

The Northern Trust Company, Canada
Basel III Pillar III Disclosure
March 31, 2019

*April 26, 2019
Subject to Board Approval*

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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 guidelines published by the Basel Committee on Banking Supervision (Basel) and the Office of the Superintendent of Financial Institutions (OSFI). 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's 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 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 March 31, 2019, 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:

	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
Tier 1 Capital					
Share Capital	30,000	30,000	30,000	30,000	30,000
Retained Earnings	27,995	28,878	30,050	31,325	32,446
Total Tier 1 Capital¹	57,995	58,878	60,050	61,325	62,446
Total Capital	57,995	58,878	60,050	61,325	62,446

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 the modified capital disclosure template for Non-domestic-systemically important banks (Non-D-SIBs):

	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
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	27,995	28,878	30,050	31,325	32,446
6 Common Equity Tier 1 capital before regulatory adjustments	57,995	58,878	60,050	61,325	62,446
28 Total regulatory adjustments to Common Equity Tier 1	-	-	-	-	-
29 Common Equity Tier 1 capital (CET1)	57,995	58,878	60,050	61,325	62,446
36 Additional Tier 1 capital before regulatory adjustments	-	-	-	-	-
44 Additional Tier 1 capital (AT1)	-	-	-	-	-
45 Tier 1 capital (T1 = CET1 + AT1)	57,995	58,878	60,050	61,325	62,446
58 Tier 2 capital (T2)	-	-	-	-	-
59 Total capital (TC = T1 + T2)	57,995	58,878	60,050	61,325	62,446
60 Total risk-weighted assets²	33,918	34,751	35,441	35,148	36,749
Capital ratios					
61 Common Equity Tier 1 (as a percentage of risk weighted assets)	170.99%	169.43%	169.44%	174.48%	169.93%
62 Tier 1 (as a percentage of risk weighted assets)	170.99%	169.43%	169.44%	174.48%	169.93%
63 Total capital (as a percentage of risk weighted assets)	170.99%	169.43%	169.44%	174.48%	169.93%
OSFI target					
69 Common Equity Tier 1 capital target ratio	7.0%	7.0%	7.0%	7.0%	7.0%
70 Tier 1 capital target ratio	8.5%	8.5%	8.5%	8.5%	8.5%
71 Total capital target ratio	10.5%	10.5%	10.5%	10.5%	10.5%

1. Numbering in the above table corresponds to the OSFI prescribed template for non-D-SIBs included in the May 2018 Capital Disclosure Requirements Guideline
2. See Table 3 – Risk-weighted Assets

Table 3 – Risk-weighted Assets

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

	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
Capital Requirements for Credit Risk					
Deposits with Regulated Financial Institutions	4,570	5,762	4,510	6,344	5,463
Risk Weighted - Deposits with Regulated Financial Institutions (20%)	914	1,152	902	1,269	1,093
Government Treasury Bills	49,730	50,217	51,173	52,011	52,754
Risk Weighted - Government Treasury Bills (0%)	-	-	-	-	-
Other Assets	6,072	6,059	6,677	5,654	7,205
Risk Weighted - Other Assets (100% - 250%)	6,104	6,074	6,689	5,666	7,231
Total Risk Weighted Assets for Credit Risk	7,018	7,226	7,591	6,935	8,324
Capital Requirements for Operational Risk					
Average three year gross income	14,344	14,679	14,854	15,045	15,162
Capital Charge (15%)	2,152	2,202	2,228	2,257	2,274
Risk Weighted assets for Operational Risk (12.5 times Capital Charge)	26,900	27,525	27,850	28,213	28,425
Total Risk Weighted Assets	33,918	34,751	35,441	35,148	36,749

Table 4 – Leverage Ratio ¹

The table below represents the leverage ratio common disclosure:

