Resolution Plan

PUBLIC SECTION • JULY 1, 2017

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Our 2017 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. Words such as "estimate," "forecast," "project," "anticipate," "target," "expect," "intend," "commit," "believe," "plan," "goal," "could," "should," "may," "will," "ensure," "assure," "strategy," "opportunities," "trends" and words of similar meaning signify forward-looking statements, as do statements that relate to our future plans, objectives and strategies and to the objectives and effectiveness of our risk management, capital and liquidity policies. These statements are based on the current beliefs and expectations of our management and are subject to significant risks and uncertainties that are subject to change based on various important factors (some of which are beyond our control). Actual outcomes may differ materially from those set forth in the forward-looking statements as a result of numerous factors, including those described under "Forward-Looking Statements" and "Risk Factors" in Parent's 2016 Annual Report and Form 10-Q for the period ended March 31, 2017, and in other filings with the SEC, which we make available on the Investor Relations section of our corporate website at www.bnymellon.com.

Our 2017 Plan is not binding on a bankruptcy court, our regulators or any other resolution authority, and in the event of the resolution of our firm, the strategies implemented by us, our regulators or any other resolution authority could differ, possibly materially, from the strategies we have described. In addition, our expectations and projections regarding the implementation of our resolution strategies are based on scenarios that are hypothetical, involve economic outcomes that are more adverse than expected and may not reflect events to which we are or may become subject. Our 2017 Plan is also based on many significant assumptions, including with respect to the effects of the events that could lead to our failure, the actions of clients, financial market utilities, agent banks and regulators, Parent's financial resources and its ability to provide financial resources to its material entities prior to its filing for bankruptcy proceedings, the ability to sell, wind down or transfer objects of sale, and the ability to effect a disposition of RemainCo. None of these assumptions may prove to be correct in an actual resolution scenario. As a result, our resolution strategies in an actual resolution scenario, or the outcomes of our resolution strategies, could differ, possibly materially, from those we have described.

We have included information about actions we have undertaken, or are considering, in connection with resolution planning. The statements with respect to these actions and their impact and effectiveness are forward-looking statements, based on our current expectations regarding our ability to complete and effect those actions and any actions that third parties must take, or refrain from taking, to permit us to complete those actions. As a result, the timing of those actions may change, possibly materially, from what is currently expected. All forward-looking statements speak only as of the date on which such statements are made and we do not undertake to update the forward-looking statements to reflect the impact of circumstances or events that may arise after the date of the forward-looking statements.

The information contained in our 2017 Plan, 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 our businesses and operations contained in this public section, relative to how we present such information for other purposes, are solely due to our efforts to comply with the rules governing the submission of resolution plans and do not reflect changes to our organizational structure, business practices or strategy.

Financial information presented herein is as of December 31, 2016, unless noted otherwise.

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Key Terms

The terms "we," "us," "our," "BNY Mellon" and the "firm" refer to The Bank of New York Mellon Corporation and its consolidated subsidiaries—*i.e.*, the organization as a whole. The term "Parent" refers solely to The Bank of New York Mellon Corporation, the top-tier entity in our corporate hierarchy while the term "the Bank" refers to The Bank of New York Mellon, our key banking entity. Other terms used in this public section are defined below:

Term	Definition
2015 Plan	Our July 1, 2015 resolution plan submission under § 165(d) of the Dodd-Frank Act and the Title I Rule, containing a public section released on July 6, 2015 and available here
2016 Annual Report	Parent's Annual Report on Form 10-K for the year ended December 31, 2016
2016 Submission	Our October 1, 2016 resolution plan submission addressing deficiencies jointly identified by the Agencies in the April 2016 Letter, containing a public section released on October 4, 2016 and available here
2017 Guidance	The Agencies' jointly issued Guidance for 2017 § 165(d) Annual Resolution Plan Submissions by Domestic Covered Companies that Submitted Resolution Plans in July 2015 and available here
2017 Plan	Our required annual resolution plan submission under § 165(d) of the Dodd-Frank Act and the Title I Rule due by July 1, 2017, containing this public section and the confidential information required by the Agencies
2017 Resolvability Program	Our program of projects and related initiatives to further enhance our firm's resolvability by July 1, 2017
Agencies	The Federal Reserve and the FDIC
Agent banks	Correspondent banks and sub-custodians
April 2016 Letter	Agencies' April 12, 2016 feedback letter to us in response to our 2015 Plan submission under the Title I Rule[1]

[1] On April 13, 2016, the Agencies jointly announced determinations and provided firm-specific feedback on the 2015 resolution plans of our firm and seven other U.S. G-SIBs. The Agencies' joint press release, *Agencies Announce Determinations and Provide Feedback on Resolution Plans of Eight Systemically Important, Domestic Banking Institutions*, is available here.

Term	Definition
Bank	The Bank of New York Mellon, a material entity
Bankruptcy Code	Title 11 of the United States Bankruptcy Code
BAU	Business as usual, meaning a time which is normal business operation for our firm (*i.e.*, when the firm is not experiencing stress)
BNYMIL	The Bank of New York Mellon (International) Limited, a material entity
BNY Mellon SA/NV	The Bank of New York Mellon SA/NV, a material entity
BNY Mellon TrustCo	The Bank of New York Mellon Trust Company, N.A., a material entity
Board of Directors	Our Parent's board of directors; generic references to other boards of directors (of a material entity, for example) are not capitalized
CFTC	U.S. Commodity Futures Trading Commission
Core business lines	Our business lines, including associated operations, services, functions and support, that upon failure would result in a material loss of revenue, profit, or franchise value. Additional information about our core business lines can be found in Section 2.
Crisis Continuum	Our series of defined levels of stress from BAU through increasing levels of severity up to and including resolution. Primary monitoring tools for the Crisis Continuum levels include capital, liquidity and operational key risk indicator thresholds.
Crisis Continuum Framework	Our governance framework for identifying and managing defined crisis levels that may occur along the Crisis Continuum. Key components include crisis governance, measures and thresholds for monitoring and reporting crisis situations, internal and external escalation and communication plans, and potential responses at each crisis level.
Critical operations	Those operations of our firm, including associated services, functions and support, the failure or discontinuance of which, in our view or as jointly directed by the Agencies, would pose a threat to the financial stability of the United States
Critical services	The shared and outsourced services that must be maintained to ensure the operational continuity of our core businesses and critical operations in resolution. We have defined critical services broadly to include key assets and key third parties as well as services.

Term	Definition
December 2016 Letter	Agencies' December 13, 2016 feedback letter to us in response to our 2016 Submission[2]
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act
Downstream Playbooks	Resolution-related playbooks that detail specific actions to be taken throughout the Crisis Continuum in order to operationalize specific aspects of the SPOE strategy
EMEA	Europe, Middle East and Africa
Entity Governance Committee	Senior-level committee at our firm responsible for overseeing the firm's legal entity structure and providing strategic direction to enhance our overall resolvability in accordance with our LER Criteria
FCA	Financial Conduct Authority
FDIC	Federal Deposit Insurance Corporation
Federal Reserve	Board of Governors of the Federal Reserve System
Financial market utility	Systems that provide for the payment, clearing and settlement of cash and securities transactions between financial institutions, among other types of financial transactions. Financial market utilities include central securities depositories, central counterparties, securities settlement systems and payment systems.
FINRA	Financial Industry Regulatory Authority
FMI	Financial market infrastructure, which includes financial market utilities and agent banks
G-SIB	Global Systemically Important Bank, a designation applicable to us that is reassessed annually by the Financial Stability Board

2 On December 13, 2016, the Agencies jointly announced determinations and provided firm-specific feedback on the 2016 resolution plan submissions of our firm and four other U.S. G-SIBs. The Agencies' joint press release, *Agencies Announce Determinations on October Resolution Plan Submissions of Five Systemically Important Domestic Banking Institutions*, is available here. The Agencies' firm-specific feedback letter to us is available here.

Term	Definition
GSS Corp.	BNY Mellon Government Securities Services Corp., a material entity
GSS Services	U.S. government security clearing and settlement services and U.S. tri-party repo clearing and settlement services provided by us
HQLA	High-quality liquid assets
IHC	BNY Mellon IHC, LLC, a material entity that is a wholly-owned direct subsidiary of Parent, was formed in December 2016, and holds and manages substantially all of our financial resources
Internal service provider	An entity of our firm the primary purpose of which is to provide services or support to two or more core business lines or critical operations
IPO	Initial public offering
LCR	Liquidity coverage ratio
LER Criteria	Our legal entity rationalization criteria, comprising four overarching goals and supporting principles, that provide the framework for ensuring that our legal entity structure remains aligned with our SPOE strategy and thereby remains resolvable
LIBOR	London Interbank Offered Rate
Master Playbook	Our top level resolution playbook that provides a clear, overarching framework for the sequencing, linkage and key information across our full suite of playbooks, including Downstream Playbooks, to support the Crisis Management Coordinator and coordinate timely execution of relevant actions necessary to implement the SPOE strategy
Material entity	An entity of our firm or foreign office that is significant to the activities of a critical operation or core business line. Additional information on our material entities can be found in Sections 2 and 7.1.
New HoldCo	Holding company that would be created under the SPOE strategy, to which Parent, following its bankruptcy filing, would transfer all of its subsidiaries and under which each subsidiary would continue as a going concern
NFA	National Futures Association

Term	Definition
Objects of sale	Discrete businesses of our firm that could be sold or wound down if we were to fail
PNV Trigger	A trigger that signals when our internal financial forecasts predict that Parent should downstream substantially all of its remaining capital and liquidity resources to the IHC, as described further in Sections 3 and 5.1
PRA	Prudential Regulation Authority
RCAP	Resolution Capital Adequacy and Positioning, as described further in Section 5.1
RCEN	Resolution Capital Execution Need, as described further in Section 5.1
RemainCo	Under the SPOE strategy, the remaining businesses and associated entities of our firm as described further in Sections 3 and 5.6
RLAP	Resolution Liquidity Adequacy and Positioning, as described further in Section 5.1
RLEN	Resolution Liquidity Execution Need, as described further in Section 5.1
SEC	U.S. Securities and Exchange Commission
Security Agreement	An agreement that secures obligations under the Support Agreement
SIFI	Systemically Important Financial Institution
Support Agreement	Contractual agreement designed to assure that subsidiary material entities remain liquid and solvent under the SPOE strategy; referred to as a “contractually binding mechanism” in the 2017 Guidance
Title I Rule	The rule jointly adopted by the Agencies pursuant to Section 165(d) of Title I of the Dodd-Frank Act requiring certain large bank holding companies to submit resolution plans annually, available here
TLAC	Total Loss-Absorbing Capacity, which includes capital and certain types of unsecured debt instruments, as defined in Federal Reserve regulations

Term	Definition
Trust	Under the SPOE strategy, the trust that would hold 100% of the equity of New HoldCo and would operate New HoldCo and subsidiaries for the benefit of the stakeholders in Parent's Chapter 11 bankruptcy case
VaR	Value-at-risk

1 INTRODUCTION TO RESOLUTION PLANNING AT BNY MELLON

What is a resolution plan?

In the aftermath of the 2008 financial crisis, regulatory authorities started requiring large "systemically important" financial institutions, or SIFIs, to submit resolution plans. Also known as a living will, a resolution plan describes the institution's strategy for how it could safely fail and maintain the key functions that it provides to the market, without causing financial instability or requiring taxpayer funds.

