7**	**—**	**215**	**102.9**	**9.1**	**3.2**
100.00 (Default)	**43**	**—**	**—**	**43**	**100.00**	**153**	**21.2**	**—**	**120**	**279.1**	**—**	**11.5**
Sub-total	**27,387**	**1**	**—**	**27,387**	**0.65**	**61,188**	**17.3**	**—**	**2,347**	**8.6**	**22.9**	**31.0**
HELOC												
0.00 to <0.15	**5**	**—**	**—**	**5**	**0.06**	**26**	**15.7**	**—**	**—**	**2.9**	**—**	**—**
0.15 to <0.25	**6**	**—**	**—**	**6**	**0.23**	**17**	**19.6**	**—**	**1**	**16.7**	**—**	**—**
0.25 to <0.50	**756**	**2,774**	**26**	**1,489**	**0.39**	**17,766**	**18.0**	**—**	**185**	**12.4**	**1.0**	**0.3**
0.50 to <0.75	**125**	**340**	**29**	**222**	**0.53**	**1,417**	**16.7**	**—**	**32**	**14.4**	**0.2**	**—**
0.75 to <2.50	**492**	**642**	**35**	**720**	**1.06**	**5,764**	**18.5**	**—**	**180**	**25.0**	**1.4**	**0.7**
2.50 to <10.00	**180**	**95**	**38**	**216**	**4.19**	**1,299**	**18.0**	**—**	**120**	**55.6**	**1.6**	**2.2**
10.00 to <100.00	**35**	**3**	**52**	**37**	**27.18**	**187**	**19.4**	**—**	**44**	**118.9**	**1.9**	**0.7**
100.00 (Default)	**7**	**8**	**—**	**7**	**100.00**	**96**	**20.6**	**—**	**18**	**257.1**	**—**	**0.4**
Sub-total	**1,606**	**3,862**	**28**	**2,702**	**1.51**	**26,572**	**18.1**	**—**	**580**	**21.5**	**6.1**	**4.3**
Retail Qualifying revolving exposures												
0.00 to <0.15	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.15 to <0.25	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.25 to <0.50	**47**	**686**	**19**	**178**	**0.31**	**40,135**	**54.1**	**—**	**16**	**9.0**	**—**	**1.0**
0.50 to <0.75	**—**	**—**	**—**	**—**	**—**		**—**	**—**	**—**	**—**	**—**	**—**
0.75 to <2.50	**65**	**172**	**26**	**110**	**1.16**	**16,997**	**67.8**	**—**	**34**	**30.9**	**1.0**	**2.0**
2.50 to <10.00	**52**	**55**	**38**	**73**	**4.22**	**6,782**	**72.1**	**—**	**60**	**82.2**	**2.0**	**6.0**
10.00 to <100.00	**9**	**9**	**32**	**12**	**23.73**	**1,018**	**69.2**	**—**	**23**	**191.7**	**2.0**	**2.0**
100.00 (Default)	**2**	**2**	**—**	**2**	**100.00**	**315**	**70.3**	**—**	**19**	**950.0**	**—**	**1.0**
Sub-total	**175**	**924**	**22**	**375**	**2.60**	**65,247**	**62.2**	**—**	**152**	**40.5**	**5.0**	**12.0**
Retail SME												
0.00 to <0.15	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.15 to <0.25	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.25 to <0.50	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.50 to <0.75	**121**	**136**	**100**	**256**	**0.64**	**1,810**	**51.6**	**—**	**113**	**44.1**	**0.8**	**0.7**
0.75 to <2.50	**68**	**36**	**99**	**104**	**2.24**	**712**	**51.7**	**—**	**75**	**72.1**	**1.2**	**0.7**
2.50 to <10.00	**9**	**13**	**97**	**22**	**7.30**	**577**	**41.1**	**—**	**15**	**68.2**	**0.6**	**0.3**
10.00 to <100.00	**5**	**2**	**100**	**7**	**24.99**	**251**	**46.2**	**—**	**8**	**114.3**	**0.8**	**0.3**
100.00 (Default)	**3**	**—**	**—**	**3**	**100.00**	**553**	**66.8**	**—**	**26**	**866.7**	**0.1**	**1.6**
Sub-total	**206**	**187**	**100**	**392**	**2.63**	**3,903**	**51.1**	**—**	**237**	**60.5**	**3.5**	**3.6**
Retail Other												
0.00 to <0.15	**129**	**—**	**—**	**129**	**0.11**	**556**	**40.3**	**—**	**15**	**11.6**	**0.1**	**1.0**
0.15 to <0.25	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.25 to <0.50	**171**	**450**	**25**	**284**	**0.26**	**10,641**	**27.5**	**—**	**42**	**14.8**	**0.2**	**0.6**
0.50 to <0.75	**354**	**142**	**35**	**404**	**0.53**	**8,130**	**44.6**	**—**	**141**	**34.9**	**0.9**	**3.0**
0.75 to <2.50	**33**	**55**	**31**	**50**	**1.49**	**1,242**	**24.1**	**—**	**15**	**30.0**	**0.2**	**0.2**
2.50 to <10.00	**40**	**11**	**55**	**46**	**3.35**	**878**	**22.2**	**—**	**15**	**32.6**	**0.4**	**0.7**
10.00 to <100.00	**24**	**4**	**66**	**26**	**18.19**	**4,748**	**29.2**	**—**	**16**	**61.5**	**1.3**	**2.2**
100.00 (Default)	**2**	**—**	**—**	**2**	**100.00**	**1,872**	**39.3**	**—**	**9**	**450.0**	**0.3**	**0.7**
Sub-total	**753**	**662**	**31**	**941**	**1.28**	**28,067**	**36.2**	**—**	**253**	**26.9**	**3.4**	**8.4**
Total Retail at 30 Jun 2020	**30,127**	**5,636**	**30**	**31,797**	**0.78**	**184,977**	**18.8**	**—**	**3,569**	**11.2**	**40.9**	**59.3**