	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
On-balance sheet exposures					
1 On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)	60,372	62,038	62,360	64,009	65,422
2 (Asset amounts deducted in determining Basel III Tier 1 capital)	-	-	-	-	-
3 Total on-balance sheet exposures (excluding derivatives and SFTs)	60,372	62,038	62,360	64,009	65,422
Capital and Total Exposures					
20 Tier 1 capital	57,995	58,878	60,050	61,325	62,446
21 Total Exposures	60,372	62,038	62,360	64,009	65,422
Leverage Ratios					
22 Basel III leverage ratio ²	96.06%	94.91%	96.30%	95.81%	95.45%

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

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:

	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
Bank Deposits					
Demand	4,570	5,762	4,510	6,344	5,463
Government Treasury Bills					
Up to 3 months	12,589	10,966	15,566	14,495	13,470
Over 3 months to 6 months	10,927	15,513	14,437	13,413	11,890
Over 6 months to 1 year	26,214	23,738	21,170	24,103	27,394
Total Credit Gross Exposure	54,300	55,979	55,683	58,355	58,217

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 are 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:

	Q1 2018			Q2 2018			Q3 2018			Q4 2018			Q1 2019		
	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	49,730	49,730	-	50,217	50,217	-	51,173	51,173	-	52,011	52,011	-	52,754	52,754	-
Bank ²	4,570	4,570	914	5,762	5,762	1,152	4,510	4,510	902	6,344	6,344	1,269	5,463	5,463	1,093
Other assets ³	6,072	6,072	6,104	6,059	6,059	6,074	6,677	6,677	6,689	5,654	5,654	5,666	7,205	7,205	7,231
Total	60,372	60,372	7,018	62,038	62,038	7,226	62,360	62,360	7,591	64,009	64,009	6,935	65,422	65,422	8,324

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 an 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, leverage and liquidity coverage 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. TNTCC manages its liquidity risk through a monitoring process with escalation procedures based on LCR ratio thresholds.

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 servicing losses. TNTCC uses the basic indicator approach to measure operational risk. The risk-weighted assets relating to Operational risk is included in Table 3.

All operational activities are outsourced to the Canada Branch and are carried out by the employees of the Canada Branch or TNTC. The Canada Branch has adopted an operational risk framework with outlines its operational risk management strategy, programs and practices. 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 March 31, 2019 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.

REMUNERATION

NTC's Total Compensation Policy applies to all partners world-wide. The Compensation and Benefits Committee ("CBC") of the NTC Board has primary responsibility for overseeing all global remuneration. The CBC consists of independent non-executive directors and takes advice from external consultants in all areas of compensation. Members of the CBC are compensated for their services with cash compensation and Restricted Stock Units (RSU). Total remuneration earned by the CBC members for 2018 was US\$1.2M with a combination of cash and stock. The CBC met five times during 2018.

A Canadian based Senior Management Group operates to monitor and implement the Canada compensation policy.

"Senior Management" has been defined as those employees who are the heads of Control Functions and/or members of governing bodies and/or heads of significant business groups. At the end of 2018, there were 8 employees in the Senior Management Group consisting of the Canada Chief Executive Officer, Chief Financial Officer, Legal Counsel, Chief Risk and Compliance Officer, Chief Operating Officer and Head of Relationship Management, SVP, Client Technology and Sales Support, SVP, Global Securities Lending and SVP, Institutional Sales.

"Other Material Risk Takers" are defined as those teams and individuals attached to a function that could have the ability to impact the risk profile of the company, however these all operate within appropriate governance structures and under delegated authorized limits from Senior Management. There are 2 employees in the Other Material Risk Takers group, the VP, Finance and Controller and the VP, Planning and Analysis.

Remuneration design and structure at NTC focuses on all elements of total compensation and differentiation to avoid entitlement, develop a high performance culture, and promote behaviors that are consistent with Northern Trust's desired culture, character, and our values of service, expertise, and integrity. In addition to fixed remuneration, NTC offers variable compensation which includes short term and long term incentives where appropriate. The CBC reviews the remuneration policy on an annual basis. In February 2018, the CBC adopted a revised Total Compensation Policy Statement. The revised policy has a more modern appearance and an updated set of guiding principles that describe how NTC delivers compensation programs that are aligned with the Corporation's philosophy.

