NORTHERN TRUST

PUBLIC RESOLUTION PLAN

DECEMBER 31, 2017

Table of Contents

Glossary

Except where the context otherwise requires, references throughout this document to "Northern Trust," "we," "us," "our," or similar terms mean Northern Trust Corporation and its subsidiaries on a consolidated basis, while references to "NTC" refer solely to Northern Trust Corporation. All references to officers, employees, committees or departments in the 2017 Resolution Plan refer to those of NTC unless otherwise noted.

The following glossary is included for convenience.

Term	Definition
165(d) Rule	Joint rule issued by the Federal Reserve and the FDIC under the Dodd-Frank Act that requires certain bank holding company and nonbank financial institutions to submit resolution plans
2015 Resolution Plan	Northern Trust's 2015 165(d) resolution plan
2017 Resolution Plan	Northern Trust's 2017 165(d) resolution plan
Adverse Scenario	The DFAST Adverse Scenario
Agencies	The Federal Reserve and the FDIC, collectively
ALCO	Asset and Liability Management Policy Committee
AUC / AUA	Assets Under Custody / Administration
AUC	Assets Under Custody
AUM	Assets Under Management
Bank of England	The Bank of England, the U.K. central bank and a U.K. financial services regulatory body
Banking Act	U.K. Banking Act of 2009
BRRD	E.U. Bank Recovery and Resolution Directive
Baseline Scenario	The DFAST Baseline Scenario
BAU	Business-as-usual
Bridge Bank Strategy	Northern Trust's resolution strategy for its 2017 Resolution Plan
C&IS	Corporate & Institutional Services, a CBL
CBL	Core Business Line
Chapter 11 Proceedings	NTC's bankruptcy proceedings pursuant to Chapter 11 of the U.S. Bankruptcy Code
CO	Critical Operation
DFAST	Dodd-Frank Act Stress Test

Term	Definition
DIF	The Deposit Insurance Fund
DIP	Debtor in possession
Dodd-Frank Act	The Dodd-Frank Wall Street Reform and Consumer Protection Act
E.U.	European Union
Failure Catalyst	A significant event that would create a severe liquidity run, which eventually would lead to Northern Trust's failure, reaching a point at which continued operation in BAU would no longer be viable, the PNV
FCA	Financial Conduct Authority of the U.K.
FDIA	The Federal Deposit Insurance Act
FDIC	The Federal Deposit Insurance Corporation
Federal Reserve	The Board of Governors of the Federal Reserve System
FMU	Financial Market Utility
HQLA	High-Quality Liquid Assets
HR Playbook	A playbook which provides an improved framework for identifying key staff and strategies to retain them during periods of stress and failure
IDFPR	Illinois Department of Financial and Professional Regulation
Internal Liquidity Stress Testing	A process to measure the stand-alone liquidity position of each ME
Least Cost Analysis	The analysis used to determines which resolution method is least costly
Least Cost Test	The requirement under 12 U.S.C. § 1823(4) to use the resolution method that is least costly to the DIF
Legal Entity Oversight Committee	A newly established committee which provides senior management oversight, guidance and governance with respect to Northern Trust's legal entity structure, including overseeing the determination of MEs for resolution planning
March 2017 Feedback Letter	The Agencies' March 24, 2017 feedback letter on Northern Trust's 2015 Resolution Plan
ME	Material Entity
MLRC	Market and Liquidity Risk Committee
MOL	Minimum Operating Liquidity
Northern Trust	NTC and its consolidated subsidiaries, collectively
NOS	Northern Operating Services Private Limited

Term	Definition
Nostro Banks	Correspondent banks which serve as Northern Trust's agents to facilitate payments in a market in which Northern Trust does not have a presence
NTC	Northern Trust Corporation
NTC Board	The board of directors of NTC
NTGSL	Northern Trust Global Services Limited
NTI	Northern Trust Investments, Inc.
NTMSL	Northern Trust Management Services Limited
OIR	Operational Inherent Risk
Outsourced Services	Vendor-provided services and functions that support Northern Trust's MEs, CBLs and COs
P&A	Purchase and Assumption
PCS	Payment, clearing and settlement
PCS Playbook	A playbook which identifies Northern Trust's key FMU and subcustodian relationships and includes a detailed analysis on potential adverse actions of FMUs and subcustodians against Northern Trust in financial distress or resolution
PFN	Peak funding needs
PNV	Point of Non-Viability, a point at which continued operation in BAU would no longer be viable
PRA	Prudential Regulation Authority of the U.K.
Public Section	The Public Section of the 2017 Resolution Plan
Resolution Period	The period beginning with the transfer of TNTC to TNTC Bridge Bank through the completion of the bridge bank strategy
Resolution Weekend	The period following the transfer of TNTC into FDIC receivership until NTC's commencement of the Chapter 11 Proceedings
Runway Period	A period beginning upon the occurrence of a Failure Catalyst and ending upon the occurrence of the PNV
Service Agreement Standard	An internal Northern Trust policy which requires service agreements in all instances where affiliates provide services to each other
Severely Adverse Scenario	The DFAST Severely Adverse Scenario
Shared Services	Intercompany services and functions that support Northern Trust's MEs, CBLs and COs

Term	Definition
Steering Committee	The Resolution Planning Steering Committee which is comprised of the most senior officers of Northern Trust to ensure close management oversight over all aspects of resolution planning
Strategic Playbooks	The playbooks which provide an overview of Northern Trust's strategy to resolve its businesses and operations
TNTC	The Northern Trust Company
TNTC Bridge Bank	A bridge bank established and operated by the FDIC, into which TNTC and its subsidiaries would be transferred
TNTC Bridge Bank (London Branch)	The London Branch of the TNTC Bridge Bank established by the FDIC over Resolution Weekend
TNTCC	The Northern Trust Company, Canada
TNTC London	The Northern Trust Company, London Branch
TNTIBC	The Northern Trust International Banking Corporation
U.K. Authorities	The Bank of England, FCA and PRA, collectively
U.S. Authorities	The Federal Reserve, the FDIC and the IDFPR, collectively
WM	Wealth Management, a CBL
Working Group	The Resolution Plan Working Group which facilitate cross stream consistency and oversees project management of the 2017 Resolution Plan

Forward-Looking Statements

The 2017 Resolution Plan is based on a series of hypothetical scenarios and assumptions about future events and circumstances. Accordingly, many of the statements and assessments in this Public Section constitute "forward-looking statements" within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are identified typically by words or phrases such as "believe," "expect," "anticipate," "intend," "estimate," "project," "likely," "plan," "goal," "target," "strategy," and similar expressions or future or conditional verbs such as "may," "will," "should," "would," and "could." Forward-looking statements include statements, other than those related to historical facts that relate to our future plans, objectives and resolution strategies and to the objectives and effectiveness of our risk management, capital and liquidity policies. These statements are based on our current beliefs and expectations and involve risks and uncertainties that are difficult to predict and subject to change. Actual results may differ materially from those expressed or implied by forward-looking statements.

The 2017 Resolution Plan is not binding on any bankruptcy court, regulators or any other resolution authority. In the event of the resolution of Northern Trust Corporation or The Northern Trust Company, the strategies actually implemented by Northern Trust, our regulators or any other resolution authority may differ, possibly materially, from the strategies described in this Public Section. Our expectations and projections regarding the execution of our resolution strategies are based on scenarios and assumptions that are hypothetical and may not reflect events to which Northern Trust is or may become subject. As a result, our actual resolution strategies, or the outcomes of our resolution strategies, could differ, possibly materially, from those we have described.

We also have included information about projects in progress, planned or considered in connection with resolution planning. Any statements with respect to these projects and their impact and effectiveness are forward-looking statements based on current expectations regarding the ability to complete and affect those projects and any actions that third parties must take, or refrain from taking, to permit us to complete those projects. The timing of projects may change from what is expected and these projects may not be effective or have the effect anticipated.

The information contained in the 2017 Resolution Plan submitted, including the designation of "material entities" and "core business lines", has been prepared in accordance with applicable regulatory requirements and guidance. Differences in the presentation of information concerning Northern Trust's businesses and operations contained in this Public Section relative to how such information is presented for other purposes are solely due to compliance with the rules governing the submission of resolution plans and do not reflect changes to our organizational structure, business practices or strategies.

Part 1. Description of Northern Trust Resolution Plan

1. Introduction

This Public Section provides an overview of the overall resolution strategy (the bridge bank strategy) for Northern Trust Corporation (NTC, and together with its subsidiaries, Northern Trust) and its Material Entities (MEs), including its principal subsidiary and insured depository institution, The Northern Trust Company (TNTC).

Under Title I, Section 165(d) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) and implementing regulations (165(d) Rule) issued by the Board of Governors of the Federal Reserve System (Federal Reserve) and the Federal Deposit Insurance Corporation (FDIC, together with the Federal Reserve, the Agencies), NTC, a bank holding company with consolidated assets of $50 billion or more, is required to submit periodically to the Federal Reserve and the FDIC a plan for resolution in the event of material distress or failure of the bank holding company. Accordingly, Northern Trust has developed a resolution plan for NTC under the 165(d) Rule. This Public Section contains the information for NTC's resolution plan that is required by the Agencies to be made publicly available under the 165(d) Rule.

Northern Trust's 2017 resolution plan (the 2017 Resolution Plan) shows how Northern Trust can be resolved in a rapid and orderly manner without causing harm to U.S. financial stability and without exposing U.S. taxpayers to the risk of loss. Under Northern Trust's bridge bank strategy, depositors would have timely access to their insured deposits and there would be no cost to the FDIC Deposit Insurance Fund (DIF). The bridge bank strategy does not contemplate the use of any extraordinary funding or public support or any reliance on the Orderly Liquidation Authority (OLA) powers granted to the FDIC under Title II of the DFA. Northern Trust believes it is highly resolvable under the U.S. Bankruptcy Code and other applicable resolution regimes.

This Public Section of the 2017 Resolution Plan (Public Section) describes how Northern Trust has achieved this goal, including effectively addressing the shortcomings and additional feedback identified in the March 24, 2017 feedback letter (the March 2017 Feedback Letter) jointly issued by the Agencies on Northern Trust's 2015 resolution plan (the 2015 Resolution Plan). In addition to summarizing the enhancements made and addressing feedback items, this Public Section provides an overview of the bridge bank strategy, its impact on all MEs, the risks that may arise and the mitigating actions.

Since submitting the 2015 Resolution Plan, Northern Trust has significantly enhanced its financial, operational, and legal resolvability, enhanced its governance, and improved other aspects of its resolution strategy for the 2017 Resolution Plan. Northern Trust has also more firmly embedded resolution planning in business-as-usual (BAU) practices and procedures throughout the company.

Northern Trust's strategy in the 2017 Resolution Plan contemplates a hypothetical scenario involving an initial capital impairment that results in a liquidity run causing the failure of Northern Trust, followed by the FDIC's placing TNTC into receivership, the establishment of a bridge bank (TNTC Bridge Bank) and NTC's bankruptcy filing pursuant to Chapter 11 of the U.S. Bankruptcy Code. All subsidiaries of TNTC would remain solvent and operational throughout the resolution stages, including after their transfer to TNTC Bridge Bank and through their subsequent disposition or wind down. There are a limited number of immaterial (and, therefore, non-ME) subsidiaries of NTC that would not go into TNTC Bridge Bank; they do not meaningfully impact the franchise value of Northern Trust.

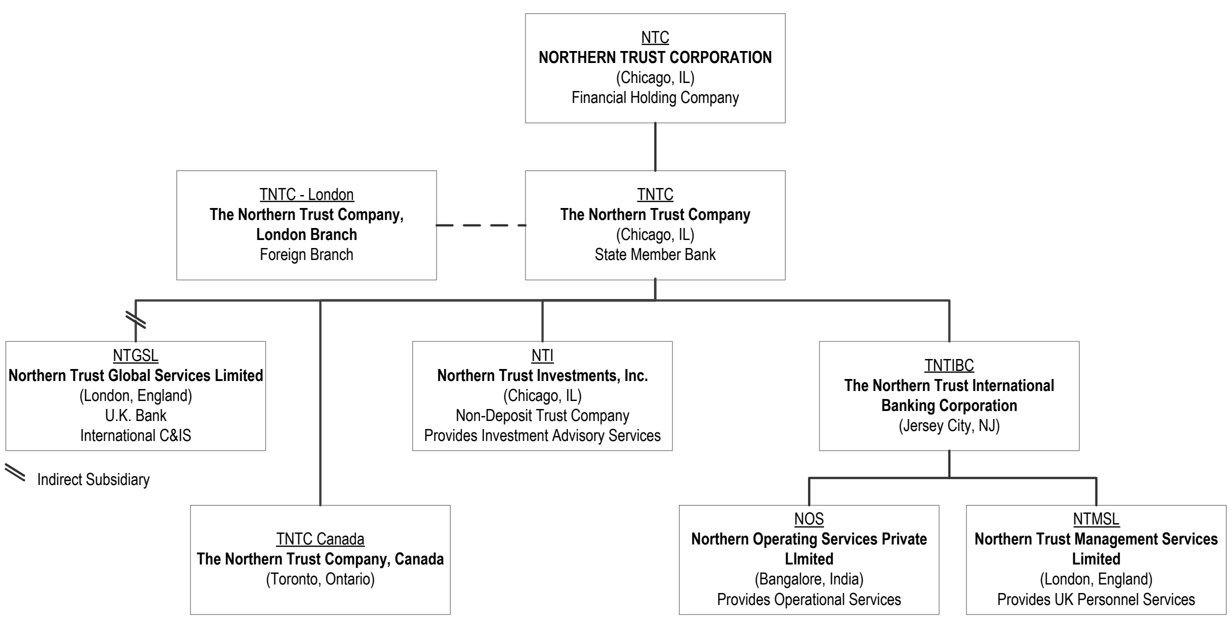
Northern Trust has organized this Public Section to facilitate its stakeholders' understanding of Northern Trust's resolution strategy. Section 2 provides an overview of Northern Trust. In Section 3, Northern Trust describes the key material changes and enhancements that have been added since it submitted the 2015 Resolution Plan. In Section 4, Northern Trust sets forth a detailed description of its bridge bank strategy. In Sections 5 and 6 Northern Trust discusses its actions to address each of the shortcomings and the additional feedback identified in the March 2017 Feedback Letter. Finally, the remaining sections are devoted to other key components of the 2017 Resolution Plan, including additional risks and their mitigants, and Northern Trust's governance over both resolution planning and execution.

2. Overview of Northern Trust

Northern Trust is a leading provider of asset servicing, fund administration, asset management and fiduciary and banking solutions for corporations, institutions, families and individuals worldwide. As of December 31, 2016, Northern Trust had a network of offices in 19 U.S. states, Washington, D.C., and 22 international locations in Canada, Europe, the Middle East, and the Asia-Pacific region. As of December 31, 2016, Northern Trust had $123.9 billion in consolidated total assets, $101.7 billion in deposits, $6.72 trillion in assets under custody (AUC), $8.54 trillion in assets under custody / administration (AUC / AUA) and $942.4 billion in assets under management (AUM). For the year ended December 31, 2016, Northern Trust generated revenues of $5.0 billion and possessed stockholders' equity of $9.8 billion. NTC is Northern Trust's top-level parent bank holding company; it is incorporated in Delaware and has elected to be a financial holding company. TNTC, a subsidiary of NTC, is an Illinois banking corporation and a FDIC insured depository institution that is a member of the Federal Reserve System. At December 31, 2016, TNTC had consolidated assets of $123.5 billion and common bank equity capital of $8.6 billion. Additional information related to Northern Trust is contained in Northern Trust's most recent annual report on Form 10-K and other filings with the U.S. Securities and Exchange Commission, all of which are available on Northern Trust's website. Financial data incorporated in the Resolution Plans and this Public Section is as of December 31, 2016, unless otherwise noted.

Northern Trust's nine MEs for the 2017 Resolution Plan are shown in the following organizational chart.

