

## Pillar 3 Public Disclosure

As of December 31, 2016

### Scope of Application

KEB Hana Bank Canada is a company domiciled in Canada. The bank does not have any subsidiaries. The address of the Bank's registered office is 4950 Yonge St. Toronto, Ontario, Canada. The Bank is a wholly owned subsidiary of KEB Hana Bank (the "Parent") and is licensed to operate as a bank in Canada with full banking powers under the Bank Act (Canada) as a foreign bank subsidiary. The Bank obtained its letters patent as a Canadian chartered bank and its banking license in 1981. The Bank has grown to 9 branches in Toronto, Vancouver and Calgary offering Investment, Loan, Remittance, Export & Import, Credit Card, Bill Payment services.

### Capital Structure & Adequacy

#### 1. Regulatory Capital Position

To calculate the regulatory capital, the Bank uses the standardised approach for credit risk whereas it measures operational risk with the basic indicator approach.

The current capital of the Bank consists of Tier 1 capital with share capital and retained earnings. The Bank has complied with all internally and externally imposed capital requirements throughout the year. In order to monitor the capital base of the Bank, the Management uses regulatory capital ratios which comply with the international standards for measuring capital adequacy. The board of directors of the Bank regularly reviews policies in respect of capital management.

Banking operations are categorised as either trading book or banking book. Risk-weighted assets are determined by specified requirements reflecting varying levels of risk allocated to assets and exposures that are not recognised in the statement of financial position.

(Unit: in thousands of Canadian dollars, except for %)

Modified Capital Disclosure Template <sup>1</sup> as of December 31, 2016		All-in	Transition al
<b>Common Equity Tier 1 capital: instruments and reserves</b>			
1	Directly issued qualifying common share capital (and equivalent for non-joint stock companies) plus related stock surplus	83,400	
2	Retained earnings	131,747	
3	Accumulated other comprehensive income (and other reserves)		
4	<i>Directly issued capital subject to phase out from CET1 (only applicable to non-joint stock companies)</i>		
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)		
6	<b>Common Equity Tier 1 capital before regulatory adjustments</b>	215,147	
<b>Common Equity Tier 1 capital: regulatory adjustments</b>			
28	Total regulatory adjustments to Common Equity Tier 1	4,498	

<sup>1</sup> As advised by OSFI's Capital Adequacy Requirement guideline issued December 2014.

29	<b>Common Equity Tier 1 capital (CET1)</b>	<b>210,649</b>	<b>212,448</b>
<b>Additional Tier 1 capital: instruments</b>			
30	Directly issued qualifying Additional Tier 1 instruments plus related stock surplus		
31	of which: classified as equity under applicable accounting standards		
32	of which: classified as liabilities under applicable accounting standards		
33	<i>Directly issued capital instruments subject to phase out from Additional Tier 1</i>		
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	<b>Additional Tier 1 capital before regulatory adjustments</b>	<b>0</b>	
<b>Additional Tier 1 capital: regulatory adjustments</b>			
43	<b>Total regulatory adjustments to Additional Tier 1 capital</b>		
44	<b>Additional Tier 1 capital (AT1)</b>		
45	<b>Tier 1 capital (T1 = CET1 + AT1)</b>	<b>210,649</b>	<b>212,448</b>
<b>Tier 2 capital: instruments and allowances</b>			
46	Directly issued qualifying tier 2 instruments plus related stock surplus		
47	<i>Directly issued capital instruments subject to phase out from Tier 2</i>		
48	Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)		
49	<i>of which: instruments issued by subsidiaries subject to phase out</i>		
50	Collective allowances		
51	<b>Tier 2 capital before regulatory adjustments</b>	<b>0</b>	
<b>Tier 2 capital: regulatory adjustments</b>			
57	<b>Total regulatory adjustments to Tier 2 capital</b>		
58	<b>Tier 2 capital (T2)</b>		
59	<b>Total capital (TC = T1 + T2)</b>	<b>210,649</b>	<b>212,448</b>
60	<b>Total risk-weighted assets</b>	<b>921,230</b>	<b>923,029</b>
60a	<b>Common Equity Tier 1 (CTE1) Capital RWA</b>	<b>921,230</b>	<b>923,029</b>
60b	<b>Tier 1 Capital RWA</b>	<b>921,230</b>	<b>923,029</b>
60c	<b>Total Capital RWA</b>	<b>921,230</b>	<b>923,029</b>
<b>Capital ratios</b>			
61	Common Equity Tier 1 (as percentage of risk-weighted assets)	22.87%	23.02%
62	Tier 1 (as percentage of risk-weighted assets)	22.87%	23.02%
63	Total capital (as percentage of risk-weighted assets)	22.87%	23.02%
<b>OSFI all-in target</b>			
69	Common Equity Tier 1 capital all-in target ratio	7.00%	
70	Tier 1 capital all-in target ratio	8.50%	
71	Total capital all-in target ratio	10.50%	

**Capital instruments subject to phase-out arrangements  
(only applicable between 1 Jan 2013 and 1 Jan 2022)**

80	<i>Current cap on CET1 instruments to phase out arrangements</i>	0	
81	<i>Amounts excluded from CET1 due to cap (excess over cap after redemptions and maturities)</i>	0	
82	<i>Current cap on AT1 instruments subject to phase out arrangements</i>	0	
83	<i>Amounts excluded from AT1 due to cap (excess over cap after redemptions and maturities)</i>	0	
84	<i>Current cap on T2 instruments subject to phase out arrangements</i>	0	
85	<i>Amounts excluded from T2 due to cap (excess over cap after redemptions and maturities)</i>	0	