Table 7: 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	RWAs $m	RWA density %	Expected loss $m	Provisions $m
Sovereign												
0.00 to <0.15	20,401	1,427	41	20,987	0.02	86	7.0	3.31	491	2.3	0.3	0.8
0.15 to <0.25	—	5	41	2	0.22	5	39.0	1	1	29.2	—	—
0.25 to <0.50	—	—	—	—	—	—	—	—	—	—	—	—
0.50 to <0.75	1	—	41	1	0.63	5	39.5	2.57	1	72.5	—	—
0.75 to <2.50	—	2	47	1	1.12	4	17.1	0.82	—	29.1	—	—
2.50 to <10.00	—	—	—	—	—	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	—
Sub-total	20,402	1,434	43	20,991	0.02	100	7.0	3.31	493	2.3	0.3	0.8
Banks												
0.00 to <0.15	4,466	1,086	76	5,287	0.05	168	17.7	1.48	375	7.1	0.6	0.14
0.15 to <0.25	4	1	20	4	0.22	12	34.2	0.1	1	24.6	—	—
0.25 to <0.50	3	—	20	3	0.37	3	35.0	0.27	1	39.2	—	—
0.50 to <0.75	—	3	20	1	0.63	3	35.0	0.11	—	51.5	—	—
0.75 to <2.50	1	2	20	2	1.00	8	49.0	0.19	2	91.3	—	—
2.50 to <10.00	1	—	—	1	5.75	1	55.8	2.5	2	246.4	—	—
10.00 to <100.00	—	—	—	—	—	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	—
Sub-total	4,475	1,092	76	5,298	0.05	195	17.7	1.48	381	7.2	0.6	0.1
Corporate – SME												
0.00 to <0.15	170	388	41	331	0.10	110	37.3	1.77	58	17.5	0.1	0.1
0.15 to <0.25	1,318	964	42	1,719	0.22	742	30.8	1.86	433	25.2	1.2	0.41
0.25 to <0.50	1,475	1,004	41	1,888	0.37	814	31.3	1.94	653	34.6	2.2	1.23
0.50 to <0.75	1,962	1,572	43	2,630	0.63	739	31.1	1.87	1,175	44.7	5.1	2.29
0.75 to <2.50	4,141	2,261	44	5,124	1.21	1,663	31.2	1.79	2,837	55.4	19.4	6.9
2.50 to <10.00	1,028	510	42	1,242	4.59	524	30.0	1.62	988	79.5	17	8.95
10.00 to <100.00	266	129	42	321	20.33	130	29.7	1.64	363	113.1	19.8	11.68
100.00 (Default)	149	21	42	158	100.00	68	54.5	1.19	199	126.2	92.8	92.7
Sub-total	10,509	6,849	42	13,413	2.80	4,790	31.4	1.81	6,706	50.0	157.6	124.3
Corporate – Other												
0.00 to <0.15	3,614	10,221	43	7,999	0.08	433	46.1	1.98	1,903	23.8	2.9	1.6
0.15 to <0.25	3,651	4,165	44	5,488	0.22	473	36.7	1.98	2,019	36.8	4.4	2
0.25 to <0.50	5,020	4,912	43	7,136	0.37	489	36.1	1.92	3,311	46.4	9.5	6.7
0.50 to <0.75	5,003	3,833	43	6,645	0.63	465	34.5	1.82	3,812	57.4	14.4	7.1
0.75 to <2.50	5,965	4,968	42	8,067	1.22	1,233	36.0	1.93	6,211	77.0	35.3	23.4
2.50 to <10.00	1,108	1,819	42	1,880	4.67	245	34.6	1.51	2,047	108.9	30	13.5
10.00 to <100.00	415	324	42	551	13.36	67	33.0	1.34	801	145.4	25	23.1
100.00 (Default)	124	56	46	150	100.00	22	33.5	1.35	209	139.3	38.5	34
Sub-total	24,900	30,298	43	37,916	1.30	3,427	37.9	1.89	20,313	53.6	160	111.4
Wholesale AIRB - Total at 31 Dec 2019	60,286	39,673	44	77,618	1.13	8,512	27.0	2.23	27,893	35.9	318.5	236.6