Exhibit 1. ME Organizational Chart as of December 31, 2016



Northern Trust's two Core Business Lines (CBLs) are Corporate & Institutional Services (C&IS) and Wealth Management (WM). C&IS provides asset servicing, securities lending, brokerage, banking and related services to corporate and public retirement funds, foundations, endowments, fund managers, insurance companies and sovereign wealth and government funds. WM provides advisory services (financial planning, trust and estate services, foundations and institutional advisory services and other specialty asset management services), private and business banking services and investment management services for businesses and foundations. Part 2 of this Public Section provides additional detail on Northern Trust's MEs and CBLs.

3. Material Changes and Enhancements

Since submitting the 2015 Resolution Plan, Northern Trust has made a number of material changes and enhancements to its 2017 Resolution Plan. Importantly, and as set forth more fully herein, the 2017 Resolution Plan addresses the three shortcomings and all of the additional feedback the Agencies identified in the March 2017 Feedback Letter.

Addressing the first shortcoming, Northern Trust's enhanced liquidity capabilities enable Northern Trust to estimate better its liquidity needs, including peak funding needs and minimum operating liquidity (MOL), i.e., intraday requirements, operating expenses, working capital needs and intercompany funding frictions for each ME and to compare those needs with available liquidity. The liquidity analysis conservatively assumes adverse ring-fencing actions by foreign authorities and that liquidity in foreign jurisdictions remains trapped throughout the resolution scenario. Foreign regulators are expected to act in their own best interest, and it is assumed that any intercompany transactions are discontinued and unwound based on their contractual terms; in addition, liquidity is assumed to be trapped and not transferable across jurisdictions (with the exception of intraday transfers associated with client related payment, clearing and settlement activities). Note that liquidity is expected to be transferable across entities within the same jurisdiction. Northern Trust has used this enhanced measurement capability to recalibrate certain liquidity metrics and establish resolution triggers. These enhanced liquidity capabilities demonstrate that Northern Trust will have sufficient liquidity throughout the resolution timeline to operate the CBLs and Critical Operations (COs) without disruption and to pay for intercompany services and functions that support Northern Trust's MEs, CBLs and COs (Shared Services) and vendor-provided services and functions that support Northern Trust's MEs, CBLs and COs (Outsourced Services). Sufficient assets are available for the FDIC to manage TNTC Bridge Bank's liquidity needs through sale or pledging of assets.

Addressing the second shortcoming, Northern Trust has significantly enhanced its analysis under the FDIC's Least Cost Test and other applicable requirements. The 2017 Resolution Plan demonstrates that Northern Trust has sufficient capacity and flexibility to transfer non-dually payable foreign deposits into TNTC Bridge Bank consistent with the Federal Deposit Insurance Act (FDIA) priority of claims and without any creditor class discrimination. All U.S. depositors, foreign depositors and other general unsecured creditors are expected to be paid in full. The transfer of non-dually payable foreign deposits to TNTC Bridge Bank could also be done without any cost to the Deposit Insurance Fund (DIF). Under the bridge bank strategy, all creditors are better off than in liquidation. Northern Trust also conducted sensitivity analysis across a number of material drivers, the analysis which yielded a similar conclusion that all creditors are better off than in liquidation.

Addressing the third shortcoming, Northern Trust has amended key Shared and Outsourced Service contracts to include resolution-friendly language and these contractual amendments, along with new intercompany service agreements and improved processes, have expanded Northern Trust's operational and contractual ability to support the uninterrupted provision of Shared and Outsourced Services throughout the resolution timeline. Northern Trust is committed to further enhancing resolvability. Additional efforts planned are set forth in detailed project plans, including completion timelines.

In addition, other material changes and enhancements in the 2017 Resolution Plan include the following:

Governance

- Increased oversight of resolution planning by the NTC Board of Directors (the NTC Board) and the Business Risk Committee of the NTC Board.
- Created the Resolution Planning Steering Committee (the Steering Committee), comprised of the most senior officers of Northern Trust, including the Chairman and CEO, the President, the Chief Financial Officer, the Chief Operating Officer, the Chief Risk Officer, the Chief Capital Management Officer, the Treasurer, and the General Counsel, to ensure close management oversight over all aspects of resolution planning during BAU and in resolution.
- Established the Resolution Plan Working Group (the Working Group) to facilitate cross-stream consistency and oversee project management of the 2017 Resolution Plan.
- Established the Legal Entity Oversight Committee to provide senior management oversight, guidance and governance with respect to Northern Trust's legal entity structure, including overseeing the process by which MEs are determined for resolution planning.

Financial

- Improved measurement of intraday funding flows by assessing the intraday liquidity need across entities using granular bottom-up transactional data.
- Considered cross-border funding flows and assumed adverse ring-fencing actions by foreign authorities in the liquidity analysis.
- Improved the ability to measure stand-alone ME liquidity, inclusive of intraday needs, and established a process to measure resolution liquidity needs and to determine where liquidity could be potentially trapped during financial stress and in resolution.
- Enhanced assumptions calibration for both liquidity and capital drivers using analytical techniques based on historical data and available benchmarks.
- Determined that Northern Trust would be able to measure and meet its liquidity needs required to maintain critical vendor, Financial Market Utility (FMU) and subcustodian relationships during the Runway Period and identified the funding and liquidity needs required to maintain these relationships, with liquidity support from the FDIC, in TNTC Bridge Bank.

- Enhanced the Least Cost Analysis to treat non-dually payable foreign deposits as unsecured general creditor claims and to ensure there is no creditor class discrimination.
- Conducted sensitivity analysis on key assumptions to gauge the impact on liquidity projections and the Least Cost Analysis to test the viability of the bridge bank strategy.

Operational

- Amended all existing intercompany service agreements, using a global amendment, to remove termination or anti-assignment provisions and include resolution-friendly provisions.
- Amended Northern Trust's Service Agreement Standard to require service agreements in all instances where affiliates provide services to each other.
- Identified contracts of vendors most critical to continuity of COs and CBLs during resolution, amended the contracts to include resolution-friendly provisions, and engaged in active negotiations with remaining identified vendors. To date, Northern Trust has amended a substantial portion of the vendor contracts identified as critical.
- Developed a bank-wide shared services taxonomy and began mapping Shared and Outsourced Services to COs and CBLs; developed a project plan to complete the mapping to identify the risks and to determine associated mitigants.
- Enhanced the HR Playbook, providing an improved framework for identifying key staff and strategies to retain them during periods of stress and failure.
- Further enhanced and developed new playbooks providing an overview of Northern Trust's strategy with respect to its CBLs and COs (Strategic Playbooks).
- Enhanced the Payment, Clearing & Settlement Playbook (PCS Playbook) (formerly the FMU Playbook) to identify FMUs and third-party agents that are key to continuity of the COs and to address the potential discontinuity in FMU relationships.

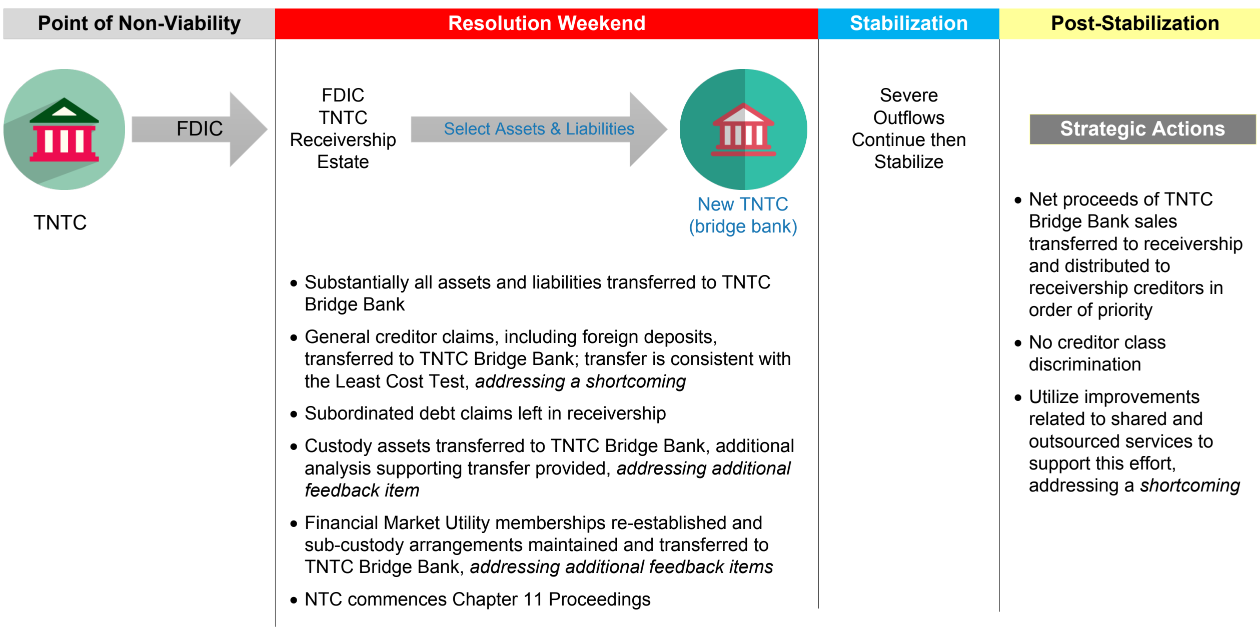
Legal

- Conducted a multi-jurisdictional legal and operational analysis to support the transfer of custodial assets to TNTC Bridge Bank.
- Ensured that the bridge bank strategy follows the strict priority for satisfaction of claims and the treatment of creditors under the FDIA and all other applicable laws.
- Enhanced Northern Trust's legal support for non-U.S. Authorities' cooperation with the FDIC in connection with the bridge bank strategy.

4. Bridge Bank Strategy

Northern Trust's strategy in the 2017 Resolution Plan contemplates an initial capital impairment (the Failure Catalyst) that causes a liquidity run, which eventually leads to Northern Trust's failure, reaching a point at which continued operation in BAU would no longer be viable, the Point of Non-Viability (PNV). At the PNV, the FDIC places TNTC into receivership and establishes TNTC Bridge Bank. NTC files for bankruptcy pursuant to Chapter 11 of the U.S. Bankruptcy Code. All subsidiaries of TNTC would remain solvent and operational throughout the resolution stages, including after their transfer to TNTC Bridge Bank and through their subsequent disposition or wind down. An overview of the strategy is illustrated in Exhibit 2.

Exhibit 2. Overview of the Bridge Bank Strategy



4.1. Failure Scenario and Resolution Timeline

The key stages of the bridge bank strategy are: the period beginning upon the occurrence of a Failure Catalyst and ending upon the occurrence of the PNV (the Runway Period); the period beginning with the transfer of TNTC into FDIC receivership through the transfer of TNTC to TNTC Bridge Bank and the completion of the bridge bank strategy (the Resolution Period), including the period following the transfer of TNTC into FDIC receivership until NTC's commencement of the Chapter 11 Proceedings (the Resolution Weekend); and the exit from the Resolution Period.

The Failure Catalyst begins with an initial event that causes a capital impairment followed by a liquidity run leading to the Runway Period.

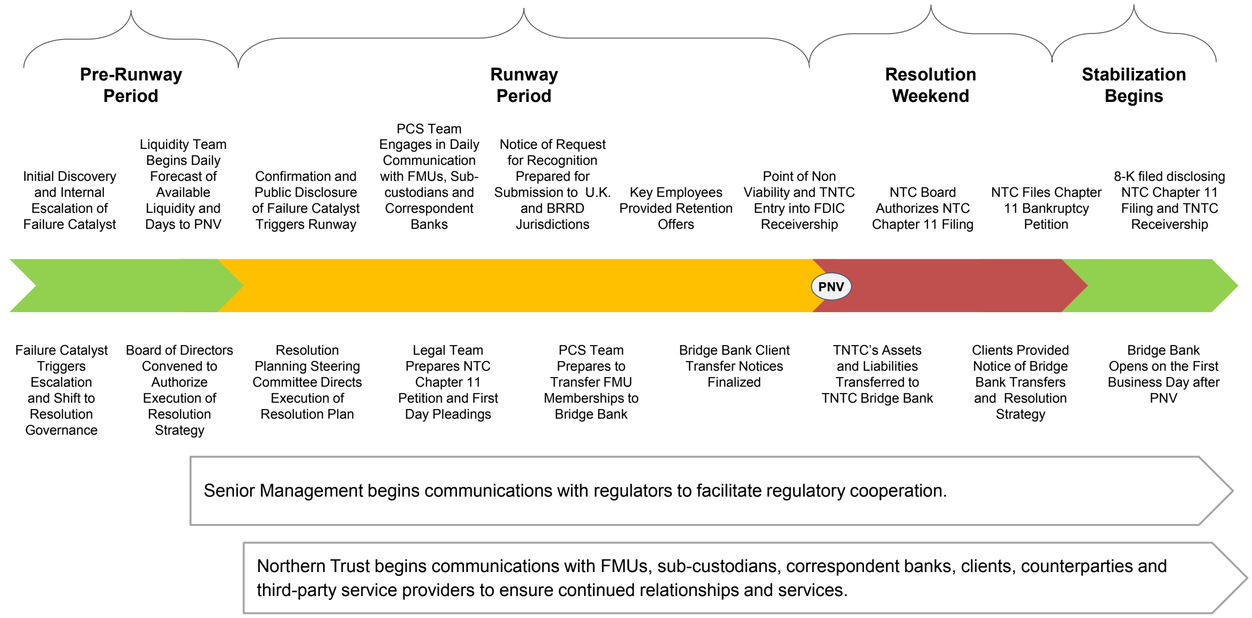
During the Runway Period, Northern Trust would experience liquidity outflows and client attrition. The liquidity run would primarily occur at TNTC, Northern Trust's major operational entity. During this period, NTC's credit ratings would be placed under review and downgraded. This is the period in which the FDIC would consider taking action, and is based on a comparison of Northern Trust's available liquidity with its MOL and peak funding needs.

The PNV marks the end of the Runway Period and the beginning of Resolution Weekend and the Resolution Period. While the Resolution Weekend stage is contemplated to occur over a weekend, the 2017 Resolution Plan would nevertheless be effective if the PNV occurred on another day during the week. Assuming the Resolution Weekend starts on Friday, the FDIC would take TNTC into receivership Friday evening, and create TNTC Bridge Bank over the next two days. The FDIC's objective as receiver would be to facilitate the reopening for business of TNTC Bridge Bank by Sunday evening in Chicago before markets open on Monday morning in Asia. NTC would commence voluntary proceedings pursuant to Chapter 11 of the U.S. Bankruptcy Code (Chapter 11 Proceedings) on the final evening of Resolution Weekend.

The main goals during the Resolution Period would be: (1) to ensure continuity of the CBLs and COs, (2) to stabilize TNTC Bridge Bank, and (3) to execute Northern Trust's strategy in accordance with the Strategic Playbooks in a timely manner. Liquidity outflows and client attrition are assumed to continue for a period after the PNV prior to stabilization. As a result, TNTC Bridge Bank would experience a substantial liquidity need and require additional liquidity support for its operation. TNTC Bridge Bank would be able to meet its liquidity needs and maintain sufficient liquidity to operate by selling assets or borrowing from third-party sources secured through pledged collateral. Upon completion of the strategic actions in accordance with the Strategic Playbooks, TNTC Bridge Bank would exit the Resolution Period.

Exhibit 3 below sets forth some of the key actions Northern Trust would need to take before, during and after the Runway Period. Importantly, during the Runway Period, the NTC Board and the Steering Committee would begin to execute the 2017 Resolution Plan and the various playbooks, as set forth more fully herein.

Exhibit 3. Timeline of Key Runway and Resolution Weekend Actions



4.2. Other Key Assumptions

As required by the 165(d) Rule, as well as the written guidance and additional feedback from the Agencies, Northern Trust makes certain key assumptions, including the following:

- Each FMU, subcustodian, correspondent bank and counterparty would act in its own self-interest and independently. Northern Trust's material FMUs would support continued membership with Northern Trust during the Runway Period and in resolution as long as Northern Trust satisfies increased financial and operational requirements. Counterparties would exercise their contractual early termination rights if such actions would be beneficial to them, although most vendors would continue to provide services in the Runway Period and in resolution as long as they continue to be paid.