## 2. Leverage Ratio

(Unit: in thousands of Canadian dollars, except for %)

<b>Leverage Ratio Common Disclosure Template<sup>2</sup></b>		<b>2016.Q4</b>
<b>On-balance sheet exposures</b>		
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)	1,600,182
2	(Asset amounts deducted in determining Basel III transitional Tier 1 capital)	(4,498)
3	<b>Total on-balance sheet exposures</b> (excluding derivatives and SFTs) (sum of lines 1 and 2)	<b>1,595,684</b>
<b>Derivative exposures</b>		
4	Replacement cost associated with all derivative transactions (i.e., net of eligible cash variation margin)	
5	Add-on amounts for PFE associated with all derivative transactions	
6	Gross up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework	
7	(Deductions of receivables assets for cash variation margin provided in derivative transactions)	
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	<b>Total derivative exposures (sum of lines 4 to 10)</b>	<b>0</b>
<b>Securities financing transaction exposures</b>		
12	Gross SFT assets recognised for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions	
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	
14	Counterparty credit risk (CCR) exposures for SFTs	
15	Agent transaction exposures	
16	<b>Total securities financing transaction exposures (sum of lines 12 to 15)</b>	<b>0</b>
<b>Other off-balance sheet exposures</b>		
17	Off-balance sheet exposure at gross notional amount	50,207
18	(Adjustments for conversion to credit equivalent amounts)	0
19	<b>Off-balance sheet items (sum of lines 17 and 18)</b>	<b>50,207</b>
<b>Capital and Total Exposures</b>		
20	<b>Tier 1 capital</b>	<b>210,649</b>
21	<b>Total Exposures (sum of lines 3, 11, 16, and 19)</b>	<b>1,645,891</b>
<b>Leverage Ratios</b>		
22	<b>Basel III leverage ratio</b>	<b>12.80%</b>

<sup>2</sup> As advised by OSFI's Leverage Requirements Guideline October 2014.

## Explanatory table related to the components of Leverage Ratio Common Disclosure Template

Row number	Explanation
1	On-balance sheet assets (excluding derivatives, SFTs and grandfathered securitization exposures, but including collateral) according to paragraphs 14 and 17 to 20 of the Leverage Requirements Guideline.
2	Deductions from Basel III Tier 1 capital determined by paragraphs 4, 15 and 16 of the Leverage Requirements Guideline and excluded from the leverage ratio exposure measure, reported as negative amounts.
3	Sum of lines 1 and 2.
4	Replacement cost (RC) associated with all derivative transactions, (including exposure resulting from transactions described in paragraph 42 of the Leverage Requirements Guideline), net of cash variation margin received and with, where applicable, bilateral netting according to paragraphs 22 to 35 and 40 of the Leverage Requirements Guideline.
5	Add-on amount for all derivatives exposure according to paragraphs 22 to 35 of the Leverage Requirements Guideline.
6	Grossed-up amount for collateral provided according to paragraph 38 of the Leverage Requirements Guideline.
7	Deductions of receivables assets from cash variation margin provided in derivative transactions according to paragraph 40 of the Leverage Requirements Guideline, reported as negative amounts.
8	Exempted trade exposures associated with the CCP-leg of derivative transactions resulting from client cleared transactions according to paragraph 41 of the Leverage Requirements Guideline, reported as negative amounts.
9	Adjusted effective notional amount (i.e. the effective notional amount reduced by any negative change in fair value) for written credit derivatives according to paragraphs 45 to 47 of the Leverage Requirements Guideline.
10	Adjusted effective notional offsets of written credit derivatives according to paragraphs 45 to 47 of the Leverage Requirements Guideline and deducted add-on amounts relating to written credit derivatives according to paragraph 48 of the Leverage Requirements Guideline, reported as negative amounts.
11	Sum of lines 4 to 10.
12	Gross SFT assets recognised for accounting purposes with no recognition of any netting other than novation with QCCPs as set out in footnote 30 of the Leverage Requirements Guideline, removing certain securities received as determined by paragraph 50 (i) of the Leverage Requirements Guideline and adjusting for any sales accounting transactions as determined by paragraph 53 of the Leverage Requirements Guideline.
13	Cash payables and cash receivables of Gross SFT assets netted according to paragraph 50 (i) of the Leverage Requirements Guideline, reported as negative amounts.
14	Measure of counterparty credit risk for SFTs as determined by paragraph 50 (ii) of the Leverage Requirements Guideline.
15	Agent transaction exposure amount determined according to paragraphs 54 to 56 of the Leverage Requirements Guideline.
16	Sum of lines 12 to 15.
17	Total off-balance sheet exposure amounts on a gross notional basis, before any adjustment for credit conversion factors according to paragraphs 57 to 65 of the Leverage

	Requirements Guideline.
18	Reduction in gross amount of off-balance sheet exposures due to the application of credit conversion factors in paragraphs 57 to 65 of the Leverage Requirements Guideline.
19	Sum of lines 17 and 18.
20	Tier 1 capital measured on an "all-in" basis for non-D-SIBs as specified in Chapter 2 of OSFI's Capital Adequacy Requirements Guideline.
21	Sum of lines 3, 11, 16 and 19.
22	Basel III leverage ratio according to paragraph 5 of the Leverage Requirements Guideline. (Line 20/21)

### 1. Qualitative Disclosures

#### 1) Credit Risk: General Disclosures

Financial assets, other than those classified as held for trading, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected. However, the impairment losses, expected as a result of future events, are not recognized.