PD scale	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	RWAs	RWA density	Expected loss	Provisions
	$m	$m	%	$m	%		%	years	$m	%	$m	$m
Retail Residential Mortgages												
0.00 to <0.15	16,846	1	—	16,847	0.06	39,895	17.7	—	507	3.0	1.8	3
0.15 to <0.25	5,193	—	—	5,194	0.19	9,928	18.3	—	389	7.5	1.8	1.2
0.25 to <0.50	1,783	—	—	1,783	0.32	3,622	16.8	—	179	10.1	1	1.3
0.50 to <0.75	1,073	—	—	1,073	0.57	1,994	18.1	—	176	16.4	1.1	0.4
0.75 to <2.50	911	—	—	911	1.98	2,073	17.3	—	324	35.5	3.1	0.8
2.50 to <10.00	267	—	—	267	5.29	692	17.3	—	166	62.1	2.4	0.5
10.00 to <100.00	158	—	—	158	25.66	388	16.7	—	162	103.0	6.7	8
100.00 (Default)	45	—	—	45	100.00	143	20.8	—	124	273.9	0.1	8.4
Sub-total	26,276	1	—	26,278	0.60	58,735	17.8	—	2,027	7.7	18	23.6
HELOC												
0.00 to <0.15	6	—	—	6	0.06	35	18.0	—	—	3.1	—	—
0.15 to <0.25	4	—	—	4	0.19	19	18.1	—	—	7.4	—	—
0.25 to <0.50	1,086	3,241	28	1,988	0.38	20,635	17.7	—	240	12.0	1.4	0.8
0.50 to <0.75	—	—	—	—	—	—	—	—	—	—		
0.75 to <2.50	406	492	37	586	1.10	4,591	18.5	—	148	25.3	1.2	1
2.50 to <10.00	134	17	37	140	4.76	811	18.1	—	87	61.7	1.2	0.7
10.00 to <100.00	40	3	47	41	27.36	172	18.0	—	46	111.5	2	0.8
100.00 (Default)	5	8	—	5	100.00	85	19.6	—	14	257.4	—	0.4
Sub-total	1,681	3,761	30	2,770	1.40	26,348	17.9	—	535	19.3	5.8	3.7
Retail Qualifying revolving												
0.00 to <0.15	65	667	20	200	0.31	40,153	57.182	—	19	9.4	0.3	0.6
0.15 to <0.25	70	146	28	112	1.16	15,739	69.367	—	35	31.6	0.9	1.7
0.25 to <0.50	—	—	—	—	—	—	—	—	—	—	—	—
0.50 to <0.75	—	—	—	—	—	—	—	—	—	—	—	—
0.75 to <2.50	—	—	—	—	—	—	—	—	—	—	—	—
2.50 to <10.00	55	46	39	73	4.29	6,311	72.084	—	61	83.6	2.3	5.9
10.00 to <100.00	8	8	33	10	23.61	886	69.909	—	21	197.7	1.7	1.8
100.00 (Default)	2	2	—	2	100.00	285	68.342	—	17	889.7	—	1.1
Sub-total	200	869	23	397	2.40	63,374	63.7	—	152	38.4	5.2	11.1
Retail SME												
0.00 to <0.15	—	—	—	—	—	—	—	—	—	—	—	—
0.15 to <0.25	—	—	—	—	—	—	—	—	—	—	—	—
0.25 to <0.50	—	—	—	—	—	—	—	—	—	—	—	—
0.50 to <0.75	21	128	100	148	0.71	1,292	45.565	—	61	41.3	0.47	—
0.75 to <2.50	150	39	99	190	2.19	1,193	57.877	—	153	80.6	2.4	0.8
2.50 to <10.00	17	22	97	38	7.53	750	40.041	—	25	66.4	1.1	0.7
10.00 to <100.00	7	2	99	9	23.37	331	48.238	—	11	118.5	1	0.2
100.00 (Default)	3	—	—	3	100.00	363	71.535	—	25	940.9	0.1	1.5
Sub-total	198	191	100	388	3.30	3,929	51.3	—	275	70.9	5.1	3.2
Retail Other												
0.00 to <0.15	162	1	—	162	0.10	630	34	—	16	9.9	0.1	0.3
0.15 to <0.25	—	—	—	—	—	—	—	—	—	—	—	—
0.25 to <0.50	198	486	28	332	0.26	10,691	24.443	—	42	12.7	0.3	0.2
0.50 to <0.75	338	105	33	372	0.53	7,373	47.277	—	137	36.8	0.9	2
0.75 to <2.50	33	44	34	48	1.49	934	23.365	—	14	29.1	0.2	0.2
2.50 to <10.00	47	18	41	55	3.32	971	21.807	—	18	32.9	0.4	0.2
10.00 to <100.00	20	5	75	24	21.60	6,177	33.293	—	17	72.6	1.9	2.2
100.00 (Default)	1	—	—	1	100.00	2,732	32.5	—	3	398.5	0.4	0.1
Sub-total	799	659	31	994	1.20	29,508	34.6	—	247	24.9	4.2	5.2
Total Retail at 31 Dec 2019	29,154	5,481	30	30,827	0.72	181,894	19.3	—	3,236	11.1	38.3	46.8