- Intercompany transactions conducted in BAU circumstances would be terminated based on contractual maturities, and liquidity would be trapped in foreign jurisdictions. Non-U.S. authorities would not cooperate with the FDIC, unless it is in the best interests of their constituents and currently permitted under applicable law, and would take actions to preserve liquidity in MEs in their jurisdictions to the extent necessary to satisfy local liquidity requirements.

- Severe deposit runoff would occur across all deposit types including custody deposits, commercial and personal banking deposits.

- Northern Trust would not be able to rely on the provision of extraordinary support by the U.S. or any other government to prevent its failure, as well as the availability of any unsecured funding immediately prior to NTC's bankruptcy filing.

4.3. NTC Resolution: Chapter 11 Proceedings

At the beginning of the Runway Period, the Steering Committee, under the direction of the NTC Board, would direct the General Counsel to prepare NTC's petition to commence a case under Chapter 11 of the U.S. Bankruptcy Code and all necessary "first day" pleadings. During the Runway Period, NTC would not be able to rely on funding from TNTC to satisfy its operating expenses and other liquidity needs. Therefore, NTC would commence its Chapter 11 Proceedings at a point when it has sufficient liquidity to operate and to satisfy all administrative expenses necessary to complete the orderly liquidation of NTC's Chapter 11 estate. Once NTC files its bankruptcy petition, the automatic stay imposed by section 362 of the U.S. Bankruptcy Code would take effect, enjoining all creditors and other parties from taking action to collect debts or to pursue claims that arose against NTC prior to the petition date.

NTC, as the debtor, would become the Debtor in Possession (DIP) and continue to operate NTC, aiming to maximize value and to liquidate in an orderly manner its various assets and businesses, other than TNTC and its subsidiaries. TNTC is the only direct subsidiary of NTC that is an ME or is significant to any CBL or CO. As a result, once TNTC enters receivership and NTC commences its Chapter 11 Proceedings, NTC's Chapter 11 estate would have no systemic activity and could be liquidated without adverse effects on the financial stability in the U.S. Northern Trust estimates that as the DIP, NTC could begin to sell off or liquidate assets within weeks of its bankruptcy filing and would be liquidated in coordination with the disposition of TNTC Bridge Bank's assets, as described in the Strategic Playbooks.

The NTC Chapter 11 Proceedings and NTC's orderly Chapter 11 liquidation would not materially affect TNTC or the other MEs, all of which are subsidiaries or branches of TNTC and would be assets under the control of TNTC Bridge Bank. NTC's continued operation is unnecessary to the continuity of Northern Trust's COs, CBLs or intercompany services and functions that support Northern Trust's MEs, COs and CBLs. NTC does not provide any critical Shared Services to TNTC or any other ME.

NTC's cash on hand would provide sufficient funds to cover NTC's administrative expenses during its Chapter 11 Proceedings, including professional fees. NTC's remaining cash on hand would be available to satisfy the Chapter 11 claims of NTC's creditors.

4.4. TNTC Resolution: FDIC Receivership and TNTC Bridge Bank

Under the bridge bank strategy, the FDIC would take TNTC into receivership at the PNV and subsequently would transfer, via a P&A transaction, substantially all of TNTC's assets and liabilities to TNTC Bridge Bank, excluding certain subordinated debt issued by TNTC.

During the Runway Period leading up to the PNV, there would be some deposit runoff and reduction in Northern Trust's assets because many clients would likely transfer their cash deposits and securities to other custodians and depositories, or may be unwilling to continue doing business with Northern Trust. Nevertheless, TNTC would be able to continue operating its COs and CBLs for customers who choose to continue their relationships with Northern Trust or whose assets require a longer transition period. All necessary personnel, Shared and Outsourced Services, and other assets that support Northern Trust's MEs, CBLs and COs, and relationships with FMUs, subcustodians and correspondent banks would be preserved by Northern Trust during the Runway Period to facilitate the continuity of Northern Trust's COs.

During the Runway Period, Northern Trust's senior management would be in active communication with Northern Trust's principal U.S. and non-U.S. regulators, especially the Federal Reserve, the FDIC and the Commissioner of the Illinois Department of Financial and Professional Regulation (IDFPR), the chartering authority and primary regulator of TNTC (collectively, the U.S. Authorities) and the Bank of England, Financial Conduct Authority of the U.K. (FCA) and the Prudential Regulation Authority of the U.K. (PRA and collectively, the U.K. Authorities) to facilitate TNTC's soft landing into receivership and the transfer of substantially all of TNTC's assets and liabilities (including its non-U.S. assets and foreign deposits) to TNTC Bridge Bank.

4.4.1. FDIC Receivership and TNTC Bridge Bank

Once the FDIC determines that one or more grounds exist to take TNTC into receivership, the FDIC, as receiver, would take possession of TNTC. The FDIC would be obligated by statute to resolve TNTC in a manner that is least costly to the DIF and cannot take action, directly or indirectly, that would result in increasing the losses to the DIF by protecting uninsured depositors or creditors, other than depositors of TNTC. Northern Trust's bridge bank strategy satisfies all of these statutory requirements.

As TNTC's receiver, the FDIC would succeed by operation of law to all of the rights, titles, powers and privileges of TNTC and its stockholders, directors, officers, account holders and depositors, subject to the provisions of the FDIA. The FDIA would effectively place the FDIC in the shoes of TNTC to work out creditors' claims under state and other applicable law.

Immediately after taking possession of TNTC over Resolution Weekend, the FDIC would transfer TNTC and all of the other MEs that are subsidiaries or branches of TNTC, as well as TNTC's ownership in these subsidiaries, to TNTC Bridge Bank. Certain subordinated debt issued by TNTC would be left behind in the receivership. Mitigating actions and continuity arrangements have been developed and put in place to maintain the CBLs to facilitate their reopening for business by the end of Resolution Weekend.

The transfer of the receivership's assets and liabilities to TNTC Bridge Bank would include non-dually payable foreign deposits of TNTC and The Northern Trust Company, London Branch (TNTC London), as well as custodial assets. Importantly, Northern Trust's analysis shows that the transfer of these foreign deposits is consistent with the FDIC's Least Cost Test and satisfies all applicable laws concerning the treatment of creditors. Northern Trust has also performed a detailed analysis of the potential legal and operational issues associated with the transfer of custodial assets to TNTC Bridge Bank, including applicable domestic and non-U.S. jurisdictional requirements. As part of this effort, Northern Trust has identified actions that would facilitate the transfer of custodial assets and has taken actions to mitigate remaining impediments and risks.

As set forth in the applicable provisions of the FDIA, the FDIC would control the formation, appointment of directors and the operation of TNTC Bridge Bank. The FDIC, in its capacity as receiver of TNTC and as the operator of TNTC Bridge Bank, would continue ongoing communications with other U.S. and non-U.S. authorities. In particular, the ongoing communications with U.K. Authorities initiated during the Runway Period would accelerate their recognition of the FDIC's resolution proceedings and the transfer of TNTC London to TNTC Bridge Bank.

4.4.2. Operation of TNTC Bridge Bank

All of NTC's CBLs and COs are operated through TNTC and its subsidiaries. The transfer of substantially all assets and liabilities of TNTC (including all ME subsidiaries) to TNTC Bridge Bank would facilitate the continuation of Northern Trust's COs, CBLs and Shared and Outsourced Services, and substantially mitigate the risk that the failure of NTC would have a serious adverse effect on financial stability in the U.S.

All COs, CBLs and Shared Services provided by TNTC and its subsidiaries and Outsourced Services for which TNTC or its subsidiaries are contracting parties would continue operating in TNTC Bridge Bank until their subsequent disposition or wind down in accordance with the Strategic Playbooks. The common ownership and control of Northern Trust's MEs, COs and CBLs in TNTC Bridge Bank, together with intercompany agreements with "resolution resilient" provisions, ensure that all services required to maintain the COs and CBLs would remain available during resolution. All key operations and technology staff, including those providing Shared Services and managing Outsourced Services, would remain with the MEs that employed them prior to the FDIC receivership and would continue to be employed under TNTC Bridge Bank. In addition to the provision of Shared Services necessary to maintain the COs and CBLs pursuant to the terms of an intercompany agreement, TNTC Bridge Bank would provide Shared Services and access to Outsourced Services necessary to allow NTC to manage the disposition of its assets (primarily NTC's ownership of non-ME entities) during NTC's Chapter 11 Proceedings.

Northern Trust has taken steps to ensure that TNTC Bridge Bank would be able to maintain or reestablish relationships with counterparties, including critical vendors, FMUs and subcustodians. Northern Trust has determined that it would be able to meet its MOL needs required to maintain critical vendor, FMU and subcustodian relationships during the Runway Period, and has identified the funding and liquidity needs required to maintain these relationships in TNTC Bridge Bank. All identified critical vendors either have or are in the process of having resolution-friendly language included in the contracts and, as additional critical vendors are identified through the detailed mapping exercise, Northern Trust will follow its process to negotiate to include resolution-friendly language. Northern Trust has already amended a substantial portion of the vendor contracts that have been identified to date as critical with resolution resilient language.

Northern Trust's liquidity and financial analysis shows that the deposit runoff rate would slow down and stabilize after the PNV. During the Resolution Period, TNTC Bridge Bank would borrow funds from third-party sources. TNTC Bridge Bank would pledge collateral to secure the loan thereby maintaining sufficient liquidity to operate. At the PNV, TNTC (and subsequently TNTC Bridge Bank) would have unencumbered loans that may be used to support the funding that TNTC Bridge Bank would require. Based on Northern Trust's liquidity and stress test projections, as well as its anticipated funding and liquidity needs, it is not reasonably anticipated that TNTC Bridge Bank would need additional liquidity beyond the amount that TNTC Bridge Bank would have borrowed from the third-party sources.

4.4.3. Summary Financial Projections

Financial projections for TNTC during the Runway Period and TNTC Bridge Bank during Resolution Weekend and the Resolution Period demonstrate that both entities would have sufficient liquidity to support a rapid and orderly resolution. Immediately before a Failure Catalyst event, Northern Trust would have a strong balance sheet, substantial liquid assets and available liquidity of $81.3 billion, consisting of $36.8 billion of available cash resources and $44.5 billion of investment securities. This includes liquidity that TNTC has globally across all entities in the US jurisdiction and across all foreign entities.

With respect to TNTC during the Runway Period, clients would start withdrawing their business, including their deposits and their AUM, AUC and AUA. Because deposits are a significant source of funding for Northern Trust, a rapid loss of deposits would negatively impact liquidity across multiple jurisdictions, given Northern Trust's global footprint. Additionally, the impact of adverse actions by foreign regulators would pose significant additional liquidity pressure on TNTC. While liquidity outflows would continue to deteriorate TNTC's liquidity position, TNTC would also ensure that it has sufficient liquidity to meet its MOL requirements to cover intraday needs in order to maintain payment, clearing and settlement (PCS) services, operating expenses and working capital requirements.

With respect to TNTC Bridge Bank, and assuming ring-fencing by foreign regulators, the primary drivers of liquidity outflows would be: (1) client deposits, which are expected to runoff at a rapid pace, and (2) maturities of intercompany transactions.

Client deposit runoffs are expected to lead to additional liquidity requirements for a period after the formation of TNTC Bridge Bank, and it is expected that TNTC Bridge Bank would require additional funding as discussed above in order to meet fully its liquidity requirements. During the stabilization period, it is expected that certain loans will be liquidated to generate incremental liquidity.

Once TNTC Bridge Bank has stabilized, it would continue to operate in order to execute its resolution strategy in accordance with the Strategic Playbooks. Liquidity generated from such strategic actions, including disposition or wind down of the businesses, and TNTC's loan portfolio would be used to pay off the debt incurred by TNTC Bridge Bank. The debt incurred is expected to be paid in full at the end of the year.

4.5. TNTC London Resolution: FDIC Receivership and TNTC Bridge Bank (London Branch)

As a branch of TNTC, TNTC London would be included in the TNTC receivership assets, and its assets and liabilities would be transferred to the TNTC Bridge Bank. To facilitate recognition by the U.K. Authorities, Northern Trust would promptly work with the FDIC to demonstrate that: (1) the FDIC's action to transfer the assets and liabilities of TNTC London to the TNTC Bridge Bank would qualify as "a third-country resolution action" under applicable English law and (2) no grounds for refusal of recognition would apply.

The U.K.'s Banking Act 2009, which implemented the European Union Bank Recovery and Resolution Directive (No. 2) Order 2014 into English law, would facilitate the prompt recognition by the U.K. Authorities of the resolution proceedings. Following notification of a third country resolution action, the Bank of England (with the approval of the HM Treasury) is required to recognize all or part of the action, or refuse the action. Recognition may be refused only if one or more of the five enumerated conditions for refusal of recognition is satisfied. The bridge bank strategy addresses the most likely potential condition for refusal by providing for the nondiscriminatory treatment of deposit claims of "creditors located or payable in an EEA state." Under the bridge bank strategy, all foreign depositors would be paid in full. None of the other four conditions for discretionary refusal is likely to be satisfied.

The execution of the bridge bank strategy would also be in the best interests of the U.K. Authorities' constituents and could be facilitated under other applicable law. The U.K. Authorities would have a strong incentive to approve the establishment of the London branch of the TNTC Bridge Bank (TNTC Bridge Bank (London Branch)) and would facilitate the transfer of its assets to TNTC Bridge Bank to avoid the potential for any adverse effect on financial stability in the U.K. (or in another European Economic Area member state) and to ensure the full protection of the depositors of TNTC Bridge Bank (London Branch). In addition, the transfer of TNTC London's assets and liabilities to the TNTC Bridge Bank (London Branch) and the continuation of Shared Services between TNTC Bridge Bank and TNTC Bridge Bank (London Branch) will allow clients of TNTC London continued access to their funds and the asset servicing capabilities of the TNTC Bridge Bank to facilitate their trading activities. On the other hand, as demonstrated in Section 5.2 Least Cost Analysis, if the U.K. Authorities were to refuse to recognize and to support the bridge bank strategy and place TNTC London in local liquidation proceedings, TNTC London's clients would face lower recovery for their non-dually payable deposit claims against TNTC compared to the projected recovery under Northern Trust's bridge bank strategy.

Although Northern Trust believes that recognition by the U.K. Authorities would be non-discretionary under applicable law, because none of the conditions for refusal would be satisfied, Northern Trust has made the conservative assumption that the U.K. Authorities would ring-fence any excess liquidity provided to TNTC from TNTC London during the Runway Period, and that such excess funding could remain trapped in the TNTC Bridge Bank (London Branch) and unavailable to the TNTC Bridge Bank after PNV.

4.5.1. Operation of TNTC Bridge Bank (London Branch)

Once the U.K. Authorities establish the TNTC Bridge Bank (London Branch) and the assets and liabilities of TNTC London are transferred, the daily funds flow from the TNTC Bridge Bank (London Branch) to the TNTC Bridge Bank in support of securities settlement activity that the TNTC Bridge Bank performs on behalf of the TNTC Bridge Bank (London Branch) would continue without disruption. Under the bridge bank strategy, all of the operational platforms necessary to run the COs and CBLs would remain in the TNTC Bridge Bank and would allow clients of the TNTC Bridge Bank (London Branch) to receive uninterrupted service until such time as the assets are sold from the TNTC Bridge Bank.

With the U.K. Authorities' cooperation, the TNTC Bridge Bank (London Branch) could successfully continue providing custody services that the Bank of England considers to be a critical economic function within the U.K. With the Bank of England's recognition of the FDIC's action as part of the bridge bank strategy as a third-party country resolution action, custody agreements entered into by TNTC London and custodial assets administered by TNTC London would be transferred to the TNTC Bridge Bank (London Branch), allowing the TNTC Bridge Bank (London Branch) to continue to perform its contractual obligations to provide asset servicing, payment and delivery and other custody and asset services to clients. Any contractual consent, termination or other contractual rights arising as a result of Northern Trust's resolution or the transfer of the assets and liabilities of TNTC London to the TNTC Bridge Bank

(London Branch) would be unenforceable under English law. In addition, any existing arrangements with third parties for the benefit of TNTC London would be transferred to TNTC Bridge Bank (London Branch) and any termination or other rights that arise as a result of the FDIC's resolution action (or an event directly linked to the action) would not be able to be exercised as long as the substantive obligations under the contract (including payment and delivery obligations and provision of collateral) continue to be performed.