Resolvability and resiliency

Resolvability: Resolution planning is designed to ensure that SIFIs are resolvable—meaning they could be rapidly resolved in an orderly manner under the Bankruptcy Code, without causing financial instability and without relying on taxpayer funds.

Resiliency: Other regulatory changes since the financial crisis, such as increased capital and liquidity requirements, are designed to make SIFIs more resilient, meaning they would be less likely to fail in the first place.

Our 2017 resolution plan demonstrates why we believe we are resolvable. If sustained financial stress were to cause us to fail, the strategy outlined in our 2017 Plan is designed to ensure that all of our critical operations and core business lines would continue uninterrupted, there would be no systemic threat to the U.S. financial system and we would not require any support from U.S. taxpayers. This public section of our 2017 Plan describes our resolution strategy, why we believe it would be effective, and the significant operational, financial, legal and structural enhancements that we have completed to provide us with the capabilities to execute our strategy.

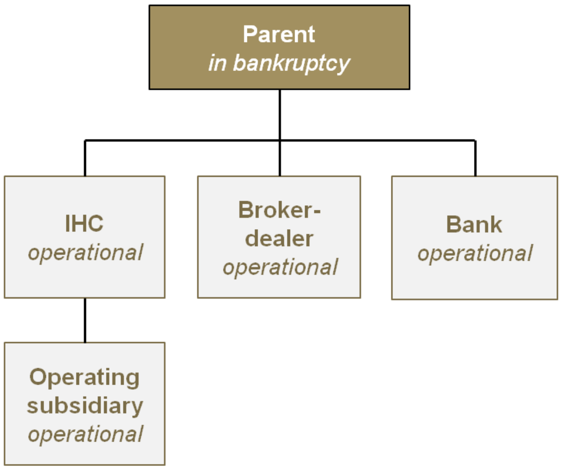
Resolution planning is important given our role as a global financial intermediary. We play a vital role in global markets and economies, enabling them to function and prosper. Among other services that we provide as an investments company, we are a global custodian and financial intermediary supporting leading broker-dealer, asset manager, banking, corporate and government clients across a wide range of financial services activities.

Unlike a typical retail, commercial or investment bank, our business model is largely fee-based, and the vast majority of these fees are recurring. We also maintain a highly liquid balance sheet and strong capital position, which, in combination with our straight forward corporate structure and high level of liquidity in our operating entities, enhances both our resiliency and resolvability as compared to other SIFIs.

Although the risk of our failure is extremely low, we understand the importance of having an effective resolution plan.

What is an SPOE strategy?

Under an SPOE strategy, only the parent financial holding company fails, while other subsidiary entities remain open for business and do not themselves enter bankruptcy proceedings.



We have chosen a Single Point of Entry resolution strategy, or SPOE strategy. This strategy helps ensure the continuity of the key activities we perform and avoids the need for multiple potentially competing resolution proceedings.

Under an SPOE strategy, only our Parent would enter bankruptcy proceedings and only Parent shareholders and creditors would be expected to sustain losses. Prior to filing for bankruptcy, Parent's remaining assets (other than stock in subsidiaries and a cash reserve to fund bankruptcy expenses) would be transferred to an intermediate holding company, or IHC, which would provide sufficient capital and liquidity to the other material entities to help ensure their financial health and ongoing operations. Our material entities would remain well capitalized and sufficiently liquid, and our firm would be streamlined as we sell certain businesses. Following these sales, we anticipate that a smaller organization, known as RemainCo, would exit resolution through an IPO of our remaining business, including our custody business.

Over the past several years, there has been a convergence on the SPOE strategy as an effective resolution strategy of large financial institutions given its many beneficial effects. Because an SPOE strategy allows the material entity subsidiaries of the parent holding company to remain going concerns, this strategy enables the continuity of a SIFI's critical operations and core business lines, thereby minimizing the risk that failure of a SIFI could damage the broader financial system. This continuity may also give clients greater comfort that the SIFI's entities with which they interface would remain operational in stress and after failure. An SPOE strategy also lowers the risk of competing resolution proceedings initiated by U.S. regulators or by regulators in different jurisdictions.

Critical operations, core business lines and material entities

Critical operations are a SIFI's operations, the failure or discontinuance of which could threaten U.S. financial stability.

Core business lines are a SIFI's businesses that upon failure would result in a material loss of firm revenue, profit or franchise value.

Material entities are entities that are important to the activities of a SIFI's critical operations or core business lines.

What is TLAC-qualifying debt?

On December 15, 2016, the Federal Reserve adopted a final rule requiring large banks operating in the United States to fund themselves through a certain amount of TLAC-qualifying debt and equity to facilitate their orderly resolution.

TLAC-qualifying debt has certain characteristics—such as being long-term, unsecured and issued by the organization's parent holding company—that helps allow the amount or value of this debt to be used to recapitalize the organization's operating entities if the parent company were to file for bankruptcy.

Our SPOE strategy is comprehensive, actionable and flexible.

- **Comprehensive**: Our resolution strategy covers all of the systemically important activities in which we engage, across core business lines, critical operations and material entities, and addresses all of the key issues essential to the successful execution of our SPOE strategy. For example, we have identified and addressed potential risks to the continuity of key interconnections across our firm, including with our internal service providers, to provide for the ongoing operation of our systemically important activities. In addition, we have developed a governance structure that would enable us to take appropriate and timely actions to facilitate the execution of our strategy, underpinned by approximately 70 action-oriented playbooks. We have also designated three new material entities since our 2016 Submission, indicating an increased scope of our resolution planning efforts and ongoing commitment to resolvability.

- **Actionable**: We have made significant and meaningful improvements to our corporate and capital structure to make our SPOE strategy executable in a real-world crisis. For example, we have created a new IHC under Parent to facilitate the provision of capital and liquidity resources to our material entities. We have also raised additional long-term debt to support our resolution strategy. Since July 2016, we have issued an incremental $3.75 billion of TLAC-qualifying debt in support of resolution.

- **Flexible**: Having made significant investments and enhancement to support our resolution strategy, we believe it would be effective under a wide range of market and firm-specific stresses. For example, we have built financial forecasting capabilities that enable us to manage financial resources across all stress levels and in various market conditions. We have also developed detailed plans to support the divestiture of discrete businesses following Parent's bankruptcy filing, each of which provides additional optionality to support financial strength and operational resiliency.

Our SPOE strategy and resolution capabilities have been significantly enhanced since 2012, including in light of guidance and other feedback provided by the Agencies. In particular, we have addressed all of the deficiencies and shortcomings identified by the Agencies in our 2015 Plan, as described in more detail in Section 4.

We take our resolution planning efforts seriously. We believe no firm should be "too big to fail" and that, regardless of size, financial institutions should be able to be resolved without taxpayer or U.S. government support. We endorse the concept of resolution planning as a key element of risk management to protect the soundness of the global financial system. Our Board of Directors and senior management team have made our resolution plan and associated resolvability enhancements top strategic priorities, dedicating significant resources at every level of our organization to help make our plan actionable and credible**.**

The remainder of this public section continues in the following manner:

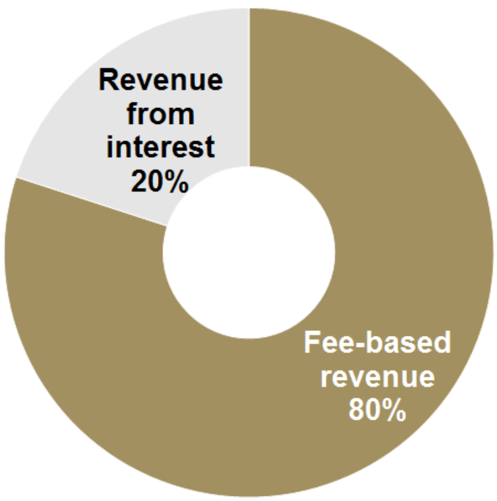
- **Section 2** describes our role as a global financial intermediary, the reduced risks posed by our unique business model and the criteria we used to designate our core business lines and material entities.
- **Section 3** explains our resolution strategy in more detail, linking it to the framework we have developed for monitoring and actively managing stress—our Crisis Continuum Framework.
- **Section 4** describes how we have addressed the deficiencies and shortcomings identified by the Agencies.
- **Section 5** describes key topics relevant for resolution planning and actions we have taken to enhance our resolvability, including:
    - **Capital and Liquidity**: Capabilities developed to support our financial viability in extreme stress and ensure that we have sufficient capital and liquidity to support our SPOE strategy;
    - **Governance Mechanisms**: Mechanisms that enable us to respond effectively to stress and execute our SPOE strategy;
    - **Operational**: Actions taken to ensure that we have the operational capability to execute our SPOE strategy, including the ability to maintain access to key financial intermediaries and to maintain the continuity of key operations;
    - **Legal Entity Rationalization**: Actions taken to enhance our legal entity structure in support of our SPOE strategy; and
    - **Separability**: Optionality in our SPOE strategy to divest discrete businesses under a variety of market conditions.
- **Section 6** describes our comprehensive governance process supporting the development of our 2017 Plan.

Additional background information is included in **Section 7**.

2 OUR ROLE AS A GLOBAL FINANCIAL INTERMEDIARY

In our role as a global investments company, we act as a global custodian and financial intermediary. We service financial assets on both the buy side and sell side throughout the investments life cycle. We also manage assets through our 13 investment management boutiques and provide investment advice through our Wealth Management offices in the United States. We manage and service assets for financial institutions, corporations and individual investors in 35 countries and more than 100 markets. Our clients include more than three-quarters of all Fortune 500 companies, central banks that hold more than 80% of all reserves and 85% of the top 100 pension and employee benefit funds.

Our fee-based business model
(numbers are approximate)



Our Business Model Supports Resolvability

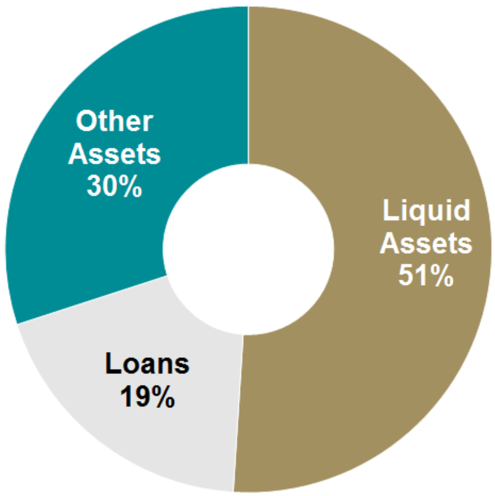
Unlike a typical retail, commercial or investment bank, our business model is characterized by fee-based businesses. We do not provide traditional banking services to retail clients, other than to high-net-worth clients, nor do we lend to consumers in any significant way or operate any consumer bank branches. We do not engage in material derivatives market-making. We no longer make markets in equity derivatives, and our low value-at-risk foreign exchange trading business is comparatively small and is conducted for clients.

We generate nearly 80% of our revenues from fees, the vast majority of which are recurring. This business model helps us maintain a strong balance sheet with highly liquid assets and a strong capital position. Net interest revenue is a significantly smaller part of our revenues than for most U.S. G-SIBs.