Objective evidence that a financial asset is impaired includes the following loss events:

- significant financial difficulty of the issuer or obligor; or
- a breach of contract, such as a default or delinquency in interest or principal payments; or
- the lender, for economic or legal reasons relating to borrowers' financial difficulty, granting to the borrower a concession that the lender would not otherwise consider; or
- it becoming probable that the borrower will enter bankruptcy or other financial reorganization; or
- the disappearance of an active market for the financial asset because of financial difficulties; or
- observable data indicating that there is a measurable decrease in the estimated future cash flows from a group of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the group

For loans and receivables measured at amortized cost, impairment loss is measured as the difference between the asset's carrying amount and the present value of expected future cash flows discounted at the financial asset's original effective interest rate. All individually significant loans are assessed for objective evidence of individual impairment.

For financial assets that are not individually significant, the Bank assesses whether the objective evidence of impairment exists individually or collectively. If the Bank determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment.

A loan is considered past due when a counterparty has not made a payment by the contractual due date. A loan is classified as impaired when, in management's opinion, there has been deterioration in credit quality to the extent that there is no longer reasonable assurance as to the timely collection of the full amount of principal and interest. Loans where interest or principal is contractually past due 90 days are recognized as impaired, unless management determines that the loan is fully secured, in the process of collection and the collection efforts are reasonably expected to result in either repayment of the loan or restoring it to a current status within 180 days from the date the payment has become contractually in arrears. All loans are classified as impaired when interest or principal is past due 180 days.

The Bank maintains an allowance for credit losses, which in management's opinion is considered adequate to absorb credit-related losses in its portfolio of both on-and off-statement of financial position items,

including deposits with regulated financial institutions, loans, acceptances and other credit-related contingent liabilities, such as letters of credit and guarantees.

The allowance for credit losses consists of Collective Allowances and Individual Allowances, each of which is reviewed on a regular basis. The balance in the allowance for credit losses account is deducted from the related asset category, except for provisions against acceptances and off-statement of financial position items, if any, which are included in other liabilities.

Individual Allowances for the loans are determined on an item-by-item basis and reflect the associated estimated credit loss. The individual allowance is the amount that is required to reduce the carrying value of an impaired loan to its estimated realizable amount. Generally, the estimate realizable amount is determined by discounting the expected future cash flows at the original interest rate inherent in the loan at the date of impairment. When the amounts and timing of future cash flows cannot be measured with reasonable reliability, either the fair value of any collateral underlying the loan, net of expected costs of realization and any amounts legally required to be paid to the borrower, or the observable market price for the loan is used to measure the estimated realizable amount.

Collective Allowances are established to absorb incurred credit losses on the aggregate exposures in each of the Bank's business lines, for which losses are not yet specifically identified on an item-by-item basis. The Collective Allowances is based upon the credit rating and pool determined using statistical analysis of past performance, current economic considerations, the level of allowance already in place and management's judgment.

Allowance for credit losses on loans are recognized as the difference between the assets' carrying amount and the present value of future cash flows expected to be collected by considering borrower's repayment performance, financial position, overdue period, collateral, and mortgage amount.

The collective allowance is established against the loan portfolio in respect of the Bank's core business lines where prudent assessment by the Bank of past experience and existing economic and portfolio conditions indicate that it is probable that losses have occurred, but where such losses cannot be determined on an item-by-item basis. The collective allowance for the loans is underpinned by a risk rating process in which internal risk ratings are assigned at the time of loan origination, monitored on an ongoing basis, and adjusted to reflect changes in underlying credit risk. With the internal risk ratings as the foundation, the allowance is initially calculated through the application of migration and default statistics by risk rating, loss severity in the event of default, collateral and exposure at default patterns within each of the business line portfolios. Based upon recent observable data, senior management forms a judgment whether adjustments are necessary to the initially calculated allowance and the amount of any such adjustments. In making this judgment management considers observable factors such as economic trends and business conditions, portfolio concentrations, and trends in volumes and severity of delinquencies. For mortgage portfolios, expected losses are estimated through analysis of historical loss migration and write-off trends. The level of the collective allowance is re-assessed on regular basis and may fluctuate as a result of changes in portfolio volumes, concentrations and risk profile; analysis of evolving trends in probability of loss, severity of loss and exposure at default factors; and management's current assessment of factors that may have affected the condition of the portfolio. While the total collective allowance is established through a step-by-step process that considers risk arising from specific segments of the portfolio, the resulting total collective allowance is available to absorb incurred losses in the loan portfolio for which there has been no individual allowance. The collective allowance for credit losses is recorded as a reduction of loans in the statement of financial position.



The allowance for credit losses against on-statement of financial position items is reflected as a reduction of the related asset category, and allowances relating to off-statement of financial position items are included in other liabilities in the statement of financial position. Under IFRS, the provisions on undrawn commitments and guarantees are presented in other liabilities on the bank's statement of financial position.

