

Calculation Date: 31 Oct 2019

This report contains information regarding the National Bank of Canada Legislative Covered Bond Programme's Cover Pool as of the indicated Calculation Date. The composition of the Cover Pool will change as Loans are added and removed from the Cover Pool from time to time and, accordingly, the characteristics and performance of the Loans will vary over time.

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Programme Info	ormation							
<u>Series</u>	Initial Amount	Translation Rate	C\$ Equivalent	Maturity Date	Extended Due for Payment Date	Coupon Rate	Rate Type	Maturity Type
CBL2	€1,000,000,000	1.5363	\$1,536,300,000	25 Mar 2021	25 Mar 2022	1.500%	Fixed	Soft
CBL3	€1,000,000,000	1.3869	\$1,386,900,000	26 Jan 2022	26 Jan 2023	0.500%	Fixed	Soft
CBL5	£100,000,000	1.7100	\$171,000,000	27 Sep 2021	27 Sep 2022	3 month £ Libor +0.370%	Floating	Soft
CBL5 (Tranche 2)	£70,000,000	1.6400	\$114,800,000	27 Sep 2021	27 Sep 2022	3 month £ Libor +0.370%	Floating	Soft
CBL5 (Tranche 3)	£80,000,000	1.6460	\$131,680,000	27 Sep 2021	27 Sep 2022	3 month £ Libor +0.370%	Floating	Soft
CBL6	€750,000,000	1.4618	\$1,096,350,000	29 Sep 2023	29 Sep 2024	0.000%	Fixed	Soft
CBL7	€750,000,000	1.5998	\$1,199,812,500	13 Mar 2025	13 Mar 2026	0.750%	Fixed	Soft
CBL8	€750,000,000	1.5410	\$1,155,772,500	24 Jul 2023	24 Jul 2024	0.250%	Fixed	Soft
CBL9	USD\$270,000,000	1.3321	\$359,667,000	14 Dec 2020	14 Dec 2021	3 month USD Libor +0.180%	Floating	Soft
CBL10	€750,000,000	1.5206	\$1,140,420,000	15 Jan 2024	15 Jan 2025	0.375%	Fixed	Soft
CBL11	USD\$1,000,000,000	1.3330	\$1,333,000,000	20 Jun 2022	20 Jun 2023	2.050%	Fixed	Soft
		-	\$9,625,702,000					

Weighted Average Maturity of Outstanding Covered Bonds (months) 37.18
Weighted Average Remaining Term of Loans in Cover Pool (months) 28.67

Series Ratings	Moody's	<b>DBRS</b>	Fitch Ratings
CBL2	Aaa	AAA	AAA
CBL3	Aaa	AAA	AAA
CBL5	Aaa	AAA	AAA
CBL5 (Tranche 2)	Aaa	AAA	AAA
CBL5 (Tranche 3)	Aaa	AAA	AAA
CBL6	Aaa	AAA	AAA
CBL7	Aaa	AAA	AAA
CBL8	Aaa	AAA	AAA
CBL9	Aaa	AAA	AAA
CBL10	Aaa	AAA	AAA
CBL11	Aaa	AAA	AAA

#### **Supplementary Information**

#### **Parties**

**Guarantor Entity** 

Issuer National Bank of Canada (NBC)

NBC Covered Bond (Legislative) Guarantor Limited Partnership

Servicer & Cash Manager National Bank of Canada Swap Provider National Bank of Canada

Covered Bond Trustee & Custodian Computershare Trust Company of Canada

Asset Monitor Deloitte LLP

Account Bank & GIC Provider

National Bank of Canada

Standby Account Bank & GIC Provider

Royal Bank of Canada (RBC)

Paying Agent The Bank of New York Mellon (Luxembourg) S.A.



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#### **National Bank of Canada Ratings**

-	Standard & Poor's	Moody's	<u>DBRS</u>	Fitch Ratings
Long Term Senior Debt	Α	Aa3	AA (low)	A+
Short Term Senior Debt	A-1	P-1	R-1 M	F1
Outlook	Stable	Stable	Positive	Stable
Other Ratings	N/A	Counterparty Risk Assessment long term / short term Aa3(cr) / P-1 (cr) Deposit Rating long term / short term Aa3 / P-1	N/A	Issuer Default Rating long term / short term A+ / F1

#### Applicable Ratings of Standby Account Bank & GIC Provider (RBC)

	Moody's (Deposit Rating)	DBRS (Debt Ratings)	Fitch Ratings (Issuer Default Rating)
Long Term	Aa2	AA (high)	AA
Short Term	P-1	R-1 H	F1+

Eitch

BBB+

#### **Description of Ratings Triggers**

#### A. Party Replacement

If the rating(s) of the Party falls below the level stipulated below, such party is required to be replaced or in the case of the Swap Provider

(i) transfer credit support and (ii) replace itself or obtain a guarantee for its obligations.

