

The Northern Trust Company, Canada
Basel III Pillar III Disclosure
December 31, 2018

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THE NORTHERN TRUST COMPANY, CANADA OVERVIEW & SCOPE OF APPLICATION

This document presents the capital structure and capital adequacy calculations of The Northern Trust Company, Canada (TNTCC) based on Basel III guidelines on an “All-in” basis. TNTCC complies with the Basel III framework as it applies:

- Pillar 1: Minimum Capital Requirements. TNTCC has adopted the Standardized Approach to Credit Risk and the Basic Indicator Approach to Operational Risk to determine the company’s capital requirements under Basel Capital Adequacy Reporting (BCAR);
- Pillar 2: The Supervisory Review Process. TNTCC completes an Internal Capital Adequacy Assessment Process (ICAAP) annually, with the results reviewed and approved by TNTCC Board of Directors; and
- Pillar 3: Market Discipline. This Pillar 3 disclosure document has been prepared to provide information on TNTCC’s risk management objectives and policies, its capital position, its approach to assessing the adequacy of its capital and its exposure to material risks.

TNTCC was, by Letters Patent of Continuance, continued as a trust company under the *Trust and Loan Companies Act* (Canada) in July 1993 and the Office of the Superintendent of Financial Institutions (OSFI) issued an order approving TNTCC to commence and carry out trust business in January 1994. TNTCC is a wholly owned subsidiary of The Northern Trust Company (TNTC), a corporation organised under the banking laws of the State of Illinois, United States of America. Northern Trust Corporation (NTC), a financial holding company based in Chicago, is the ultimate parent of TNTC. TNTCC is not considered a Domestic-systemically important bank by OSFI.

NTC’s business activities in Canada are comprised of global custody and associated services, securities lending, asset management and fund administration services. These services are delivered through three regulated Canadian entities: TNTCC, the Canada Branch of TNTC (Canada Branch) and NT Global Advisors, Inc. (NTGA Canada).

To ensure that TNTCC maintains sufficient regulatory capital and liquidity at all times, TNTCC has adopted a Capital Management Policy and manages its assets and liabilities in accordance with TNTCC’s Board of Directors approved criteria set forth in its Asset and Liability Management Policy (ALM Policy). The ALM Policy provides the basis for TNTCC’s credit and liquidity risk management and guidelines to govern the investment in securities and money market assets.

TNTCC currently does not hold any client deposits or engage in any activities that result in off-balance sheet exposures. Accordingly, its capital requirements are relatively stable and predictable.

Northern Trust Risk Management

TNTC has established an integrated Enterprise Risk Management Framework (ERM) that provides for consistent risk management practices throughout the organization, including TNTCC, and acts as a reference of how various components are defined, aligned and linked to capital adequacy. It allows for active management of risk in conjunction with defined risk appetites.

TNTCC's risk appetite is low to moderate and its attitude toward risk is best described as judicious, with an objective of long-term stability. TNTCC's very strong capital base and liquid balance sheet enable it to pursue strategic growth opportunities and manage unexpected events. Risk is effectively managed by a comprehensive risk management program which involves related Northern Trust entities, as required.

This report is unaudited and the amounts are presented in Thousands of Canadian Dollars, unless otherwise disclosed. Financial results are prepared in accordance with International Financial Reporting Standards (IFRS).

LOCATION AND FREQUENCY OF DISCLOSURE

This quarterly disclosure is posted and publicly available on Northern Trust's website (www.northerntrust.com).

CAPITAL STRUCTURE

The capital structure of TNTCC consists of Common Shares and Retained Earnings. TNTCC has authorized an unlimited number of common shares without par value. As at December 31, 2018, TNTCC had 30,000 common shares issued fully paid and outstanding.

Table 1 - Capital Structure

The table below provides a breakdown of TNTCC's capital structure:

	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Tier 1 Capital					
Share Capital	30,000	30,000	30,000	30,000	30,000
Retained Earnings	26,971	27,995	28,878	30,050	31,325
Total Tier 1 Capital¹	56,971	57,995	58,878	60,050	61,325
Total Capital	56,971	57,995	58,878	60,050	61,325

1. All capital held by TNTCC is Tier 1 Capital

CAPITAL ADEQUACY

TNTCC has a thorough process to assess capital adequacy built around an internal view of its risk profile and a comprehensive capital planning process.