Credit risk is the risk of financial loss to the Bank if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Bank's loans and advances to customers and other banks. The Bank's objective is to minimize the credit risk. In order to manage the credit risk, the Bank sets up and complies with the credit risk limits, and periodically monitors and measures the credit risk of financial instruments using the established methodology such as BASEL II Pillar 1 and 2 risk measurements.

The purpose of the credit risk management is setting up the stabilized profit structure and contributing to the ideal asset allocation by pursuing the asset soundness and minimizing the loss of bank caused by the credit risk via efficient credit risk management.

## **2) Credit Risk Mitigation**

The Bank holds collateral against property in the form of charge, business in the form of cash and securities, deposit and bank guarantee. Among them deposits and bank guarantees are used for credit risk mitigation purposes as these liquid collaterals provide added security in recovering the Bank's asset in case of defaults.

Estimates of fair value are based on the value of collateral assessed at the time of borrowing with a legal document framework that is bilaterally agreed with our clients, and generally are not updated, except when a loan is renewed or individually assessed as impaired.

The Bank follows prudent practices to mitigate risk concentrations under the collateral obtained. The Bank's loan portfolio (consisting of personal line of credit, business line of credit, personal loan, business loan, commercial mortgage loan, residential mortgage loan and guarantee) is primarily secured by real estate property with personal guarantees or deposits.

Main types of collateral taken by the bank are Real Estates, Deposits, Stand-by LC, Business Chattel and so on. Real estates are held in form of charge/mortgage while Deposits, Stand-by LC are held as pledge and business chattel is held by PPSA registration. Collateral Realization Value(CRV) of Residential Property does not exceed 80% of appraisal or purchased value and CRV of Commercial Property does not exceed 60%. 100% of Deposits balance and Stand-by LC guarantee amount are realized as collateral value. Business chattel is considered having no CRV.

Loan guideline defines standard for real estate collaterals valuation. Most of real estate collaterals require appraisals by designated independent appraiser before securing loan is originated. Guideline also defines the cases of which appraisal by independent appraiser can be waived. Real estate value is updated if new appraisal is conducted.

### 3) Quantitative Disclosure

#### Risk-Weighted Assets

( unit : Dollars in thousands)

Risk-weighted assets	2015.12		2016.12	
	Net Exposure	RWA	Net Exposure	RWA
Corporate	475,266	427,395	449,994	400,636
Sovereign	88,967		87,913	
Bank	211,670	42,334	184,645	36,929
<b>Total institutional credit exposures</b>	<b>775,903</b>	<b>469,729</b>	<b>722,552</b>	<b>437,565</b>
Residential mortgages	599,104	209,863	624,889	219,496
Other retail(excl. SMEs)	117,923	34,892	120,114	34,514
Retail SMEs	171,128	158,938	169,228	157,983
<b>Total retail credit exposures</b>	<b>888,155</b>	<b>403,693</b>	<b>914,231</b>	<b>411,993</b>
Other credit risk-weighted assets	23,577	15,078	18,107	10,372
<b>Total Credit Risk</b>	<b>1,687,635</b>	<b>888,500</b>	<b>1,654,890</b>	<b>859,930</b>
Operational Risk		58,938		61,300
Market Risk	-	-	-	-
<b>Total Risk-Weighted Assets</b>	<b>1,687,635</b>	<b>947,438</b>	<b>1,654,890</b>	<b>921,230</b>

## Gross Credit Risk Exposures

(unit : Dollars in thousands)

	2015.12					2016.12				
	Loans	Commitments (Undrawn)	Other Off Balance Sheet Items	Total	RWA	Loans	Commitments (Undrawn)	Other Off Balance Sheet Items	Total	RWA
Corporate	440,504	1,425	33,337	475,266	427,395	416,349	2,086	31,560	449,994	400,636
Sovereign	88,967			88,967		87,913			87,913	-
Bank	211,670			211,670	42,334	184,645			184,645	36,929
<b>Total institutional credit exposures</b>	<b>741,141</b>	<b>1,425</b>	<b>33,337</b>	<b>775,903</b>	<b>469,729</b>	<b>688,906</b>	<b>2,086</b>	<b>31,560</b>	<b>722,552</b>	<b>437,565</b>
Residential Mortgages	599,110			599,110	209,863	624,899			624,899	219,496
Other Retail (excl. SMEs)	107,946	4,027	5,959	117,932	34,892	106,814	7,767	5,533	120,114	34,514
Retail SME	169,038	2,261	19	171,318	158,938	165,967	3,258	3	169,228	157,983
<b>Total retail credit exposures</b>	<b>876,094</b>	<b>6,288</b>	<b>5,978</b>	<b>888,360</b>	<b>403,693</b>	<b>897,680</b>	<b>11,025</b>	<b>5,536</b>	<b>914,241</b>	<b>411,993</b>
<b>Total Gross Credit Exposure</b>	<b>1,617,235</b>	<b>7,713</b>	<b>39,316</b>	<b>1,664,263</b>	<b>873,422</b>	<b>1,586,586</b>	<b>13,111</b>	<b>37,096</b>	<b>1,636,793</b>	<b>849,558</b>

\* Excluding other assets subject to credit risk

**Credit Risk Exposures by Geography**

( unit : Dollars in thousands)