Role (Current Party)	Moody's	<u>DBRS</u>	<u>Fitch</u>
Account Bank & GIC Provider (NBC)	P-1*	R-1(low)* or A	F1* or A
Standby Account Bank & GIC Provider (RBC)	P-1*	R-1(low)* or A	F1* or A
Cash Manager (NBC)	P-2(cr)*	BBB (low)	F2*
Servicer (NBC)	Baa3	BBB (low)	F2*
Interest Rate Swap Provider (NBC)	P-2(cr)* or A3(cr)	R-2(mid)* or BBB	F2* or BBB+
Covered Bond Swap Provider (NBC)	P-2(cr)* or A3(cr)	R-2(mid)* or BBB	F2* or BBB+
Title Holder on Mortgages (NBC)	Baa1	BBB (low)	BBB-

#### B. Specified Rating Related Action

i. The following actions are required if the rating of the Cash Manager (NBC) falls below the stipulated rating:

dash manager (NDO) rans below the supurated rating.	Moody's	<u>DBRS</u>	<u>Fitch</u>
(a) Amounts received by the Servicer are to be deposited directly to the GIC Account and not provided to the Cash Manager	P-1*	BBB(low)	F1* or A
(b) Amounts held by the Cash Manager belonging to the Guarantor are to be deposited to the Transaction Account or the GIC account, as applicable, within 5 business days	P-1*	BBB(low)	F1* or A

Moody's

Baa1

DBBS

BBB(high)

ii. The following actions are required if the rating of the

Servicer (NBC) falls below the stipulated rating:

	IVIOUUY S	DBKS	<u>I ILCII</u>
(a) Servicer is required to transfer amounts belonging to the Guaranto to the Cash Manager or the GIC Account, as applicable, within	or P-1(cr)*	BBB(low)	F1* or A

2 business days

iii. The following actions are required if the rating of the Issuer (NBC) falls below the stipulated rating:

(1426) faile below the disputation rating.	Moody's	<u>DBRS</u>	<u>Fitch</u>
(a) Repayment of the Demand Loan	N/A	N/A	F2* or BBB+
(b) Establishment of the Reserve Fund	P-1(cr)*	R-1(low)* or A(low)	F1* or A
(c) Fund Pre-Maturity Liquidity Required Amount on Hard Bullet	P-1*	6 months: A(high)	F1+*
Covered Bonds		12 months: A(low)	

iv. The following actions are required if the rating of the

Issuer (NBC) falls below the stipulated rating: **DBRS** Fitch Moody's

(a) The Interest Rate Swap and the Covered Bond Swap will become effective except as otherwise provided in the Covered Bond Swaps Agreements

v. Each Swap Provider is required to transfer credit support, replace itself or obtain a guarantee of its obligations if the rating

of such Swap Provider falls below the specified rating.

	Moody's	<u>DBRS</u>	Fitch
(a) Interest Rate Swap Provider	P-1(cr)* or A2(cr)(1)		F1* or A
(b) Covered Bond Swap Provider	P-1(cr)* or A2(cr)(1)		F1* or A

(1) In the case of the Interest Swap Provider, or, in the case of the Covered Bond Swap Provider prior to CBL7 only, if the applicable swap provider or its credit support provider does not have a short-term rating assigned by Moody's, the long term unsecured rating trigger is A1(cr).

#### **Events of Default**

Issuer Event of Default No Guarantor Event of Default No



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#### Asset Coverage Test

Outstanding Covered Bonds	\$9,625,702,000	
A = Lesser of (i) LTV Adjusted True Balance and	\$14,863,890,606	A(i): \$16,206,265,712
(ii) Asset Percentage Adjusted True Balance		A(ii): \$14,863,890,606
B = Principal Receipts	\$0	Asset Percentage: 91.70%
C = Cash Capital Contributions	\$0	Maximum Asset Percentage: 93.00%
D = Substitute Assets	\$0	
E = Reserve Fund Balance	\$0	Regulatory OC Minimum: 103.00%
Y = Contingent Collateral Amount	\$0	Level of Overcollateralization <sup>1</sup> : 109.14%
Z = Negative Carry Factor calculation	\$149,136,491	
Total: A + B + C + D + E - Y- Z	\$14,714,754,115	
Asset Coverage Test	PASS	

Note: Due to rounding, numbers presented may not add up precisely to the totals provided.