4.5.2. Summary Financial Projections

Under the resolution strategy for TNTC London in the Runway Period and TNTC Bridge Bank (London Branch) post-PNV, the main sources of liquidity would be excess reserves at central banks and High-Quality Liquid Assets (HQLA) investment securities. In addition, maturities of intercompany transactions would lead to an incremental liquidity inflow for TNTC Bridge Bank (London Branch). During the Runway Period, it is expected that the U.K. Authorities would act in their own self-interest and ring-fence the MEs located in the U.K.

TNTC London is expected to fund its own operations through its own liquidity sources in the Runway Period and once TNTC Bridge Bank (London Branch) has been established.

The primary drivers of liquidity outflows would be client deposits, which would be expected to run off at a rapid pace, and maturities of intercompany transactions in other foreign jurisdictions. In addition to meeting the liquidity outflows, TNTC London would have MOL requirements, mainly driven by the intraday need to meet settlement activity for its clients. A portion of the intraday need is expected to be covered by posting eligible non-HQLA investment securities to the Bank of England in order to gain access to a daylight credit facility. One month of operating expenses would be set aside as well; while the entity is expected to be revenue generating, operating expenses would be conservatively set aside to meet any unforeseen operating losses.

4.6. Non-Failing MEs Resolution: NTI, NOS, NTMSL, TNTCC, NTGSL and TNTIBC

Under the bridge bank strategy, all subsidiaries of TNTC including the MEs—Northern Trust Investments, Inc. (NTI), Northern Operating Services Private Limited (NOS), Northern Trust Management Services Limited (NTMSL), The Northern Trust Company - Canada (TNTCC), Northern Trust Global Services Limited (NTGSL) and The Northern Trust International Banking Corporation (TNTIBC)—would remain solvent and operational, and would remain so when they are transferred to TNTC Bridge Bank over Resolution Weekend through the P&A of TNTC's assets and liabilities. To allow TNTC Bridge Bank, under the direction of the FDIC, to remain in control of these operating subsidiaries, the FDIC likely would transfer the stock of all of TNTC's subsidiaries to TNTC Bridge Bank.

Northern Trust projects that given TNTC's subsidiaries' business models and balance sheets, all of these MEs would remain solvent with sufficient liquidity and operational during the resolution of TNTC. NOS and NTMSL are operating entities that receive a cost-plus fee for service, and therefore would continue to receive these fees during resolution. They would generate income and cash, preventing their failure. Given their balance sheet composition and projected deposit attrition, NTGSL and TNTCC are not expected to fail, as they maintain sufficient liquidity for their operations. NTI has an asset management-focused business model but no material balance sheet; therefore it would remain solvent and operational, as would TNTIBC, whose available liquidity would exceed anticipated needs.

Within TNTC Bridge Bank, these MEs would continue to support the COs and CBLs as they did prior to the PNV and, therefore, TNTC Bridge Bank would be able to continue to operate its COs and CBLs until they could be transferred to third-party acquirers or wound down without adversely affecting U.S. financial stability. The MEs would continue to operate and, at the appropriate time, would be sold or wound down in accordance with the Strategic Playbooks. MEs with clients (NTGSL, NTI, TNTCC and TNTIBC) either would be sold or would facilitate the withdrawal or transfer to third-party financial institutions of their clients' deposits and other assets as necessary. Shared Services and Outsourced Services would continue to be provided to these MEs by TNTC Bridge Bank and its third-party vendors contracted with TNTC Bridge Bank. Northern Trust would work with the FDIC to ensure the retention of key personnel during the Runway Period to ensure that TNTC Bridge Bank could retain the personnel in TNTC Bridge Bank and in the non-failing MEs.

4.7. Feasibility of the Bridge Bank Strategy Under Baseline and Adverse Stress Scenarios

The 165(d) Rule and the March 2017 Feedback Letter require that Northern Trust, in planning for its rapid and orderly resolution, take into account that material financial distress or failure of Northern Trust may occur under the baseline, adverse and severely adverse economic conditions provided by the Federal Reserve's final rules implementing stress tests. To make the process as operationally efficient and cost-effective as possible, Northern Trust concentrated on its material financial distress from a Failure Catalyst and resolution occurring under the Dodd-Frank Act Stress Test (DFAST) severely adverse scenario (Severely Adverse Scenario) provided in the first quarter of 2017. This approach is efficient because the Severely Adverse Scenario under the DFAST Severely Adverse Scenario analysis is expected to be more binding than both the baseline scenario (Baseline Scenario) and adverse scenario (Adverse Scenario).

The macroeconomic environment primarily affects the ability of the market to absorb assets and businesses sold by Northern Trust. The haircuts assumed for the sale of investment securities and loans are expected to be more punitive in the Severely Adverse Scenario, thereby impacting both liquidity and capital adversely, and thus being the more conservative macroeconomic scenario as compared with the

Baseline and Adverse Scenarios where the macroeconomic conditions are not so poor. The pool of potentially willing and able acquirers would be smaller under the Severely Adverse Scenario, thereby leading to reduced valuations on the sale of a business. There are no obstacles that would exist in the Baseline Scenario or Adverse Scenario that are not also identified under the Severely Adverse Scenario. Actions taken to improve effectiveness of the 2017 Resolution Plan or remediate impediments or weaknesses would not materially differ if the economic environment at the time of failure was consistent with the Baseline Scenario or the Adverse Scenario, although the magnitude of some of the obstacles would diminish based on a comparatively less severe economic environment.

5. Actions to Address Shortcomings

Northern Trust has addressed the shortcomings included in the March 2017 Feedback Letter. Exhibit 4 below maps these shortcomings to the Sections within this Public Section where the relevant information can be found.

Exhibit 4. Mapping of Shortcomings in March 2017 Feedback Letter

Topic	Public Section (Relevant Sections)
Resolution Liquidity. (1) Describe intraday funding flows between MEs in resolution, including non-U.S. domiciled branches; (2) fully address risks associated with cross-border funding flows; and (3) provide financial projections for all of Northern Trust's MEs.	5.1
Least Cost Analysis. Provide sufficient analysis demonstrating that a transfer of uninsured and foreign deposits to TNTC Bridge Bank would be consistent with FDIC receivership requirements.	5.2
Shared and Outsourced Services. (1) Ensure the existence of termination and anti-assignment provisions in key service contracts; and (2) document service relationships between and among affiliates to ensure continuity of Northern Trust's CBLs and COs in resolution.	5.3

5.1. Shortcoming: Resolution Liquidity

The Agencies identified resolution liquidity as a shortcoming in the 2015 Resolution Plan, noting that Northern Trust's 2017 Resolution Plan should: (1) describe intraday funding flows between MEs in resolution, including non-U.S. domiciled branches; (2) fully address risks associated with cross-border funding flows; and (3) provide financial projections for all of its MEs that clearly show their liquidity needs and the sources from which those needs would be satisfied.

The liquidity analysis conducted by Northern Trust as part of its 2017 Resolution Plan addresses these shortcomings. Northern Trust has remediated the resolution liquidity shortcomings and will continue to make improvements in 2018 and beyond. The enhanced liquidity analysis considers intraday funding flows between MEs in resolution (including non-U.S. domiciled branches). Branches are expected to provide for intraday liquidity driven by their clients located in their respective jurisdictions. The 2017 Resolution Plan also considers risks associated with cross-border funding flows. The analysis takes a conservative and punitive approach, assuming full ring-fencing under the resolution scenario. In addition, liquidity is assumed to be not transferable across jurisdictions. Financial projections are conducted at the ME level, with a clear understanding of liquidity sources and uses, including ME-level intraday liquidity requirements, operating expenses, working capital needs and intercompany funding frictions in order to estimate minimum operating liquidity and peak funding needs.

Finally, for resolution liquidity issues not fully remediated, Northern Trust has project plans in place to complete this work.

5.1.1. Liquidity Capabilities

Northern Trust has significantly enhanced its resolution liquidity measurement capabilities, and has developed a Resolution Planning Calculation engine that is capable of measuring the standalone liquidity positions for each ME, including any non-U.S. branch that is also a material entity (e.g., TNTC London). Importantly, the tool measures the MOL and peak funding needs (PFN) by ME. While MOL is the amount of liquidity needed at each ME to ensure those entities could continue to operate after the PNV, which includes providing PCS services to clients, ensuring there is liquidity to meet operating expenses and working capital needs as well as having sufficient liquidity to mitigate risks associated with intercompany funding frictions, PFN represents an estimate of the amount of additional net outflows the firm expects to occur after the PNV. In addition to computing the PFN and MOL requirements at the ME level, the tool also produces the following forecasts:

- Granular liquidity sources and uses (i.e., cash flows projection)
- Balance sheets
- Capital- and liquidity-related regulatory metrics (e.g., LCR, capital ratios) for applicable entities
- Least Cost Analysis

The enhanced liquidity measurement capabilities ensure a timely execution of the preferred bridge bank strategy and that MEs have the required liquidity (with support from the FDIC on a collateralized basis) to fund net outflows and meet MOL requirements across the resolution horizon for continuity of the CBLs and COs under the bridge bank strategy.

5.1.2. Cross-Border Funding Flows

Northern Trust has considered cross-border funding flows and adverse ring-fencing actions by foreign authorities in the liquidity analysis throughout the entire resolution scenario. Northern Trust conservatively assumes that foreign authorities would act in their best interest and would disallow any cross-border funding to continue following the start of the Runway Period (with the exception of intraday funding flows to support PCS activities for global clients), and thus intercompany transactions would unwind contractually as third-party transactions and liquidity would be trapped in foreign locations.

Northern Trust enters into a range of intercompany transactions in order to facilitate regular business activities. These include facilitating client activities, funding MEs, positioning liquidity, providing access to markets on behalf of affiliates and clients, and investing excess liquidity for economic benefit.

Under the resolution scenario, intercompany transactions may be susceptible to certain frictions, or impediments, that disrupt BAU intercompany transactional activity during stress or resolution scenarios. Northern Trust recognizes the possibility that non-U.S. regulators may act to preserve liquidity at entities within their jurisdiction during a potential stress or resolution scenario, effectively limiting Northern Trust's ability to access cash or securities held at its affiliates. To incorporate this potential scenario, Northern Trust assumes full ring-fencing of non-U.S. entities, which would prevent discretionary flows of liquidity between entities not in the same jurisdiction, other than transfers based on contractual maturities, the assumed ability for parent entities to downstream liquidity to consolidating MEs, and intraday transfers to facilitate PCS activities on behalf of their clients.

This scenario incorporates a substantial amount of friction by its very design as it restricts all intercompany funding flows and distorts Northern Trust's global funding model. No further discretionary flows of liquidity between MEs across jurisdictions are assumed to occur after the initial unwind (with the exception of flows to meet intraday needs on behalf of clients) and, as a result, each ME's liquidity surplus or shortfall is monitored on a stand-alone basis. The primary result of the full ring-fencing assumption is the liquidity pressure on TNTC, as discussed above.

5.1.3. Liquidity Governance

Northern Trust's liquidity status levels and governance framework is designed to align with the stress continuum and to ensure that escalation procedures are in place to manage properly a stress event in accordance with its severity.

The NTC Board is ultimately responsible for the liquidity risk assumed by NTC. The Asset and Liability Management Committee (ALCO) is responsible for ensuring that NTC Board-approved strategies, policies and procedures for managing liquidity risk are appropriately executed within the lines of authority designated for managing and controlling liquidity risk. The Market and Liquidity Risk Committee (MLRC), reporting up to the Business Risk Committee of the NTC Board, is responsible for overseeing NTC's activities relating to the management of market and liquidity risks.

Liquidity metrics, which are monitored and reported daily, are established to facilitate timely, consistent, and transparent monitoring of liquidity risk exposure. Liquidity metrics include early warning indicators, client behavior indicators, and board level limits in line with the organization's liquidity risk appetite. The metrics provide a mechanism for verifying that the organization is operating within its risk tolerance and adhering to the established liquidity risk appetite. The Contingent Liquidity Management Team comprised of senior management, including the Chief Financial Officer, Chief Risk Officer, Liquidity

Risk Head and Corporate Treasurer, is responsible for overseeing the execution of liquidity contingency actions and restoration of liquidity metrics.

In addition, Northern Trust has established capital and liquidity triggers to inform senior management of a potential resolution event. In the event one of these resolution triggers is activated, escalation to the Steering Committee is required. Escalation to the Steering Committee does not mean that NTC's liquidity position is beyond recovery, but it does mean that oversight of the crisis will transition from ALCO and MLRC to the Steering Committee.

5.2. Shortcoming: Least-Cost Analysis

In the March 2017 Feedback Letter, the Agencies identified the transfer of uninsured and foreign deposits to a bridge bank as a shortcoming because Northern Trust lacked sufficient analysis demonstrating that such a transfer would be consistent with FDIC receivership requirements. Under 12 U.S.C. § 1823(4), the FDIC is required to use the resolution method that is least costly to the DIF (the Least Cost Test). To determine which resolution method is least costly, the FDIC would conduct an analysis (the Least Cost Analysis) by considering the costs associated with liquidation compared to those of the bridge bank strategy, and determining whether any creditors would be worse off than in a liquidation scenario.

In response to this shortcoming, the bridge bank strategy treats non-dually payable foreign deposits as unsecured general creditor claims. The Least Cost Analysis conducted by Northern Trust demonstrates that the transfer of non-dually payable foreign deposits to TNTC Bridge Bank could be done without any cost to the DIF and thus would be consistent with the FDIC's least cost requirement. The transfer could also be done without discriminating against creditors of the same class, and would be consistent with the other requirements of the FDIA.

Northern Trust's financial projections in the Least Cost Analysis rely on a series of assumptions, including clients' likely reactions to Northern Trust's financial distress and resolution and potential monetization of investment securities or sales of loans. Every attempt has been made to incorporate appropriately conservative, plausible assumptions based on relevant observed data points. For example, it is assumed that key drivers that impact TNTC's common equity tier 1 capital include an idiosyncratic loss which erodes TNTC's common equity leading to a liquidity run on the bank and a Severely Adverse macroeconomic environment which leads to sale haircuts and other losses.

Under the bridge bank strategy:

- Proceeds would be distributed in the order of priority set forth in the FDIA;
- The FDIC expenses are paid in full;

- Domestic deposits are paid in full;
- All general creditors, including foreign depositors, are paid in full;
- There is no class discrimination;
- The subordinated debt holders are paid in full; and
- There are proceeds remaining for distribution to NTC's claimants.

The bridge bank strategy, therefore, meets the requirements of the Least Cost Test. Compared to liquidation, the transfer of foreign and uninsured deposits to TNTC Bridge Bank would preserve franchise value and would not "have the effect of increasing losses to any insurance fund." If foreign and uninsured deposits were not transferred to TNTC Bridge Bank, the franchise value of Northern Trust would be severely impacted, leading to liquidation and punitive losses reflecting the impaired state of the franchise.

Under liquidation, the value of assets would get a severe haircut and the general creditor class, including foreign deposits, would not be paid in full. Accordingly, under the bridge bank strategy, all creditors are better off than in liquidation and there is no loss to the insurance fund.

5.3. Shortcoming: Shared and Outsourced Services

In the March 2017 Feedback Letter, the Agencies identified Shared and Outsourced Services as a shortcoming, noting that the existence and exercise of termination and anti-assignment provisions in key service contracts and the lack of documentation of service relationships between and among affiliates could potentially disrupt the provision of services needed to ensure continuity of Northern Trust's CBLs and COs in resolution. Since submitting the 2015 Resolution Plan, Northern Trust has continued to enhance its operational resolvability, governance and data mapping for Shared and Outsourced Services and has embedded resolution planning into BAU practices and procedures that support Shared and Outsourced Services. These enhancements address, among other things, the existing termination and anti-assignment provisions in key intercompany and vendor service contracts and the lack of documentation of service relationships between and among affiliates providing Shared and Outsourced Services that support CBLs and COs.