Projections of regulatory and internal capital requirements and available capital are compared to assess TNTCC's capital adequacy over a multi-year time period. Having a clear understanding of regulatory and internal capital requirements, as well as available capital levels, under different circumstances is an important component of an entity's capital adequacy assessment. TNTCC's capital adequacy is assessed quarterly and is based on the Capital Management Policy and Capital Management Guideline (CMG) approved by the Board of Directors.

Table 2 - Modified Capital Disclosure Template ¹

The table below represents a modified version of the “All-in” capital disclosure template for Non-domestic-systemically important banks (Non-D-SIBs):

	Q4 2017 All-in	Q1 2018 All-in	Q2 2018 All-in	Q3 2018 All-in	Q4 2018 All-in
Common Equity Tier 1 capital: instruments and reserves					
1 Directly issued qualifying common share capital (and equivalent for non-joint stock companies) plus related stock surplus	30,000	30,000	30,000	30,000	30,000
2 Retained earnings	26,971	27,995	28,878	30,050	31,325
6 Common Equity Tier 1 capital before regulatory adjustments	56,971	57,995	58,878	60,050	61,325
29 Common Equity Tier 1 capital (CET1)	56,971	57,995	58,878	60,050	61,325
36 Additional Tier 1 capital before regulatory adjustments	-	-	-	-	-
44 Additional Tier 1 capital (AT1)	-	-	-	-	-
45 Tier 1 capital (T1 = CET1 + AT1)	56,971	57,995	58,878	60,050	61,325
58 Tier 2 capital (T2)	-	-	-	-	-
59 Total capital (TC = T1 + T2)	56,971	57,995	58,878	60,050	61,325
60 Total risk-weighted assets²	32,608	33,918	34,751	35,441	35,148
Capital ratios					
61 Common Equity Tier 1 (as a percentage of risk weighted assets)	174.71%	170.99%	169.43%	169.44%	174.48%
62 Tier 1 (as a percentage of risk weighted assets)	174.71%	170.99%	169.43%	169.44%	174.48%
63 Total capital (as a percentage of risk weighted assets)	174.71%	170.99%	169.43%	169.44%	174.48%
OSFI all-in target					
69 Common Equity Tier 1 capital all-in target ratio	7.0%	7.0%	7.0%	7.0%	7.0%
70 Tier 1 capital all-in target ratio	8.5%	8.5%	8.5%	8.5%	8.5%
71 Total capital all-in target ratio	10.5%	10.5%	10.5%	10.5%	10.5%

1. Numbering in the above table corresponds to the OSFI prescribed template

2. See Table 3 – Capital Adequacy

Table 3 - Capital Adequacy

The Pillar III capital requirements of TNTCC for credit and operational risk are provided in the following table:

	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Capital Requirements for Credit Risk					
Deposits with Regulated Financial Institutions	5,434	4,570	5,762	4,510	6,344
Risk Weighted - Deposits with Regulated Financial Institutions (20%)	1,087	914	1,152	902	1,269
Government Treasury Bills	48,898	49,730	50,217	51,173	52,011
Risk Weighted - Government Treasury Bills (0%)	-	-	-	-	-
Other Assets	4,871	6,072	6,059	6,677	5,654
Risk Weighted - Other Assets (100% - 250%)	4,871	6,104	6,074	6,689	5,666
Total Risk Weighted Assets for Credit Risk	5,958	7,018	7,226	7,591	6,935
Capital Requirements for Operational Risk					
Average three year gross income	14,216	14,344	14,679	14,854	15,045
Capital Charge (15%)	2,132	2,152	2,202	2,228	2,257
Risk Weighted assets for Operational Risk (12.5 times Capital Charge)	26,650	26,900	27,525	27,850	28,213
Total Risk Weighted Assets	32,608	33,918	34,751	35,441	35,148

Table 4 – Leverage Ratio

The table below represents the leverage ratio disclosure on an “all-in” basis:

	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
On-balance sheet exposures					
1 On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)	59,203	60,372	62,038	62,360	64,009
2 (Asset amounts deducted in determining Basel III “all-in” Tier 1 capital)	-	-	-	-	-
3 Total on-balance sheet exposures (excluding derivatives and SFTs)	59,203	60,372	62,038	62,360	64,009
Capital and Total Exposures					
20 Tier 1 capital	56,971	57,995	58,878	60,050	61,325
21 Total Exposures	59,203	60,372	62,038	62,360	64,009
Leverage Ratios					
22 Basel III leverage ratio ²	96.23%	96.06%	94.91%	96.30%	95.81%

1. Numbering in the above table corresponds to the OSFI prescribed template

2. The minimum ratio stipulated by the Basel Committee on Banking Supervision is 3.0%

Liquidity Coverage Ratio

Per OSFI’s Liquidity Adequacy Requirements (LAR) Guideline, TNTCC is required to maintain a liquidity coverage ratio (LCR) with a value no lower than 100%. TNTCC’s LCR exceeded this minimum requirement as at all the quarter ends reported herein.

CREDIT RISK

Credit risk is the risk to earnings and/or capital arising from the failure of a borrower or counterparty to perform on an obligation.

The primary sources of credit risk for TNTCC derive from issuer risk (as it pertains to Canadian government securities), counterparty risk (as it pertains to cash balances maintained with our nostro bank agent and client fee receivables) and concentration risk (as it pertains to concentrated exposure to Canadian sovereign debt).

The credit risk management process is documented in the ALM Policy. Central to this process is approval and monitoring of exposures. The nature of TNTCC's business is not to provide traditional commercial credit; it is not part of TNTCC's business plan to have a portfolio of loans.

TNTCC credit risk exposure is substantively limited to Canada.

Given TNTCC's business focus, counterparties, product offerings and the extremely low risk nature of its investment holdings (Government of Canada securities), TNTCC's exposure to credit risk is not significant.

Table 5 - Residual Contract Maturity Breakdown

A breakdown of TNTCC's credit risk by contractual maturity is provided in the table below:

	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Bank Deposits					
Demand	5,434	4,570	5,762	4,510	6,344
Government Treasury Bills					
Up to 1 month	13,597	3,598	-	3,598	14,495
Over 1 month to 3 months	-	8,991	10,966	11,968	-
Over 3 months to 6 months	12,565	10,927	15,513	14,437	13,413
Over 6 months to 1 year	22,736	26,214	23,738	21,170	24,103
Total Credit Gross Exposure	54,332	54,300	55,979	55,683	58,355

EXPOSURES RELATED TO COUNTERPARTY CREDIT RISK

For TNTCC, counterparty risk pertains to cash balances maintained with a nostro bank agent and client fee receivables.

Northern Trust Corporation (NTC's) Sub-custodian Oversight Committee is charged with evaluating proposals for the appointment or replacement of nostro bank agents for use by NTC legal entities. Upon review by the Sub-custodian Oversight Committee, TNTCC's Capital Markets Credit Committee is ultimately responsible for approving all such appointments and replacements.

TNTCC utilizes the credit ratings from Standard and Poor's (S&P) for purposes of determining its capital adequacy.

Client fee receivables, including aging of such receivables, are reviewed on a monthly basis and followed up as required.

The credit valuation adjustment (CVA) is an adjustment to the mid-market valuation of the trading portfolio due to the risk of losses associated with deterioration in the credit risk of the counterparty. Given the nature of TNTCC's operations a CVA capital charge is not required.

Table 6 - Credit Exposure by Counterparty Type

A breakdown of TNTCC's credit risk exposure by asset class is provided in the table below:

	Q4 2017			Q1 2018			Q2 2018			Q3 2018			Q4 2018		
	Exposure (Gross)	Exposure (Net)	RWA	Exposure (Gross)	Exposure (Net)	RWA	Exposure (Gross)	Exposure (Net)	RWA	Exposure (Gross)	Exposure (Net)	RWA	Exposure (Gross)	Exposure (Net)	RWA
Sovereign ¹	48,898	48,898	-	49,730	49,730	-	50,217	50,217	-	51,173	51,173	-	52,011	52,011	-
Bank ²	5,434	5,434	1,087	4,570	4,570	914	5,762	5,762	1,152	4,510	4,510	902	6,344	6,344	1,269
Other assets ³	4,871	4,871	4,871	6,072	6,072	6,104	6,059	6,059	6,074	6,677	6,677	6,689	5,654	5,654	5,666
Total	59,203	59,203	5,958	60,372	60,372	7,018	62,038	62,038	7,226	62,360	62,360	7,591	64,009	64,009	6,935