Strong, safe, trusted counterparty

Our reputation as a strong, safe, trusted counterparty reflects our success in building a solid balance sheet and robust risk culture. Our strategy is one of not incurring outsized risk to reach for returns. We have maintained among the highest credit ratings in the industry and our capital and liquidity positions remain strong.

Our balance sheet
(numbers are approximate)



We have a small balance sheet relative to the other U.S. G-SIBs, representing less than one quarter of their combined average total consolidated assets. The composition of our balance sheet also differs from that of most retail and commercial banks, which typically have a larger proportion of retail or commercial loans, or investment banks, which typically have trading portfolios. Our assets are liquid, with approximately 51% of total assets consisting of securities backed by the full faith and credit of the U.S. government, issued by U.S. government-sponsored enterprises or that are claims on or guaranteed by an international sovereign entity, as well as interest-bearing deposits with the Federal Reserve and other central banks. Loans comprise only 19% of total assets. These assets are of high quality and short-term duration, with 93% of our investment securities portfolio rated AAA/AA-. Our liabilities, primarily deposits, are largely tied to our operational services and invested in liquid assets.

Our credit ratings, capital generation and payout ratio are each among the highest of our U.S. G-SIB peers.

Designation of our Core Business Lines and Material Entities for Resolution Planning

For resolution planning purposes, we designate certain of our business lines as core business lines and certain of our entities as material entities. These designations focus our resolution planning efforts on the business lines that are important to our revenue, profitability and franchise value as well as the entities that are important to these business lines and to our critical operations. We make these determinations annually following a well-defined process.

Our Core Business Lines

Our business model includes two business segments: Investment Services and Investment Management. To determine which of our business lines within those segments are "core," we analyze all of our businesses to determine which, if they were to fail, would result in a material loss of revenue, profit or franchise value to our firm. Our four core business lines are described below.

Core Business Lines

Asset Management

Our Asset Management business encompasses a number of specialist investment boutiques and other entities that deliver a highly diversified portfolio of investment strategies independently, and through our global distribution network, to institutional and retail clients globally. Each boutique follows its own independent investment approach to innovate and develop investment solutions designed to deliver performance returns and outcomes that meet the investing goals of an increasingly sophisticated client base. Our multi-boutique model is designed to provide the best elements of investment focus and infrastructure at scale to benefit clients. The boutiques offer a broad range of actively managed equity, fixed income, alternative and liability-driven investments, along with passive products and cash management.

Asset Servicing

Our Asset Servicing business supports institutional investors by safekeeping assets and enhancing the administration of client investments through services that process, monitor and measure data from around the world. We leverage our global footprint and local expertise to deliver insight and solutions across every stage of the investment life cycle. Our comprehensive suite of Asset Servicing solutions includes global custody, foreign exchange, global fund services, securities finance, investment manager outsourcing, performance and risk analytics, alternative investment services, broker-dealer services, and collateral and liquidity services. Asset Servicing provides its services globally to major banks, broker-dealers, investment managers, insurance companies, corporations, government agencies, not-for-profits, endowments, pensions, alternative investment managers and structured funds.

Corporate Trust

We are a leading provider of corporate trust services to governments and their agencies, multinational corporations, financial institutions and other entities that access global debt capital markets. Our Corporate Trust business utilizes its global footprint and expertise to deliver a full range of issuer and related investor services and to develop customized and market-driven solutions. We provide corporate trust services for all major conventional and structured finance debt categories and specialty services including escrow, specialized agency and loan services.

Clearing Services

Pershing and its affiliates provide global financial solutions to advisors, asset managers, broker-dealers, family offices, fund managers, registered investment advisor firms and wealth managers. Our businesses and technical solutions include global clearing and settlement in equities, fixed income, annuities and other securities, delivering dependable operational support, robust trading services, flexible technology, an expansive array of investment and retirement solutions, practice management support, and service excellence.

Additional information related to our businesses is contained in our reports filed with the SEC, including the 2016 Annual Report, the Quarterly Reports on Form 10-Q and the Current Reports on Form 8-K, available at www.bnymellon.com.

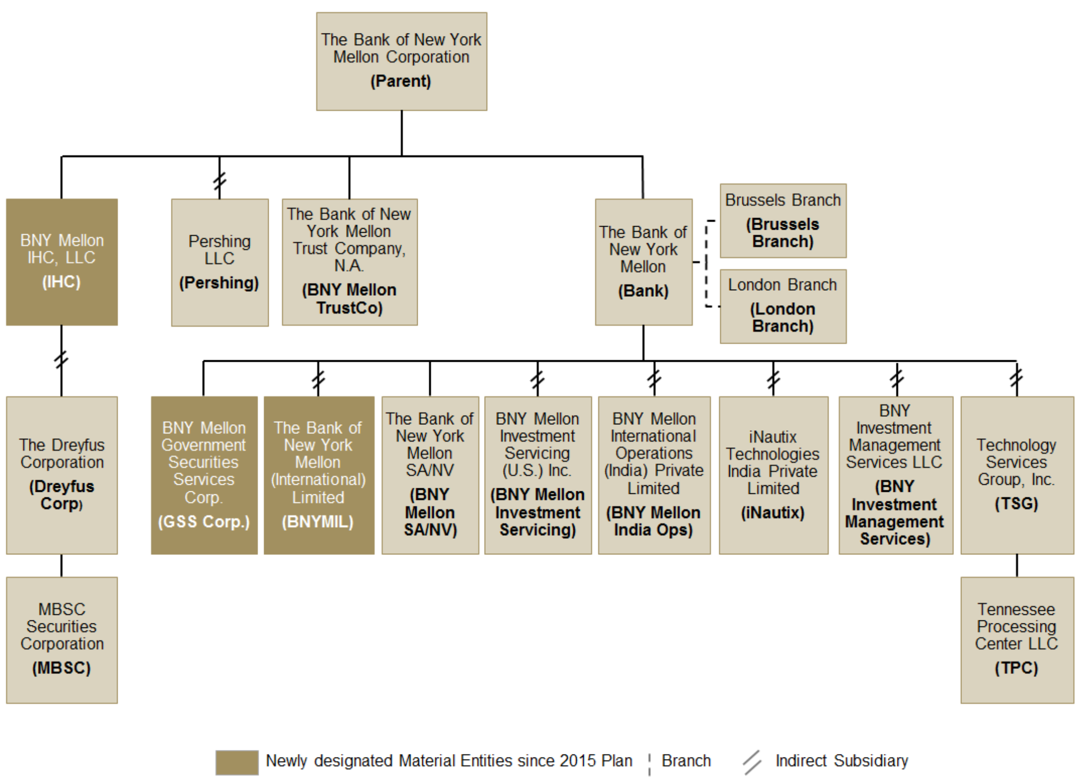
Our Material Entities

To determine which of our entities are "material," we examine all of our subsidiaries, including foreign offices and branches, and use various quantitative and qualitative criteria to determine which are significant to the activities of our core business lines and critical operations.

Quantitative criteria we assess include an entity's contribution of revenues, assets and liabilities, deposits, employees, real estate, and key FMI memberships. Qualitative criteria we assess include, for example, assessments of the kind of support (*e.g.*, operational or financial) provided by an entity to a core business line or critical operation. We consider whether an entity has been part of a recent significant structural change to our organization and may therefore be more important than previously considered. We assess the importance of the entity in the context of our firm's failure. We also consider whether it would be operationally feasible for an entity's activities to be stopped, substituted or shifted to another of our entities and whether doing so would impact the successful execution of our SPOE strategy.

For our 2017 Plan, we did not de-designate any of the 15 material entities that we designated in previous resolution plans. Using the assessment criteria noted above, we identified three new material entities for our 2017 Plan: BNYMIL, GSS Corp. and our IHC.

The figure below illustrates the material entities within our corporate hierarchy. A brief overview of each material entity is provided on the following page. Please refer to Section 7.1.2 for more detailed information about each of our material entities, including our rationale for designating each material entity.



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The Bank and its material entity branches and subsidiaries

The Bank of New York Mellon, which we call simply "the Bank," is a New York state-chartered bank and an FDIC-insured depository institution. The Bank has fifteen non-U.S. branches and various U.S. and non-U.S. subsidiaries and houses our Investment Services business, including Asset Servicing.

London Branch is a branch of the Bank located in London that supports Asset Servicing and Corporate Trust, among other businesses and shared services.

Brussels Branch is a branch of the Bank located in Brussels, Belgium that supports client activity for Asset Servicing, among other businesses.

BNY Mellon SA/NV is a bank licensed in Belgium and headquartered in Brussels. It supports Asset Servicing, among other businesses.

iNautix is an India-based service entity that provides IT services to much of our firm including network monitoring of IT infrastructure, IT call center and help desk support and software development.

TSG and its subsidiary **TPC** are both U.S.-based service entities that own and operate a majority of our technology infrastructure.

BNY Investment Management Services is a U.S.-based service entity that provides operational support for multiple business units including Asset Servicing.

BNY Mellon Investment Servicing is a U.S.-based service entity that provides operational support for certain functions of Asset Servicing.

BNYMIL is a U.K.-based bank that provides services to Asset Servicing clients, particularly custody and investment administration services. BNYMIL also provides fund accounting and transfer agency services.

GSS Corp. is a new U.S.-based operating subsidiary that houses the operations and technology supporting U.S. government securities clearing and settlement and U.S. tri-party repo clearing and settlement services, which we collectively refer to as GSS Services in this 2017 Plan.

BNY Mellon India Ops is an India-based service entity that provides middle and back-office operational support to much of our firm.

Material entities outside the Bank chain (all located in the United States)

Parent is a Delaware corporation headquartered in New York, New York that is registered as a bank holding company and a financial holding company under the Bank Holding Company Act of 1956, as amended by the Gramm-Leach-Bliley Act and by the Dodd-Frank Act. Parent is subject to supervision by the Federal Reserve.

Pershing is an SEC registered broker-dealer that is the main operating entity for our Clearing Services business. Pershing serves a broad array of clients including broker-dealers, independent registered investment advisors, hedge funds, '40 Act Funds and other financial intermediaries who conduct investment activities on behalf of their clients or their firm accounts.

The IHC is a wholly-owned direct subsidiary of Parent that was formed in December 2016. Pursuant to the Support Agreement, Parent transferred its intercompany loans and most of its cash to the IHC. Accordingly, the IHC is responsible for providing resources to other entities of our firm in BAU as needed. Before Parent's bankruptcy filing, Parent would contribute substantially all of its remaining capital and liquidity resources to the IHC, and the IHC would continue to provide resources to other entities after Parent's bankruptcy filing. This change in our corporate structure allows for financial resources to be flexibly allocated on an ongoing basis to material entities in need after Parent files for bankruptcy.

Dreyfus Corp. serves as adviser and administrator to the Dreyfus money market funds, or MMFs. It is registered with the SEC as an investment adviser and is regulated under the Investment Advisers Act of 1940.

BNY Mellon TrustCo performs front office administrative activities principally for fiduciary, agency and custody accounts related to our Corporate Trust business.

MBSC is a SEC-registered broker-dealer and member of FINRA that provides underwriting, distribution and shareholder services to support the Dreyfus MMFs and various other types of funds managed by Dreyfus Corp. MBSC also provides shareholder services to retail and institutional money market mutual fund investors and to the funds' intermediary partners.