### Valuation Calculation

Trading Value of Covered Bonds	\$9,667,643,143
A = LTV Adjusted Loan Present Value	\$15,849,246,912
B = Principal Receipts	\$0
C = Cash Capital Contributions	\$0
D = Trading Value of Substitute Assets	\$0
E = Reserve Fund Balance	\$0
F = Trading Value of Swap Collateral	\$0
Present Value Adjusted Aggregate Asset Amount	
Total: A + B + C + D + E + F	\$15,849,246,912

#### **Amortization Test**

Event of Default on the part of the registered Issuer?	No
Do any Covered Bonds remain outstanding?	Yes
Amortization Test Required?	No
Amortization Test	N/A

#### Intercompany Loan Balance

Guarantee Loan	\$10,505,791,191
Demand Loan	\$5,927,881,493
Total	\$16,433,672,684

#### Covered Bonds Outstanding vs OSFI Limit

Covered Bonds Currently Outstanding (CAD Equivalent):  Issued under the Legislative Covered Bond Programme	\$9,625,702,000
Total	\$9,625,702,000
OSFI Covered Bond Ratio <sup>2</sup> :	3.80%
OSFI Covered Bond Ratio Limit:	5.50%

<sup>&</sup>lt;sup>2</sup> Per OSFI's letter dated May 23, 2019, the OSFI Covered Bond Ratio refers to total assets pledged for covered bonds relative to total on-balance sheet assets. Total on-balance sheet assets as at July 31, 2019.

<sup>&</sup>lt;sup>1</sup> Per Section 4.3.8 of the CMHC Guide, (A) the lesser of (i) the total amount of cover pool collateral and (ii) the amount of cover pool collateral required to collateralize the covered bonds outstanding and ensure the Asset Coverage Test is met, divided by (B) the Canadian dollar equivalent of the principal amount of covered bonds outstanding under the registered covered bond program.



# National Bank of Canada Legislative Covered Bond Programme Monthly Investor Report Calculation Date: 31 Oct 2019

Cover Pool Summary Statistics	
Previous Month Ending Balance	\$16,484,344,419
Current Balance	\$16,212,052,304
Number of Mortgage loans in Pool	124,756
Average Mortgage Size	\$129,950
Number of Properties	97,494
Number of Primary Borrowers	93,645
Weighted Average Indexed Authorized LTV	59.55%
Weighted Average Indexed Drawn LTV	52.69%
Weighted Average Original LTV	71.73%
Weighted Average Interest Rate	3.01%
Weighted Average Seasoning	25.80 months
Weighted Average Original Term	54.47 months
Weighted Average Remaining Term	28.67 months

Note: Due to rounding, numbers presented in the following distribution tables may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

Cover Pool Delinquency Distribution								
Aging Summary	Number of Loans	<u>Percentage</u>	Principal Balance	<u>Percentage</u>				
Current and less than 30 days past due	124,600	99.87%	\$16,194,216,728	99.89%				
30 to 59 days past due	106	0.08%	\$12,764,796	0.08%				
60 to 89 days past due	16	0.01%	\$2,296,261	0.01%				
90 or more days past due	34	0.03%	\$2,774,520	0.02%				
Total	124,756	100.00%	\$16,212,052,304	100.00%				

<b>Cover Pool Provincial Distribution</b>				
<u>Province</u>	Number of Loans	<u>Percentage</u>	Principal Balance	<u>Percentage</u>
Alberta	2,948	2.36%	\$609,539,237	3.76%
British Columbia	2,836	2.27%	\$869,824,254	5.37%
Manitoba	416	0.33%	\$54,304,281	0.34%
New Brunswick	2,181	1.75%	\$180,899,529	1.12%
Ontario	19,071	15.29%	\$4,430,988,679	27.33%
Quebec	96,703	77.51%	\$9,975,489,709	61.53%
Saskatchewan	601	0.48%	\$91,006,616	0.56%
Other	0	0.00%	\$0	0.00%
Total	124,756	100.00%	\$16,212,052,304	100.00%

<b>Cover Pool Credit Score Distribution</b>				
<u>Credit Score</u>	Number of Loans	<u>Percentage</u>	Principal Balance	<u>Percentage</u>
Score Unavailable	1,652	1.32%	\$243,669,118	1.50%
599 and below	1,297	1.04%	\$153,729,669	0.95%
600 - 650	3,075	2.46%	\$431,463,879	2.66%
651 - 700	11,582	9.28%	\$1,712,206,770	10.56%
701 - 750	39,044	31.30%	\$5,417,499,444	33.42%
751 - 800	52,506	42.09%	\$6,453,811,989	39.81%
801 and above	15,600	12.50%	\$1,799,671,436	11.10%
Total	124,756	100.00%	\$16,212,052,304	100.00%

Cover Pool Interest Rate Type Distribution							
Interest Rate Type	Number of Loans	<u>Percentage</u>	Principal Balance	<u>Percentage</u>			
Fixed	101,166	81.09%	\$12,303,472,795	75.89%			
Variable	23,590	18.91%	\$3,908,579,509	24.11%			
Total	124,756	100.00%	\$16,212,052,304	100.00%			