Annual review processes for all partners include performance expectations related to the monitoring and mitigation of risk. In completing the annual performance evaluation and compensation planning, managers receive information on how to incorporate appropriate performance expectations relative to the management of risk into the review process. As part of the annual salary reviews and incentive process, managers recommend specific total compensation activities reflecting their discretionary assessment of specific objective and subjective factors including performance against risk expectations.

NTC's Chief Risk Officer ("CRO"), the global head of Corporate Risk Management ("CRM"), participates in quarterly discussions with NTC's Chief Financial Officer and Chief Human Resources Officer regarding the financial performance as well as consideration of risk factors such as credit loss reserves and operational losses. The CRO also participates in funding discussions that inform the recommendation to the CBC of corporate pool funding level as well as to the Chairman and CEO for the Business Unit allocation. CRM has developed a process to track and consolidate risk events for the plan year and this information is provided to Business Unit leaders and managers for incorporation in performance review and compensation recommendations.

Incentive pool funding is a discretionary pool amount set by the CBC. The funding level is based on several factors including a defined range based on a percentage of NTC's pre-tax income, performance against profit plan, and affordability. The profit plan determination includes risk considerations including reserves for credit and operational losses and other risk assessments. When choosing appropriate measures for incentive plans, these goals are aligned with those of the business.

As these business and financial goals are achieved, partners are rewarded accordingly to reinforce the value of their contribution. To determine an individual's pay and incentive allocation, managers will take into consideration discretionary assessment of specific objective and subjective factors such as:

- Corporate and business unit performance;
- performance within a standard risk expectation for all staff;
- prior and expected individual performance and long term impact; and
- team and individual contributions.

Performance factors can result in no increase to base pay and/or no incentive award for a specific performance period.

All regular partners are eligible for a discretionary incentive award subject to performance. Managers recommend a single incentive award which, depending on the amount of the recommended award, may consist of all cash or a mix of cash and a long-term incentive award.

Long-term incentive awards usually are awarded in the form of restricted stock units (“RSUs”) which typically vest over four years. The purpose of the equity awards is to link current and future business leaders to overall long term performance of the organization. Long-term incentive awards are subject to forfeiture prior to vesting, and all incentives are subject to the Policy on Recoupment. Consistent with NTC’s risk-mitigation strategies for its compensation program, the CBC shall review all unvested long-term incentive awards in the case of a financial restatement or misconduct on behalf of the employee.

The Total Compensation Policy Statement is reviewed by the Human Resources Committee of TNTCC Board of Directors on an annual basis.

Table 8a & 8b : Total Value of Remuneration Award for Senior Management and Other Material Risk Takers

The table below provides a breakdown of the total value of remuneration award for Senior Management and Other Material Risk Takers

Table 8a	Unrestricted		Deferred	
	Year ended December 31		Year ended December 31	
	2017	2018	2017	2018
<u>Fixed Remuneration</u>				
•Cash-Based				
Wages(Regular)/Dividend Cash Equivalent	\$2,243	\$2,153	-	-
RRSP employer contributions	-	-	\$200	\$207
•Shares and Share-linked instruments	-	-	-	-
•Other	-	-	-	-
<u>Variable Remuneration</u>				
•Cash-Based				
Stock Option/RSU Grants	\$563	\$617	-	-
•Shares and Share-linked instruments	-	-	\$294	\$474
•Other	-	-	-	-
Total	\$2,806	\$2,770	\$494	\$681

Table 8b

	Year ended December 31	
	2017	2018
Number of employees receiving variable remuneration	11	11
Number of employees and total amount of guaranteed bonuses		
Number and total of sign-on bonuses		
Number and total of severance payments		
Total number of outstanding deferred remuneration shares (in shares)	14,336	34,231
Total amount of deferred remuneration paid out in year (000s)	\$253	\$447