

# THE NORTHERN TRUST COMPANY

# NORTHERN TRUST 2018 CIDI RESOLUTION PLAN PUBLIC SECTION

July 1, 2018



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# **Forward-Looking Statements**

The 2018 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 2018 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 Northern Trust has described.



Northern Trust also has 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 2018 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

Northern Trust's 2018 resolution plan submission (2018 Resolution Plan) is designed to enable the Federal Deposit Insurance Corporation (FDIC), as receiver, to resolve The Northern Trust Company (TNTC) under Sections 11 and 13 of the Federal Deposit Insurance Act (FDI Act). Accordingly, the 2018 Resolution Plan addresses all requirements of the CIDI Rule, the December 2014 Guidance for Insured Depository Institution Resolution Plan Submissions (2014 Guidance), and the feedback received from the FDIC on Northern Trust's 2015 resolution plan (the 2015 Resolution Plan). In addition to addressing these requirements and summarizing the material changes and enhancements made since the 2015 Resolution Plan submission, the 2018 Resolution Plan provides a detailed description of Northern Trust's resolution strategy (the bridge bank strategy), its Material Entities (MEs), Core Business Lines (CBLs), and operational readiness capabilities.

Northern Trust believes that the information provided in the 2018 Resolution Plan and the description of TNTC's underlying resolution capabilities would allow the FDIC to carry out its responsibilities under an FDI Act resolution (ensuring that depositors would receive timely access to their insured deposits, maximizing net present value return on TNTC's assets and minimizing losses realized by creditors). The enhanced governance and capabilities demonstrated in the 2018 Resolution Plan include, but are not limited to, the following:

- Identification and mitigation of obstacles and impediments that could arise in resolution, including the failure
  of affiliates;
- Utilization of existing management information systems and infrastructure to support continued operations and meeting the FDIC's needs for timely information in the event of resolution;
- Measurement and monitoring financial resources and needs by ME;
- Preservation and separation of franchise value;



 Managing Northern Trust through business as usual governance to ensure preparedness in the event of resolution.

## 2. CIDI Overview

TNTC (together with its consolidated subsidiaries, and parent Northern Trust Corporation, Northern Trust) is a leading provider of wealth management, asset servicing, fund administration, asset management and fiduciary and banking solutions for more than 165,000 clients, including corporations, institutions, families and individuals worldwide. As of December 31, 2017, Northern Trust had \$138.2 billion in consolidated total assets, \$112.4 billion in deposits, \$10.72 trillion in assets under custody/administration (AUC/A), \$8.08 trillion in assets under custody (AUC) and \$1.16 trillion in assets under management (AUM). Northern Trust focuses on managing and servicing client assets through its two client-focused reporting segments: Corporate & Institutional Services (C&IS) and Wealth Management. Asset management and related services are provided to C&IS and Wealth Management clients primarily by the Asset Management business. The revenue and expenses of Asset Management and certain other support functions are allocated fully to C&IS and Wealth Management.

TNTC is an Illinois banking corporation and a FDIC insured depository institution that is a member of the Federal Reserve System. TNTC is a Covered Insured Depository Institution (CIDI) with greater than \$50 billion in total assets that is required to submit resolution plans annually to the FDIC pursuant to the CIDI Rule.

TNTC is headquartered in Chicago and is 100% owned by Northern Trust Corporation (NTC). Founded in 1889, TNTC conducts its business through its U.S. operations and through subsidiaries and branches, domiciled both in the U.S. and in non-U.S. jurisdictions. TNTC has two CBLs: (1) Wealth Management; and (2) C&IS; and has identified MEs that are significant to the activities of TNTC's CBLs and critical services (Critical Services). As described in greater detail below, since the 2015 Resolution Plan submission, Northern Trust has enhanced its identification and mapping of Critical Services to TNTC's CBLs and MEs.

#### **Description of Core Business Lines**

#### **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 through TNTC and its affiliates, including support from locations in North America, Europe, the Middle East, and the Asia-Pacific region (APAC). At December 31, 2017, total C&IS assets under custody/administration, assets under custody, and assets under management were \$10.07 trillion, \$7.44 trillion, and \$871.2 billion, respectively.



#### **Wealth Management**

Wealth Management 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 United States and throughout the world with assets typically exceeding \$200 million. In supporting these targeted segments, Wealth Management 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.