3 OVERVIEW OF OUR SPOE RESOLUTION STRATEGY

Our SPOE strategy provides for the continuity of the key activities we perform and avoids the need for separate resolution proceedings for our subsidiaries. If we were to fail, only our Parent would enter bankruptcy proceedings, absorbing losses of the firm. Our material entities would remain adequately funded and operational. We have designed a point-of-non-viability trigger, or PNV Trigger, to help us predict the appropriate time when Parent should downstream substantially all of its remaining capital and liquidity resources to the IHC. At that time, Parent would be restricted from further access to the firm's resources to help ensure that the firm and our operating subsidiaries would still have adequate financial resources after Parent's failure to carry out the SPOE strategy. Our SPOE strategy provides for the continuity of all of our material entities other than Parent. Under our strategy, each of our material entities would have access to sufficient financial resources to avoid failure, remain operational and continue to support our critical operations.

Benefits of our SPOE strategy

The optimal resolution of our firm would ensure the continuity of our critical operations and minimize disruptions to the smooth functioning of financial markets. In deciding to adopt an SPOE strategy, we considered the following benefits of the strategy:

Going Concern

Under the SPOE Strategy, our material entities would remain going concerns, which would preserve their value for the benefit of Parent's creditors and reduce the risk of market disruption. Because our material entities will receive capital and liquidity support from the IHC, our core business lines and critical operations would continue to operate without our clients experiencing disruption in the services we provide.

No Competing Resolution Proceedings

Unlike other potential resolution strategies, our SPOE strategy involves only one resolution proceeding—*i.e.*, the bankruptcy proceeding of Parent under Chapter 11 of the Bankruptcy Code. A single resolution proceeding removes the possibility of multiple, competing resolution proceedings in different jurisdictions or within one jurisdiction while reducing the risks that regulators in different jurisdictions do not cooperate or that contractual counterparties of our material entities could exercise termination rights.

Continuity

Continuity of Critical Services

Under the SPOE strategy, all of our material entities other than Parent would remain solvent and operational, minimizing the possibility of disruptions to critical services that are important to the continuity of our core business lines and critical operations.

Continuity of Custodial Arrangements

As a global custody bank, ensuring continuity of our custodial arrangements would help provide for our orderly resolution. Under the SPOE strategy, the Bank—which holds our clients' custodial accounts—would remain solvent and well-capitalized even after Parent files for bankruptcy, reducing clients' incentive to transfer their custodial accounts to a third party.

Continuity of Access to Financial Market Utilities and Agent Banks

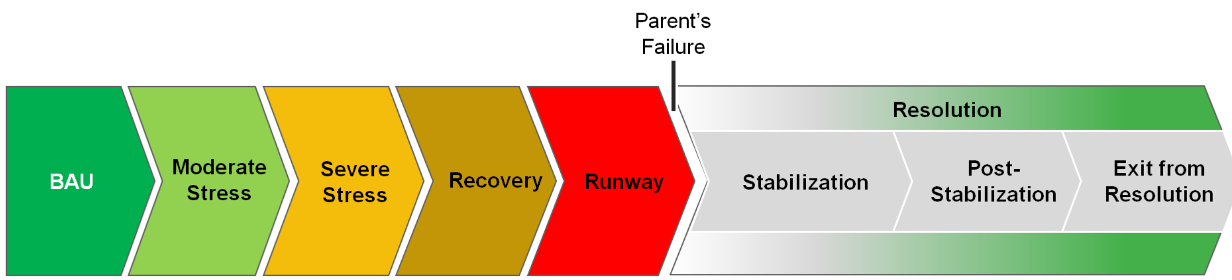
By providing for our material entities to remain operational after Parent's bankruptcy, the SPOE strategy facilitates continuity of access to financial market utilities and agent banks within the framework of our existing membership arrangements and contractual relationships. Actions to ensure continued access to financial market utilities and agent banks are described in more detail in Section 5.4.1.

To facilitate the orderly management of a crisis if one were to develop, we have created a Crisis Continuum Framework. The Crisis Continuum Framework would govern our decision-making in stress and throughout the Resolution period after Parent fails. Our Crisis Continuum Framework has the following components:

- A **Crisis Continuum** of increasing, defined levels of stress, beginning in BAU and ending with a Resolution period;
- A series of **triggers**, tied to financial and operational metrics, that determine when we have entered each successive crisis level in the Crisis Continuum;
- A set of **playbooks** that detail actions to be taken at each successive crisis level; and
- An **enhanced governance structure**, including a newly defined Crisis Management Coordinator role to oversee the resolution process.

Figure 3-1 illustrates the periods of our Crisis Continuum, which correspond to increasing levels of stress.

Figure 3-1: SPOE Strategy Overview



The remainder of this section explains how we would transition through our Crisis Continuum while dealing with key issues associated with each period. In this section we describe these periods and some of these key issues, as shown in Figure 3-2. Other key issues are described in Section 5

Figure 3-2: Key Issues Associated with Certain Stages of Our Crisis Continuum

BAU Through the Runway Period

How do we ensure that we take timely, appropriate action when we experience stress?

- We have created a **Crisis Continuum Framework** that governs our approach for identifying and responding to stress that could lead to our failure and escalating key strategic decisions to our senior management and Board of Directors as appropriate.
- We have designed approximately 70 **playbooks** and **triggers**, implemented along a "**Crisis Continuum**," to ensure that information is escalated appropriately and management and our Board of Directors take timely actions.

Parent's Failure

How do we ensure that we can flexibly and appropriately support our operating entities before and after Parent's failure?

- We have entered into a **Support Agreement** to provide a contractual mechanism for the provision of capital and liquidity support to our material entities to help ensure they could operate as going concerns, thereby maximizing recovery by Parent's creditors and protecting against potential legal challenges.
- We have created and pre-funded an **IHC** to hold capital and liquidity resources and to allocate those resources to entities that need them before and after a potential failure.

Resolution Period

How do we stabilize our firm and exit resolution?

- We have designed a road map for how our material entities, core business lines and critical operations would **stabilize**, **restructure** and **exit** resolution after our Parent's bankruptcy filing.
- The road map is **flexible** and provides different **divestiture options** that can be executed depending on prevailing market conditions.

BAU Through the Runway Period

During this time period, our focus would be to see that our Board of Directors, management and employees take the appropriate actions at the right times as we begin to face stress that could potentially lead to our failure. For example, our governance structure is designed to provide our Board of Directors and senior management with timely information in order to respond to stress and be prepared to file for bankruptcy, if appropriate, when we still have enough capital and liquidity to support our material entities.

As mentioned above, we have created a Crisis Continuum Framework as the centerpiece of our governance structure to facilitate orderly management of a crisis. This framework governs decision-making in stress and throughout the Resolution period, after Parent's bankruptcy filing. Our Crisis Continuum Framework would be particularly important in BAU through the Runway period as a crisis would be developing. During this time period, decision-making would need to be escalated to the right individuals or bodies to ensure a timely response to developing conditions and to help increase the effectiveness of any potential measures taken to recover the firm. Our Crisis Continuum Framework is described in more detail in Section 5.3.

From BAU through the end of the Runway period, we anticipate that our strategy would be implemented as follows:

- **BAU, Moderate Stress, Severe Stress and Recovery Periods**: Our transition from BAU could result from systemic or idiosyncratic stress events. For example, stress could stem from our depositors or other short-term investors withdrawing their funds from our firm, requiring us to sell assets, potentially at a loss, in order to generate cash to provide to those depositors and investors. Initially, if our early warning indicators were breached, our senior leadership would be put on alert to watch for risks of a developing crisis.

  Should the crisis escalate, we would enter into escalating levels of more serious stress, represented by the Moderate Stress, Severe Stress and Recovery periods in our Crisis Continuum Framework. As we progress through these increased levels of stress, we would take appropriate actions in response to the circumstances that exist at such time.

  Figure 3-3 illustrates representative actions we may take during the Moderate Stress, Severe Stress and Recovery periods:

Figure 3-3: Representative Actions During the Moderate Stress, Severe Stress and Recovery Periods

Moderate Stress

- Increase monitoring of internal and broader market metrics and take actions to slow the deterioration of material entities' financial health
- Activate formal crisis management governance structures to further engage senior leadership in addressing the evolving crisis

Severe Stress

- Take contingency actions to bolster our capital and liquidity position

Recovery

- Execute more substantial contingency actions such as consideration of business sales

- **Runway Period**: As we experience increasing levels of stress, we would increase the frequency with which we monitor our financial resources to project when we would expect to breach our PNV Trigger. Once our internal financial forecasts predict that we would breach the PNV Trigger within a specified time period, we would enter the Runway period.

  When we enter the Runway, our management and staff would continue to undertake actions to attempt to avoid failure while simultaneously taking defined actions to prepare for possible bankruptcy proceedings. If the material entity subsidiaries of Parent face capital or liquidity needs as a result of our financial stress, the IHC would provide the necessary financial resources to them pursuant to the terms of the Support Agreement.

  Under the Support Agreement, the breach of the PNV Trigger would require Parent to downstream substantially all of its remaining capital and liquidity resources to the IHC. These resources, along with the vast majority of Parent financial resources which have already been pre-positioned within the IHC, would be used to support our material entities and facilitate the continuity of our business.

Runway period: A period before Parent's failure during which we would take key actions to prepare for a bankruptcy filing. It starts when our forecasts predict the PNV Trigger will be breached within a specified time period.

PNV Trigger: A trigger that signals when our internal financial forecasts predict that Parent should downstream substantially all of its remaining capital and liquidity resources to the IHC. At that time, Parent would be restricted from further access to the firm's resources to help ensure that the firm and our operating subsidiaries would still have adequate financial resources after Parent's failure to carry out the SPOE strategy. Shortly thereafter, Parent would be expected to file for bankruptcy.

Parent's Failure

Assuming contingency actions have been unsuccessful, at the end of the Runway period and after the final contribution of substantially all of its remaining capital and liquidity resources to the IHC, Parent would file for bankruptcy. Parent would simultaneously seek court authorization to transfer all of its subsidiaries to New HoldCo, a new holding company held and overseen by a Trust for the benefit of Parent's bankruptcy estate. Figure 3-4 illustrates key actions that we expect would occur as Parent files for bankruptcy.

The IHC's assets, including those contributed by Parent in its final contribution, will be flexibly distributed to material entities throughout the remainder of our resolution—thereby preserving the value of our material entities for the ultimate benefit of Parent's creditors and reducing the risk of market disruption. Figure 3-5 provides additional background on our pre-funded IHC.

New HoldCo: A new holding company to be created in connection with our SPOE strategy that would hold the stock of Parent's subsidiaries and would be administered by a Trust for the benefit of Parent's creditors.