Northern Trust has historically used intercompany agreements to document many of the relationships between and among its affiliates. To address the existing termination and anti-assignment provisions in key intercompany service contracts, Northern Trust has amended all existing intercompany agreements using a global amendment that includes resolution-friendly provisions. All Northern Trust intercompany service agreement templates have also been amended to include resolution-friendly provisions. The resolution-friendly provisions include a continuing contractual obligation imposed on the service provider to provide the Shared Services in resolution as well as contractual limitations on the service provider's ability to inhibit the assignment of the service agreement in resolution. In addition, the resolution-friendly provisions relate to any and all Shared and Outsourced Services provided by the relevant service provider to the relevant service recipient notwithstanding that a particular Shared or Outsourced Service may not have been appropriately identified in the intercompany service agreement. These provisions enhance operational continuity in resolution. As a result of these actions, all intercompany service agreements contain provisions that mitigate risk to operational continuity in resolution. All future intercompany service agreements will also contain similar risk mitigating provisions.

To address the lack of documentation of service relationships between and among affiliates, Northern Trust's Service Agreement Standard was amended and now requires service agreements in all instances where Northern Trust affiliates provide services to each other (the Service Agreement Standard). In documenting new service relationships between and among affiliates where service agreements did not previously exist, Northern Trust has prioritized services provided between MEs, including supporting its CBLs and COs, and services provided by other affiliates that support its COs. Many of the existing intercompany service agreements which were amended using the global amendment referenced above also support CBLs and COs. Northern Trust has now put in place all necessary intercompany service agreements containing resolution-friendly provisions between MEs, including its newly identified ME TNTIBC, as well as intercompany service agreements for services that support its CBLs and COs. Northern Trust will reconcile and validate these service relationships, and put in place any other required intercompany service agreements, continually over time as the mapping of critical Shared Services to COs and CBLs is completed and gaps in intercompany service agreements are identified. The intercompany service agreement process is being further enhanced to capture changes in intercompany services through the normal course of business management.

Northern Trust has robust vendor contracts with its key vendors that are managed through its Procurement Group. To address the existing termination and anti-assignment provisions in key vendor contracts, Northern Trust has developed resolution-friendly provisions similar to those used for intercompany service agreements. In addition, the resolution-friendly provisions for vendor contracts include third-party beneficiary language that permits Northern Trust affiliates that rely on the Outsourced Service to continue to do so in resolution. All identified key vendors either have or are in the process of having resolution-friendly provisions included in the contracts and, as additional key vendors are identified through the detailed mapping exercise, Northern Trust will follow its process to negotiate to include resolution-friendly provisions. Northern Trust has already amended a substantial portion of the vendor contracts that have been identified to date as key with resolution resilient language. Northern Trust has also included resolution-friendly provisions in its vendor contract template and put in place an escalation process to ensure all new key vendor contracts include those provisions. Finally, to assist in implementation of its bridge bank strategy, Northern Trust has assigned to TNTC all key vendor contracts where NTC was the contracting party.

Northern Trust has also updated its vendor intake process to ensure that all key vendors supporting CBLs and COs are identified at intake, and appropriate training is provided to vendor managers. Northern Trust will reconcile and validate the list of key vendors and amend other key vendor contracts continually over time as the mapping of critical Outsourced Services to COs and CBLs is completed and gaps in key vendor contracts are identified.

These contractual amendments, new intercompany service agreements, and improved agreement templates and processes have expanded Northern Trust's operational and contractual ability to support the uninterrupted provision of the Shared and Outsourced Services to TNTC Bridge Bank, the COs and the CBLs during the resolution timeline. As discussed above, for any efforts that are not yet fully completed, Northern Trust has detailed project plans in place, including completion timelines.

6. Actions to Address Additional Feedback

Northern Trust has fully addressed the additional feedback included in the March 2017 Feedback Letter through a combination of completed or planned projects described below. Exhibit 5 below maps the additional feedback to the sections within this Public Section where the relevant information can be found.

Exhibit 5. Mapping of Additional Feedback in March 2017 Feedback Letter

Topic	Public Section (Relevant Sections)
Shared and Outsourced Services. (1) Identify all Shared and Outsourced Services that support COs; (2) maintain a mapping of how and where the Shared and Outsourced Services support CBLs and COs; and (3) mitigate any identified continuity risks beyond the contractual issues noted in the shortcomings above.	5.3 and 6.1
Transfer of Custodial Assets. Provide a detailed analysis of the legal and operational issues associated with the transfer of custodial assets to TNTC Bridge Bank.	6.2
Stress Scenario. Assume first quarter of 2017 DFAST severely adverse scenario variables for resolution plan and discuss any changes to resolution strategy feasibility under the adverse and baseline scenarios.	4.7
Pro Forma Financial Statements for Each ME. Provide pro forma financial statements for each ME at key junctures in the execution of the bridge bank strategy.	6.3
Key Personnel Identification and Retention. Describe the progress to date in developing an HR Staff Retention Playbook.	6.4
FMUs / Subcustodians / Correspondent Banks. (1) Continue to develop playbooks related to continued access to PCS activities in a manner that would support the bridge bank strategy; (2) identify FMUs and third-party agents, such as subcustodians or correspondent banks, that are key to the continuity of Northern Trust's COs; and (3) analyze mitigants to the potential discontinuity in FMU memberships.	6.5

6.1. Additional Feedback: Shared and Outsourced Services

To identify and map Shared and Outsourced Services that support CBLs and COs, Northern Trust is developing a bank-wide Shared Services taxonomy and mapping process that identifies providers of services and their recipients. The completed services taxonomy will provide a comprehensive hierarchical listing of all services performed across Northern Trust and between affiliates, with a consistent level of granularity across the defined Shared or Outsourced Service, and map all of the Shared and Outsourced Services to Northern Trust's COs and MEs. The services taxonomy will allow Northern Trust to maintain a catalog that records mapping and allows updates, queries and analyses.

Northern Trust will use the mapping information to provide for a more robust process. Accordingly, to the extent dependencies have not been captured by other former and parallel processes, they will be identified by the mapping process.

Prior to, and in parallel with, the development of the service catalog referenced above, Northern Trust performed separate analyses of Shared and Outsourced Services to inform the mitigating actions it was taking to address the shortcoming identified in the March 2017 Feedback Letter. For Shared Services, Northern Trust developed a menu of services provided between and among its affiliates. The service menu was originally created using information from Northern Trust's financial accounting engine to establish financial interconnections between legal entities. The service menu is now being aligned with the Shared Services taxonomy. Through this process, Northern Trust has identified gaps in existing intercompany service agreements and service relationships. As the service catalog and mapping of Shared Services develop further, the data will be used to reconcile and complete the work on intercompany service agreements.

For Outsourced Services, Northern Trust utilized its existing vendor risk assessment process to identify critical Outsourced Services being provided by key vendors. Northern Trust's existing Operational Inherent Risk (OIR) assessment process ranks its vendors for "business criticality." Each OIR vendor assessment is completed by the designated vendor manager for the relevant vendor. After using the OIR assessment process to identify a preliminary list of critical vendors, Northern trust engaged business units and subject matter experts to challenge and validate the rankings and ultimately to identify a list of critical vendors. As the service catalog and mapping of Outsourced Services develop further, the data will be used to reconcile and complete any work identifying critical vendor contracts.

Northern Trust's contract management systems and databases have aided in its identification and mapping of Shared and Outsourced Services. An internal site that houses all intercompany service agreements permits Northern Trust to identify readily whether intercompany agreements exist and, if so, the underlying services. Northern Trust maintains its vendor contracts on a management system which is in the process of being upgraded to an automated, searchable contract management database. This system will allow Northern Trust to manage effectively its intercompany service agreements and vendor contracts.

As discussed above, for any Shared and Outsourced Service efforts that are not yet fully completed, Northern Trust has detailed project plans in place, including completion timelines.

6.2. Additional Feedback: Transfer of Custodial Assets

The March 2017 Feedback Letter requires that the 2017 Resolution Plan provide a detailed analysis of the legal and operational issues associated with the transfer of custodial assets to TNTC Bridge Bank, including any impediments to such transfer, and a discussion of all applicable domestic and non-U.S. jurisdictional requirements associated with the transfer. The letter also directed Northern Trust to provide a project plan with specific timelines to remediate any impediments identified as a result of this analysis.

To address this feedback, Northern Trust conducted a detailed analysis of the potential legal and operational impediments to the transfer of custodial assets based on key provisions in Northern Trust's client custody agreements and outsourced subcustody agreements, and the governing law and jurisdictional requirements that would govern the transfer of custodial relationships under the bridge bank strategy. Northern Trust focused its legal analysis on key contractual provisions such as insolvency-based termination rights, required consents, change of control provisions and other contractual rights that could pose a legal impediment to the transfer of custodial assets and relationships to a bridge bank.

Northern Trust has determined that, based on its analysis of the FDIA and other applicable U.S. law, there are no material impediments to the transfer of TNTC's and its U.S. subsidiaries' custody contracts governed by U.S. law, or to the transfer of TNTC's U.S. subsidiaries' custody contracts governed by non-U.S. law (due to the absence of cross-default or consent to change of control provisions in the U.S. subsidiaries' contracts). Based on a detailed analysis of the Banking Act and similar laws of E.U. states enacting the third-country recognition and property transfer provisions of the E.U. Bank Recovery and Resolution Directive (BRRD), there are no material impediments to the transfer of custodial assets and contractual relationships from TNTC London, NTGSL and TNTC's non-ME E.U. subsidiaries and branches governed by U.S. law, U.K. law or the similar laws of E.U. states that have adopted the BRRD. This analysis represents a substantial majority of the assets under custody.

In addition to consulting Northern Trust's primary outside counsel for U.S. and U.K. resolution matters, Northern Trust also retained local counsel in Canada, Guernsey, Saudi Arabia, Australia and other jurisdictions to address questions of local law and local jurisdictional requirements that govern the transfer of custodial assets and contractual relationships in these jurisdictions.

With respect to the custody assets and contractual relationships where the power to transfer is not clear, Northern Trust has concluded that even were there to be legal impediments to transfer, there would be (1) no risks to the U.S. financial system, (2) no material financial or operational impact on TNTC, and (3) no other material adverse effects with respect to its resolution.

6.3. Additional Feedback: Pro Forma Financial Statements for Each ME

The March 2017 Feedback Letter requires that the 2017 Resolution Plan include pro forma financial statements for each ME at key junctures in the execution of the bridge bank strategy, including the beginning and end of the Runway Period. The 2017 Resolution Plan includes such information.

6.4. Additional Feedback: Key Personnel Identification and Retention

The March 2017 Feedback Letter requires that the 2017 Resolution Plan describe the progress to date in developing its HR Staff Retention Playbook (the HR Playbook), including any actions Northern Trust has taken or plans to take to address the risk that key employees may depart during its resolution. The enhanced HR Playbook supports Northern Trust's assertion that its resolution strategy is operationally feasible and that Northern Trust will be able to retain key employees necessary to operate the business before and during the potential sale or wind down processes without disruption, as outlined in its resolution strategy.

In resolution, it is highly probable that Northern Trust employees would look for alternative employment opportunities or be recruited by other employers. It is necessary to retain a sufficient number of employees to facilitate the continued operations of the CBLs and COs. Northern Trust has identified the key roles and the number of employees in them that would be necessary to maintain operational stability during resolution (the Key Personnel), and has developed strategies to incentivize Key Personnel to remain employed by a Northern Trust entity or TNTC Bridge Bank during resolution.

The HR Playbook includes:

- The methodology used to identify the Key Personnel within each business unit and/or group and by jurisdiction and ME, and the resulting retention data for said groups;
- The strategies to retain Key Personnel during resolution;
- The process that would be followed to implement the strategies; and
- The governance process for ongoing maintenance of and enhancements to the HR Playbook, including periodic feasibility testing and updates.

6.5. Additional Feedback: FMUs / Subcustodians / Correspondent Banks

The March 2017 Feedback Letter requires Northern Trust to: (1) continue to develop its playbook related to continued access to PCS activities in a manner that would support an orderly resolution under the bridge bank strategy; (2) identify each FMU and third-party agent that is key to the continuity of the

Northern Trust's critical operations; and (3) provide additional information that addresses the potential discontinuity in FMU memberships.

Northern Trust has fully addressed this regulatory feedback. Its PCS Playbook includes an updated analysis of liquidity and operational requirements of FMUs and subcustodians and their impact on the viability of the bridge bank strategy. Northern Trust has used this updated PCS Playbook to identify the FMU memberships, subcustodians and correspondent banks (also referred to therein as Nostro Banks) that are key to the continuity of its COs and to understand better potential adverse actions that FMUs, subcustodians and correspondent banks may take against Northern Trust. To ensure continued access to FMUs, subcustodians and correspondent banks during resolution, Northern Trust has undertaken various efforts that mitigate the risk of disruptions, including eliminating reliance on FMU unsecured intraday credit during resolution. With these mitigants in place, Northern Trust believes that its relationships with FMUs, subcustodians and correspondent banks would continue in a resolution scenario.

6.5.1. FMUs

As set forth in Part 2, Section 5, Northern Trust has 13 material FMU relationships and, in accordance with the applicable FMU membership rules, meets each of the FMU's financial and operating requirements in order to perform the PCS activities associated with the custody services it provides to clients. All of Northern Trust's existing memberships with FMUs are held by TNTC or TNTCC, and for a certain membership TNTC London acts as agent on behalf of TNTC.

Continued memberships in FMUs and their timely transfer to or reestablishment within TNTC Bridge Bank would be critical to Northern Trust's successful resolution because loss of continued access to these FMUs could disrupt its ongoing operations and the processing of client transactions. FMUs, in general, have broad discretion in determining participants' memberships. In financial distress and resolution, concerned with Northern Trust's ability to continue to perform its obligations and maintain appropriate capital without posing risks to the FMU system and other participants, an FMU may take certain actions against Northern Trust at its discretion, such as: (1) increasing fees or requesting a cash prepayment capital infusion; (2) increasing oversight by monitoring the participant's transactions in real time or requiring increased communications, provision of information and/or reporting; (3) requiring additional collateral to secure any potential daylight overdrafts or decreasing the participant's net debit cap; and/or (4) requiring the maintenance of key operational personnel.

While FMUs typically have no legal obligation to continue a participant's membership, Northern Trust anticipates that as long as the elimination of intraday credit removes the risk of loss to the key FMUs, they would likely continue to deal with Northern Trust during the Runway Period and with TNTC Bridge Bank thereafter to avoid the risk of settlement failures and other disruptions. To encourage support from the FMUs, Northern Trust would initiate frequent communications with the FMUs during the Runway Period and throughout the Resolution Period.

To enhance its financial preparedness for the FMUs' potential adverse actions, Northern Trust has pledged more collateral than required to meet its normal operations. It has also analyzed its estimated peak use of all of its FMUs, including subcustodians and correspondent banks and reflected this analysis in the financial projections for the Runway and Resolution Periods, as reflected in the estimated MOL. Northern Trust has determined that it would have sufficient liquidity and funding to handle any additional requirements imposed by the FMUs to maintain its COs. Even in a scenario where all of these FMUs require full collateralization of the FMU usage in lieu of extending intraday credit, Northern Trust would have sufficient eligible collateral to cover such enhanced requirements at each FMU.