Table 8 : RWA flow statements of credit risk exposures under the IRB approach (CR8)

		RWA[2]	Capital requirements[3]
		$m	$m
1	RWA at the beginning of the period - 1 Apr 2020	**33,358**	**2,669**
2	Asset size[1]	(1,191)	(95)
3	Asset quality	2,380	190
4	Model updates	—	—
5	Methodology and policy	—	—
6	Acquisitions and disposals	—	—
7	Foreign exchange movements	—	—
8	Other	—	—
9	RWA at the end of the period - 30 Jun 2020	**34,547**	**2,764**

1. *Foreign exchange movements are embedded in the asset size*
2. *RWA includes 6% adjustment to IRB risk-weighted assets for scaling factor*
3. *'Capital requirement' represents the minimum total capital charge set at 8% of RWAs under the OSFI CAR guidelines*

Table 9: Specialized lending on slotting approach and Equities under simple risk-weight method (CR10)

		Specialized Lending - Other than HVCRE									
		On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount					RWA[3]	Expected loss
					PF[2]	OF	CF	IPRE	Total		
Regulatory categories[1]	Regulatory maturity	$m	$m	%	$m	$m	$m	$m	$m	$m	$m
Strong	Less than 2.5 years	**—**	**—**	**50**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
	Equal to or more than 2.5 years	**163**	**326**	**70**	**297**	**—**	**—**	**—**	**297**	**208**	**1**
Good	Less than 2.5 years	**—**	**—**	**70**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
	Equal to or more than 2.5 years	**1**	**—**	**90**	**1**	**—**	**—**	**—**	**1**	**1**	**—**
Satisfactory		**103**	**73**	**115**	**129**	**—**	**—**	**5**	**134**	**154**	**4**
Weak		**—**	**—**	**250**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Default		**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
	Total at 30 Jun 2020	**267**	**399**		**427**	**—**	**—**	**5**	**432**	**363**	**5**
Strong	Less than 2.5 years	—	—	50	—	—	—	—	—	—	—
	Equal to or more than 2.5 years	108	294	70	228	—	—	5	228	160	1
Good	Less than 2.5 years	—	—	70	—	—	—	—	—	—	—
	Equal to or more than 2.5 years	—	—	90	—	—	—	—	—	—	—
Satisfactory		94	11	115	95	—	—	—	100	115	3
Weak		—	—	250	—	—	—	—	—	—	—
Default		—	—	—	—	—	—	—	—	—	—
	Total at 31 Dec 2019	202	305		323	—	—	5	328	275	4