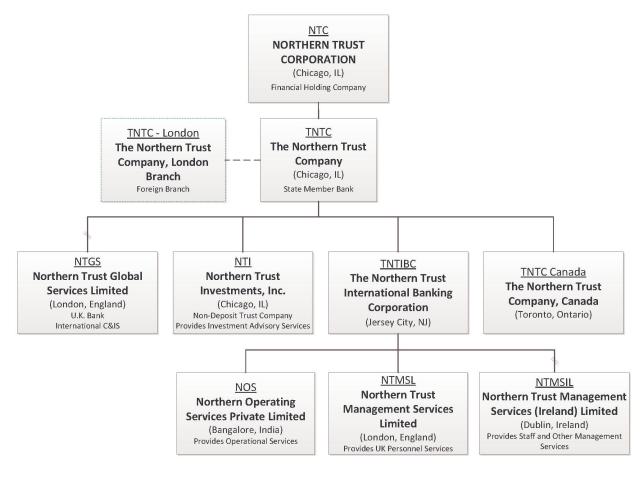
Wealth Management is one of the largest providers of advisory services in the United States, with AUC/A, AUC, and AUM of \$655.8 billion, \$645.5 billion, and \$289.8 billion, respectively, at December 31, 2017. Wealth Management services are delivered by multidisciplinary teams through a network of offices in 18 U.S. states and Washington, D.C., as well as offices in London, Guernsey, and Abu Dhabi.

#### **Description of Material Entities**

TNTC and its MEs for the 2018 Resolution Plan are shown in the following organizational chart and described in greater detail below. With the exception of its parent NTC, each of TNTC's designated MEs either is a subsidiary or branch of TNTC.



**Exhibit 1 Northern Trust Material Entity Organizational Chart** 



## **Northern Trust Corporation (NTC)**

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 Board of Governors of the Federal Reserve (Federal Reserve) under the Bank Holding Company Act of 1956 as amended. In addition to supervision from the Federal Reserve, NTC is subject to supervision and regulation by the U.S. Securities and Exchange Commission (SEC). As a financial holding company, NTC engages in no operating business activities. Accordingly, TNTC and its operating subsidiaries do not have significant operational dependency on NTC. 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.



#### 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 Prudential Regulatory Authority (PRA) and the Financial Conduct Authority (FCA) are the primary regulators for TNTC London and interact closely with TNTC's lead regulator, the Federal Reserve. 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 (NTGS)

NTGS is an indirect subsidiary of TNTC, incorporated in England and Wales, and authorized by the PRA to conduct banking activities. NTGS provides banking and custody services primarily to institutional clients. The range of products and services provided by NTGS 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 NTGS. NTGS is regulated by the PRA and the FCA.<sup>1</sup>

#### Northern Trust Investments, Inc. (NTI)

NTI is a subsidiary of TNTC and is 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 Illinois Department of Financial and Professional Responsibility (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 does not hold any regulatory licenses.

<sup>&</sup>lt;sup>1</sup> On April 3, 2018, NTGS changed its name and corporate form from Northern Trust Global Services Limited to Northern Trust Global Service Plc as a step to prepare for the U.K.'s planned withdrawal from the European Union. The financial and other information regarding NTGS in the 2018 Resolution Plan is as of December 31, 2017, and therefore, references NTGS in its form as of December 31, 2017.



#### 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 in Canada by the Office of the Superintendent of Financial Institutions.

## 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 Federal Reserve.

## Northern Trust Management Services (Ireland) Limited (NTMSIL)

NTMSIL is an indirect subsidiary of TNTC. NTMSIL holds no regulatory licenses, nor does it require authorizations to operate. NTMSIL provides staff and other services, including premises and technology, to other affiliated entities in support of TNTC's CBLs and Critical Services.

#### **Financial Information**

The tables below provide summarized balance sheet and income statement information for TNTC on a consolidated basis, as of and for the year ended December 31, 2017.

Exhibit 2 TNTC Summary Balance Sheet as of December 31, 2017

Material Entity: TNTC Consolidated			
Assets	\$BN	Liabilities and Equity	\$BN
Prepared in accordance with U.S. GAAP			
Cash and balances due from depository institutions	50.6	Deposits	112.4
Securities (including federal funds sold and securities purchased under agreements to resell)	48.1	Trading Liabilities	1.0
Loans and lease financing receivable, net of unearned income and ALLL	32.5	Other borrowed money (including federal funds purchased, securities sold under agreements to repurchase, and subordinated debt)	9.5
Trading assets	0.7	Other liabilities	2.3
Premises and fixed assets (including capitalized leases)	0.5	Total Liabilities	125.1
Other Assets	5.8	Equity	9.2
Total Assets	138.2	Total Liabilities and Equity	138.2



Exhibit 3 TNTC Summary Income Statement as of December 31, 2017

Material Entity: TNTC Consolidated	
Income Statement	\$MM
Prepared in accordance with U.S. GAAP	
Total noninterest income (including realized gains and losses on securities)	3,806.9
Total net interest income	1,448.6
Provision for loan and lease losses	(19.6)
Total noninterest expense	3,652.3
Provision for income taxes	465.0
LESS: Net income (loss) attributable to non-controlling (minority) interests	0.2
Total Net Income (loss)	1,157.6

#### **Deposit Information**

TNTC's eligible deposits are insured by the FDIC up to the maximum authorized amount. As of December 31, 2017 TNTC had \$112.4 billion in total deposits, of which \$75.6 billion are non-dually payable foreign deposits and \$37.9 billion are domestic deposits as defined in Section 3(I) of the FDI Act.