1,000,000 and above

Total

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BANK	Calculation Date:	31 Oct 2019		
Cover Pool Occupancy Type Distribution				
Occupancy Type	Number of Loans	<u>Percentage</u>	Principal Balance	Percentage
Owner Occupied	110,212	88.34%	\$13,805,733,976	85.16%
Non-Owner Occupied	14,544	11.66%	\$2,406,318,328	14.84%
Total .	124,756	100.00%	\$16,212,052,304	100.00%
Mortgage Asset Type Distribution				
Asset Type	Number of Loans	<u>Percentage</u>	Principal Balance	<u>Percentage</u>
Conventional Mortgage	52,539	42.11%	\$8,148,623,253	50.26%
Amortizing Segment of All-in-One Product	72,217	57.89%	\$8,063,429,051	49.74%
Total	124,756	100.00%	\$16,212,052,304	100.00%
Cover Pool Interest Rate Distribution				
Interest Rate (%)	Number of Loans	<u>Percentage</u>	Principal Balance	Percentage
Less than 2.000	101	0.08%	\$12,899,847	0.08%
2.000 - 2.999	63,872	51.20%	\$8,298,278,080	51.19%
3.000 - 3.999	58,653	47.01%	\$7,650,465,105	47.19%
4.000 - 4.999	1,292	1.04%	\$157,017,414	0.97%
5.000 - 5.999	183	0.15%	\$22,155,066	0.14%
5.000 - 6.999	31	0.02%	\$2,801,258	0.02%
7.000 - 7.999	624	0.50%	\$68,435,533	0.42%
8.000 or Greater	0	0.00%	\$0	0.00%
Total	124,756	100.00%	\$16,212,052,304	100.00%
Cover Pool Remaining Balance				
Remaining Principal Balance (\$)	Number of Loans	<u>Percentage</u>	Principal Balance	<u>Percentage</u>
99,999 and below	65,869	52.80%	\$3,140,372,248	19.37%
100,000 - 149,999	21,377	17.14%	\$2,641,829,355	16.30%
150,000 - 199,999	14,636	11.73%	\$2,537,376,256	15.65%
200,000 - 249,999	8,033	6.44%	\$1,793,202,905	11.06%
250,000 - 299,999	4,832	3.87%	\$1,318,458,231	8.13%
300,000 - 349,999	3,055	2.45%	\$987,853,885	6.09%
350,000 - 399,999	1,910	1.53%	\$714,017,690	4.40%
400,000 - 449,999	1,252	1.00%	\$530,547,679	3.27%
450,000 - 499,999	910	0.73%	\$431,152,746	2.66%
500,000 - 549,999	619	0.50%	\$324,402,149	2.00%
550,000 - 599,999	468	0.38%	\$267,782,789	1.65%
500,000 - 649,999	340	0.27%	\$211,998,023	1.31%
550,000 - 699,999	246	0.20%	\$165,457,865	1.02%
700,000 - 749,999	212	0.17%	\$153,242,752	0.95%
750,000 - 799,999	192	0.15%	\$148,821,883	0.92%
300,000 - 849,999	143	0.11%	\$117,999,065	0.73%
850,000 - 899,999	143	0.11%	\$124,939,608	0.77%
900,000 - 949,999	146	0.12%	\$135,360,494	0.83%
950,000 - 999,999	78	0.06%	\$75,682,356	0.47%