The bridge bank strategy ensures a smooth transfer of Northern Trust's existing FMU memberships to TNTC Bridge Bank. The FMUs would likely consent to the assignment of relevant membership agreements and other contracts to TNTC Bridge Bank in light of the enhanced protection afforded by TNTC Bridge Bank, through additional collateral as necessary. Most of Northern Trust's existing memberships are held by TNTC or its subsidiary, TNTCC, and all such memberships would be available to TNTC Bridge Bank. In the case of TNTC's memberships, the FDIC would transfer those memberships to TNTC Bridge Bank, and in the case of TNTCC, the shares of TNTCC (as a wholly owned subsidiary of TNTC) would be transferred to TNTC Bridge Bank. Upon transfer, TNTC Bridge Bank may need to apply for new memberships with certain FMUs and request accelerated review for its new membership application. FMUs would likely use any discretion available under their rules to facilitate an expedited review and provide interim transitional services to TNTC Bridge Bank while the application is pending. TNTC Bridge Bank's status as a solvent institution with access to liquidity throughout the resolution process, along with the support of the FDIC, would facilitate the settlement of securities purchases in a BAU manner. TNTC Bridge Bank could provide temporary extensions of intraday credit to custody clients and receive extensions of intraday credit from FMUs and subcustodians, possibly through reconsidered terms with increased settlement margins and additional collateral.

While unlikely, an FMU may terminate Northern Trust's membership and not cooperate with the FDIC to transfer the existing membership or establish a new membership for TNTC Bridge Bank. Northern Trust has assessed such loss of access scenarios for each FMU and Northern Trust would, where viable given the nature of the applicable FMU and related client activity, attempt to access the FMU's cash processing services indirectly by establishing a relationship with a settlement agent or correspondent bank in the affected market. Under this type of arrangement, clients would directly fund transactions while Northern Trust would focus its services on recordkeeping, reporting and other similar activities.

Assuming that the U.K. Authorities would recognize and enforce the FDIC's resolution action, it is expected that the appropriate central banks would be flexible in allowing TNTC Bridge Bank to open central bank settlement accounts quickly in order to provide settlement services in all currencies that TNTC London currently offers. Northern Trust also expects that TNTC Bridge Bank would be able to access U.K. FMUs by benefiting from s36 of the Banking Act, which establishes that a property transfer instrument may provide that a transferee be treated as the same person as the transferor for any purpose connected with the transfer. This protection would be in place even where TNTC Bridge Bank, a transferee, may not satisfy the eligibility criteria for FMU membership (e.g., the long-term credit rating required by the FMUs).

6.5.2. Subcustodians

To perform PCS activities associated with the custody services it provides to clients in the markets where it does not perform self-custody, Northern Trust relies on its network of subcustodians. Relationships with these subcustodians would be transferred to TNTC Bridge Bank under the bridge bank strategy.

Northern Trust is in the process of inserting resolution-friendly language into all subcustodian contracts under the assumption that the FDIC would exercise its authority granted by the FDIA as receiver to transfer the contracts to TNTC Bridge Bank. Where the contract is governed by English law, s48Z of the Banking Act would apply, and any termination rights or other contractual rights arising as a result of the resolution action would not be valid. Nevertheless, Northern Trust acknowledges a risk that, upon commencement of resolution proceedings, subcustodians may decrease or eliminate the amount of intraday liquidity available to TNTC Bridge Bank and require TNTC Bridge Bank to pre-fund all cash settlements. In the worst-case scenario, a subcustodian could freeze client accounts and look for direction on how to proceed from its legal or regulatory authorities or terminate the contracts.

In the unlikely event of termination of subcustodian relationships, Northern Trust or TNTC Bridge Bank would facilitate the transfer of the client relationship to another provider.

Northern Trust is in the process of amending its subcustodian contracts to remove termination provisions that would be triggered upon implementation of the bridge bank strategy. Northern Trust has also attempted to quantify, as it has with FMUs, the peak amount of liquidity it might need to pre-fund all transactions effected through subcustodians and is working on tools to enhance its measurement ability.

6.5.3. Correspondent Banks

Northern Trust typically relies on the services of correspondent banks (Nostro Banks) to serve as Northern Trust's agents to facilitate payments in a market in which Northern Trust does not have a presence. The nostro accounts maintained by these Nostro Banks are used to facilitate foreign exchange and currency transactions, and provide access to central banks and payment systems to facilitate the clearing and settling of securities and other financial instruments for Northern Trust's clients. In the unlikely event direct access to a Nostro Bank was terminated, Northern Trust has identified backup banks that could be used to move cash.

Northern Trust has indirect exposure to intraday liquidity risk when Nostro Banks interact with the FMUs and other settlement systems on Northern Trust's behalf. While the intraday payment shortfalls would be borne directly by the selected Nostro Banks, Northern Trust recognizes the liquidity and credit risk of not closely managing these positions at Nostro Banks. Thus, Northern Trust ensures that trade settlements are projected and funded on a timely basis and that any resultant daylight overdrafts with the Nostro Banks fall within mutually understood limits.

7. Additional Risks and Their Mitigants, Including Capabilities and Enhancements

Northern Trust identified potential risks in resolution and has undertaken substantial efforts to mitigate the risks associated with the separability of operations and businesses, as set forth in the Strategic Playbooks.

Because the bridge bank strategy contemplates seamless strategic actions with respect to the businesses, having meaningful optionality and flexibility for the separability of those businesses is fundamental to the successful execution of the bridge bank strategy. To enhance its readiness for such strategic actions, including wind down and divestiture, Northern Trust has created or improved its Strategic Playbooks, which include detailed analyses of the separability of the relevant businesses, obstacles to separation, mitigants and potential acquirers.

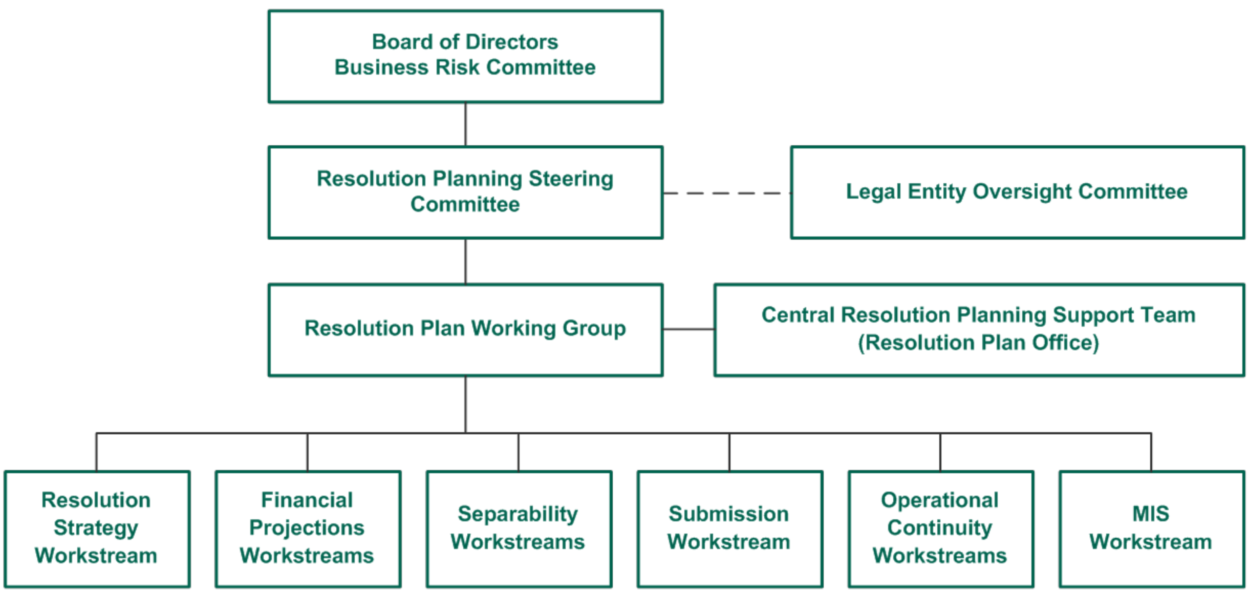
8. Resolution Governance

Northern Trust has prioritized the implementation of a strong and comprehensive governance structure and associated process controls, in connection with both resolution planning and in the Runway Period leading to resolution.

8.1. Governance of Resolution Planning

Exhibit 6 is an overview of Northern Trust's governance structure for resolution planning.

Exhibit 6. Resolution Planning Governance



Northern Trust has enhanced its governance structure and improved its capability not only to oversee effectively its resolution planning process but also to manage its BAU operations and business structure in a resolution-friendly way. Northern Trust's governance structure for resolution planning depicted above is summarized below.

First, oversight over resolution planning, including regular resolution plan updates and continuing education related to resolution planning, is provided by the NTC Board and the NTC Board's Business Risk Committee. As an example, the Business Risk Committee oversaw Northern Trust's remediation efforts in connection with the March 2017 Feedback Letter.

Second, Northern Trust has a Steering Committee, comprised of the most senior officers of Northern Trust, including the Chairman and CEO, the President, the Chief Financial Officer, the Chief Operating Officer, the Chief Risk Officer, the Chief Capital Management Officer, the Treasurer, and the

General Counsel, to ensure management oversight over all aspects of resolution planning. The Steering Committee met regularly in 2017 and approved all of the key strategy components of the 2017 Resolution Plan. Importantly, the Steering Committee reviewed and challenged the underlying key assumptions.

Third, Northern Trust has a Working Group, chaired by the Chief Capital Management Officer (who is also a member of the Steering Committee), to oversee all project management efforts and work streams relating to resolution planning.

Fourth, Northern Trust has a Legal Entity Oversight Committee (LEOC), which plays an important role in enhancing Northern Trust's resolvability. The mission of the LEOC is broader than resolution planning; it is to provide oversight, guidance and governance with respect to Northern Trust's legal entity structure. In 2017, the LEOC provided oversight to the process by which MEs are determined for purposes of resolution planning. In addition, the LEOC reviewed and agreed with Northern Trust's decision to transfer TNTC Delaware from NTC to TNTC.

Finally, Northern Trust has BAU resolution planning practices and procedures embedded throughout the company, as evidenced by:

- The formation of the LEOC, which is assisting in overseeing the process by which MEs are identified and in resolving corporate structural issues that can potentially impede an orderly resolution;
- Northern Trust's enhanced liquidity management and stress testing program, which is leveraged for determining liquidity needs under potential resolution scenarios;
- Northern Trust's revised contract templates for all new Shared Services and Outsourced Services contracts, which now contain appropriate resolution-friendly language;
- Northern Trust's revised Service Agreement Standard, which requires service agreements in all instances where affiliates provide services to each other;
- Northern Trust's enhanced vendor "intake" process, which ensures that all critical vendors supporting CBLs and COs are identified, and appropriate training is provided to critical vendor managers;
- Northern Trust's ongoing development of an automated, searchable database, which when completed will allow Northern Trust to manage effectively its service contracts and update its identification and mapping of the Shared Services and Outsourced Services as frequently as necessary;
- Northern Trust's enhanced processes relating to FMUs and subcustodians, which includes amending subcustodian contracts to include resolution-friendly language;

- Northern Trust’s amended internal plans to provide additional escalation and trigger metrics for periods of material financial distress; and
- Northern Trust’s enhanced playbooks, which were prepared by and will be refreshed and maintained in BAU by the respective business unit leadership, rather than a central resolution team.

8.2. Governance in Resolution

Northern Trust’s governance structures include governance over key NTC Board and management actions in periods leading up to and during the Runway Period. In the event of material financial distress, the Executive Committee of the NTC Board would oversee the execution of Northern Trust’s resolution strategy; the Steering Committee would oversee all aspects of the execution of Northern Trust’s resolution strategy; the senior management leaders for each of Northern Trust’s key resolution playbooks and other work streams would execute Northern Trust’s resolution strategy; and the newly created financial stress metric continuum and trigger framework would guide key actions during the Runway Period.

Northern Trust also has a communication protocol in place that governs the dissemination of information in periods of material financial distress. This protocol includes a timeline of key runway actions and communications, such as Steering Committee and/or NTC Board escalation, press releases, regulatory filings, and communications with regulators. During the Runway Period and the Resolution Period, Northern Trust would utilize this protocol when communicating with its key stakeholders.

9. Conclusion

The 2017 Resolution Plan features a robust and executable resolution strategy, demonstrating Northern Trust's capability to resolve the firm in a rapid and orderly manner while maximizing its value. The bridge bank strategy is built upon reliable financial projections and improved analyses, supports the continuity of the CBLs, the COs and the Shared and Outsourced Services during the resolution timeline, and incentivizes cross-border regulatory cooperation.

As shown above, since submitting the 2015 Resolution Plan, Northern Trust has significantly enhanced its financial, operational, and legal resolvability, enhanced its governance, and improved other aspects of its resolution strategy for the 2017 Resolution Plan. Northern Trust has also more firmly embedded resolution planning in BAU practices throughout the company. As a result, the 2017 Resolution Plan supports Northern Trust's enhanced resolvability and provides a credible approach to an orderly resolution, without any extraordinary support from any government and without creating financial instability in the U.S. financial markets.

Part 2. Additional Information

1. Description of Core Business Lines

Northern Trust has identified two core business lines[1]: C&IS and WM.

Corporate & Institutional Services

C&IS is a leading global provider of asset servicing and related services to corporate and public retirement funds, foundations, endowments, fund managers, insurance companies, sovereign wealth funds, and other institutional investors around the globe. Asset servicing and related services encompass a full range of capabilities including, but not limited to: global custody; fund administration; investment operations outsourcing; investment management; investment risk and analytical services; employee benefit services; securities lending; foreign exchange; treasury management; brokerage services; transition management services; banking; and cash management.

Client relationships are managed from locations in the Americas, EMEA and APAC. As of December 31, 2016, C&IS had AUC of $6.2 trillion and AUM of $694 billion.

Wealth Management

WM focuses on high-net-worth individuals and families, business owners, executives, professionals, retirees, and established privately-held businesses in its target markets. The business also includes the Global Family Office, which provides customized services to meet the complex financial needs of individuals and family offices in the U.S. and throughout the world with assets typically exceeding $200 million. In supporting these targeted segments, WM provides trust, investment management, custody, and philanthropic services; financial consulting; guardianship and estate administration; family business consulting; family financial education; brokerage services; and private and business banking.

WM services are delivered by multidisciplinary teams through a network of offices in 19 U.S. states and Washington, D.C., as well as offices in London, Guernsey, and Abu Dhabi.

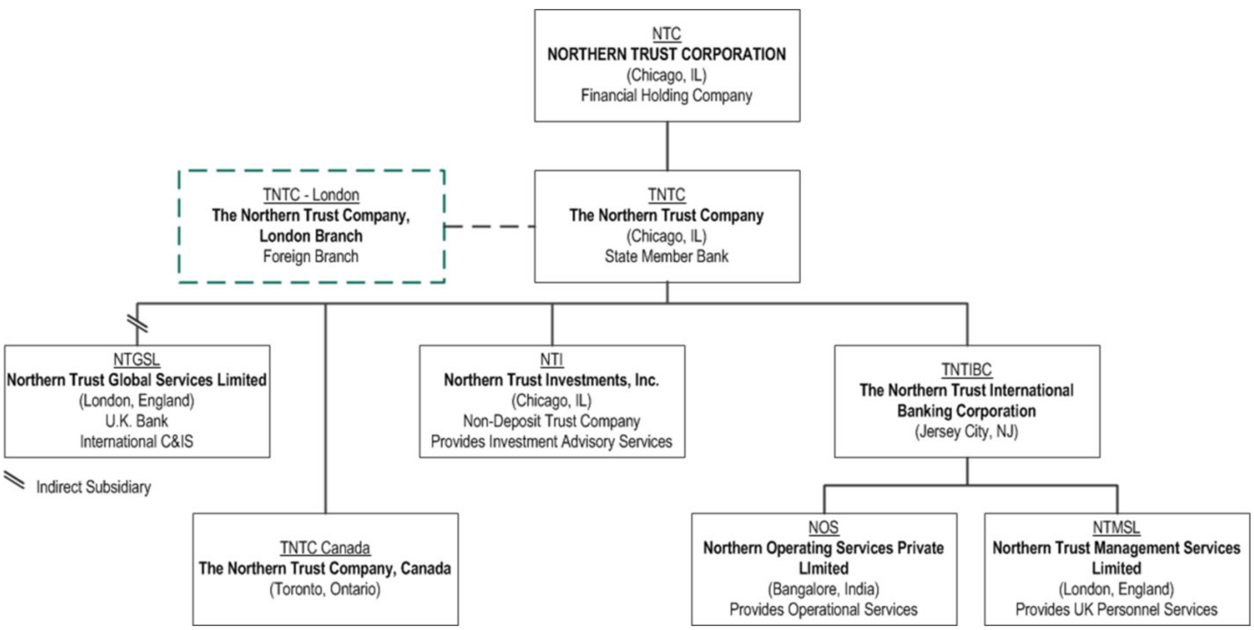
WM is one of the largest providers of advisory services in the U.S. with $544 billion in AUC and $248 billion in AUM as of December 31, 2016.

