2019

HSBC Bank Canada

Regulatory Capital & Risk Management

Pillar 3 Supplementary Disclosures

As at September 30, 2019

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 2018 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 2018 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 standardized 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. It was implemented effective Q2 2018 with the floor factor transitioned in over three quarters. The floor factor was set at 70% in Q2 2018, increasing to 72.5% in Q3 2018 and 75% in Q4 2018.

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.

Road map to Pillar 3 disclosure requirement

Section	Identifier	Table and templates	Frequency	Annual Report and Accounts 2018
Capital disclosure	CC1	Composition of Regulatory Capital	Quarterly	
Overview of risk management	OVA	Bank risk management approach	Annually	26 - 28
	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
	CR1	Credit quality of assets	Semi-annually	32
	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	41
	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	40, 67
	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	47 - 48
	MRB	Qualitative disclosures for banks using the Internal Models Approach (IMA)	Annually	
	MR1	Market risk under standardized 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	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 September 2019*

Table 1: Composition of Regulatory Capital (CC1)

		All-in- Basis [1]	
		At	
	Common Equity Tier 1 capital: instruments and reserves ($m)	**30 Sep 2019**	30 Jun 2019
1	Directly issued qualifying common share capital (and equivalent for non-joint stock companies) plus related stock surplus	**1,225**	1,225
2	Retained earnings	**3,733**	3,672
3	Accumulated other comprehensive income (and other reserves)	**41**	49
4	Directly issued capital subject to phase out from CET1 (only applicable to non-joint stock companies)	**—**	—
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	**—**	—
6	Common Equity Tier 1 capital before regulatory adjustments	**4,999**	4,946
	Common Equity Tier 1 capital: regulatory adjustments ($m)		
28	Total regulatory adjustments to Common Equity Tier 1	**(283)**	(277)
29	Common Equity Tier 1 capital (CET1)	**4,716**	4,669
	Additional Tier 1 capital: instruments		
30	Directly issued qualifying Additional Tier 1 instruments plus related stock surplus	**1,100**	850
31	– of which: classified as equity under applicable accounting standards	**1,100**	850
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**	850
	Additional Tier 1 capital: regulatory adjustments ($m)		
43	Total regulatory adjustments to Additional Tier 1 capital	**—**	—
44	Additional Tier 1 capital (AT1)	**1,100**	850
45	Tier 1 capital (T1 = CET1 + AT1)	**5,816**	5,519
	Tier 2 capital: instruments and allowances ($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	**39**	39
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	**6**	7
51	Tier 2 capital before regulatory adjustments	**1,045**	1,046
	Tier 2 capital: regulatory adjustments ($m)		
57	Total regulatory adjustments to Tier 2 capital	**—**	—
58	Tier 2 capital (T2)	**1,045**	1,046
59	Total capital (TC = T1 + T2)	**6,861**	6,565
60	Total risk-weighted assets[2]	**42,116**	42,143
	Capital ratios (%)	**All-in Basis [1]**	
61	**Common Equity Tier 1 (as percentage of risk-weighted assets)**	**11.2**	11.1
62	**Tier 1 (as percentage of risk-weighted assets)**	**13.8**	13.1
63	**Total capital (as percentage of risk-weighted assets)**	**16.3**	15.6
	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 (%) (only applicable between 1 Jan 2013 and 1 Jan 2022)		
80	Current cap on CET1 instruments subject to phase out arrangements	**30.0**	30.0
81	Amounts excluded from CET1 due to cap (excess over cap after redemptions and maturities)	**—**	—
82	Current cap on AT1 instruments subject to phase out arrangements	**30.0**	30.0
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	**30.0**	30.0
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*
2. *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 2: Overview of Risk Weighted Assets (OV1)