124,756

2.42%

100.00%

\$391,554,325

\$16,212,052,304

0.24%

100.00%



Total

# National Bank of Canada Legislative Covered Bond Programme Monthly Investor Report Calculation Date: 31 Oct 2019

Cover Pool Months to Maturity Distributi		Downsonts	Duin simal Palara	Dau4:
Months to Maturity	Number of Loans	<u>Percentage</u>	Principal Balance	<u>Percentag</u>
5 or Less	10,010	8.02%	\$1,127,653,466	6.969
5 - 11	17,699	14.19%	\$1,950,283,583	12.039
12 - 23	27,405	21.97%	\$3,314,494,899	20.449
24 - 35	27,318	21.90%	\$3,858,537,728	23.809
86 - 47	29,292	23.48%	\$4,259,473,093	26.279
48 - 59	11,818	9.47%	\$1,530,649,042	9.449
50 - 71	1,080	0.87%	\$152,819,514	0.949
72 - 83	46	0.04%	\$4,911,933	0.039
34 or Greater <b>Fotal</b>	88 124,756	0.07% 100.00%	\$13,229,046 \$16,212,052,304	0.089
Cover Pool Property Type Distribution		_	_	_
Property Type	Number of Loans	<u>Percentage</u>	Principal Balance	Percentage
Single Family	98,196	78.71%	\$12,472,654,335	76.93%
Condominium	14,312	11.47%	\$1,940,834,007	11.979
2-4 Family Units	12,248	9.82%	\$1,798,563,962	11.099
Total	124,756	100.00%	\$16,212,052,304	100.009
Cover Pool Indexed LTV - Authorized Dis	tribution			
Indexed LTV (%)	Number of Loans	<u>Percentage</u>	Principal Balance	<u>Percentage</u>
20.00 and below	3,467	2.78%	\$155,081,509	0.969
20.01 - 25.00	2,182	1.75%	\$171,365,421	1.06%
25.01 - 30.00	2,996	2.40%	\$276,102,612	1.709
30.01 - 35.00	4,247	3.40%	\$472,866,260	2.929
35.01 - 40.00	5,653	4.53%	\$708,284,028	4.379
40.01 - 45.00	7,043	5.65%	\$961,336,260	5.939
45.01 - 50.00	8,365	6.71%	\$1,182,125,462	7.299
50.01 - 55.00	9,981	8.00%	\$1,424,893,084	8.799
55.01 - 60.00	12,327	9.88%	\$1,777,828,038	10.979
50.01 - 65.00	15,040	12.06%	\$2,204,073,182	13.609
55.01 - 70.00	17,488	14.02%	\$2,429,803,806	14.999
70.01 - 75.00	19,614	15.72%	\$2,592,848,039	15.99%
75.01 - 80.00	13,968	11.20%	\$1,528,174,608	9.43%
Greater than 80.00	2,385	1.91%	\$327,269,995	2.029
Total	124,756	100.00%	\$16,212,052,304	100.00%
Cover Pool Indexed LTV - Drawn Distribu Indexed LTV (%)	Number of Loans	Doveoutomo	Dringinal Palance	Dougouton
20.00 and below	11,507	<u>Percentage</u> 9.22%	<u>Principal Balance</u> \$574,840,275	Percentag 3.559
20.01 - 25.00	5,440	4.36%	\$463,820,522	2.869
25.01 - 30.00	6,424	5.15%	\$403,820,322 \$614,753,765	3.799
30.01 - 35.00	7,539	6.04%	\$844,011,033	5.219
35.01 - 40.00	8,788	7.04%	\$1,080,847,634	6.67%
40.01 - 45.00	9,798	7.85%	\$1,317,932,192	8.139
45.01 - 50.00	10,963	8.79%	\$1,505,600,064	9.299
50.01 - 55.00	11,708	9.38%	\$1,682,954,977	10.389
55.01 - 60.00	12,379	9.92%	\$1,864,231,410	11.509
50.01 - 65.00	12,919	10.36%	\$2,019,400,540	12.469
55.01 - 70.00	12,654	10.14%	\$2,019,400,340	12.469
70.01 - 75.00	10,478	8.40%	\$1,642,408,754	10.139
75.01 - 80.00	3,811	3.05%	\$1,042,400,734	3.399
Greater than 80.00	348	0.28%	\$79,617,983	0.499
Fatal	124.756	100.00%	¢16 212 052 204	100.000

124,756

100.00%

100.00%

\$16,212,052,304



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Provincial Distribution by Indexed LTV - Drawn and Aging Summary									
Current and less than 30 days past due									
Indexed LTV (%)	Alberta	British Columbia	Manitoba	New Brunswick	<u>Ontario</u>	Quebec	Saskatchewan	Other	<u>Total</u>
20.00 and below	\$7,935,493	\$49,127,699	\$2,052,091	\$4,965,215	\$206,005,205	\$302,146,760	\$2,152,510	\$0	\$574,384,973
20.01 - 25.00	\$5,272,294	\$45,422,305	\$506,572	\$4,293,872	\$174,014,569	\$231,293,197	\$2,477,252	\$0	\$463,280,061
25.01 - 30.00	\$8,614,901	\$46,065,075	\$2,279,757	\$6,685,779	\$244,306,615	\$304,436,782	\$2,119,791	\$0	\$614,508,700
30.01 - 35.00	\$8,292,154	\$59,937,225	\$1,537,277	\$8,870,376	\$351,000,212	\$410,073,020	\$3,697,210	\$0	\$843,407,475
35.01 - 40.00	\$10,322,853	\$78,057,468	\$1,325,129	\$12,631,529	\$447,597,225	\$522,884,237	\$6,272,926	\$0	\$1,079,091,367
40.01 - 45.00	\$22,059,053	\$110,118,469	\$2,846,252	\$23,733,907	\$481,975,198	\$660,444,959	\$15,676,047	\$0	\$1,316,853,884
45.01 - 50.00	\$23,734,885	\$96,982,590	\$2,898,787	\$31,431,615	\$481,434,690	\$849,907,626	\$17,549,973	\$0	\$1,503,940,167
50.01 - 55.00	\$29,274,464	\$106,611,570	\$9,041,889	\$21,559,790	\$450,760,102	\$1,048,851,043	\$13,866,294	\$0	\$1,679,965,150
55.01 - 60.00	\$46,119,526	\$77,113,655	\$7,313,054	\$12,727,811	\$473,101,863	\$1,237,840,839	\$8,452,764	\$0	\$1,862,669,512
60.01 - 65.00	\$64,663,327	\$83,729,385	\$7,379,635	\$17,879,511	\$442,332,081	\$1,396,987,728	\$4,230,287	\$0	\$2,017,201,953
65.01 - 70.00	\$94,340,131	\$54,241,415	\$5,861,244	\$9,780,526	\$326,102,447	\$1,475,214,071	\$4,057,843	\$0	\$1,969,597,677
70.01 - 75.00	\$120,264,731	\$37,103,589	\$9,536,389	\$17,248,463	\$279,428,832	\$1,170,091,228	\$6,966,091	\$0	\$1,640,639,323
75.01 - 80.00	\$115,504,492	\$17,670,740	\$1,726,204	\$8,174,588	\$56,315,645	\$346,179,203	\$3,487,630	\$0	\$549,058,502
Greater than 80.00	\$52,826,145	\$7,140,047	\$0	\$22,580	\$11,962,473	\$7,666,738	\$0	\$0	\$79,617,983
Total	\$609,224,448	\$869,321,233	\$54,304,281	\$180,005,563	\$4,426,337,157	\$9,964,017,430	\$91,006,616	\$0	\$16,194,216,728