## **Capital Ratios**

In accordance with Basel III requirements in effect at December 31, 2017, capital ratios are calculated using both the standardized and advanced approaches. 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 TNTC's capital ratios under the applicable U.S. regulatory rules as of December 31, 2017. As of December 31, 2017, all capital ratios of TNTC applicable for classification as "well capitalized" under U.S. regulatory requirements exceeded all "well capitalized" ratio guidelines.

Exhibit 4 TNTC Capital Ratios as of December 31, 2017

TNTC Consolidated			
Capital Ratios - Regulatory Minimum and Current Ratios	"Well-Capitalized" minimum	"Adequately - Capitalized" minimum	YE 2017
Common Equity Tier 1 Ratio	6.5%	4.5%	12.6%
Tier 1 Capital Ratio	8.0%	6.0%	12.6%
Total Capital Ratio	10.0%	8.0%	14.3%
Tier 1 Leverage Ratio	5.0%	4.0%	7.0%
Supplementary Leverage Ratio	NA	3.0%	6.1%



## 3. Strategy

Northern Trust's strategy in the 2018 Resolution Plan contemplates an FDIC receivership of TNTC under the FDI Act and provides for the continuity of Northern Trust's CBLs and Critical Services and the sale or wind down of TNTC's assets and operations from a bridge financial institution (TNTC Bridge Bank). 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 FDI Act. The FDI Act would effectively place the FDIC in the shoes of TNTC to work out creditors' claims under state and other applicable law. As set forth in the applicable provisions of the FDI Act, the FDIC would control the formation and operation of TNTC Bridge Bank, including the appointment of the board of directors of such entity. The FDIC, in its capacity as receiver of TNTC and as the operator of TNTC Bridge Bank, could continue ongoing operations of Northern Trust's businesses until the assets of TNTC Bridge Bank could be sold or wound down.

## Strategy to Separate from Parent Company's Organization

Under Northern Trust's bridge bank strategy, TNTC's parent NTC would be resolved in a proceeding under Chapter 11 of U.S. Bankruptcy Code (Chapter 11 Proceeding) and would be liquidated without adverse effects on TNTC, its MEs and CBLs, TNTC's franchise value or the operation of TNTC Bridge Bank. Substantially all of Northern Trust's operating assets are owned by TNTC and its subsidiaries. As a result, the focus of NTC's Chapter 11 Proceeding would be the management and orderly liquidation of NTC's equity investments in its remaining non-CIDI subsidiaries and the satisfaction of NTC's creditors under the priority scheme set forth in the U.S. Bankruptcy Code.

Although an orderly Chapter 11 Proceeding as contemplated in Northern Trust's bridge bank strategy would facilitate coordination among NTC as debtor-in-possession and the FDIC as receiver and operator of TNTC Bridge Bank, even a disorderly failure or liquidation of NTC or its non-bank subsidiaries (a) would not have an impact on the FDIC's ability to satisfy TNTC's deposit liabilities and (b) would not materially impair TNTC's franchise value. First, neither NTC nor its affiliates engage in deposit taking activity or provide operational support to TNTC's deposit taking or payment activity. Second, as described above, TNTC, together with its branches and subsidiaries, contribute 97.7% of Northern Trust's total revenue and constitute 99.7% of Northern Trust's total assets.

## Strategy for the Sale and Disposition of Assets

Northern Trust's 2018 Resolution Plan identifies and analyzes a range of sale or disposition options that could be executed by the FDIC in the event of TNTC's resolution. To provide the FDIC with a range of options, Northern Trust's 2018 Resolution Plan includes a detailed assessment of the separation and sale of major assets in Northern Trust's CBLs and other businesses. Northern Trust relied upon a combination of qualitative and quantitative considerations to identify major assets that could be separated and sold in order to maximize value in the event of TNTC's resolution. In addition, the 2018 Resolution Plan includes analysis of separability of the major assets in TNTC's CBLs and other businesses and the additional steps that would be required to facilitate the separation and disposition of major assets in the event of resolution.