[1] For purposes of 165(d) Plans, "core business lines" are defined as: "those business lines of the covered company, including associated operations, services, functions and support, that, in the view of the covered company, upon failure would result in a material loss of revenue, profit or franchise value." 12 CFR Part 243 (FRB) or 12 CFR Part 381 (FDIC).

2. Material Entities

Under the 165(d) Rule, a "material entity" is defined as "a subsidiary or foreign office of the covered company that is significant to the activities of a critical operation or core business line" for resolution plan purposes.[2] Northern Trust has performed a multi-step analysis to identify material entities for the 2017 Resolution Plan using key metrics relating to assets, liabilities, revenue and earnings, substitutability, staffing levels, memberships of key payment, clearing and settlement systems, and financial guarantees. Northern Trust has identified nine material entities, including four U.S. legal entities and five non-U.S. legal entities, each of which is a material entity for the 2017 Resolution Plan and each of which conducts activities important to both the C&IS and WM core business lines. An organizational chart of these material entities, as of December 31, 2016, is provided below, along with a summary table. Each material entity is described in more detail in the remaining sections.

Exhibit 7. ME Organizational Chart as of December 31, 2016



Northern Trust Corporation

NTC (NASDAQ: NTRS) is the ultimate parent company of all Northern Trust entities. NTC was formed as a holding company for TNTC in 1971 and is a financial holding company regulated by the FRB under the Bank Holding Company Act of 1956 as amended. In addition to supervision from the FRB, NTC is subject to supervision and regulation by the SEC.

[2] 12 CFR Part 243 (FRB) or 12 CFR Part 381 (FDIC).

As a financial holding company, NTC engages in no operating business activities. Accordingly, NTC's subsidiaries do not have significant operational dependency on it. NTC's principal business activities are to hold and manage investments in its subsidiaries and to raise funds through the public issuance of debt and equity securities. NTC uses the funding provided by its debt and equity issuances to (i) make investments in its subsidiaries, (ii) lend (or make advances) to its subsidiaries and (iii) maintain a portfolio of cash and investment securities for the liquidity needs of itself and its subsidiaries.

As of December 31, 2016, NTC had, on a consolidated basis, $123.9 billion in assets, $114.2 billion in liabilities, $9.8 billion in stockholder equity and an 11.5% Tier 1 capital ratio under the Basel III Advanced Approach final rules. In 2016, NTC generated $1.03 billion in income on a consolidated basis.

The Northern Trust Company

TNTC was organized as an Illinois bank in 1889. TNTC is headquartered in Chicago, Illinois and is NTC's principal subsidiary. As a state-chartered banking institution that is a member of the Federal Reserve System, TNTC's primary federal banking regulator is the FRB for both its U.S. and non-U.S. operations. TNTC is an FDIC-insured depository institution. It is subject to applicable federal and state banking laws as well as supervision by the IDFPR, the FDIC and the regulatory authorities of those states and countries in which a TNTC branch is located.

Through a network of offices in 19 states and the District of Columbia and its foreign branch offices and subsidiaries in 22 international locations, TNTC's clients include high-net-worth individuals, family offices, corporations, institutions and governments. TNTC serves clients through the two core business lines: C&IS and WM.

As of December 31, 2016, TNTC and its subsidiaries and branches had total assets of $123.5 billion, which comprised approximately 99.7% of Northern Trust's consolidated total assets, and total deposits of $102.4 billion.

The Northern Trust Company, London Branch (TNTC London)

TNTC London is TNTC's largest foreign branch and is included in TNTC's consolidated financial statements.

TNTC London provides banking, custody, fund administration and foreign exchange services primarily to institutional clients. The PRA and the FCA are the primary regulators for TNTC London and interact closely with TNTC's lead regulator, the FRB.

The majority of TNTC London client deposits originate from cash balances maintained in its clients' global custody accounts. These balances are primarily operational in nature, resulting from normal, recurring activities of clients. The main driver of balance sheet size comes from changing levels of client deposits, which are in turn related to the level of global custody assets serviced.

Northern Trust Management Services Limited (NTMSL)

NTMSL is an indirect subsidiary of TNTC and is registered in England and Wales as an investment holding company. NTMSL holds no regulatory licenses, nor does it require authorizations to operate.

NTMSL provides personnel services to TNTC London and to Northern Trust's U.K.-based operating subsidiaries.

Northern Trust Global Services Limited (NTGSL)

NTGSL is an indirect subsidiary of TNTC, incorporated in England and Wales, and authorized by the PRA to conduct banking activities. NTGSL provides banking and custody services primarily to institutional clients. The range of products and services provided by NTGSL are broadly the same as those offered by TNTC London, with the exception of certain services provided to U.K. funds, which are offered exclusively through NTGSL.

NTGSL is regulated by the PRA and the FCA.

Northern Trust Investments, Inc. (NTI)

NTI is a subsidiary of TNTC and an Illinois state bank limited to the exercise of full trust powers. NTI is not an insured deposit taking institution. NTI is regulated by the SEC and the IDFPR and is a registered investment adviser.

NTI provides passive and active investment advisory services to personal and institutional clients for fixed income and equity separate accounts and funds. In addition, NTI manages equity, fixed income and other assets through wrap and model investment management services.

Northern Operating Services Private Limited (NOS)

NOS is an indirect subsidiary of TNTC. It was incorporated in 2005, in Bangalore, India.

NOS provides back-office processing services in support of custody and asset servicing functions, investment operations outsourcing, fund accounting, foreign exchange, cash management, derivatives processing, securities operations and other services as may be agreed upon by NTC affiliates. NOS holds no regulatory licenses.

The Northern Trust Company, Canada (TNTCC)

TNTCC is a subsidiary of TNTC and is a federal Canadian trust company with full trust powers, established in 1994.

TNTCC provides global trust and custody services in Canada. TNTCC is regulated by the Canadian financial and banking regulator, OSFI.

The Northern Trust International Banking Corporation (TNTIBC)

TNTIBC is a wholly owned subsidiary of TNTC and is an Edge Act Banking Corporation founded in 1968.

TNTIBC services include treasury payments, commercial and retail payments, subscription and redemption payments, cash letter activity and collection payments, including remote deposit capture check presentment, regulatory capital accounts, and letter of credit reimbursements made via traditional demand deposit accounts. TNTIBC also offers overnight investment facilities.

TNTIBC is regulated by the FRB.

Interconnectedness Among Material Entities

A number of interconnections exist among Northern Trust's material entities. Northern Trust has identified two categories of internal "interconnections":

- Financial interconnections which include both the provision and receipt of funding, capital or other guarantees between or among two or more material entities; and
- Operational interconnections which include both the provision and receipt of shared services (e.g., shared corporate control and support services), asset servicing and asset management between two or more material entities.

The following chart highlights key examples of financial and operational interconnections.

Exhibit 8. Key Examples of Financial and Operational Interconnections

Material Entity Providing Service	Material Entity Receiving Service	Brief Description of Services Provided
NTC	TNTC and its subsidiaries	Serves as the primary legal entity that has access to the public and private markets to issue debt and equity, proceeds of which may be downstreamed to fund or capitalize TNTC (directly) or its subsidiaries (indirectly)
TNTC	NTC	Upstreams dividends from operating profits
NTMSL	NTGSL and TNTC London	Employs staff and provides technology and services to U.K. entities
NTI	TNTC and NTMSL	Provides asset management and related services
TNTC	TNTC's subsidiaries	Provides services or support for corporate functions including treasury, financial and capital planning, controller, risk management, legal, human resources, corporate marketing, key MIS (e.g., data and technical platforms) and IT-related intellectual property
NOS	NTC, TNTC and its subsidiaries	Provides back-office processing and transaction-based business process outsourcing services

3. Summary of Financial Information Regarding Assets, Liabilities, Capital and Major Funding Sources

The table below provides a consolidated balance sheet of NTC.

Exhibit 9. Northern Trust Corporation Balance Sheet as of December 31, 2016 (1)

(USD amounts in millions)		
Assets		
Cash and Due from Banks	$	5,332.0
Federal Funds Sold and Securities Purchased under Agreements to Resell		1,974.3
Interest-Bearing Deposits with Banks		4,800.6
Federal Reserve Deposits and Other Interest-Bearing		26,674.2
Securities		
Available for Sale		35,579.8
Held to Maturity (Fair Value of $5,227.5)		8,921.1
Trading Account		0.3
Total Securities		**44,501.2**
Loans and Leases		
Commercial		15,902.3
Personal		17,919.8
Total Loans and Leases (Net of unearned income – $287.7)		**33,822.1**
Allowance for Credit Losses Assigned to Loans and Leases		(161.0)
Buildings and Equipment		466.6
Client Security Settlement Receivables		1,043.7
Goodwill		519.4
Other Assets		4,953.8
Total Assets	**$**	**123,926.9**
Liabilities		
Deposits		
Demand and Other Noninterest-Bearing	$	22,190.4
Savings and Money Market		16,509.0
Savings Certificates and Other Time		1,331.7
Non-U.S. Offices – Noninterest-Bearing		7,972.5
– Interest-Bearing		53,648.1
Total Deposits		**101,651.7**
Federal Funds Purchased		204.8
Securities Sold under Agreements to Repurchase		473.7
Other Borrowings		5,109.5
Senior Notes		1,496.6
Long-Term Debt		1,330.9
Floating Rate Capital Debt		277.4
Other Liabilities		3,611.9
Total Liabilities	**$**	114,**156.5**

(USD amounts in millions)		
Stockholders' Equity		
Preferred Stock, No Par Value; Authorized 10,000,000 shares: Series C, Outstanding shares of 16,000	$	388.5
Preferred Stock, No Par Value; Authorized 10,000,000 shares: Series D, Outstanding shares of 5,000		493.5
Common Stock, $1.66 ⅔ Par Value; Authorized 560,000,000 shares; Outstanding shares of 233,390,705		408.6
Additional Paid-in Capital		1,035.8
Retained Earnings		8,908.4
Accumulated Other Comprehensive Loss		(370.0)
Treasury Stock (16,566,039 and 15,877,741 shares, at cost)		(1,094.4)
Total Stockholders' Equity		**9,770.4**
Total Liabilities and Stockholders' Equity	**$**	**123,926.9**

(1) Data source for Northern Trust Corporation Balance Sheet: 2016 Annual Report (10K)

The table below provides a consolidated balance sheet for TNTC.

Exhibit 10. The Northern Trust Company Balance Sheet as of December 31, 2016 (1)(2)

(USD amounts in millions)		
Assets		
Noninterest-Bearing Deposits with Banks	$	2,076.6
Interest-Bearing Deposits with Banks		35,282.2
Federal Funds Sold and Securities Purchased under Agreements to Resell		1,974.3
Securities		
Available for Sale		35,578.8
Held to Maturity		8,315.1
Total Securities		**43,893.9**
Loans and Leases		
Loans and Leases Held for Sale		43.0
Loans and Leases, Net of Unearned Income		33,779.1
Total Loans and Leases (Net of unearned income - $287.7)		**33,822.1**
Allowance for Credit Losses Assigned to Loans and Leases		(161.0)
Buildings and Equipment		462.5
Goodwill		478.8
Other Assets		5,718.6
Total Assets	**$**	**123,547.9**
Liabilities		
Deposits		
U.S. Offices – Noninterest-Bearing	$	22,229.4
– Interest-Bearing		18,594.3
Non-U.S. Offices – Noninterest-Bearing		7,972.6
– Interest-Bearing		53,648.2
Total Deposits		**102,444.5**

(USD amounts in millions)	
Federal Funds Purchased	1.5
Securities Sold under Agreements to Repurchase	473.7
Other Borrowings	6,961.2
Subordinated Notes and Debentures	1,532.9
Other Liabilities	3,497.2
Total Liabilities	**$ 114,911.0**
Total Stockholders' Equity	**$ 8,636.9**
Total Liabilities and Stockholders' Equity	**$ 123,547.9**

(1) Detailed financial information for NTC and TNTC can be found on Northern Trust's website www.northerntrust.com/about-northern-trust.

(2) Data source for The Northern Trust Company Balance Sheet: Call Report (FFIEC 031) 12/31/2016.

Capital

One of Northern Trust's primary objectives is to maintain a strong capital position to merit the confidence of clients, counterparties, creditors, regulators and stockholders. A strong capital position helps Northern Trust execute its strategies and withstand unforeseen adverse developments.

Senior management, with oversight from the Capital Governance Committee and the full NTC Board, is responsible for capital management and planning. Northern Trust manages its capital on both a total consolidated basis and a legal entity basis. The Capital Committee is responsible for measuring and managing capital metrics against levels set forth within the Capital Policy approved by the NTC Board. In establishing the metrics related to capital, a variety of factors are taken into consideration, including the unique risk profiles of Northern Trust's businesses, regulatory requirements, capital levels relative to peers, and the impact on credit ratings.

Northern Trust strives to maintain capital against unexpected losses that could threaten solvency and estimates this through its stress testing program. Under non-stressed conditions, Northern Trust strives to hold capital, both on a consolidated and entity-level basis, at such a level that can withstand a severe stress and still maintain ready access to funding, meet obligations to creditors and other counterparties and continue to serve as a credit intermediary.

Stress testing analysis is performed globally across Northern Trust's business units and legal entities to assess Northern Trust's overall capital adequacy in relation to its risk profile and plays an important role in the capital adequacy assessment process. It is used by Northern Trust's management and individual risk management teams across the organization to assess how various events may impact levels of required and/or available capital and to provide additional information to management.

Northern Trust has established a Capital Committee to manage its capital adequacy position to meet the above objectives. The Capital Committee establishes internal capital management metrics that consider regulatory requirements and the results of the capital adequacy assessment process and recommends these to NTC's Board and TNTC's Board of Directors for approval.

In accordance with Basel III requirements in effect at December 31, 2016, capital ratios are calculated using both the standardized and advanced approaches. For each ratio, the lower of the result calculated under the standardized approach and the advanced approach serves as the effective ratio for purposes of determining capital adequacy. The following table shows NTC's and TNTC's common stockholders' equity to total risk-based capital and their respective risk-based capital ratios, under the applicable U.S. regulatory rules as of December 31, 2016. As of December 31, 2016, all capital ratios of NTC and TNTC applicable for classification as "well capitalized" under U.S. regulatory requirements exceeded all "well capitalized" ratio guidelines.