#### 30 to 59 days past due

Indexed LTV (%)	<u>Alberta</u>	British Columbia	<u>Manitoba</u>	New Brunswick	<u>Ontario</u>	Quebec	<u>Saskatchewan</u>	Other	<u>Total</u>
20.00 and below	\$0	\$0	\$0	\$0	\$310,818	\$50,480	\$0	\$0	\$361,298
20.01 - 25.00	\$0	\$0	\$0	\$0	\$0	\$493,556	\$0	\$0	\$493,556
25.01 - 30.00	\$0	\$0	\$0	\$0	\$0	\$51,011	\$0	\$0	\$51,011
30.01 - 35.00	\$0	\$69,161	\$0	\$0	\$277,151	\$75,271	\$0	\$0	\$421,582
35.01 - 40.00	\$0	\$276,450	\$0	\$121,009	\$481,022	\$447,410	\$0	\$0	\$1,325,891
40.01 - 45.00	\$0	\$0	\$0	\$76,154	\$167,892	\$465,913	\$0	\$0	\$709,960
45.01 - 50.00	\$0	\$0	\$0	\$119,998	\$306,792	\$496,278	\$0	\$0	\$923,068
50.01 - 55.00	\$0	\$0	\$0	\$69,524	\$292,518	\$1,937,394	\$0	\$0	\$2,299,436
55.01 - 60.00	\$0	\$0	\$0	\$0	\$297,464	\$691,943	\$0	\$0	\$989,407
60.01 - 65.00	\$0	\$0	\$0	\$0	\$542,312	\$1,008,804	\$0	\$0	\$1,551,116
65.01 - 70.00	\$0	\$0	\$0	\$0	\$364,994	\$1,475,421	\$0	\$0	\$1,840,415
70.01 - 75.00	\$0	\$0	\$0	\$0	\$567,025	\$989,817	\$0	\$0	\$1,556,842
75.01 - 80.00	\$0	\$0	\$0	\$0	\$0	\$241,213	\$0	\$0	\$241,213
Greater than 80.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$345.611	\$0	\$386.685	\$3.607.990	\$8,424,511	\$0	\$0	\$12,764,796

#### 60 to 89 days past due

Indexed LTV (%)	Alberta	British Columbia	<u>Manitoba</u>	New Brunswick	<u>Ontario</u>	Quebec	Saskatchewan	Other	<u>Total</u>
20.00 and below	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20.01 - 25.00	\$0	\$0	\$0	\$0	\$0	\$46,905	\$0	\$0	\$46,905
25.01 - 30.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30.01 - 35.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35.01 - 40.00	\$0	\$157,411	\$0	\$0	\$220,658	\$0	\$0	\$0	\$378,069
40.01 - 45.00	\$0	\$0	\$0	\$0	\$48,548	\$0	\$0	\$0	\$48,548
45.01 - 50.00	\$0	\$0	\$0	\$0	\$144,278	\$0	\$0	\$0	\$144,278
50.01 - 55.00	\$0	\$0	\$0	\$209,107	\$0	\$125,921	\$0	\$0	\$335,028
55.01 - 60.00	\$0	\$0	\$0	\$0	\$0	\$105,320	\$0	\$0	\$105,320
60.01 - 65.00	\$0	\$0	\$0	\$0	\$284,767	\$362,704	\$0	\$0	\$647,470
65.01 - 70.00	\$0	\$0	\$0	\$0	\$0	\$274,624	\$0	\$0	\$274,624
70.01 - 75.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
75.01 - 80.00	\$0	\$0	\$0	\$0	\$0	\$316,019	\$0	\$0	\$316,019
Greater than 80.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$157,411	\$0	\$209,107	\$698,251	\$1,231,493	\$0	\$0	\$2,296,261