## 4. Operational Readiness

#### **Critical Services**

Northern Trust depends upon inter-company affiliates and third party vendors to provide corporate and operational shared services, which could be disrupted in resolution and pose a risk to operational continuity. To address this risk, Northern Trust has developed, and continues to enhance, its operational continuity strategy. Since the 2015 Resolution Plan submission, Northern Trust has significantly enhanced its strategy to maintain Critical Service continuity through resolution. The foundation of Northern Trust's Critical Service continuity strategy is the comprehensive process Northern Trust has undertaken since the 2015 Resolution Plan submission to (a) use Northern Trust's existing map of service capabilities (Capability Map) to identify all Critical Services, (b) map all identified Critical Services to TNTC's CBLs and identify the TNTC affiliate providing Critical Services, (c) identify the key components required to deliver Critical Services (vendors, personnel, systems, facilities, payment, clearing and settlement systems, intellectual property, and intercompany relationships), (d) identify potential risks and obstacles to the delivery of critical services, and (e) identify and implement mitigating actions to address potential continuity risks.

In addition to the development of a comprehensive Critical Services inventory and mapping, Northern Trust has addressed the existing termination and anti-assignment provisions in intercompany service agreements and key vendor contracts and the lack of documentation of service relationships between and among affiliates providing shared and outsourced services that support CBLs and Critical Services. 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 service agreements to include 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, notwithstanding any contractual termination right, 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 now contain provisions that mitigate risk to operational continuity in resolution. All future intercompany service agreements will also contain similar risk mitigating provisions.

To further enhance 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. 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 those supporting its CBLs and Critical Services, and services provided by other affiliates



that support CBLs and Critical Services. Many of the existing intercompany service agreements also support CBLs and Critical Services. Northern Trust is using its Service Catalog to reconcile and validate these service relationships, and putting in place any additional required intercompany service agreements as the mapping of intercompany services provided in support of CBLs and Critical Services 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's contractual arrangements with key vendors 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. As additional key vendors are identified through the detailed mapping exercise, Northern Trust will negotiate to include resolution-friendly provisions any newly identified key vendor contracts. Northern Trust has also included resolution-friendly provisions in its vendor contract template and has 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 key vendor contracts where NTC was the contracting party and has prioritized for completion any remaining key vendor contracts entered into by NTC.

Northern Trust also will be updating its vendor intake process to ensure that all key vendors supporting CBLs and Critical Services are identified at intake, and appropriate training is provided to key vendor managers. Northern Trust will reconcile and validate the list of key vendors and amend other key vendor contracts to the extent that the mapping of critical outsourced services to CBLs and Critical Services identifies outsourced service risks that require mitigation.

The completion of a comprehensive Critical Services inventory and mapping, 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 Critical Services during resolution.

## **Key Personnel**

In order to ensure the successful execution of Northern Trust's bridge bank strategy and the FDIC's ability to carry out its responsibilities under an FDI Act resolution, it is critical to identify and retain the employees who directly execute or contribute to the execution of Northern Trust's CBLs and Critical Services in resolution. Since the 2015 Resolution Plan submission, Northern Trust has developed a Human Resources Staff Retention Strategy (the Retention Strategy) to support Northern Trust's bridge bank strategy and the retention of key employees necessary to operate the business during severe financial distress leading to the failure of TNTC and throughout resolution.

In the event of Northern Trust's severe financial distress leading to the failure of TNTC, it is expected that Northern Trust would experience a heightened risk of the loss of key employees necessary to perform key



operational and business management functions. It will be necessary to retain a sufficient number of employees to continue Critical Services, preserve franchise value and execute Northern Trust's bridge bank strategy. Northern Trust has identified the key positions and the number of employees in each position that are necessary to maintain operational stability and franchise value during resolution (Key Personnel), and has designed a retention package to incent Key Personnel to remain employed by a Northern Trust entity or TNTC Bridge Bank during resolution.

Northern Trust's Retention Strategy includes a detailed description of the following:

- The methodology used to identify Key Personnel within each business unit and/or group, and by country and legal entity, including the resulting retention data for each group;
- The design of the retention package, including the calculation methodology, that will be offered to retain Key Personnel in resolution;
- The process that will be followed to execute the Retention Strategy, including:
  - Roles and responsibilities of all involved parties,
  - · Steps that will be taken to prepare and distribute retention packages, and
  - Communications to address retention during resolution, including a template of the retention letter;
- The governance process for ongoing maintenance of and enhancements to the Retention Strategy, including periodic feasibility testing and updates.

