

2021
HSBC Bank Canada
Regulatory Capital & Risk Management

Pillar 3 Supplementary Disclosures
As at March 31, 2021



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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 2020 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 2020 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 31 December 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	2020 Annual Report
Capital disclosure	CC1	Composition of Regulatory Capital	Quarterly	
Overview of risk management	OVA	Bank risk management approach	Annually	34-38
	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		
	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	na ¹	
Credit risk	CRA	General information about credit risk	Annually	38-39
	CR1	Credit quality of assets	Semi-annually	41
	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	54
	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	79-80
	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	Semi-annually	
	CCR6	Credit derivatives exposures	na ¹	
	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		
	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	na ²	
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 31st March 2021

Table 1 : Composition of Regulatory Capital (CC1)

		All-in Basis ¹	
		At	
		31 Mar 2021	31 Dec 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	3,788	3,808
3	Accumulated other comprehensive income (and other reserves)	145	249
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	5,658	5,782
Common Equity Tier 1 capital: regulatory adjustments (\$m)			
28	Total regulatory adjustments to Common Equity Tier 1	(292)	(308)
29	Common Equity Tier 1 capital (CET1)	5,366	5,474
29a	Common Equity Tier 1 capital (CET1) with transitional arrangements for ECL provisioning not applied	5,366	5,460
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)	6,466	6,574
45a	Tier 1 capital with transitional arrangements for ECL provisioning not applied	6,466	6,560
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	11
48	(amount allowed in group Tier 2)	–	–
49	– of which: instruments issued by subsidiaries subject to phase out	–	–
50	Impairment allowances	3	4
51	Tier 2 capital before regulatory adjustments	1,014	1,015
Tier 2 capital: regulatory adjustments (\$m)			
57	Total regulatory adjustments to Tier 2 capital	–	–
58	Tier 2 capital (T2)	1,014	1,015
59	Total capital (TC = T1 + T2)	7,480	7,589
59a	Total capital with transitional arrangements for ECL provisioning not applied	7,480	7,589
60	Total risk-weighted assets (RWVA)	39,522	40,014
61	Common Equity Tier 1 (as percentage of risk-weighted assets)	13.6	13.7
61a	Common Equity Tier 1 with transitional arrangements for ECL provisioning not applied	13.6	13.6
62	Tier 1 (as percentage of risk-weighted assets)	16.4	16.4
62a	Tier 1 with transitional arrangements for ECL provisioning not applied	16.4	16.4
63	Total capital (as percentage of risk-weighted assets)	18.9	19.0
63a	Total capital with transitional arrangements for ECL provisioning not applied	18.9	19.0
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
(only applicable between 1 Jan 2013 and 1 Jan 2022)			
80	Current cap on CET1 instruments subject to phase out arrangements	10	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	10	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	10	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		
	31 Mar 2021	31 Dec 2020	31 Mar 2021
	RWA ¹ \$m	RWA \$m	Capital requirements ² \$m
1 Credit risk (excluding counterparty credit risk)	33,702	33,812	2,696
2 – of which Standardized approach (SA) ³	1,975	1,549	158
3 – of which internal rating based (IRB) approach	31,727	32,263	2,538
4 Counterparty credit risk	1,342	1,697	107
4a – of which credit valuation adjustment (CVA) ⁴	354	496	28
5 – of which Standardized approach for counterparty credit risk (SA-CCR)	988	1,201	79
6 – of which internal model method (IMM)	–	–	–
7 Equity positions in banking book ⁵	1	2	–
8 Equity investments in funds – look-through approach	19	18	2
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	670	694	54
17 – of which Standardized approach (SA)	83	75	7
18 – of which internal model method (IMM)	587	619	47
19 Operational risk	3,788	3,791	303
20 – of which Basic indicator approach	–	–	–
21 – of which Standardized approach	3,788	3,791	303
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)	39,522	40,014	3,162

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

	RWA ² \$m	Capital requirements ³ \$m
1 RWA at the beginning of the period - 1 Jan 2021	32,263	2,581
2 Asset size ¹	(51)	(4)
3 Asset quality	(485)	(39)
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 - 31 Mar 2021	31,727	2,538

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

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

	VaR \$m	Stressed VaR \$m	Other \$m	Total RWA \$m
1 RWA at the beginning of the period - 1 Jan 2021	204	395	20	619
2 Movement in risk levels ¹	116	22	14	152
3 Model updates/changes	—	—	—	—
4 Methodology and policy ²	(80)	(104)	—	(184)
8 RWA at the end of the period - 31 Mar 2021	240	313	34	587

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

2. OSFI approved the reduction of the VaR multiplier based on a risk framework enhancement and resulted in a reduction in RWA, effective in Q1 2021

Leverage

Table 5 : Summary comparison of accounting assets vs. leverage ratio exposure measure (LR1)

	At	
	31 Mar 2021 \$m	31 Dec 2020 \$m
1 Total consolidated assets as per published financial statements	115,033	117,348
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	(2,095)	(3,056)
6 Adjustment for securities financing transactions (i.e. repurchase agreements and similar secured lending)	41	200
7 Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	14,885	14,966
8 Other adjustments ¹	(18,972)	(20,163)
9 Leverage ratio exposure measure	108,892	109,295

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 31st December 2021. Asset amounts deducted in determining Basel III Tier 1 capital are also included as a deduction

Table 6 : Leverage Ratio Common Disclosure Template (LR2)

		At	
		31 Mar 2021	31 Dec 2020
		\$m	\$m
On-balance sheet exposures			
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral) ¹	86,406	86,063
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)	(546)	(470)
4	(Asset amounts deducted in determining Basel III Tier 1 capital)	(292)	(321)
5	Total on-balance sheet exposures (excluding derivatives and SFTs) (Sum of lines 1 to 4)	85,568	85,272
Derivative exposures			
6	Replacement cost associated with all derivative transactions (i.e. net of eligible cash variation margin)	724	1,108
7	Add-on amounts for PFE associated with all derivative transactions	1,407	1,753
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)	2,131	2,861
Securities financing transaction exposures			
12	Gross SFT assets recognized for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions	8,440	6,649
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(2,173)	(653)
14	Counterparty credit risk (CCR) exposure for SFTs	41	200
15	Agent transaction exposures	—	—
16	Total securities financing transaction exposures (sum of lines 12 to 15)	6,308	6,196
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	49,378	50,205
18	(Adjustments for conversion to credit equivalent amounts)	(34,493)	(35,239)
19	Off-balance sheet items (sum of lines 17 and 18)	14,885	14,966
Capital and Total Exposures			
20	Tier 1 capital	6,466	6,574
21	Total Exposures (sum of lines 5, 11, 16 and 19)	108,892	109,295
Leverage Ratios (%)			
22	Leverage ratio	5.9	6.0
22a	Leverage ratio with transitional arrangements for ECL provisioning not applied	5.9	6.0

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 31st December 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 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