Exhibit 11. Risk-Based and Leverage Ratios as of December 31, 2016

	Advanced Approach		Standardized Approach (1)	
	Balance (USD amounts in millions)	Ratio	Balance (USD amounts in millions)	Ratio
Common Equity Tier 1 Capital				
Northern Trust Corporation	8,480.4	12.4%	8,480.4	11.8%
The Northern Trust Company	8,201.4	12.4%	8,201.4	11.5%
Minimum to qualify as "well capitalized":				
Northern Trust Corporation	4,436.7	6.5%	4,681.4	6.5%
The Northern Trust Company	4,296.2	6.5%	4,624.8	6.5%
Tier 1 Capital				
Northern Trust Corporation	9,319.9	13.7%	9,319.9	12.9%
The Northern Trust Company	8,201.4	12.4%	8,201.4	11.5%
Minimum to qualify as "well capitalized":				
Northern Trust Corporation	5,460.6	8.0%	5,761.7	8.0%
The Northern Trust Company	5,287.6	8.0%	5,692.1	8.0%
Total Capital				
Northern Trust Corporation	10,281.6	15.1%	10,475.0	14.5%
The Northern Trust Company	9,271.4	14.0%	9,463.4	13.3%
Minimum to qualify as "well capitalized":				
Northern Trust Corporation	6,825.8	10.0%	7,202.1	10.0%
The Northern Trust Company	6,609.5	10.0%	7,115.1	10.0%
Leverage (Tier 1 Capital to Adjusted Average Fourth Quarter Assets)				
Northern Trust Corporation	9,319.9	8.0%	9,319.9	8.0%
The Northern Trust Company	8,201.4	7.0%	8,201.4	7.0%
Minimum to qualify as "well capitalized":				
Northern Trust Corporation	5,847.9	5.0%	5,847.9	5.0%
The Northern Trust Company	5,831.0	5.0%	5,831.0	5.0%

	Advanced Approach		Standardized Approach (1)	
	Balance (USD amounts in millions)	Ratio	Balance (USD amounts in millions)	Ratio
Supplementary Leverage (2)				
Northern Trust Corporation	9,319.9	6.8%	N/A	N/A
The Northern Trust Company	8,201.4	6.0%	N/A	N/A
Minimum to qualify as "well capitalized":				
Northern Trust Corporation	4,129.9	N/A	N/A	N/A
The Northern Trust Company	4,120.0	N/A	N/A	N/A

(1) Effective with the first quarter of 2015, risk-weighted assets are calculated in accordance with the Basel III Standardized Approach final rules.

(2) Beginning with the first quarter of 2015, advanced approaches banking organizations must calculate and report their supplementary leverage ratio. Effective January 1, 2018, NTC will be subject to a minimum supplementary leverage ratio of three percent.

Funding and Liquidity

Northern Trust's objectives for liquidity risk management are to ensure that it can meet its cash flow obligations under both normal and adverse economic conditions while maintaining its ability to capitalize on business opportunities in a timely and cost effective manner. In managing the balance sheet, Northern Trust gives appropriate consideration to balancing the competing needs of maintaining sufficient levels of liquidity while optimizing profitability.

Northern Trust's balance sheet is primarily liability-driven. That is, the main driver of balance sheet changes comes from changing levels of client deposits, which are generally related to the level of custody assets. This liability-driven business model differs from a typical asset-driven business model where increased levels of deposits are required to support, for example, increased levels of lending. Northern Trust's balance sheet generally consists of assets and liabilities with relatively short durations, resulting in low liquidity risk and interest rate risk.

Northern Trust seeks to maintain the following liquidity principles that are consistent with its risk tolerance:

- Maintain sufficient funding sources to meet normal as well as unexpected peak requirements giving appropriate considerations to the levels of commitments, the volatility of funding sources, market perceptions of Northern Trust and overall market conditions;
- Maintain liquidity ratios within approved limits and liquidity risk tolerance;
- Control the levels and sources of wholesale funds;
- Diversify funding sources by line of business, client and market segment;

- Maintain appropriate dealer and underwriter relationships to ensure suitable market access;
- Utilize systems capable of monitoring, measuring and reporting performance on a timely basis;
- Manage intraday liquidity appropriately and within Federal Reserve limits;
- Maintain sufficient, high quality, unencumbered securities to provide additional liquidity in the form of securities sales, secured funding and/or discount window borrowings; and
- Manage liquidity risk in each currency across Northern Trust.

The following table outlines the governance structure for liquidity risk management that is currently in place.

Exhibit 12. Northern Trust Global Risk Management Framework

Governance Component	Description of Responsibilities
Board of Directors	Establishes Northern Trust's liquidity risk limits.
	Approves the Liquidity Management Policy establishing the principles and guidelines for Northern Trust to govern the processes and activities for the management of its liquidity position.
Business Risk Committee of the Board	Approves annually Northern Trust's contingent funding plan, setting out strategies for addressing liquidity needs during liquidity stress events.
Asset and Liability Management Committee	Approves strategies and activities designed to execute the Corporation's liquidity risk practices within the risk appetite.
	Oversees balance sheet resources, including the funding and liquidity profile.
	Reviews reports, including liquidity stress test results, cash flows and other analyses.
Market and Liquidity Risk Committee	Approves market and liquidity risk sub-policies, standards and frameworks.
	Establishes liquidity metrics and reviews for compliance with thresholds.
	Approves methodologies and key assumptions that drive market and liquidity risk measurement.
Subsidiary Boards and Regional Management	Review, approve and monitor subsidiary liquidity positions, policies, contingency plans and stress test results (as applicable).
Treasury Department	Serves as the first line of defense that is responsible for managing the Corporation's liquidity risk.
Risk Management	Serves as the second line of defense that is responsible for providing oversight and independent review of the Corporation's liquidity risk management activities.
Audit Services	Serves as the third line of defense that is responsible for independent assessment and validation of controls.

4. Description of Derivative and Hedging Activities

Hedging Derivatives

Northern Trust is party to various derivative financial instruments that are used in the normal course of business to meet the needs of its clients; as part of its trading activity for its own account; and as part of its risk management activities. Northern Trust's derivative and hedging activity includes primarily foreign exchange contracts, repurchase agreements and interest rate contracts. Occasionally, Northern Trust also enters into an immaterial amount of other derivative activity.

Foreign exchange contracts are agreements to exchange specific amounts of currencies at a future date, at a specified rate of exchange. Foreign exchange contracts are entered into primarily to meet the foreign exchange needs of clients. Foreign exchange contracts are also used for trading purposes and risk management. For risk management purposes, Northern Trust uses foreign exchange contracts to reduce its exposure to changes in foreign exchange rates relating to certain forecasted non-functional currency denominated revenue and expenditure transactions, foreign currency denominated assets and liabilities, including investment securities and net investments in non-U.S. affiliates.

Interest rate contracts include swap and option contracts. Interest rate swap contracts involve the exchange of fixed and floating rate interest payment obligations without the exchange of the underlying principal amounts. Northern Trust enters into interest rate swap contracts with its clients and also may utilize such contracts to reduce or eliminate the exposure to changes in the cash flows or fair value of hedged assets or liabilities due to changes in interest rates.

Counterparty Credit Risk and Collateral

The estimated credit risk associated with derivative instruments relates to the failure of the counterparty and the failure of Northern Trust to pay based on the contractual terms of the agreement and is generally limited to the unrealized fair value gains and losses on these instruments, respectively.

The amount of credit risk will increase or decrease during the life of the instruments as interest rates, foreign exchange rates or credit spreads fluctuate. This risk is managed by limiting such activity to an approved list of counterparties and by subjecting such activity to the same credit and quality controls as are followed in lending and investment activities.

5. Memberships in Material Payment, Clearing and Settlement Systems

Northern Trust utilizes Payment, Clearing and Settlement (PCS) services provided by Financial Market Utilities (FMUs), subcustodians and nostro banks to conduct and complete financial transactions globally. The PCS providers allow Northern Trust to provide payment services to clients and facilitate the clearing and settlement of client security, derivative and cash transactions. Northern Trust's material relationships, mainly through TNTC, include participation in the following FMUs and correspondent banks.

Exhibit 13. Direct Memberships in Payment, Clearing and Settlement Systems as of December 31, 2016

FMU	Direct Member
Securities Settlement Systems:	
The Depository Trust Company (DTC)	TNTC
CREST	TNTC
Federal Reserve Fedwire Services (Fedwire Securities)	TNTC
Clearstream Banking S.A. (Clearstream)	TNTC and NTGSL
Euroclear Bank (Euroclear)	TNTC and NTGSL
Canadian Depository for Securities (CDS)	TNTCC
National Securities Clearing Corporation (NSCC)	TNTC
Cash Settlement Systems:	
Federal Reserve Automated Clearing House (FedACH)	TNTC
Federal Reserve Fedwire Services (Fedwire Funds)	TNTC
Clearing House Interbank Payments System (CHIPS)	TNTC
Continuous Linked Settlement (CLS)	TNTC
Clearing House Automated Payment Systems (CHAPS)	TNTC
Other FMUs:	
The Society for Worldwide Interbank Financial Telecommunication (SWIFT)	TNTC

Exhibit 14. Material Subcustodians as of December 31, 2016

Subcustodian
The Hongkong & Shanghai Banking Corporation Limited
Deutsche Bank AG
Svenska Handelsbanken AB (publ)
Nordea Bank AB
Citibank, NA

Exhibit 15. Top 11 Correspondent Banks as of December 31, 2016

Channel		
Nostro / Subcustodian	Euro zone	Soc. Gen
	Canada	Toronto Dominion
	Japan	HSBC Japan
		Bank of Tokyo
	Switzerland	UBS AG
	Germany	Deutsche Bank
	Sweden	Svenska Handelsbanken
	Australia	HSBC Bank Australia
		ANZ
	Denmark	Nordea Bank
	New Zealand	HSBC Limited New Zealand
	Other	100+ agents

6. Description of Foreign Operations

As of December 31, 2016, in addition to its U.S. locations Northern Trust had a network of offices in 22 international locations in Canada, EMEA and APAC. Approximately 3,000 employees are employed in EMEA and approximately 5,000 are employed in APAC.

Northern Trust manages its business on a global basis.The primary international activities consist of asset servicing and asset management. Northern Trust has operational capabilities in the Americas, EMEA and APAC. The operating MEs located outside of the U.S. for resolution planning purposes are:

- The Northern Trust Company, London Branch (U.K. branch)
- Northern Trust Global Services Limited (U.K. bank)
- Northern Trust Management Services Limited (U.K. management services company)
- The Northern Trust Company, Canada (Canadian trust company)
- Northern Operating Services Private Limited (Indian operating company)

7. Material Supervisory Authorities

NTC is regulated as a financial holding company under the Bank Holding Company Act of 1956 and is subject to the supervision, examination and regulation of the FRB.

TNTC, which is NTC's principal subsidiary, is a member of the Federal Reserve System and its deposits are insured by the FDIC up to the maximum authorized limit. It is subject to regulation by both of these agencies. TNTC, as an Illinois banking corporation, also is subject to Illinois state laws and regulations and to examination and supervision by the Division of Banking of the IDFPR. TNTC is registered as a government securities dealer in accordance with the Government Securities Act of 1986. As a government securities dealer, its activities are subject to the rules and regulations of the U.S. Department of the Treasury. TNTC is also registered as a transfer agent with the FRB and is therefore subject to the rules and regulations of the FRB in this area.

TNTC is registered provisionally with the U.S. Commodity Futures Trading Commission (CFTC) under the Commodity Exchange Act as a swap dealer. As a provisionally registered swap dealer, TNTC is subject to significant regulatory obligations regarding swap activity and the supervision, examination and enforcement power of the CFTC and other regulators. Certain of NTC's other affiliates are registered with the CFTC as commodity trading advisors or commodity pool operators under the Commodity Exchange Act and are subject to that act and the associated rules and regulations of the CFTC.

NTC's nonbanking affiliates are all subject to examination by the FRB. Several subsidiaries of NTC are registered with the SEC under the Investment Advisors Act of 1940 (IAA) and are subject to the associated rules and regulations under the IAA. TNTC and other subsidiaries of NTC act as investment advisors to several mutual funds and other asset managers that are subject to regulation by the SEC under the Investment Company Act of 1940.

The activities of NTC's subsidiaries outside the U.S. are subject to regulation, laws and supervision (including regulatory and capital requirements) by a number of non-U.S. regulatory agencies in the jurisdictions in which they operate, including regulatory and capital requirements.

Exhibit 16. Northern Trust Material Entity Summary

Material Entity	Material Entity Abbreviation	Primary Regulatory Authority
Northern Trust Corporation	NTC	FRB, SEC
The Northern Trust Company	TNTC	FRB, IDFPR, FDIC, CFTC
The Northern Trust Company, London Branch	TNTC London	PRA, FCA
Northern Trust Investments, Inc.	NTI	SEC, IDFPR
Northern Operating Services Private Limited	NOS	N/A

Material Entity	Material Entity Abbreviation	Primary Regulatory Authority
Northern Trust Management Services Limited	NTMSL	N/A
The Northern Trust Company, Canada	TNTCC	OSFI
Northern Trust Global Services Limited	NTGSL	PRA, FCA
The Northern Trust International Banking Corporation	TNTIBC	FRB

8. Principal Officers

The following tables list the principal officers of NTC and TNTC as of October 31, 2017, all of whom are appointed by the NTC Board.

Exhibit 17. Principal Officers of NTC as of October 31, 2017

Name	Position
Frederick H. Waddell	Chairman and Chief Executive Officer
S. Biff Bowman	Executive Vice President and Chief Financial Officer
Robert P. Browne	Executive Vice President and Chief Investment Officer
Peter B. Cherecwich	Executive Vice President and President, Corporate and Institutional Services
Jeffrey D. Cohodes	Executive Vice President and President, Corporate and Institutional Services – North America
Steven L. Fradkin	Executive Vice President and President, Wealth Management
Wilson Leech	Executive Vice President and Chief Risk Officer
Susan C. Levy	Executive Vice President and General Counsel
William L. Morrison	Vice Chairman
Michael G. O'Grady	President
Teresa A. Parker	Executive Vice President and President, Corporate and Institutional Services, Europe, Middle East and Africa
S Gillian Pembleton	Executive Vice President, Human Resources
Stephen N. Potter	Vice Chairman
Joyce M. St. Clair	Executive Vice President and Chief Capital Management Officer
Jana R. Schreuder	Executive Vice President and Chief Operating Officer
Shundrawn A. Thomas	Executive Vice President and President, Asset Management
Aileen B. Blake	Executive Vice President and Controller

Exhibit 18. Principal Officers of TNTC as of October 31, 2017

Name	Position
Frederick H. Waddell	Chairman and Chief Executive Officer
S. Biff Bowman	Executive Vice President and Chief Financial Officer
Robert P. Browne	Executive Vice President and Chief Investment Officer
Peter B. Cherecwich	Executive Vice President and President, Corporate and Institutional Services
Jeffrey D. Cohodes	Executive Vice President and President, Corporate and Institutional Services – North America
Steven L. Fradkin	Executive Vice President and President, Wealth Management

Name	Position
Wilson Leech	Executive Vice President and Chief Risk Officer
Susan C. Levy	Executive Vice President and General Counsel
William L. Morrison	Vice Chairman
Michael G. O'Grady	President
Teresa A. Parker	Executive Vice President and President, Corporate and Institutional Services, Europe, Middle East and Africa
S Gillian Pembleton	Executive Vice President, Human Resources
Stephen N. Potter	Vice Chairman
Joyce M. St. Clair	Executive Vice President and Chief Capital Management Officer
Jana R. Schreuder	Executive Vice President and Chief Operating Officer
Shundrawn A. Thomas	Executive Vice President and President, Asset Management
Aileen B. Blake	Executive Vice President and Controller

9. Description of Material Management Information Systems (MIS)

Northern Trust utilizes MIS for risk management, accounting, financial and regulatory reporting and internal management reporting and analysis. Northern Trust's key MIS generate numerous reports that are used during the normal course of business to monitor the financial health, risks and operations of Northern Trust, its material entities, core business lines and critical operations. These systems are primarily platform and mainframe technologies with interface applications that are used to collect, maintain and report information to management, as well as used externally for regulatory compliance.

Financial reporting systems provide information required to produce financial position and performance for senior management and external parties. Key MIS are used to improve the understanding of specific operational risk loss events in order to strengthen controls and improve the processes to reduce the frequency and severity of future loss events. Key MIS are used to monitor NTC's, TNTC's and each business unit's performance against pre-determined strategic benchmarks and to improve operations, establish action plans and develop corrective actions, as necessary.

Northern Trust maintains detailed business continuity and disaster recovery plans for each of its departments and supporting technology platforms. These plans include detailed application of specific recovery time objectives as well as plans to continue business operations in events where key systems are unavailable. Business continuity resources are deployed regionally around the globe to provide appropriate levels of governance and oversight for business continuity planning, testing, response management, crisis management and supplier resiliency.

Northern Trust recognizes the need for a robust MIS infrastructure to aid in resolution planning and execution. Systems are critical for successful plan development, as they provide accurate data and analysis to create an informed plan, as well as reporting and oversight capabilities for execution of the plan. Northern Trust's current MIS infrastructure increases its resolvability and reduces resolution plan execution risk.