In the development of the Retention Strategy, the Retention Strategy Project Team (the Retention Team) worked with business unit leadership from across Northern Trust's business segments to identify Key Personnel. Finally, the Retention Strategy also addresses the governance needs in both business as usual (BAU) and resolution. In BAU, the Retention Team will continue to work annually with business unit leadership to refresh and maintain the retention data and to update the Retention Strategy with oversight from the Resolution Planning Steering Committee. The feasibility of the Retention Strategy will be periodically tested, including through challenge panels and tabletop exercises. In resolution, the Resolution Planning Steering Committee will provide governance of the Retention Package preparation and distribution process, including the direction to begin the activation and distribution phases.



## **Communications Capabilities**

Northern Trust has comprehensive and robust communication capabilities that it would use in the event of severe financial distress, leading up to failure, and that the FDIC could use in a receivership. Northern Trust has enhanced its communications strategy to support execution of its bridge bank strategy and the need to communicate effectively with clients, personnel, counterparties, regulators, vendors, creditors and other stakeholders. In addition to maintaining contact information to reach key stakeholders through email, phone or mail, Northern Trust maintains, and the FDIC could utilize, a variety of channels to communicate to key stakeholders that include media communications, the Northern Trust website, call centers, and employee and client web portals. A central communications team consisting of Northern Trust's Director of Investor Relations, Chief Strategy and Marketing Officer, Chief Financial Officer, Chief Risk Officer and General Counsel would have responsibility for coordination of Northern Trust's communication strategy to key stakeholder groups. The Resolution Planning Steering Committee has oversight responsibility over execution of Northern Trust's resolution strategy, including the communications strategy.

In addition to a description of Northern Trust's overall communications strategy, the 2018 Resolution Plan describes relevant information regarding Northern Trust's communications capabilities, including (i) identification of key internal and external stakeholders; (ii) the groups or party(ies) responsible for communications with key stakeholders; (iii) the amount of time required to generate name and contact information for members of each key stakeholder category; and (iv) the primary messaging channels for communication with each key stakeholder category.

## MIS Processes and Reporting Capabilities

Consistent with the requirements of the CIDI Rule, Northern Trust's 2018 Resolution Plan includes a detailed inventory and description of key management information systems (MIS) processes and applications as well as a description of Northern Trust's capabilities and processes to collect, maintain, and report the information and other data underlying Northern Trust's 2018 Resolution Plan. The 2018 Resolution Plan includes a detailed description of the following MIS processes and capabilities of TNTC:

- <u>Contract Management Systems</u> The 2018 Resolution Plan describes Northern Trust's operational
  contracts management systems with a focus on the contractual relationships necessary to the execution
  and support of Northern Trust's operations.
- Identification of Customer Information The 2018 Resolution Plan describes Northern Trust's systems that
  include (a) client identification information such as legal name, address and tax ID to provide all client
  information and (b) client account identifiers that allow Northern Trust to generate reports with data
  combined between the Northern Trust's data repositories, as required.
- <u>Capability to Hold or Halt Payments</u> The 2018 Resolution Plan describes Northern Trust's capability to hold or halt payments, for deposits, debt, vendor payments and other liabilities.



 <u>Frequency and Timing of Wire Transfers</u> - The 2018 Resolution Plan describes Northern Trusts wire transfer capabilities, which operate during hours designed to align to the normal operations of the specific wire transfer networks as well as critical times for client needs.

In addition, the 2018 Resolution Plan describes TNTC's current capability to report key MIS information, including the time required to generate information and whether the process for preparing the information is automated or requires manual intervention, for the following:

- Unconsolidated financial statements for TNTC and each ME subsidiary or foreign branch;
- · Information to facilitate the sale of major assets;
- Secured deposits, with underlying pledged collateral;
- · Non deposit claimants;
- Foreign deposits by customer, account type and jurisdiction;
- · Secured borrowings including type, counterparty and maturity date;
- · Unsecured borrowings including type, counterparty or transfer agent and maturity date;
- Other qualified financial contracts including type, counterparty and maturity date;
- · Projected short term liquidity needs;
- Collateral held by TNTC or by custodians/counterparties;
- · Pending margin and/or collateral disputes with counterparties;
- Unfunded credit commitments and letters of credit: and
- · Key personnel.