1. *Regulatory categories are defined under paragraph 88 of OSFI CAR guidelines*
2. *'PF: Project finance, OF: Object finance, CF: Commodities finance & IPRE: Income producing real estate*
3. *RWAs are pre 6% adjustment to IRB risk-weighted assets for scaling factor*

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

		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)	**1,116**	**1,493**	**—**	**1.4**	**3,653**	**1,583**
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)	**—**	**—**	**—**	**—**	**162**	**41**
5	VaR for SFTs	**—**	**—**	**—**	**—**	**—**	**—**
6	**Total at 30 Jun 2020**	**1,116**	**1,493**	**—**	**1.4**	**3,815**	**1,624**
1	SA-CCR (for derivatives)	631	1,429	—	1.4	2,885	1,155
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)	—	—	—	—	165	34
5	VaR for SFTs	—	—	—	—	—	—
6	Total at 31 Dec 2019	631	1,429	—	1.4	3,050	1,189

Table 11: Credit valuation adjustment (CVA) capital charge (CCR2)

		At 30 Jun 2020		At 31 Dec 2019	
		EAD post-CRM	**RWA**	EAD post-CRM	RWA[1]
		$m	**$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	**2,557**	**819**	2,019	547
5	**Total subject to the CVA capital charge**	**2,557**	**819**	2,019	547

1. *For year 2018, CVA RWAs were calculated using the scalers of 0.80, 0.83 and 0.86 to compute CET1 capital ratio, Tier 1 capital ratio and Total capital ratio, respectively, including regulatory floor adjustment. For year 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.*

Table 12: CCR exposures by portfolio and PD scale (CCR4)

PD scale	EAD post-CRM	Average PD	Number of obligors	Average LGD	Average maturity	RWA	RWA density
	$mn	%		%	years	$mn	%
Sovereign							
0.00 to <0.15	**385**	**0.02**	**58**	**10.0**	**1.74**	**9**	**2.3**
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	**385**	**0.02**	**58**	**10.0**	**1.74**	**9**	**2.3**
Banks							
0.00 to <0.15	**968**	**0.12**	**38**	**27.5**	**1.48**	**207**	**21.4**
0.15 to <0.25	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.25 to <0.50	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.50 to <0.75	**—**	**—**	**—**	**—**	**—**	**—**	**—**
0.75 to <2.50	**12**	**0.87**	**1**	**27.2**	**5.00**	**9**	**75.0**