		At		
		30 Sep 2019	30 Jun 2019	**30 Sep 2019**
		RWA[1]	RWA	**Capital requirements[2]**
		$m	$m	**$m**
1	Credit risk (excluding counterparty credit risk)	**34,668**	34,744	**2,773**
2	– of which Standardized approach (SA)[3]	**3,005**	3,244	**240**
3	– of which internal rating based (IRB) approach	**31,663**	31,500	**2,533**
4	Counterparty credit risk	**2,001**	2,043	**160**
4a	– of which credit valuation adjustment (CVA)[4]	**688**	718	**55**
5	– of which Standardized approach for counterparty credit risk (SA-CCR)[5]	**1,313**	1,325	**105**
6	– of which internal model method (IMM)	**—**	—	**—**
7	Equity positions in banking book[6]	**6**	5	**—**
8	Equity investments in funds – look-through approach	**—**	—	**—**
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	**812**	862	**65**
17	– of which Standardized approach (SA)	**199**	249	**16**
18	– of which internal model method (IMM)	**613**	613	**49**
19	Operational risk	**3,841**	3,827	**307**
20	– of which Basic indicator approach	**—**	—	**—**
21	– of which Standardized approach	**3,841**	3,827	**307**
22	– of which Advanced measurement approach	**—**	—	**—**
23	Amounts below the thresholds for deduction (subject to 250% risk weight)	**—**	—	**—**
24	Floor adjustment[7]	**788**	662	**63**
29	**Total (1+4+7+8+9+10+11+12+16+19+23+24)**	**42,116**	42,143	**3,368**

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. *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.*
5. *Starting Q1,2019 counterparty credit risk exposures arising from derivatives are calculated under SA-CCR which were earlier [Till Dec 2018] calculated under Current Exposure Method(CEM)*
6. *Amount includes banking book equity exposure which are not material and risk weighted @100% in accordance with OSFI CAR guidelines*
7. *The Bank is subject to a regulatory capital floor prescribed by OSFI.*

Table 3: 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 Jul 2019**	**31,500**	**2,520**
2	Asset size[1]	**384**	**31**
3	Asset quality	**(124)**	**(10)**
4	Model updates	**—**	—
5	Methodology and policy	**(97)**	**(8)**
6	Acquisitions and disposals	**—**	—
8	Other	—	—
9	**RWA at the end of the period - 30 Sep 2019**	**31,663**	**2,533**

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

		VaR	Stressed VaR	Total RWA
		$m	$m	$m
1	**RWA at the beginning of the period - 1 Jul 2019**	**231**	**382**	**613**
2	Movement in risk levels[1]	**(60)**	**60**	**—**
3	Model updates/changes	**—**	**—**	**—**
4	Methodology and policy	**—**	**—**	**—**
8	**RWA at the end of the period - 30 Sep 2019**	**171**	**442**	**613**

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

Table 5: Leverage Ratio Common Disclosure Template (LR2)

		30 Sep 2019	30 Jun 2019
		$m	$m
	On-balance sheet exposures		
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)	**100,441**	100,908
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)	**(1,013)**	(828)
4	(Asset amounts deducted in determining Basel III Tier 1 capital)	**(281)**	(276)
5	**Total on-balance sheet exposures (excluding derivatives and SFTs) (Sum of lines 1 to 4)**	**99,147**	99,804
	Derivative exposures		
6	Replacement cost associated with all derivative transactions (i.e. net of eligible cash variation margin)	**1,315**	1,182
7	Add-on amounts for PFE associated with all derivative transactions	**1,995**	1,884
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)**	**3,310**	3,066
	Securities financing transaction exposures		
12	Gross SFT assets recognized for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions	**10,266**	12,481
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	**(2,651)**	(2,114)
14	Counterparty credit risk (CCR) exposure for SFTs	**285**	91
15	Agent transaction exposures	**—**	—
16	**Total securities financing transaction exposures (sum of lines 12 to 15)**	**7,900**	10,458
	Other off-balance sheet exposures		
17	Off-balance sheet exposure at gross notional amount	**48,754**	49,060
18	(Adjustments for conversion to credit equivalent amounts)	**(34,033)**	(34,066)
19	**Off-balance sheet items (sum of lines 17 and 18)**	**14,721**	14,994
	Capital and Total Exposures		
20	Tier 1 capital	**5,816**	5,519
21	**Total Exposures (sum of lines 5, 11, 16 and 19)**	**125,078**	128,322
	Leverage Ratios (%)		
22	Leverage ratio	**4.7**	4.3

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.
- **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
- **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.