Finally, the MIS discussion in the 2018 Resolution Plan includes a detailed description of the controls, standards and governance established and utilized throughout Northern Trust to ensure the integrity of MIS. The day-to-day oversight and controls over MIS are integrated in the three lines of defense structure in Northern Trust's Enterprise Risk Management (ERM) Framework. MIS governance relies on controls and standards established and utilized throughout Northern Trust, including internally developed control standards for information security and technology risk management, model risk management, data governance management, and internal controls prescribed by the Sarbanes-Oxley Act of 2002 and the FDI Act. Northern Trust's oversight programs for MIS are segmented into the following three areas: Systems Control, Model Control and Data Control. In addition to these three functional areas, Northern Trust has a robust Process Management framework for internal controls relating to financial reporting. This framework is designed to ensure the governance and controls pertaining to models, systems, data, and processes involved in and affecting Northern Trust's financial reporting are sufficient to support complete, accurate, and timely financial analysis, reporting and regulatory filings, including information supporting resolution planning.



## 5. Material Events, Enhancements, and Changes

Since submitting the 2015 Resolution Plan, Northern Trust has made a number of material changes and enhancements to its 2018 Resolution Plan. The following list summarizes the additional material changes and enhancements in the 2018 Resolution Plan by subject area:

#### Governance

- Enhanced oversight of resolution planning by the TNTC Board of Directors (the TNTC Board) and the Business Risk Committee of the TNTC Board.
- Created the Resolution Planning Steering Committee, comprised of the most senior officers of Northern
  Trust, including the CEO and President; the Chief Financial Officer; the Chief Operating Officer; the Chief
  Risk Officer; the Chief Capital Management Officer; the Treasurer; the President Corporate & Institutional
  Services, Europe, Middle East and Africa; 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 2018 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.
- Continued efforts to integrate resolution planning into existing BAU processes and governance.

#### **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 conservatively assumed immediate and full ring-fencing 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.
- Added credit lines provided to Northern Trust via secondary accounts to the total calculated liquidity need and assumed that un-collateralized funding would not be available to Northern Trust under a severe stress.
- 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 financial distress and in the event of failure, identified the funding and liquidity needs required to maintain these relationships and measured the potential need for additional liquidity support from the FDIC, in TNTC Bridge Bank.



 Conducted sensitivity analysis on key assumptions to gauge the impact on liquidity projections and 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 vendor contracts critical to continuity of Critical Services and CBLs during resolution; amended
  most critical vendor contracts to include resolution-friendly provisions, and engaged in active negotiations
  with remaining key vendors.
- Developed a bank-wide shared services taxonomy and identified and mapped all Critical Services to CBLs, and providing and receiving intercompany affiliates; identified Critical Service dependencies according to key resources (personnel, systems, vendors, facilities, and intellectual property); identified potential risks to continuity of Critical Services to determine and implement associated mitigants.
- Enhanced the Retention Strategy, providing an improved framework for identifying key personnel, the
  design of a retention package, and an outline of the process that will be followed to execute the Retention
  Strategy during resolution. The Retention Strategy also describes the governance of the annual retention
  data collection process and governance that will be applied in the event that the Retention Strategy is
  executed in resolution.
- Further enhanced the strategies of the separation and divestiture of Northern Trust's major asset categories, CBLs, and other key components of franchise value.
- Enhanced Northern Trust's strategy for maintaining Payment, Clearing, & Settlement (PCS) relationships in
  resolution by: identifying each PCS provider of which Northern Trust, directly or indirectly, is a member/
  participant/customer; mapping PCS memberships to the Northern Trust legal entities and CBLs; describing
  risks to maintaining uninterrupted relationships with FMUs other than the Federal Reserve Systems (Fed
  ACH, Fedwire Funds, and Fedwire Securities); describing the potential adverse actions that FMUs,
  subcustodians, and nostro banks may take against Northern Trust and setting out Northern Trust's
  mitigation efforts to minimize the risk of disruptions.

#### Legal

- Conducted a multi-jurisdictional legal and operational analysis to support the transfer of custodial assets to TNTC Bridge Bank.
- Enhanced Northern Trust's analysis of legal and regulatory prerequisite actions associated with the separation and divestiture of Northern Trust's major asset categories, CBLs, and other key components of franchise value.

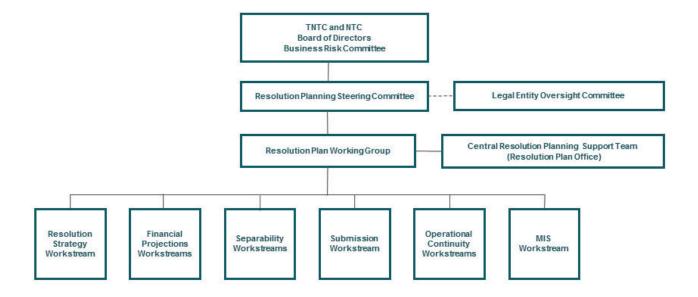


- Conducted a multi-jurisdictional legal analysis of the potential legal consequences of the failure and liquidation of TNTC's parent affiliates and TNTC's ME subsidiaries and foreign branches.
- Enhanced Northern Trust's legal support for non-U.S. authorities' cooperation with the FDIC in connection with the bridge bank strategy.