2.50 to <10.00	**—**	**—**	**—**	**—**	**—**	**—**	**—**
10.00 to <100.00	**—**	**—**	**—**	**—**	**—**	**—**	**—**
100.00 (Default)	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Sub-total	**980**	**0.13**	**39**	**27.5**	**1.52**	**216**	**22.0**
Corporate – SME							
0.00 to <0.15	**3**	**0.13**	**6**	**52.0**	**1.15**	**1**	**33.3**
0.15 to <0.25	**15**	**0.22**	**18**	**52.0**	**3.41**	**10**	**66.7**
0.25 to <0.50	**10**	**0.37**	**21**	**52.0**	**1.63**	**6**	**60.0**
0.50 to <0.75	**24**	**0.63**	**27**	**52.0**	**4.14**	**29**	**120.8**
0.75 to <2.50	**38**	**1.42**	**82**	**52.0**	**3.57**	**55**	**144.7**
2.50 to <10.00	**2**	**4.80**	**17**	**52.0**	**1.09**	**3**	**150.0**
10.00 to <100.00	**1**	**11.86**	**9**	**52.0**	**1.00**	**1**	**100.0**
100.00 (Default)	**1**	**100.00**	**1**	**52.0**	**1.00**	**1**	**100.0**
Sub-total	**94**	**1.05**	**181**	**52.0**	**3.35**	**106**	**112.8**
Corporate – Other							
0.00 to <0.15	**1,305**	**0.07**	**198**	**52.0**	**1.64**	**303**	**23.2**
0.15 to <0.25	**190**	**0.22**	**128**	**52.0**	**1.56**	**96**	**50.5**
0.25 to <0.50	**345**	**0.37**	**84**	**52.0**	**2.49**	**255**	**73.9**
0.50 to <0.75	**104**	**0.63**	**46**	**52.0**	**2.04**	**91**	**87.5**
0.75 to <2.50	**335**	**1.45**	**203**	**52.0**	**2.19**	**414**	**123.6**
2.50 to <10.00	**75**	**4.91**	**30**	**52.0**	**1.67**	**126**	**168.0**
10.00 to <100.00	**3**	**21.07**	**8**	**52.0**	**2.31**	**8**	**266.7**
100.00 (Default)	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Sub-total	**2,357**	**0.53**	**697**	**52.0**	**1.85**	**1,293**	**54.9**
Grand-total at 30 Jun 2020	**3,816**	**0.39**	**975**	**41.5**	**1.79**	**1,624**	**42.6**
Sovereign							
0.00 to <0.15	434	0.04	57	10.0	1.32	10	2.3
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	434	0.04	57	10.0	1.32	10	2.3
Banks							
0.00 to <0.15	974	0.12	43	27.4	1.14	199	20.4
0.15 to <0.25	—	—	—	—	—	—	—
0.25 to <0.50	—	—	—	—	—	—	—
0.50 to <0.75	—	—	—	—	—	—	—
0.75 to <2.50	6	0.87	1	27.0	5.00	5	75.0
2.50 to <10.00	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—
Sub-total	980	0.12	44	28.0	1.16	204	20.8
Corporate – SME							
0.00 to <0.15	2	0.13	7	52.0	1.00	1	30.0
0.15 to <0.25	4	0.22	13	52.0	3.70	3	0.7
0.25 to <0.50	7	0.37	23	52.0	2.10	5	0.7
0.50 to <0.75	13	0.63	33	52.0	3.90	14	1.1
0.75 to <2.50	12	1.34	54	52.0	2.40	15	1.2
2.50 to <10.00	4	6.01	18	52.0	1.20	7	1.7
10.00 to <100.00	1	12.79	7	52.0	1.00	3	2.6
100.00 (Default)	—	100	1	—	1.00	2	6.9
Sub-total	43	2.20	156.0	52.0	2.70	50	116.3
Corporate – Others							
0.00 to <0.15	832	0.09	97	52.0	1.90	233	30.0
0.15 to <0.25	200	0.22	47	52.0	2.60	115	60.0
0.25 to <0.50	174	0.37	96	52.0	2.10	130	70.0
0.50 to <0.75	100	0.63	56	52.0	1.90	85	90.0
0.75 to <2.50	255	1.42	394	52.0	1.40	308	120.0
2.50 to <10.00	33	3.62	14	52.0	2.20	54	160.0
10.00 to <100.00	—	—	—	—	—	—	—

100.00 (Default)	—	—	—	—	—	—	—
Sub-total	1,594	0.46	704	52.0	1.95	925	58.0
Grand-total at 31 Dec 2019	3,051	0.32	961	38.3	1.62	1,189	39.0

Table 13: 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	**—**	**64**		**353**	**—**	**—**
2	Cash – other currencies	**—**	**12**		**619**	**—**	**—**
3	Domestic sovereign debt	**—**	**104**	**103**	**111**	**—**	**102**
4	Other sovereign debt	**—**	**—**	**—**	**—**	**—**	**—**
5	Government agency debt	**—**	**—**	**—**	**—**	**—**	**—**
6	Corporate bonds	**—**	**—**	**—**	**—**	**—**	**—**
7	Equity securities	**—**	**—**	**—**	**—**	**—**	**—**
8	Other collateral	**—**	**—**	**—**	**—**	**—**	**—**
9	**Total at 30 Jun 2020**	**—**	**180**	**103**	**1,083**	**—**	**102**
1	Cash – domestic currency	—	18	—	240	—	—
2	Cash – other currencies	—	192	—	268	—	—
3	Domestic sovereign debt	—	2	48	73	—	67
4	Other sovereign debt	—	—	—	—	—	—
5	Government agency debt	—	—	—	—	—	—
6	Corporate bonds	—	—	—	—	—	—
7	Equity securities	—	—	—	—	—	—
8	Other collateral	—	—	—	—	—	—
9	Total at 31 Dec 2019	—	212	48	581	—	67