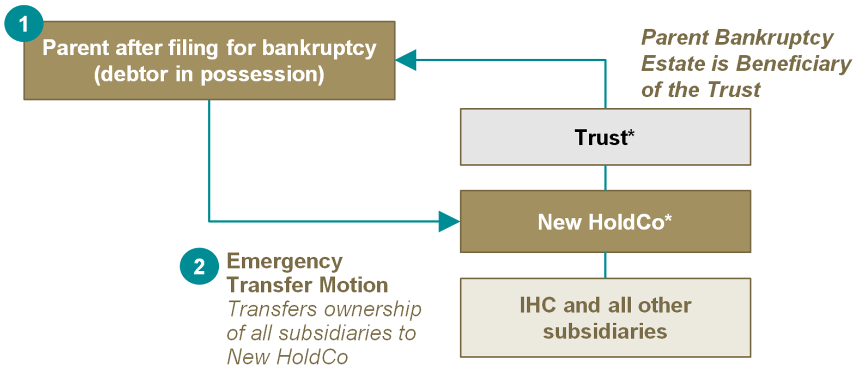
Trust: A trust to be established in connection with our SPOE strategy to manage the entities of our firm under New Holdco for the benefit of Parent's bankruptcy estate.

The Support Agreement and Security Agreement

Parent, the IHC and all other material entities have entered into a Support Agreement (otherwise known as a contractually binding mechanism) to facilitate the provision of capital and liquidity resources to material entities in the event of failure. Pursuant to the Support Agreement, Parent transferred its intercompany loans and most of its cash to the IHC, and the Support Agreement requires Parent to continue to transfer cash and other liquid financial assets to the IHC from time to time and to provide IHC with substantially all of its remaining financial resources prior to filing for bankruptcy. It also contractually obligates IHC to provide financial resources to material entities during BAU and through the resolution process to ensure their financial health and uninterrupted operation. All obligations of Parent and IHC under the Support Agreement are secured by a Security Agreement.

The benefits of these agreements are twofold. First, the fact that the Support Agreement obligations are secured means that the beneficiaries could recover the value of any unpaid support were Parent or IHC to fail to perform, eliminating the incentive of Parent or IHC to fail to provide these resources when needed. Second, Parent's secured contractual promise to provide resources in the Support Agreement protects against legal challenges that Parent's creditors could attempt to assert to try to prevent such support from being provided in the first place or undo these resource transfers after Parent files for bankruptcy.

Figure 3-4: Key Activities as Parent Files for Bankruptcy and Organizational Structure of New HoldCo

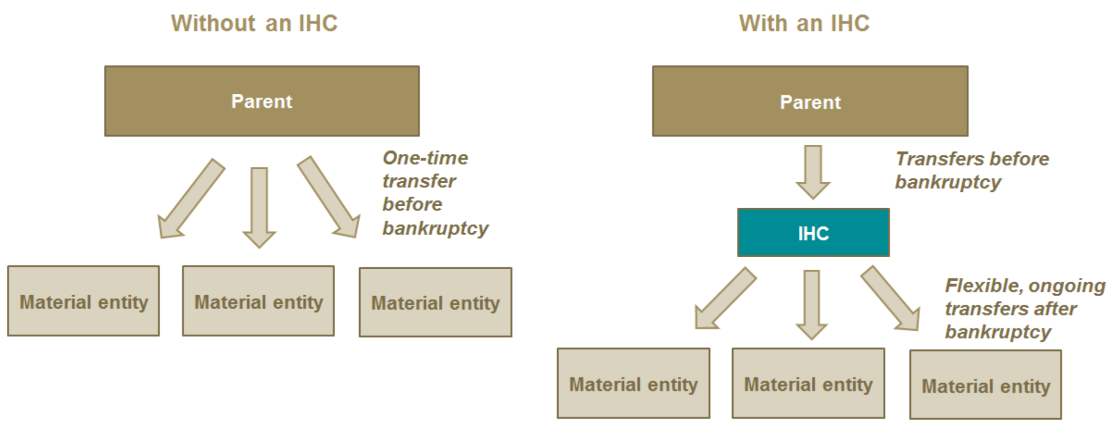


* The Trust and New HoldCo would be created prior to Parent's bankruptcy filing. The Trust would be New HoldCo's sole shareholder.

1. Immediately after the point of non-viability, Parent would voluntarily file for bankruptcy. All other subsidiaries and branches would continue to operate.
2. All of Parent's subsidiaries would be transferred to New HoldCo, which would be owned and administered by the Trust and would operate for the benefit of Parent's bankruptcy estate.

Figure 3-5: Our Pre-funded IHC

We have created an intermediate holding company that is a wholly-owned direct subsidiary of our Parent and has been pre-funded with the vast majority of Parent's financial resources. The IHC is responsible for providing resources to Parent's subsidiaries in BAU to strengthen their financial position as needed. Before Parent's bankruptcy filing, Parent would contribute substantially all of its remaining capital and liquidity resources to the IHC, and the IHC would continue to provide resources to other entities after Parent's bankruptcy filing. This change in our corporate structure ensures that financial resources can be flexibly allocated to material entities that need resources to continue uninterrupted operations even after Parent files for bankruptcy.



If we did not have an IHC, prior to Parent's failure, Parent would send financial resources to the material entities based on predictions of what they will need in the future—which could be inaccurate. Material entities may then have difficulty redistributing the resources amongst one another if the predictions were inaccurate.

With our IHC in place, prior to Parent's failure, Parent would send substantially all of its remaining financial resources to the IHC before filing for bankruptcy. Afterwards, the IHC would continue to provide financial resources to material entities, but with the flexibility to respond to resource shortfalls as they arise. The IHC eliminates the need for a one-time prediction of resource needs.

Resolution Period

The Resolution period of the Crisis Continuum begins after Parent files for bankruptcy. In the Resolution period, our focus would shift from preparing for failure to executing the SPOE strategy, including stabilizing and restructuring our firm and then exiting resolution. Resolution is divided into several stages:

- **Stabilization**: We anticipate that New HoldCo and its material entity subsidiaries would stabilize their businesses during the stabilization stage. Over the course of the stabilization stage, outflows (such as payments to depositors or other short-term investors who withdraw their funds from our firm) would be expected to subside as the market and clients begin to regain confidence in our businesses' ability to remain going concerns.

- **Post-Stabilization**: During the post-stabilization stage (or earlier, if feasible) the Trust would have the option to dispose of our objects of sale, which are discrete businesses that we could sell, transfer or wind down during resolution. If appropriate, the Trust could distribute proceeds of these sales to Parent's stakeholders in Parent's bankruptcy estate, under the supervision of the bankruptcy court.

- **Exit from Resolution**: Following the disposition of our objects of sale, we anticipate that a core group of synergistic businesses, known as RemainCo, would operate largely out of the material entity subsidiaries of New HoldCo. Upon its exit from resolution, we anticipate that RemainCo would be a primarily fee-based, operational services-oriented firm, consisting of businesses built around our custody business. We expect that RemainCo would be materially smaller than our firm is today upon completion of the resolution process.

  Among other possibilities, we anticipate that RemainCo could be spun off by selling the shares of New HoldCo through an IPO and follow-on offerings. The Trust would have discretion to do with the shares of New HoldCo whatever would best maximize their value and recovery by Parent's creditors. If follow-on offerings are not feasible, any residual shares of New HoldCo following the IPO could be registered and transferred to Parent's bankruptcy estate via the Trust for distribution to Parent's creditors.

  Ultimately, the Trust would be dissolved, and the proceeds of the IPO and other follow-on offerings would be distributed to the claimants in Parent's Chapter 11 bankruptcy.

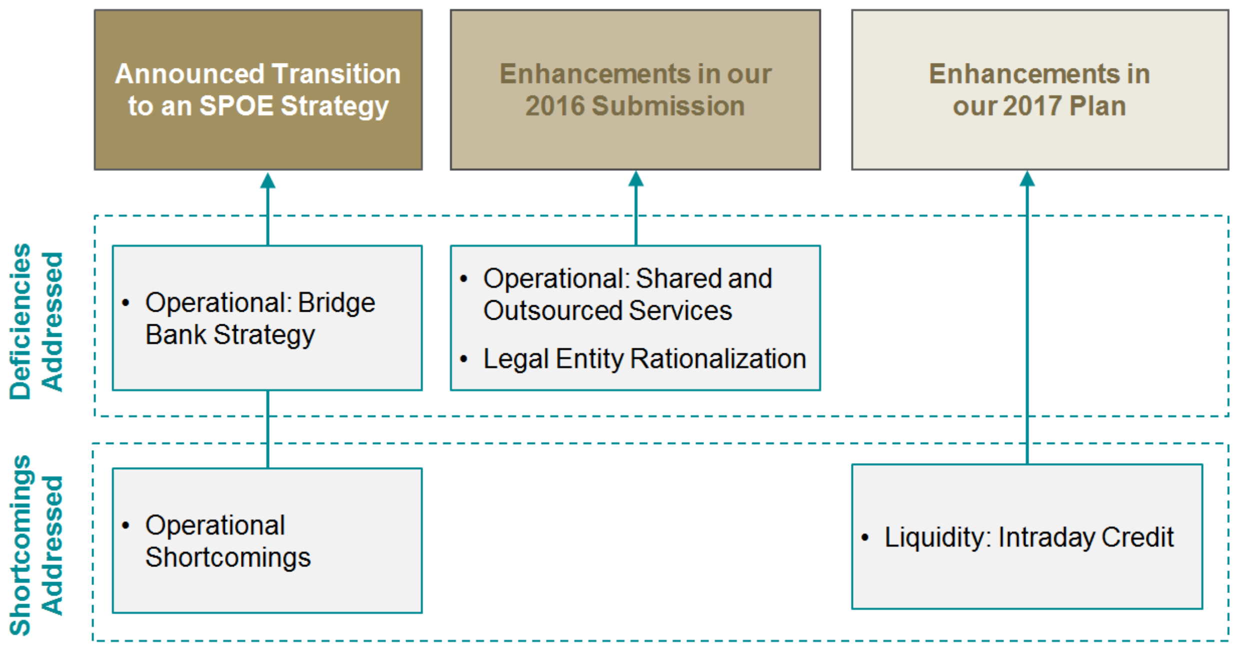
Our assessment of RemainCo's financial viability as a standalone entity and IPO feasibility reflects the following considerations:

- **Strong and Stable Client Base**: We believe RemainCo would have a client base that includes large global institutions with multiple product holdings receiving services across multiple businesses.
- **Operational Synergies**: We anticipate that businesses within RemainCo would provide complementary services, creating franchise value through business and operational synergies.
- **Economies of Scale**: We believe that RemainCo would be more valuable as a whole than as the sum of its parts, retaining value and benefitting from economies of scale.

4 WE HAVE ADDRESSED ALL DEFICIENCIES AND SHORTCOMINGS IDENTIFIED IN PRIOR PLANS

In their April 2016 Letter to us, the Agencies identified certain deficiencies and shortcomings in our 2015 Plan. All of these deficiencies and most of these shortcomings were remediated in 2016 by adoption of the SPOE strategy and efforts associated with our 2016 Submission.

Figure 4-1: Timeline of Deficiencies and Shortcomings Addressed



How We Addressed the Deficiencies Identified by the Agencies

Operational: Bridge Bank Strategy Deficiency. The Agencies identified three operational issues associated with the execution of our previous resolution strategy. The Agencies determined, as confirmed in their December 2016 Letter to us, that we have addressed this deficiency by adopting the current SPOE strategy. See the box at the end of this section for additional information about how our change in strategy addressed this deficiency.