## 6. Governance

Northern Trust has prioritized the implementation of a strong and comprehensive governance structure and associated process controls, in connection with preparation and approval the 2018 Resolution Plan submission, and continues to integrate resolution planning into Northern Trust's existing governance framework. Northern Trust's oversight and governance structure is shown in Exhibit 5 and described below.

#### **Exhibit 5 Resolution Planning Governance Structure**



#### **TNTC Board of Directors**

The Board of Directors is responsible for reviewing and approving Northern Trust's resolution plans and ensuring that sufficient resources are allocated to the preparation and maintenance of Northern Trust's resolution plans and broader resolution planning program. In discharging its responsibility for reviewing and approving the 2018 Resolution Plan, the Board of Directors reviewed feedback received from the FDIC on the 2015 Resolution Plan submission and reviewed and challenged the key elements of Northern Trust's bridge bank strategy, the key assumptions that support the execution of the bridge bank strategy and the key components of Northern Trust's 2018 Resolution Plan submission. To assist the Board of Directors in the discharge of its oversight and approval responsibilities with respect to the Resolution Plan submission, the Board of Directors received regular Resolution Plan updates by senior management and continuing education related to resolution planning.



#### **Business Risk Committee of TNTC Board of Directors**

The Business Risk Committee of the Board of Directors has oversight responsibility over the resolution planning process. This oversight responsibility includes overseeing management's response to regulatory guidance and feedback, and ensuring timely delivery of target state deliverables and ex ante projects in response to regulatory feedback. The Business Risk Committee has received a status report at each meeting since its role has expanded to include resolution planning oversight, including an update and progress report regarding ongoing projects to enhance Northern Trust's resolvability and address FDIC feedback.

## **Resolution Planning Steering Committee**

The Resolution Planning Steering Committee, formed in 2017, provides executive management oversight, guidance, and governance to Northern Trust's resolution planning activities, including the preparation of Resolution Plans submitted to the Federal Reserve and the FDIC and the execution of Northern Trust's strategy for rapid and orderly resolution in the event of material financial distress or failure of NTC or TNTC. The Committee is comprised of the most senior members of management including: the Chief Executive Officer and President; the Chief Capital Management Officer; the Chief Financial Officer; the Chief Operating Officer; the Chief Risk Officer; the General Counsel (Chair); the Treasurer; the President – Corporate & Institutional Services, Europe, Middle East, and Africa (EMEA); and the General Auditor (non-voting).

## **Legal Entity Oversight Committee (LEOC)**

In 2016 Northern Trust convened a Legal Entity Working Group to provide senior management oversight and guidance with respect to Northern Trust's legal entity structure, including overseeing the determination of MEs for resolution planning. In 2017 Northern Trust formed the LEOC to provide more formal oversight over Northern Trust's legal entity structure. The LEOC is comprised of the following individuals: Corporate Secretary (Chair), Controller (or his or her designate), International General Counsel, Chief Financial Officer for EMEA, Corporate Tax Representative, Regulatory Liaisons Office Representative, Senior Regulatory Counsel, Director of Capital Adequacy, Head of Enterprise Operations (or his or her designate) and President, Northern Trust Services, Inc. - Corporate and Trust Insurance.



## **Resolution Plan Working Group**

The Resolution Plan Working Group is chaired by Northern Trust's Chief Capital Management Officer, who was responsible for overall project management of the 2018 Resolution Plan, including the development, maintenance, implementation, and filing of the resolution plan and compliance with the CIDI Resolution Plan Rule. The Resolution Plan Working Group identifies, oversees, and coordinates all resolution planning work streams, including the following key work streams: Resolution Strategy (led by the CFO and focused on key assumptions and strategic decisions); Separability (led by the President and senior management from each of Northern Trust's CBLs); MIS (led by senior management from Northern Trust's Controller's group); Financial Projections (led by the Treasurer), and Operational Continuity (led by the COO). These work stream leads are responsible for understanding and implementing the resolution planning requirements in their subject area, drafting sections of the 2018 Resolution Plan relating to their subject area and ensuring that resolution risk identification and mitigation procedures are adopted in the appropriate BAU activities.