Table 14: Exposures to central counterparties (CCPs) - CCR8

		At 30 Jun 2020		At 31 Dec 2019	
		EAD post-CRM	RWA	EAD post-CRM	RWA
		$m	$m	$m	$m
1	**Exposures to QCCPs (total)**	**296**	**8**	391	17
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	**285**	**6**	308	7
3	– OTC derivatives	**176**	**4**	291	7
4	– exchange-traded derivatives	**6**	**—**	17	—
5	– securities financing transactions	**103**	**2**	—	—
6	– netting setts where cross-products netting has been approved	**—**	**—**	—	—
7	Segregated initial margin	**—**	**—**	67	1
8	Non-segregated initial margin	**—**	**—**	—	—
9	Pre-funded default fund contributions	**11**	**2**	16	9
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 15: Market risk under standardised approach (MR1)

		At		
		30 Jun 2020	31 Dec 2019	**30 Jun 2020**
		RWA	RWA	**Capital requirements**
		$m	$m	**$m**
	Outright products			
1	Interest rate risk (general and specific)	**108**	160	**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**	**108**	160	**9**

Table 16 : RWA flow statement of market risk exposures under Internal Model Approach (MR2)

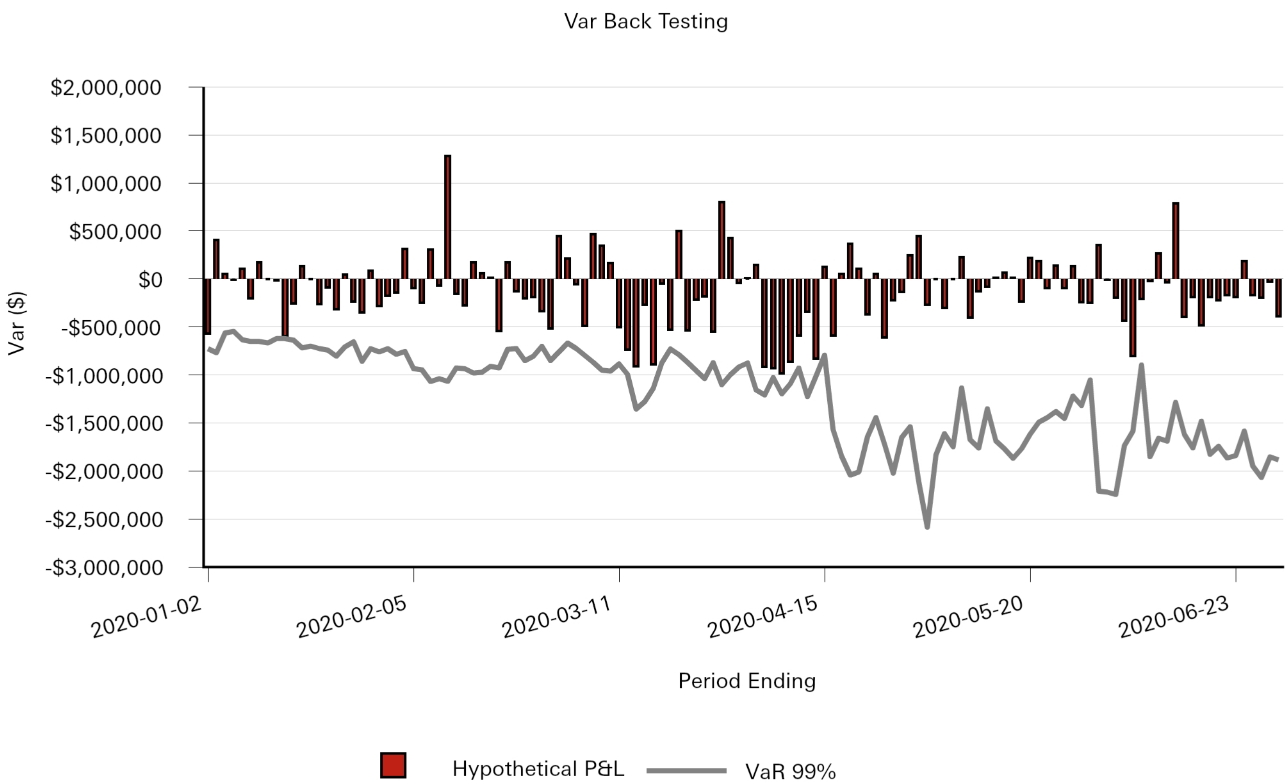
		VaR	Stressed VaR	Other	Total RWA
		$m	$m	$m	$m
1	RWA at the beginning of the period - 1 Apr 2020	**134**	**335**	**60**	**529**
2	Movement in risk levels[1]	**125**	**16**	**5**	**146**
3	Model updates/changes	**—**	**—**	**—**	**—**
4	Methodology and policy	**—**	**—**	**—**	**—**
8	RWA at the end of the period - 30 Jun 2020	**259**	**351**	**65**	**675**