	2015.12					2016.12				
	B.C	Ontario	Alberta	Abroad	Total	B.C	Ontario	Alberta	Abroad	Total
Loans	349,586	1,118,731	79,587	69,331	1,617,235	381,634	1,077,406	76,492	51,055	1,586,586
Commitments(Undrawn)	1,882	5,545	287		7,713	4,848	7,836	428		13,111
Other Off Balance Sheet Items	786	28,098	10,432		39,316	709	24,763	11,624		37,096
<b>Total</b>	<b>352,254</b>	<b>1,152,373</b>	<b>90,305</b>	<b>69,331</b>	<b>1,664,263</b>	<b>387,190</b>	<b>1,110,005</b>	<b>88,544</b>	<b>51,055</b>	<b>1,636,793</b>

\* Excluding other assets subject to credit risk

## Credit Risk Exposures by Industry

( unit : Dollars in thousands)

	2015.12				2016.12			
	Loans	Commitments (Undrawn)	Other Off Balance Sheet Items	Total	Loans	Commitments (Undrawn)	Other Off Balance Sheet Items	Total
Agriculture	356	3	125	483	238	3	79	320
Capital Goods	5,793	16	-	5,809	6,602	-	2,887	9,488
Communications	2,593	41	-	2,634	2,345	23	5	2,373
Energy	0	-	23,564	23,564	512	16	23,195	23,723
Financial Services	192,490	4	-	192,494	177,434	3	-	177,436
Manufacturing	23,805	257	-	24,063	26,649	296	-	26,945
Metal & Mining	-	-	105	105	-	-	105	105
Other	959,729	4,342	1,993	966,064	985,993	8,373	1,852	996,218
Real Estate	239,532	730	503	240,766	210,546	1,483	483	212,512
Resources & Basic Material	0	-	20	20	-	-	20	20
Retail	77,291	1,300	7,371	85,962	78,875	1,785	7,354	88,015
Services	115,599	775	5,364	121,738	97,037	953	835	98,824
Technology	0	-	2	2	-	-	2	2
Transportation	47	244	269	561	356	177	280	813
<b>Total</b>	<b>1,617,235</b>	<b>7,713</b>	<b>39,316</b>	<b>1,664,263</b>	<b>1,586,586</b>	<b>13,111</b>	<b>37,096</b>	<b>1,636,793</b>

\* Excluding other assets subject to credit risk

## Geographic Distribution of Allowances and Impaired Loans

( unit : Dollars in thousands)

	2015.12					2016.12				
	B.C	Ontario	Alberta	Abroad	Total	B.C	Ontario	Alberta	Abroad	Total
Individual Allowances	-	205	-	-	205	-	135	-	-	135
Collective Allowances (excluding Management Judgement)	487	943	87	11	1,528	666	788	75	13	1,541
Management Judgement					2,984					2,971
<b>Total Allowances</b>	<b>487</b>	<b>1,148</b>	<b>87</b>	<b>11</b>	<b>4,717</b>	<b>666</b>	<b>923</b>	<b>75</b>	<b>13</b>	<b>4,647</b>
<b>Impaired Loans</b>		<b>678</b>			<b>678</b>		<b>2,264</b>			<b>2,264</b>

**Credit Risk Exposures by Residual Contractual Maturity**

( unit : Dollars in thousands)

	2015.12				2016.12			
	Loans	Commitments (Undrawn)	Other Off Balance Sheet Items	Total	Loans	Commitments (Undrawn)	Other Off Balance Sheet Items	Total
Less than 3 years	1,302,419	7,713	39,105	1,349,236	1,267,944	13,111	37,028	1,318,083
3 Years~5 Years	313,882		211	314,093	317,914		68	317,982
Over 5 Years	934			934	729			729
<b>Total</b>	<b>1,617,235</b>	<b>7,713</b>	<b>39,316</b>	<b>1,664,263</b>	<b>1,586,586</b>	<b>13,111</b>	<b>37,096</b>	<b>1,636,793</b>

## Impaired Loans by Industry

( unit : Dollars in thousands)

	2015.12				2016.12			
	Specific allowances	General allowances	Total allowances	Impaired loans	Specific allowances	General allowances	Total allowances	Impaired loans
Agriculture	-	0	0	-	-	-	0	-
Capital Goods	-	0	0	-	-	0	0	-
Communications	-	1	1	-	-	0	0	-
Energy	-	-	-	-	-	-	-	-
Financial Services	-	6	6	-	-	17	17	-
Manufacturing	-	4	4	-	-	2	2	-
Metals & Mining	-	-	-	-	-	-	-	-
Other	62	546	608	160	66	404	471	1,428
Real Estate	7	414	421	370	7	457	463	370
Resources & Basic Material	-	-	-	-	-	-	-	-
Retail	-	308	308	-	21	390	411	424
Services	136	248	384	148	42	270	312	42
Technology	-	0	0	-	-	-	-	-
Management Judgement			2,984				2,971	
Total	205	1,528	4,717	678	135	1,541	4,647	2,264



**Reconciliation of Changes in Allowances including Charges/Charge-Offs for Specific Allowances**

(unit: Dollars in thousands)