## **BAU Integration**

Northern Trust is accelerating the integration of resolution planning in existing governance and business processes by assigning responsibility for each key resolution planning work stream and the development and drafting of key sections of its resolution plan submissions to senior leadership from the appropriate front line unit. While the Chief Capital Management Officer is the senior management official primarily responsible and accountable for the Resolution Plan, each key resolution planning work stream was led by a front line unit senior executive member of Northern Trust's executive management team. Each work stream was responsible for leveraging (and, if necessary, enhancing) the applicable business unit governance and process to ensure that all aspects of the 2018 Resolution Plan received the appropriate level of business unit review and approval prior to presentation to the Resolution Planning Steering Committee, the Business Risk Committee and the Board of Directors for approval.

# 7. Board Approval and Certification

The TNTC Board approved the 2018 Resolution Plan at a meeting held on June 20, 2018. The approval of the TNTC Board is reflected in the minutes of such meeting. The TNTC Board of Directors believes that the 2018 Resolution Plan addresses all requirements of the CIDI Rule, the 2014 Guidance and feedback received from the FDIC.



## 8. Conclusion

Northern Trust's 2018 Resolution Plan provides the information and analysis necessary to enable the FDIC to resolve TNTC under Sections 11 and 13 of the FDI Act, while ensuring that depositors would receive timely access to their insured deposits, maximizing net present value return on TNTC's assets and minimizing losses realized by creditors. As shown above, and as described in greater detail in the 2018 Resolution Plan, Northern Trust has significantly enhanced its financial, operational, and legal resolvability; enhanced its governance; and improved other aspects of its resolution strategy since its 2015 Resolution Plan submission. Northern Trust also has advanced ongoing efforts to further embed resolution planning in BAU practices throughout the company. As a result, the 2018 Resolution Plan supports Northern Trust's enhanced resolvability and provides the FDIC with a range of executable options to conduct the resolution of TNTC in an orderly and efficient manner.



## Part 2 - Additional Information

# 1. Description of Derivatives 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.



# 2. 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 6 Direct Memberships in Payment, Clearing and Settlement Systems as of December 31, 2017

Securities settlement systems:	Membership reference
The Depository Trust Company (DTC)	Participant
CREST	Member
Clearstream Banking S.A. (Clearstream)	Customer
Euroclear Bank (Euroclear)	Participant
Canadian Depository for Securities (CDS)	Participant
National Securities Clearing Corporation (NSCC)	Member
Cash settlement systems:	Membership Reference
Clearing House Interbank Payments System (CHIPS)	Participant
Continuous Linked Settlement (CLS)	Member
Clearing House Automated Payment Systems (CHAPS)	Participant
Other FMUs:	Membership Reference
The Society for Worldwide Interbank Financial Telecommunication (SWIFT)	SWIFT User
Federal Reserve Bank Payment Systems *	Membership Reference
Federal Reserve Automated Clearing House (FedACH)	Participant
Federal Reserve Fedwire Services (Fedwire Funds)	Participant
Federal Reserve Fedwire Services (Fedwire Securities)	Participant

<sup>\*</sup> In accordance with the rule, this chart identifies each PCS providers of which Northern Trust, directly or indirectly, is a member or participant. This includes 3 payment services of the FRB, whereas, these will not be included in the section related to the letter.

#### Exhibit 7 Material Subcustodians as of December 31, 2017

Subcustodian
HSBC
Deutsche Bank
Svenska Handelsbanken AB (publ)
Nordea Bank
Citibank



Exhibit 8 Top 11 Correspondent Banks December 31, 2017

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

# 3. Description of Foreign Operations

As of December 31, 2017, in addition to its U.S. locations Northern Trust had a network of offices in 23 international locations in Canada, EMEA, and APAC. Approximately 4,000 employees are employed in EMEA, and approximately 6,000 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)
- Northern Trust Management Services (Ireland) Limited (Ireland management services company)

# 4. 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 Federal Reserve and the U.S. Securities and Exchange Commission.

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 also registered as a transfer agent with the FRB and is, therefore, subject to the rules and regulations of the Federal Reserve 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 regulatory obligations regarding swap activity and the supervision, examination, and enforcement power of the CFTC and other regulators.

The activities of TNTC'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 9 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
Northern Trust Management Services Limited	NTMSL	N/A
The Northern Trust Company, Canada	TNTCC	OSFI
Northern Trust Global Services Limited	NTGS	PRA, FCA
The Northern Trust International Banking Corporation	TNTIBC	FRB
Northern Trust Management Services (Ireland) Limited	NTMSIL	N/A



# 5. Principal Officers

The following tables list the principal officers of TNTC as of January 31, 2018, all of whom are appointed by the TNTC Board.

# Exhibit 10 Principal Officers of TNTC as of January 31, 2018

Name	Position
Frederick H. Waddell	Chairman
Michael G. O'Grady	Chief Executive Officer
Aileen B. Blake	Executive Vice President and Controller
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
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