Operational: Shared and Outsourced Services Deficiency. The Agencies determined that our 2015 Plan failed to reflect progress toward identifying shared services and establishing service-level agreements and contingency arrangements critical to the execution of our strategy. The Agencies determined, as confirmed in their December 2016 Letter to us, that our 2016 Submission addressed this deficiency by presenting a process for maintaining a mapping of services supporting our core business lines and critical operations, analyzing operational continuity risks and implementing associated mitigating actions, incorporating our services mapping into our LER Criteria, and implementing mitigating actions to address identified misalignments between our criteria and our then-existing service model.

Legal Entity Rationalization Deficiency. The Agencies found that our 2015 Plan failed to make demonstrable progress in implementing our LER Criteria. The Agencies determined, as confirmed in their December 2016 Letter to us, that our 2016 Submission addressed this deficiency by evidencing a legal entity rationalization governance process intended to ensure the LER Criteria are applied and adhered to in BAU, by incorporating the results of application of our LER Criteria to our material entities and by timely execution of project plans to align our legal entity structure with our LER Criteria.

How We Addressed the Shortcomings Identified by the Agencies

Operational Shortcomings. The Agencies identified certain operational shortcomings in our 2015 Plan, including our planned exit from resolution, transfer of custodial accounts to a third party and certain accounting and financial statement issues. We addressed these shortcomings by adopting our current SPOE strategy. See the box at the end of this section for additional information about how our change in strategy addressed these shortcomings.

Intraday Credit Shortcoming. The Agencies identified a shortcoming in our 2015 Plan regarding intraday credit demands and our liquidity related to our role in the U.S. government securities clearing markets. We are the leading provider of U.S. government securities clearing and settlement and U.S. tri-party repo clearing and settlement services, which we refer to collectively as GSS Services, and we recognize the potential systemic impact that could result from a disruption of these services. Working together with the Agencies, and taking into account a number of important actions that collectively enhance the resolvability of our firm and the resilience and governance of our GSS Services activities, we have addressed this shortcoming. In so doing we have demonstrated the availability of sufficient liquidity in stress and support for our original assertion that there would be no adverse systemic impacts related to GSS Services if we were to fail. Certain of these enhancements include:

- **Enhanced Resolvability of Our Firm**: Our SPOE Strategy enhances our resolvability through a series of wide-ranging actions that would support the ongoing provision of GSS Services if we were to experience stress, as described in more detail in Section 5. Among these actions, we have:
  - Developed financial and governance capabilities to provide for the timely execution of our strategy, accounting for the liquidity needs of GSS Services;
  - Executed a Support Agreement and created a pre-funded IHC to help ensure the flexible and appropriate support of our material entities, including GSS Corp., before and after Parent's bankruptcy filing; and
  - Used our enhanced stress testing capability to assess the liquidity needs of GSS Services in stress and after Parent's bankruptcy filing and further enhanced the resiliency of our balance sheet, including through the issuance of TLAC-qualifying debt.
- **Enhanced Capabilities and Resilience of GSS Services**: Given our role in the market, we are committed to continuously enhancing the resilience of our GSS Services activities. Our firm has a history of reducing risk and complexity in our financial intermediation activities and of optimizing the use of intraday liquidity, as exemplified in our leadership in the area of tri-party repo reform. We also continue to make significant investments in the technology and operations that support the GSS Services market. For example, we:
  - Released a new clearing platform, Broker Dealer Clearance, to replace a legacy clearing platform and increase security and capacity;

- Deployed BDS 360, which allows us the ability to perform position reconciliations in near real time, using distributed ledger technology in which multiple participants on a network simultaneously validate new transactions added to a single, shared transaction ledger; and

- Established active-active recovery—whereby application engines run simultaneously on primary and secondary data centers that replicate data in real time such that the failure of one application engine does not affect the availability of data through another engine—and reduced our critical system recovery time to two hours.

- **Enhanced Governance and Transparency of GSS Services**: We have significantly enhanced the governance of GSS Services by establishing GSS Corp., establishing a board of directors and other governance bodies to oversee the operations of and provide strategic direction to GSS Services, and developing a mission statement for GSS Corp.:

  - <u>Establishing GSS Corp.</u>: We have established a wholly-owned subsidiary, GSS Corp., to house the technology, processes and personnel involved in GSS Services.

  - <u>Establishing the GSS Corp. Board</u>: The board of directors of GSS Corp. provides oversight of business affairs, operational risk and performance, as well as direction on strategic initiatives to drive industry-leading practices and processes. The board currently consists of seven members, including three independent members.

  - <u>Establishing a Client Advisory Council</u>: We have also engaged distinguished professionals in the industry to participate in a non-fiduciary Client Advisory Council to further interact with our clients and facilitate collaborative discussions. The Client Advisory Council provides industry insight related to GSS Services such as future strategic initiatives and investments and strategic themes related to product strategy and service delivery. The Client Advisory Council consists of 14 members who appropriately represent the diversity of GSS Services' client base and provide a range of expertise and perspectives.

  - <u>Developing a GSS Corp. Mission Statement</u>: We have developed a mission statement for GSS Corp. to demonstrate transparency, accountability and our commitment to balancing the needs of our stakeholders. Our mission statement prioritizes the provision of a leading, platform that helps ensure operational continuity and a suite of services for the efficient delivery of GSS Services.

These are some of the important actions, including our work together with the Agencies, which collectively have enhanced the resolvability of our firm and the resilience and governance of GSS Services and addressed the intraday credit shortcoming.

How did our switch to SPOE remediate certain deficiencies and shortcomings?

Before 2016, our resolution plan relied on a "multiple point of entry" strategy under which, in addition to Parent failing, certain subsidiary banks would also fail. Under this strategy, the FDIC would take these banks into receivership and would transfer certain of their assets and liabilities to a newly created bridge bank. We referred to this strategy as the "bridge bank strategy." Most of the deficiencies and shortcomings with our prior plans were resolved by our transition from the bridge bank strategy to our SPOE strategy, as described below.

Operational – Bridge Bank Strategy Deficiency

Simultaneous Insured Depository Institution Failure

In the 2015 Plan, it was assumed that the Bank and BNY Mellon TrustCo would fail simultaneously, enter FDIC receivership together and be merged into a single bridge bank. The April 2016 Letter noted several potential risks if BNY Mellon TrustCo were to remain outside of receivership or fail at a different time than the Bank. In the SPOE strategy, neither the Bank nor BNY Mellon TrustCo fail or enter receivership.

Dual Payability / Ring-Fencing / Least-Cost Test

In the 2015 Plan, we assumed that both insured and uninsured deposits (including foreign deposits) would be transferred into a bridge bank. In the April 2016 Letter, the Agencies asked for additional support for our assertion that transfer of its foreign deposits would meet the least-cost requirement of 12 CFR 360.1. The SPOE strategy does not involve the creation of a bridge bank or a transfer of deposits to a bridge bank.

Transfer of Custodial Assets to the Bridge Bank

The Agencies indicated in the April 2016 Letter that we had not adequately evaluated the operational and legal challenges associated with transferring custody assets to the bridge bank. The SPOE strategy does not involve a transfer of custodial assets to a bridge bank.

Operational Shortcomings

Bridge Bank Exit

In the April 2016 Letter, the Agencies stated that the size and lack of market substitutability of our government securities clearing and tri-party repo businesses would likely require an extension of the bridge bank beyond what we anticipated in our 2015 Plan. Specifically, the Agencies indicated that our 2015 Plan did not adequately address systemic risk implications associated with our bridge bank exit strategy and raised potential operational and financial obstacles associated with exit from the bridge bank. Under the SPOE strategy, a bridge bank would not be created.

Contingency Plan for Custodial Accounts

In the April 2016 Letter, the Agencies expressed concern that our 2015 Plan did not sufficiently analyze the time required to transfer custodial accounts to a third party in resolution. The April 2016 Letter noted that a "future bridge bank strategy should provide a more detailed and quantitative analysis of potential timing considerations based on projected client attrition rates for each applicable core business line or critical operation." This shortcoming arises only in the context of a bridge bank strategy and is addressed by our switch to the SPOE strategy.

Claim Bifurcation and Receivership Accounting

In the April 2016 Letter, the Agencies expressed concern over our assumption that certain trading liabilities and other unsecured liabilities, including foreign deposits, would be transferred to the bridge bank, while other general unsecured claims would remain in receivership, resulting in potential disparate claim treatment within a creditor class. The Agencies requested that we explain why the proposed transfer of these liabilities would be necessary to continue operations essential to the bridge bank and how such transfer was designed to maximize recoveries. The Agencies also asked us to elaborate on how separate receivership accounting could be maintained for the Bank and BNY Mellon TrustCo in the event that these entities entered into a single bridge bank. Under the SPOE strategy, a bridge bank would not be created, and the Bank and BNY Mellon TrustCo would not enter into receivership.

Financial Statements and Projections

In the April 2016 Letter, the Agencies expressed concern that the financial statements that we provided to meet the requirements of the "Financial Statements and Projections" section of the Agencies' August 2014 letter did not provide enough information to allow the Agencies to determine which assets and liabilities would be transferred into FDIC receivership. Under the SPOE strategy, the Bank and BNY Mellon TrustCo would not enter into receivership.

5 WHY WE BELIEVE OUR SPOE STRATEGY IS CREDIBLE

We believe our 2017 Plan and the SPOE strategy underlying it are credible. We identified and considered the key issues that would be important to our orderly resolution, including those identified by the Agencies in their guidance, and have taken substantial, transformational action to prevent these issues from posing material impediments to our strategy.

We have taken significant actions and mobilized significant resources to ensure that we are sufficiently prepared for crises, including enhancements to our:

- **Capital and liquidity** positions as well as our capabilities and systems to help ensure our financial resources, including **intraday liquidity**, are sufficient to support the SPOE strategy, backed by a detailed understanding of our financial interconnectedness, as described in Sections 5.1 and 5.2;
- **Governance mechanisms**, which support a timely and coordinated response to increasing levels of stress, as described in Section 5.3;
- Governance, financial resources and reporting capabilities to provide for continued operation of our **payment, clearing and settlement activities**, as described in Section 5.4.1;
- Capabilities to **manage, identify and value collateral** to help ensure our collateral activities would support our SPOE strategy, as described in Section 5.4.2;
- **Management information systems** that would produce the data necessary to support our business and execute our SPOE strategy, as described in Section 5.4.3;
- Actions to mitigate potential risks associated with our operational interconnections, including our **shared and outsourced services**, as described in Section 5.4.4;
- Criteria and governance that help ensure we maintain a **rational legal entity structure** that supports our resolvability on an ongoing basis, as described in Section 5.5;
- Flexibility and optionality in executing our SPOE strategy in a range of conditions by identifying **discrete businesses that could be divested** in resolution and to make these options actionable, as described in Section 5.6; and
- Analysis and preparedness to help ensure that **global cooperation** with our SPOE strategy would remain in the interest of local regulatory authorities in the event we experience stress, as described in Section 5.7.

Our initiatives are wide-ranging, from targeted steps focused solely on improving our resolvability to broader efforts to reduce risk and complexity that have benefits both in the context of our BAU activities and on the health and resiliency of our firm and the financial system. These efforts, taken together, support our view that we could be resolved in an orderly manner in the event of our failure. The following sections describe the key topics relevant for resolution planning discussed above, all contributing to our belief that our strategy is credible.