	2015.12			2016.12		
	General Allowances	Specific Allowances	Loan Loss Allowance	General Allowances	Specific Allowances	Loan Loss Allowance
Opening Balance, Prior Year End (A)	4,512	521	5,033	4,512	205	4,717
Net Transfer to allowance (B)	40	-193	-154	3	108	111
Write-off (C)	-56	-107	-163	-2	-148	-150
Unwinding Effect (D)	-	-15	-15	-	-30	-30
FX rate effect (E)	16	-	16	0	-	0
Ending Balance (A+B+C+D+E)	4,512	205	4,717	4,512	135	4,647

※ Changes during Year

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**Past Due**

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( unit : Dollars in thousands)

<b>Past Due Days</b>	<b>2015.12</b>	<b>2016.12</b>
Less than 31 Days	296	166
31 to 89 Days	506	1,225
90 Days and more	641	2,101
Total Pastdue	1,443	3,492

**Standardized and Supervisory Risk Weighted Net Exposures after Risk Mitigation by risk weighting bands**

( unit : Dollars in thousands)

	2015.12	0%	1%~50%	51%~100%	101%~150%	151%~200%
Standardized approach	189,671	836,742	637,547	98		
	2016.12	0%	1%~50%	51%~100%	101%~150%	151%~200%
Standardized approach	191,085	837,041	605,638	3,029		

**Credit Risk Mitigation used for Standardized Approaches**

( unit : Dollars in thousands)

Risk-weighted assets	2015.12		2016.12	
	Eligible financial collateral	Eligible guarantees/credit derivatives	Eligible financial collateral	Eligible guarantees/credit derivatives
Corporate	25,768	27,629	26,084	30,079
Sovereign	-	-	-	-
Bank	-	-	-	-
<b>Total institutional credit exposures</b>	<b>25,768</b>	<b>27,629</b>	<b>26,084</b>	<b>30,079</b>
Residential mortgages	148	-	137	-
Other retail(excl. SMEs)	10,109	61,291	13,227	61,064
Retail SMEs	2,604	44	1,901	
<b>Total retail credit exposures</b>	<b>12,861</b>	<b>61,335</b>	<b>15,265</b>	<b>61,064</b>
<b>Total Credit Risk</b>	<b>38,629</b>	<b>88,964</b>	<b>41,349</b>	<b>91,143</b>

## Interest Rate Risk , Market Risk & Operational Risk

### INTEREST RATE RISK

As the Bank is involved in non-trading banking activities such as deposit taking and lending, being exposed to market risk is inevitable. A significant portion of such market risk comes from the interest rate risk which is defined as the impact that fluctuating interest rates could have on earnings and economic value of net assets. Interest rate risk primarily arises from the mismatch between the scheduled term to maturity and the re-pricing of assets and liabilities. Generally, the earlier of the maturity and re-pricing date is used when calculating the interest rate risk exposure.

In order to determine the amount of interest rate risk exposure, various scenarios are used to measure the effect of the changing interest rates (i.e. US prime rate and Canadian prime rate) including the standardized approach of 200bp parallel shock and a non-parallel shock of 400bp. The two key measures used under the standardized approach are "Earnings at Risk" (net interest income) and 'Duration Gap' (economic value of equity), and the greater of the two is considered to be the interest rate risk for the period.

"Earnings at Risk" estimates the change in net interest income over a one-year time frame and reflects the short-term immediate effect of the interest rate shock of 200bp.

Duration gap or the economic value of equity measures the difference between the change in the present value of assets and that of liabilities. Unlike earnings at risk that only considers the impact over the next 12 months, the duration gap provides a long-term perspective of the change in the net assets value as it takes into account the impact on the present value of all future cash flows.

However, the relative simplicity of a 200bp parallel rate shock has the disadvantage of ignoring exposures that might be revealed through scenarios that include yield curve twists, inversions, and other relevant scenarios. To mitigate such disadvantage, the parallel shifts in the yield curve of 10, 25, and 100 basis points are also measured under both metrics. As of December 31, 2016, the interest rate risk is determined to be \$14,356K which is the greater of earnings at risk (\$4,407K) and duration gap (\$14,356K).

#### <Earnings at Risk>

Canadian dollars in thousands)

Interest Rate Shock	Interest Income	Interest Expense	Net Interest Income	Change in NII
-200 bp	33,371	9,092	24,279	(4,407)
-100 bp	38,732	11,272	27,460	(1,226)
-25 bp	42,971	14,505	28,466	(220)
-10 bp	43,902	15,259	28,643	(43)
No Change	44,523	15,837	28,686	0
+10 bp	45,177	16,457	28,720	34
+25 bp	46,159	17,387	28,772	86
+100 bp	51,064	22,238	29,026	340
+200 bp	57,605	28,238	29,367	681

The table above shows the impact of various parallel interest rate shifts on net interest income. As of the end of

December 2016, an immediate and sustained 200bp rise in interest rates would increase net interest income by roughly \$0.7 million over the next 12 months. The same amount of drop in interest rates would decrease net income by approximately \$4.4 million. Due to the Bank's portfolio structure, the drop in interest rates would have a more adverse effect on financial statements than the rise in interest rates. The Earnings at Risk exposure reported for this period is within the approved limit, and will continue to be monitored by the Risk Management Department in accordance with the Bank's risk appetite and authorized limits.

### <Duration Gap>

Durations for each time band are used as recommended by the BASEL Committee. The weighted gaps are aggregated across time bands to produce an estimate of the change in economic value of the Bank that would result from the assumed changes in interest rates. As shown below, the economic value of equity as of 2016 year-end is estimated to decrease by \$14,356K when the interest rate shock of 200bp is applied.