# National Bank of Canada Legislative Covered Bond Programme Monthly Investor Report Calculation Date: 31 Oct 2019

Indexed LTV (%)	Alberta	British Columbia	<u>Manitoba</u>	New Brunswick	<u>Ontario</u>	Quebec	Saskatchewan	Other	<u>Total</u>
20.00 and below	\$0	\$0	\$0	\$0	\$39,348	\$54,657	\$0	\$0	\$94,004
20.01 - 25.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25.01 - 30.00	\$0	\$0	\$0	\$0	\$0	\$194,054	\$0	\$0	\$194,054
30.01 - 35.00	\$0	\$0	\$0	\$0	\$0	\$181,975	\$0	\$0	\$181,975
35.01 - 40.00	\$0	\$0	\$0	\$0	\$42,353	\$9,954	\$0	\$0	\$52,306
40.01 - 45.00	\$0	\$0	\$0	\$56,219	\$263,581	\$0	\$0	\$0	\$319,800
45.01 - 50.00	\$166,132	\$0	\$0	\$84,405	\$0	\$342,014	\$0	\$0	\$592,551
50.01 - 55.00	\$0	\$0	\$0	\$87,811	\$0	\$267,551	\$0	\$0	\$355,362
55.01 - 60.00	\$148,656	\$0	\$0	\$69,740	\$0	\$248,774	\$0	\$0	\$467,170
60.01 - 65.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
65.01 - 70.00	\$0	\$0	\$0	\$0	\$0	\$304,707	\$0	\$0	\$304,707
70.01 - 75.00	\$0	\$0	\$0	\$0	\$0	\$212,589	\$0	\$0	\$212,589
75.01 - 80.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Greater than 80.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$314,788	\$0	\$0	\$298,175	\$345,282	\$1,816,275	\$0	\$0	\$2,774,520

Cover Pool Indexed LTV - Drawn by Credit Bureau Score

Indexed LTV (%
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	599 and below	<u>600 - 650</u>	<u>651 - 700</u>	<u>701 - 750</u>	<u>751 - 800</u>	801 and above	Score Unavailable	<u>Total</u>
20.00 and below	\$2,313,941	\$5,021,788	\$21,786,563	\$69,757,843	\$330,499,955	\$133,627,816	\$11,832,369	\$574,840,275
20.01 - 25.00	\$2,152,238	\$5,374,081	\$21,743,764	\$93,333,580	\$260,175,504	\$71,724,053	\$9,317,302	\$463,820,522
25.01 - 30.00	\$3,504,296	\$9,284,047	\$35,065,466	\$123,265,103	\$344,719,511	\$84,324,076	\$14,591,266	\$614,753,765
30.01 - 35.00	\$6,690,885	\$14,449,109	\$56,580,610	\$200,190,074	\$438,669,379	\$108,011,400	\$19,419,577	\$844,011,033
35.01 - 40.00	\$8,990,654	\$21,365,079	\$93,217,640	\$292,620,182	\$505,367,053	\$135,617,731	\$23,669,295	\$1,080,847,634
40.01 - 45.00	\$9,607,222	\$30,467,202	\$105,038,420	\$388,062,721	\$598,256,032	\$160,743,929	\$25,756,665	\$1,317,932,192
45.01 - 50.00	\$15,189,065	\$32,948,190	\$144,362,204	\$456,693,317	\$649,012,969	\$176,250,052	\$31,144,267	\$1,505,600,064
50.01 - 55.00	\$19,557,762	\$45,211,775	\$167,840,756	\$565,390,284	\$679,060,200	\$181,899,501	\$23,994,699	\$1,682,954,977
55.01 - 60.00	\$19,035,052	\$62,442,261	\$200,234,738	\$677,153,980	\$682,155,469	\$200,527,171	\$22,682,737	\$1,864,231,410
60.01 - 65.00	\$19,653,022	\$64,431,024	\$235,763,185	\$797,878,951	\$675,178,854	\$203,169,357	\$23,326,148	\$2,019,400,540
65.01 - 70.00	\$19,405,952	\$56,584,865	\$259,625,395	\$818,892,800	\$626,243,101	\$174,796,642	\$16,468,669	\$1,972,017,424
70.01 - 75.00	\$19,152,885	\$55,806,929	\$255,779,991	\$660,409,178	\$514,670,292	\$123,237,309	\$13,352,171	\$1,642,408,754
75.01 - 80.00	\$7,167,815	\$23,664,033	\$105,626,846	\$242,050,354	\$128,364,893	\$37,839,361	\$4,902,432	\$549,615,734
Greater than 80.00	\$1,308,881	\$4,413,495	\$9,541,191	\$31,801,078	\$21,438,777	\$7,903,038	\$3,211,521	\$79,617,983
Total	\$153,729,669	\$431,463,879	\$1,712,206,770	\$5,417,499,444	\$6,453,811,989	\$1,799,671,436	\$243,669,118	\$16,212,052,304