5.1 CAPITAL AND LIQUIDITY

The successful execution of our SPOE strategy requires us to maintain sufficient capital and liquidity resources and requires analytical capabilities that can measure available resources and required resources. We maintain a strong balance sheet and have recently further strengthened it through the issuance of long-term loss absorbing debt to enhance resolvability. We have developed a new set of analytical capabilities designed to ensure the execution of appropriate actions to preserve financial resources for our resolution strategy. We have integrated these capabilities into our BAU financial resource management processes.

We have further strengthened our capital and liquidity resources to ensure we can withstand crises and to minimize risk to the U.S. financial system if we were to experience stress or fail. In 2016, we reduced our overall balance sheet leverage and reached compliance with the U.S. regulatory requirements for the Supplemental Leverage Ratio, or SLR, prior to the 2018 compliance date. Additionally, we are currently compliant with the requirements of the Federal Reserve's TLAC rule, prior to the 2019 compliance date. We have substantial TLAC in the form of tangible common equity, preferred stock and subordinated and senior debt. Since July 2016, we have issued an incremental $3.75 billion of TLAC-qualifying debt in support of resolution. This additional debt issuance allows us to hold more liquid assets that can be deployed in the event of a resolution. To facilitate the downstreaming of this capital and liquidity, we have established an intermediate holding company and have reviewed the positioning of our capital and financial resources between this IHC and our other material entities. Our IHC provides added flexibility to deliver resources to the material entities that require support in a resolution scenario, as described in more detail in Section 3.

What capital and liquidity metrics do we use to support our SPOE strategy?

To help ensure that our material entities would have sufficient capital and liquidity to stay operational before and after Parent's failure, we have developed a suite of metrics to evaluate our financial resources against resolution needs.

Resource Adequacy and Positioning: We have developed the following capabilities to determine our resource needs on an ongoing basis:

- Resolution Liquidity Adequacy and Positioning, or **RLAP**, estimates the amount of liquidity our material entities would need to stay operational during a 30-day stress scenario.
- Resolution Capital Adequacy and Positioning, or **RCAP**, estimates the amount of capital our material entities would need to cover losses experienced in stress and still have enough capital after Parent fails as estimated per RCEN, discussed below.

Resource Needs After Failure: We have developed the following capabilities to determine our resource needs *after* Parent's failure:

- Resolution Liquidity Execution Need, or **RLEN**, estimates the amount of liquidity we predict our material entities would need to stabilize and operate after Parent fails, based on a projection of the liquidity we believe would be needed to meet both operating needs and resource outflows.
- Resolution Capital Execution Need, or **RCEN**, estimates the amount of capital we predict our material entities would need to operate in an orderly manner after Parent fails, based on projections of the capital we believe would be needed to meet local regulatory requirements and internally-defined buffers as well as cumulative losses incurred after Parent's failure.

How have we addressed potential risks associated with financial interconnectedness?

To ensure that each of our material entities would be able to individually maintain sufficient capital and liquidity resources to continue operating if our Parent were to fail, we have built capital and liquidity forecasting tools that assess our financial position on a material entity basis taking into consideration inter-affiliate transactions (*i.e.*, transactions between entities). We have also created clean funding pathways between the IHC and our material entities to optimize the ability of the IHC to provide support in a real-world crisis.

We have enhanced our capital and liquidity management capabilities to support our resilience and resolvability. Broadly, we have developed sophisticated methodologies for purposes of regular monitoring. We use one set to assess and ensure the adequacy of the capital and liquidity resources that we hold, and to optimize the positioning of these resources across our material entities. We use another to project the resources that we estimate would be required by each of our material entities to remain going concerns if our Parent were to fail. This projection is used to assess the time at which Parent should downstream substantially all of its remaining capital and liquidity resources to the IHC. At that time, Parent would be restricted from further access to the firm's resources to help ensure that the firm and our operating subsidiaries would still have adequate financial resources after Parent's failure to carry out the SPOE strategy.

We use these methodologies to define key triggers within our Crisis Continuum Framework, including to calculate our PNV Trigger.

The remainder of this Capital and Liquidity section discusses our enhanced methodologies and how they have been incorporated into our ongoing financial resource management processes, including into the Crisis Continuum Framework. They are grouped into two categories, which are described in more detail in this section:

- **Resource Adequacy and Positioning**: Capabilities developed to measure the adequacy and optimize the positioning of our resources in BAU to support an orderly resolution of the firm; and
- **Resource Needs After Failure**: Calculations to estimate resource needs of each of our material entities to remain going concerns after Parent fails.

We have thoroughly tested our methodologies by running multiple hypothetical scenarios to further understand what factors drive our financial forecasts.

Resource Adequacy and Positioning

We have created capabilities to ensure the adequacy and positioning of resources to support each material entity's capital and liquidity needs. Using this set of capabilities, we confirmed our belief that we have adequate financial resources on an ongoing basis and that these resources are appropriately positioned across our material entities. In particular, we:

- Developed a tool to measure the daily liquidity needs of each material entity through a severe 30-day stress scenario, thereby helping to ensure that there would be sufficient resources for our material entities to address needs in a resolution scenario; and
- Implemented an approach to quantify capital adequacy for each material entity to absorb losses through a resolution scenario, while maintaining a capital level sufficient to meet regulatory requirements and reestablish market confidence after a failure event.

We also created a pre-positioning methodology that helps us to determine the optimal allocation of resources between Parent or IHC and material entities for resolution purposes.

RLAP

We have adopted a conservative approach to estimate RLAP. We measure the daily liquidity needs of each material entity using a 30-day stress scenario that is more severe than our most severe pre-existing internal liquidity stress test. Our liquidity stress testing tool sources data from a single comprehensive platform that provides information for every entity and is reconciled with the general ledger on a daily basis.

Our RLAP assessment confirms our belief that we currently maintain adequate liquidity resources. Our liquidity stress testing tool informs our understanding of how material entities would manage their liquidity sources if we experience stress, including liquidity held locally or liquidity placed with affiliates. Using our RLAP tool to run a variety of assessments of our liquidity position, we confirmed our belief that we maintain a level of liquid resources sufficient to meet anticipated funding needs in stress. As part of our BAU financial resource management processes, we monitor and adjust our liquidity resources and allocations in order to adhere to RLAP requirements on an ongoing basis.

How do we estimate RLAP?

Our RLAP liquidity stress testing tool measures the liquidity needs of each material entity in a 30-day stress scenario. RLAP is driven by four key factors:

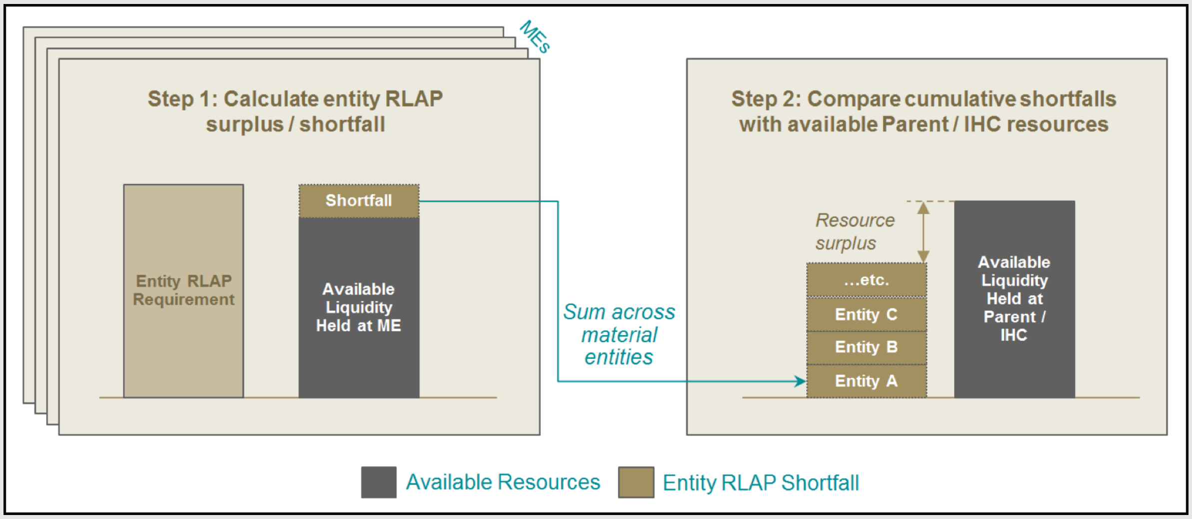
- **Outflows** due to third-party obligations;
- **Intraday liquidity requirements** to meet contractual obligations and maintain access to critical FMI;
- Flows due to **inter-affiliate transactions**, considering frictions between entities and across jurisdictions; and
- Compliance with **local liquidity requirements** for foreign-regulated entities.

How do we use RLAP to manage liquidity?

The RLAP requirement ensures that the liquidity needs of each material entity in a stress environment can be met by available resources held at the entity or at Parent / IHC. We assess this using a two-step process:

1. Projection of material entity RLAP surplus / shortfall: We compare each material entity's liquidity needs in stress to the resources the entity holds. If the liquidity needs are greater than the available resources, then the entity has an RLAP shortfall. If liquidity needs are less than available resources, the entity has a surplus.

2. Comparison of cumulative shortfalls with available Parent / IHC resources: We aggregate all entity-level RLAP shortfalls and compare this amount to the available resources held at Parent or IHC. The RLAP requirement mandates that the available resources held at Parent meet or exceed these cumulative shortfalls. Note that an RLAP surplus at one of our material entities other than Parent or IHC cannot be used to offset a shortfall at another material entity.



RCAP

We have developed an RCAP methodology to project the required level of loss-absorbing capacity of each material entity. The RCAP methodology uses a severe stress scenario that, by design, must lead to our resolution. The output from this methodology represents the capital resources required to absorb all expected losses in the projected failure scenario.

We have confirmed our belief that we maintain adequate capital resources to support our resolution strategy using RCAP. Following targeted capital generating and optimization actions, we confirmed our belief that we hold sufficient external TLAC to cover all identified RCAP needs and our resources are deployed internally in a manner that would appropriately address the needs of our material entities if we were to fail.

Additionally, we have incorporated RLAP and RCAP, which act as new resource constraints in our management of financial resources, into our ongoing financial resource management processes.

How do we estimate RCAP?

The RCAP methodology estimates projected losses leading to our firm's failure and is the sum of two components:

- **Estimated capital depletion** from events leading to Parent's failure; and
- **Capital needs to execute our resolution strategy**, as defined by RCEN, which is discussed in more detail below.

Pre-Positioning Framework Underlying RLAP and RCAP

We have developed a pre-positioning methodology to determine the target allocation of financial resources between Parent, IHC and the other material entities. Using this methodology, we assess the target allocation of financial resources, both capital and liquidity, which should be pre-positioned at each material entity. The framework balances the certainty provided by pre-positioning resources at the material entities with the flexibility of holding resources at the IHC to meet unanticipated needs at any material entity. Ultimately, we determined that the current positioning of resources, both capital and liquidity, are within or above the estimated target ranges for all material entities as defined by our criteria.

Resource Needs After Failure

We have developed the capability to estimate the liquidity and capital needed by each of our material entities to execute our resolution strategy. Known as RLEN and RCEN, we monitor these measures in the normal course of business and have incorporated them into our Crisis Continuum Framework, including into our PNV Trigger.