Time Band	Floating	1D ~ 1M	1 ~ 3M	3 ~ 6M	6 ~ 12M	1 ~ 2Y	2 ~ 3Y	3 ~ 4Y	4 ~ 5Y	5 ~ 7Y	Over 7Y	NON-RATE SENSITIVE	TOTAL
TOTAL ASSETS	1,141,015	143,016	81,703	16,793	67,012	59,400	30,914	3,909	7,152	0	0	49,567	1,600,482
TOTAL LIABILITIES & EQUITY	170,912	118,783	167,799	190,699	340,582	92,401	15,109	24,125	3,233	2	0	476,837	1,600,482
Difference	970,103	24,233	-86,096	-173,906	-273,569	-33,000	15,805	-20,216	3,919	-2	0	-427,270	0
Proxy Duration	0	0.04	0.16	0.36	0.71	1.38	2.25	3.07	3.85	5.08	6.63		
Interest rate shock(e)	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%		
VaR	0	3,540	2,896	(1,509)	6,064	16,044	6,017	(3,363)	(15,333)	0	0	0	14,356
Interest rate shock(e)	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%		
VaR	0	1,770	1,448	(754)	3,032	8,022	3,008	(1,682)	(7,666)	0	0		7,178
Interest rate shock(e)	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%		
VaR	0	442	362	(189)	758	2,006	752	(420)	(1,917)	0	0		1,795
Interest rate shock(e)	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%		
VaR	0	177	145	(75)	303	802	301	(168)	(767)	0	0	0	(327)

### <Non-parallel Approach>

In addition to various parallel shocks, the stress testing is adopted to further assess an outcome of the interest rate shock under a non-parallel approach, which is composed of four additional scenarios developed by the Bank. In each scenario, the Bank assumes the maximum downfall of interest rate to be 400bp, which is double the severity of the standardized approach. By identifying the worst case scenario of an unfavourable interest rate shock, the additional capital needed to cover such situations can be estimated. As shown below, the largest varied economic value of the worst scenario as of December 31, 2016 was \$32,507K. The additional capital required to cover the worst-case situation is \$18,150K, the difference between the duration gap, \$14,356K and the worst case non-parallel scenario result, \$32,507K.

Time Band	Floating	1D ~ 1M	1 ~ 3M	3 ~ 6M	6 ~ 12M	1 ~ 2Y	2 ~ 3Y	3 ~ 4Y	4 ~ 5Y	5 ~ 7Y	Over 7Y	NON-RATE SENSITIVE	TOTAL
TOTAL ASSETS	1,141,015	143,016	81,703	16,793	67,012	59,400	30,914	3,909	7,152	0	0	49,567	1,600,482
TOTAL LIABILITIES & EQUITY	170,912	118,783	167,799	190,699	340,582	92,401	15,109	24,125	3,233	2	0	476,837	1,600,482
Difference	970,103	24,233	(86,096)	(173,906)	(273,569)	(33,000)	15,805	(20,216)	3,919	(2)	0	(427,270)	0
Proxy Duration	0	0.04	0.16	0.36	0.71	1.38	2.25	3.07	3.85	5.08	6.63		
Scenario 1 (Downward)	0.00%	3.50%	3.00%	2.50%	2.00%	1.50%	1.00%	0.50%	0.00%	-0.50%	-		
VaR (value at risk)	0	6,194	4,345	(1,886)	6,064	12,033	3,008	(841)	0	0	0		28,918
Scenario 2 (Downward)	0.00%	4.00%	3.50%	3.00%	2.50%	2.00%	1.50%	1.00%	0.50%	-0.50%	-		
VaR	0	7,079	5,069	(2,263)	7,580	16,044	4,513	(1,682)	(3,833)	0	0		32,507
Scenario 3 (Upward)	0.00%	-0.50%	0.00%	0.50%	1.00%	1.50%	2.00%	2.50%	3.00%	3.50%	-		
VaR	0	(885)	0	(377)	3,032	12,033	6,017	(4,204)	(22,999)	0	0		(7,383)
Scenario 4 (Upward)	0.00%	-0.50%	0.50%	1.00%	1.50%	2.00%	2.50%	3.00%	3.50%	4.00%	-		
VaR	0	-885	724	-754	4,548	16,044	7,521	-5,045	-26,832	0	0		(4,679)

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## Market Risk

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### 1. Securitization and Equity Risk

The Bank does not possess any marketable securities for trading purpose as of December 31, 2016. Therefore, the Bank is not exposed to securitization and equity risk. In case of such exposure in the future, the Bank will disclose the information accordingly.

### 2. Currency Risk

	USD	KRW	VaR
Basic Rate	1.3480	0.00112377	
Position (USD/KRW)	5,477.43	262,151,290	
Evaluated Value (CAD)	7,384	294,598	<b>10,057</b>

Foreign exchange risk (FX risk) refers to the possible loss incurred from changes in foreign exchanges rates due to volatility in market. A historical 10-day value-at-risk (VaR) method is used to quantify the risk. The 10-day VaR is the difference between the current portfolio value and that of the first percentile (assuming VaR is derived at the 99% confidence interval) from the left-hand tail of the histogram distribution of portfolio values. The 10-day risk-factor changes are applied to the current risk factors so that the portfolio is revalued with the 10-day risk-factor changes as many times as the number of days in the historical sample; 750 historical data prior to the date being valued are used to calculate the 10-day VaR. As of December 31, 2016, the quantified amount of FX risk is \$10,057.