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

Table 17: IMA values for trading portfolios (MR3)

	At	
	30 June 2020	31 Dec 2019
	$'000	$'000
VaR		
1 Maximum value	**8,175**	6,049
2 Average value	**5,107**	4,769
3 Minimum value	**2,507**	3,274
4 Period end	**6,014**	4,480
Stressed VaR		
5 Maximum value	**9,837**	12,073
6 Average value	**7,079**	9,142
7 Minimum value	**5,278**	7,194
8 Period end	**5,850**	11,051
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)	**—**	—

Table 18: Comparison of VaR estimates with gains/losses (MR4)



There were no back-testing exceptions noted for the first half of the year 2020.

Leverage

Table 19 : Summary comparison of accounting assets vs. leverage ratio exposure measure (LR1)

		At	
		30 Jun 2020	31 Mar 2020
		$m	$m
1	Total consolidated assets as per published financial statements	**124,621**	125,474
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	**(3,772)**	(5,691)
6	Adjustment for securities financing transactions (i.e. repurchase agreements and similar secured lending)	**68**	82
7	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	**15,155**	14,278
8	Other adjustments[1]	**(17,911)**	(8,595)
9	Leverage ratio exposure measure	**118,161**	125,548

1. *Effective Q12020, OSFI temporarily allows the exclusion of central bank reserves and sovereign-issued securities that qualify as High Quality Liquid assets (HQLA) from the leverage ratio exposure measure, until 30th April 2021. Asset amounts deducted in determining Basel III Tier 1 capital are also included as a deduction*

Table 20 : Leverage Ratio Common Disclosure Template (LR2)

		At	
		30 Jun 2020	31 Mar 2020
		$m	$m
	On-balance sheet exposures		
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)[1]	**90,448**	101,694
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)	**(972)**	(2,482)
4	(Asset amounts deducted in determining Basel III Tier 1 capital)	**(347)**	(347)
5	Total on-balance sheet exposures (excluding derivatives and SFTs) (Sum of lines 1 to 4)	**89,129**	98,865
	Derivative exposures		
6	Replacement cost associated with all derivative transactions (i.e. net of eligible cash variation margin)	**1,673**	3,381
7	Add-on amounts for PFE associated with all derivative transactions	**2,162**	2,419
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)	**3,835**	5,800
	Securities financing transaction exposures		
12	Gross SFT assets recognized for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions	**11,065**	9,983
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	**(1,091)**	(3,460)
14	Counterparty credit risk (CCR) exposure for SFTs	**68**	82
15	Agent transaction exposures	**—**	—
16	Total securities financing transaction exposures (sum of lines 12 to 15)	**10,042**	6,605
	Other off-balance sheet exposures		
17	Off-balance sheet exposure at gross notional amount	**50,475**	47,210
18	(Adjustments for conversion to credit equivalent amounts)	**(35,320)**	(32,932)
19	Off-balance sheet items (sum of lines 17 and 18)	**15,155**	14,278
	Capital and Total Exposures		
20	Tier 1 capital	**6,463**	6,266
21	Total Exposures (sum of lines 5, 11, 16 and 19)	**118,161**	125,548
	Leverage Ratios (%)		
22	Leverage ratio	**5.5**	5.0
22a	Leverage ratio with transitional arrangements for ECL provisioning not applied	**5.4**	5.0

1. *Effective Q12020, OSFI temporarily allows the exclusion of central bank reserves and sovereign-issued securities that qualify as High Quality Liquid assets (HQLA) from the leverage ratio exposure measure, until 30th April 2021*

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.
- **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 capita**l 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