1. This asset class covers all exposures to counterparties treated as sovereigns under the standardized approach
2. This asset class covers exposures to banks
3. This asset class includes client receivables

In January 2018, TNTCC adopted IFRS 9, Financial Instruments, on a retrospective basis. IFRS 9 includes a new expected credit loss model for calculating impairment of financial assets. The methodology to recognize expected credit losses considers whether there has been a significant increase in credit risk exposures since the initial recognition of such financial assets. In measuring the expected credit loss, TNTCC considers reasonable and supportable information that is available without undue cost or effort and includes quantitative and qualitative information with a forward-looking analysis. Upon the adoption of IFRS 9, TNTCC recorded an adjustment to the opening balances of client fee receivables, deferred income taxes and retained earnings. The impacts of adopting IFRS 9 on TNTCC's capital and leverage ratios were not material.

MARKET RISK AND LIQUIDITY RISK

Market risk results primarily from the sensitivity of the value of assets and liabilities, as well as the sensitivity of net interest income, to changes in interest rates. Secondly, market risk results from changes in the value of trading positions due to movements in market prices, foreign exchange rates and interest rates.

Market & Liquidity risk is comprised of three sub-risks:

- Trading risk - risk of loss in trading positions from changes in the value of the trading position

- Interest rate risk - risk of loss due to significant unexpected changes in interest rates
- Liquidity funding risk - risk of loss due to the inability to raise capital to meet business needs

TNTCC engages in no trading activity and therefore is not required to hold any capital in relation to market risk.

Liquidity is not required to meet deposit liabilities of TNTCC as TNTCC does not hold any client deposits. Sufficient working capital is maintained at all times to meet business requirements. Core investments are held in third-party bank deposits and Canadian government securities, which are considered liquid assets given their short maturities and marketability.

OPERATIONAL RISK

Operational risk is the risk of loss from inadequate or failed internal processes, people and systems or from external events. Operational risk reflects the potential for inadequate information systems, operating problems, product design and delivery difficulties or catastrophes that result in unexpected losses. TNTCC uses the basic indicator approach to measure operational risk. Operational risk is shown in Table 3 Capital Adequacy.

All operational activities are outsourced to the Canada Branch and are carried out by the employees of the Canada Branch or TNTC. TNTCC does have moderate inherent operational risk which includes the oversight of the outsourced operations. Employment Practices and Workplace Safety risk is limited to the directors of TNTCC as applicable.

INTEREST RATE RISK IN THE BANKING BOOK

Interest rate risk is the risk of loss due to significant unexpected changes in interest rates.

The ALM Policy governs activities related to interest rate sensitivity, liquidity, the pledging of assets, and large exposures in accordance with the OSFI Guidelines.

Equity is the dominant funding source for TNTCC and the majority of the assets at December 31, 2018 are short-term Canadian government securities with an average maturity of approximately six months. As a result, TNTCC has limited exposure to interest rate changes from a loss perspective.

TNTCC's investment assets are generally held to maturity to meet one or more of the following objectives: provide interest income, manage interest rate risk, comply with applicable regulatory requirements or ensure adequate liquidity. Pursuant to the ALM Policy, TNTCC may acquire debentures, bonds or other debt instruments of the Government of Canada or guaranteed by it; or place deposits with banks, subject to TNTC's list of approved counterparties and limits. These investments are also subject to the volume, maturity, and credit guidelines outlined below.

Table 7 - Maturity and Size Restrictions

The maximum maturity of new purchases of an instrument and the total holdings obligations of a single issuer are limited according to the following table as defined in the ALM Policy:

Instruments	Maximum Maturity	Maximum Holdings of a Single Issuer	Concentration limits as % of Assets
Canadian Government Securities	5 Years	No Limit	No Limit
Money Market Assets (deposits in Canadian banks)	3 Months	Approved Credit Limit	25%

TNTCC measures interest rate risk by reference to OSFI's "Interest Rate Risk and Maturities Matching Return" (I3 Return). Since shareholder's equity is the dominant funding source for TNTCC and the vast majority of the assets are in short-term Canadian government securities, TNTCC has minimal exposure to interest rate risk.