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**OPERATIONAL RISK**

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(Unit : Dollars in Thousands)

Year 1	Gross Income			Alpha	Capital Charge	RWA
	Year 2	Year 3	Average			
33,620	30,056	34,769	32,815	15%	4,922	<b>61,525</b>

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Operational risk is the risk arising from failure of internal processes, from human or system errors, or from external events. Out of the three methods outlined by Basel II, the Basic Indicator Approach is used for calculating the Bank's operational risk. Under this approach, a fixed percentage (alpha) of the average of the previous three years of positive annual gross income must be held as capital to cover the operational risk. As shown in the above table, the amount of risk-weighted assets for operational risk is approximately \$61 million as of the end of December 2016.

## Concentration of Risk Status

### Concentration of Risk Status for the Bank as of December 31, 2016

(Unit: in thousands of Canadian dollars)

		Dec. 31, 2016 (Q4)	Weight
<b>Operating Capital</b>	Credit Risk	90,293	74.80%
	Credit Concentration Risk	9,589	7.94%
	Interest Rate Risk	14,356	11.89%
	FX Risk	10.1	0.01%
	Operational Risk	6,460	5.35%
	<b>Total</b>	<b>120,708</b>	<b>100%</b>

### Pillar 3 Disclosure Requirement for Remuneration

The Bank's remuneration plan, in relation to the business strategy, is based on employee competencies and achievements. Appropriately balanced remuneration creates sense of equality among employees and allows the Bank to maintain its competitive edge. The objective is to utilize appropriate remuneration as a tool for encouragement and a vehicle to increase employee loyalty. Ultimately, the Bank aims to enhance corporate value and attract and retain a skilled workforce within competitive environment that the Bank operates in.

The management determines and establishes the Bank's remuneration structure and operational policy in accordance with remuneration policies fostered by Hana Financial Group and the parent bank, KEB Hana Bank, where significant matters require Board's approval prior to the enactment and amendment. As for an internal policy, the Bank has "Procedures for Remuneration" which HR & Service department reviews on an ongoing basis to motivate employees to meet their objectives. The policy applies to all employees in Toronto, Vancouver and Calgary.

The Bank sets forth remuneration standards in conformity with relevant positions to provide employees with competitive and equitable remunerations. Initially, when stipulating remuneration standards, the Bank requested an external consulting firm to explore into a remuneration level of each job with other comparable institutions followed by considering responsibilities, knowledge and experiences. The determination of remuneration is carried out annually within the pre-determined range based on each employee's responsibilities, experience, competencies and achievements.

However, the remuneration decision for Internal Auditor, Chief Risk Officer and Chief Compliance Officer is determined based on their individual performance, not the Bank's performance that is subject to supervision. In this regard, in 2015 the Board meeting was held on May 15, 2015 and approved the changes of remuneration policy.

The Bank's remuneration policy is in the form of a short-term reward system, which reflects on intrinsic credit and other risk factors, derived from business strategy, target growth and projected earnings. The Bank's performance evaluation is assessed using a profit indicator such as net income that offsets expected losses. At the same time, the Bank's financial soundness evaluation, which also contains financial liquidity management and operation risk management factors, diminishes excessive risk factors.

Remuneration is comprised of fixed base salary and short-term performance based bonus, both in the form of cash. The Bank does not have any other sort of remuneration in shares and share-linked instrument or offer any type of such long-term benefits as post-employment, other deferred long-term and share-based payment. There was no termination benefit payment case during 2016.

Currently, the Bank distributes performance based bonuses on the grounds of variable remuneration standards with relation to the business performance by considering achievement rates of risk-factored target profit, branch ranking; and the parent bank's evaluation results in conjunction with the Balanced Score System that consists of profitability, financial soundness, growth rate, internal control, etc. The degree of performance based bonuses commensurate with the performance of each branch, which is measured against the achievement of specific financial and performance objectives; nevertheless, most employees who contribute toward the bank are generally the beneficiaries. Currently performance based bonuses are provided semi-annually. In 2016 the Bank reviewed on director's remuneration structure and made changes in order to compensate appropriately in commensurate with its strengthened oversight roles and responsibilities after enforcement of Corporate Governance Guideline. The Board approved the amendment on May 6, 2016.

### **Responsibilities of BOD and Senior Management**

- Approve the establishment and revision of mid- to long-term business strategies and remuneration policy while overseeing its operation.
- Approve and examine the Bank's risk management and compliance policies in order to ensure its operational integrity.

### **Responsibilities of other material risk takers**

- Individuals holding offices in key positions whose decisions bring significant influence toward the Bank's operation
- Senior management and other material risk takers amount to total of eight people and they are all either department heads or in the above positions.

### **Remuneration for Senior Management & Other Material Risk Takers**

(Unit: C\$ Dollars in Thousands)

<b>The period of total value of remuneration awarded</b>	<b>2016.1.1~2016.12.31</b>	<b>2015.1.1~2015.12.31</b>
Fixed remuneration		
● Salary & Allowance	1,538	2,208
Variable remuneration		
● Performance bonus	86	432