Calculation Date: 31 Oct 2019

#### Indexation Methodology

As of the date of this Investor Report, the Guarantor uses the methodology described below (which methodology is, as of the date hereof, the "Indexation Methodology"), to establish the market value of residential properties securing loans included in the Covered Bond Portfolio on a quarterly basis for purposes of the Asset Coverage Test, the Amortization Test, the Valuation Calculation and for other purposes as may be required by the CMHC Guide from time to time. Changes to the Indexation Methodology may only be made (i) upon notice to CMHC and satisfaction of any other conditions specified by CMHC in relation thereto, (ii) if such change constitutes a material change, subject to satisfaction of the Rating Agency Condition, and (iii) if such change is materially prejudicial to the Covered Bondholders, subject to the consent of the Bond Trustee. The Indexation Methodology must at all times comply with the requirements of the CMHC Guide.

The primary index used by the Guarantor to determine the market value of a Property is the Teranet-National Bank Regional and Property Type Sub-IndicesTM (the "RPT Sub-Indices"). The RPT Sub-Indices are estimated by tracking the observed or registered home prices over time based on property records of public land registries and grouped based on the first three digits of the Property's postal code. A Property must have been sold at least twice in order to be included in the calculation of the RPT Sub-Indices. In areas where sufficient data is available, the RPT Sub-Indices may be further subdivided by property type (all types, single-family homes and condominiums), which offers another layer of valuation granularity without compromising the statistical estimation error terms. To the extent necessary, the Teranet-National Bank House Price IndexTM – Composite 11 Index (the "HPI – Composite 11") will be used for indexation purposes where the RPT Sub-Indices are not available. The HPI – Composite 11 combines the metropolitan areas of Victoria, Vancouver, Calgary, Edmonton, Winnipeg, Hamilton, Toronto, Ottawa, Montréal, Québec and Halifax to form a national composite index. At this time, New Brunswick and Saskatchewan are the only areas relevant to the Covered Bond Portfolio for which the RPT Sub-Indices are not available. For regions where the RPT Sub-Indices are not subdivided by property type, the Guarantor will use the all types sub-index. The RPT Sub-Indices and the HPI – Composite 11 are available by subscription at www.housepriceindex.ca. This website and its contents do not form part of this Investor Report.

For each Property in the Covered Bond Portfolio, the indexed valuation for a quarter will be determined by multiplying the Original Market Value (as defined in the CMHC Guide) for such Property by the percentage change since the valuation date in the price level for the sub-index in which such Property is located and, if available, also based on the property type.

Material risks associated with using the Indexation Methodology include, but are not limited to, the following: the accuracy, adequacy, timeliness and completeness of the indices being relied upon; the consistency in underlying methodology of such indices; the continued availability of the home sale price data provided to Teranet; in the case of Properties outside of the regions covered by the RPT Sub-Indices, the risk that the HPI – Composite 11 may not accurately capture unique factors affecting local housing markets; and in the case of Properties located within the regions where the RPT Sub-Indices are not subdivided by property type, the risk that the all-types sub-index may not account for differences in property value changes based on property type.

National Bank of Canada (in its capacity as a licensor of the Index (as defined below), the "NBC Licensor") has, jointly with Teranet Inc. ("Teranet" and collectively with the NBC Licensor and their third party licensors the "Licensors"), developed a methodology and algorithm to create a residential house price index. The National Bank of Canada Legislative Covered Bond Programme (the "Programme") is not endorsed, sold or promoted by the Licensors. None of the Licensors make any representation or warranty, express or implied, to the parties to the Programme or any member of the public regarding the advisability or recommendation of investing in the Programme particularly or concerning the results to be obtained from the Teranet-National Bank House Price IndexTM and the Teranet-National Bank Regional and Property Type Sub-IndicesTM (the "Index") and its ability to track the performance of the residential real estate and housing markets or concerning the extent to which the capital value or income return of the Programme matches or will match the performance of the Index or the levels at which Index may stand at a particular date. The Licensors' only relationship to National Bank of Canada as licensee (in such capacity, "NBC") is the licensing of certain trademarks and trade names of the Licensors without regards to NBC or the Programme. The Licensors have no obligation to take the needs of NBC or the parties to the Programme into consideration in determining, composing or calculating the Index. None of the Licensors is responsible for and none has participated in determining the pricing, quantities or timing of the execution of the Programme by the parties thereto or the assessment or method of settlement calculation therefor. The Licensors have no obligation or liability in connection with the administration, marketing or trading of the Programme.

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