As an input into our RLEN and RCEN forecasts, we completed a thorough assessment of each material entity's balance sheet profile, client behavior and role to inform our understanding of potential resource needs in a potential failure event. For example, our assessment confirmed that, unlike large broker-dealers, our derivatives and trading activity is an immaterial factor to our resource needs.

Using the entity-level assessment, we developed a Resolution Forecasting Tool to evaluate RLEN and RCEN. Our Resolution Forecasting Tool quantifies projected liquidity and capital needs at material entities during a time period following Parent's failure and expected to be sufficient to see our firm through an orderly resolution. The Resolution Forecasting Tool provides granular projections of each material entity's capital and liquidity positions throughout a hypothetical resolution.

How do we estimate RLEN?

RLEN projects the liquidity that would be required by our firm's operating subsidiaries after Parent's failure to continue to operate throughout completion of the SPOE strategy. RLEN has two underlying components:

- **Minimum Operating Liquidity**, the minimum liquidity required to operate each material entity subsequent to Parent's failure; and
- **Peak Funding Need**, the peak cumulative outflows, net of inflows, at each material entity subsequent to Parent's failure.

How do we estimate RCEN?

RCEN projects the capital that would be required after Parent's failure to recapitalize the material entities to a level that allows them to remain operational through the execution of the SPOE strategy. RCEN considers two underlying components:

- **Minimum Capital Required in Resolution**, the projected minimum capital requirement which incorporates local regulatory requirements and internally-defined buffers; and
- **Post-Bankruptcy Cumulative Losses**, the capital required to absorb cumulative losses expected to be incurred in connection with a failure event.

We incorporated RLEN and RCEN into a trigger that defines entry into the Resolution period in our Crisis Continuum Framework. As discussed in Section 3, the PNV Trigger signals when Parent should downstream substantially all of its remaining capital and liquidity resources to the IHC. At that time, Parent would be restricted from further access to the firm's resources to help ensure that the firm and our operating subsidiaries would still have adequate financial resources after Parent's failure to carry out the SPOE strategy. Shortly thereafter, Parent would be expected to file for bankruptcy. The Support Agreement mandates these actions to preserve the firm's capital and liquidity for the benefit of the material entities when the PNV Trigger is breached. This helps motivate Parent's timely bankruptcy filing and other actions to enable the material entities to maintain sufficient capital and liquidity resources to execute an orderly resolution.

How do we measure the PNV Trigger?

The PNV Trigger is based on a ratio that measures available resources held at Parent and the IHC against the projected resource needs of the material entities after Parent's failure:

- **Available resources held at Parent and the IHC**: Available resources that Parent and the IHC would be able to downstream to the material entities to support the SPOE strategy; and
- **Resource needs of the material entities**: Resources projected to be required by each material entity after Parent's failure that are not covered by the available resources held at that entity.

The PNV Trigger signals that Parent should downstream substantially all of its remaining capital and liquidity resources to the IHC. At that time, Parent would be restricted from further access to the firm's resources to help ensure that the firm and our operating subsidiaries would still have adequate financial resources after Parent's failure to carry out the SPOE strategy.

5.2 INTRADAY LIQUIDITY

Intraday liquidity is critical to our business, and we have taken actions to enhance our ability to monitor intraday liquidity uses and manage and maintain intraday activities if we were to experience stress or fail. We have accounted for and optimized financial resources for intraday liquidity and developed innovative tools to provide transparency into our activities that drive our intraday liquidity sources and uses. We recognize that our intraday liquidity management is important for continuity of access with FMI, and we have assessed what we expect these intraday needs would be if we were to experience stress and built these estimates into our RLAP and RLEN projections. Figure 5.2-1 illustrates our key intraday liquidity sources and uses.

Intraday liquidity activities at our firm are largely driven by our role as an intermediary between clients and FMI, primarily facilitating payment, clearing and settlement transactions during the business day. We recognize that insufficient sources of intraday liquidity could cause disruption of payment, clearing and settlement activities, which could lead to trade fails, missed payments and, potentially, instability in the financial marketplace. As a result, we have taken key actions to maintain the continuity of our intraday liquidity activities and otherwise enhance our effectiveness as a user and manager of intraday liquidity.

Intraday liquidity

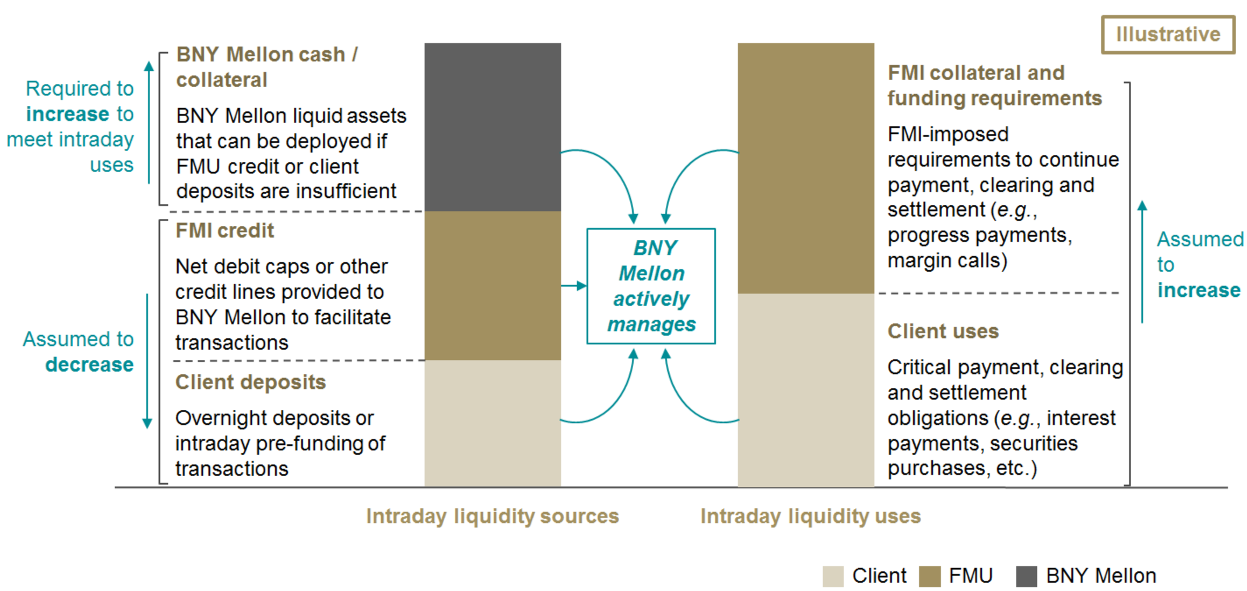
Intraday liquidity refers to the liquidity resources that we use in connection with transactions that take place during the course of the business day.

FMI and intraday liquidity

As discussed in more detail in Section 5.4.1, financial market infrastructure, or FMI, include central securities depositories (*e.g.*, DTC), central counterparties (*e.g.*, NSCC), securities settlement systems (*e.g.*, Fedwire Securities) and payment systems (*e.g.*, CHIPS). Payment, clearing and settlement activities are performed through FMI.

If we were to experience stress or fail, FMI may increase the financial requirements they impose when dealing with us, such as increasing their collateral requirements or requiring us to pre-fund certain transactions to a greater degree, as a way to limit their credit exposure to our firm. These increased requirements could affect our intraday liquidity resources.

Figure 5.2-1: Intraday Liquidity Sources and Uses



We have accounted for and optimized our financial resources to help maintain the continuity of our intraday liquidity activities.

- **Maintain Continuity**. Building on methodologies developed in previous years, we have conservatively assessed and quantified intraday liquidity needs for maintaining access to and processing payment, clearing and settlement activities through FMI in a failure scenario. If we were to experience stress, we expect that the nature of our sources and uses of intraday liquidity may change, leading us to experience increased intraday liquidity requirements. We anticipate that FMI may increase the financial requirements they impose on us, such as increasing collateral requirements or requiring us to pre-fund certain transactions to a greater degree as a way to limit their credit exposure to our firm. Similarly, clients may hold fewer resources with us. We have quantified these funding needs for different tiers of stress and incorporated these incremental liquidity requirements into our financial projections underlying our plan. This incremental funding need is a key driver of our RLAP and RLEN metrics for managing liquidity, which are described in Section 5.1.

- **Optimize**. We have enhanced our allocation and management of liquidity throughout the day, optimizing our needs for intraday liquidity in BAU and if we were to experience stress. Among other developments, we:

    - Continue to align our operations with evolving market infrastructure solutions that enable reductions in intraday liquidity (such as the TARGET 2 Securities Settlement platform in the Eurozone);

    - Have introduced intraday overdraft charges in certain business to seek to encourage more efficient intraday activity management from our clients; and

    - Have identified and implemented a number of operational measures to increase the efficiency of our payment, clearing and settlement operations, thereby reducing intraday liquidity needs related to FMI membership.

Given the importance of intraday liquidity to our business and the potential impact disruption of our intraday liquidity sources and uses could have on the market, we have significantly strengthened our intraday liquidity management capabilities. We have made substantial investments to develop intraday liquidity capabilities around three key pillars: technological developments, risk analysis and governance.

- **Technological Developments**: We have developed a suite of innovative applications that provide real-time granular information about our intraday activities, allowing us to effectively monitor and manage intraday liquidity risk exposures. The most important of these developments are our applications Liquid Plus and Liquidity Management, which provide information across our three major currencies—U.S. dollars, British pounds and euro—and 53 additional currencies. We continue to add advanced features to these applications in order to enhance their ability to monitor and track intraday liquidity reserves, inflows and outflows around the world on a transaction-by-transaction level by material entity and jurisdiction on a daily basis. These tools would enhance our ability to manage intraday liquidity in a stress scenario by, for example:

    - Providing the ability to monitor in real time the impact of U.S. Treasury security issuance on our net position;

    - Providing the ability to observe and measure variances from historical averages and instantly obtain transaction-level details for research and analysis;

- Automatically alerting users if activity levels deviate significantly from pre-specified levels or if there is a breach of an intraday liquidity early warning indicator; and
- Tracking a broad set of metrics for automatic notifications that can be distributed to a range of users and teams, as required.

- **Risk Analysis Capabilities**: We have completed a number of enhancements to improve our intraday liquidity stress testing processes, including by launching a newly developed simulation tool specifically for assessing the impact of adverse scenarios on intraday liquidity.

- **Governance**: Supporting these developments and ongoing intraday liquidity management, we have enhanced our liquidity management governance structure. We now manage our intraday liquidity using a dedicated team within Corporate Treasury, supported by various global operational groups and businesses, with oversight provided by a dedicated intraday liquidity committee, the Global Intraday Liquidity Steering Committee. We also have established processes to regularly review the assumptions and practices utilized for our intraday liquidity indicators and stress testing. Finally, we have incorporated intraday liquidity policy considerations into our firm-wide liquidity policy.

These achievements and tools position our firm as an effective manager of intraday liquidity risk and illustrate our ability to appropriately manage these activities if we were to experience stress or fail.

5.3 GOVERNANCE MECHANISMS

We have developed governance mechanisms to support a timely and coordinated response to increasing levels of stress and have embedded these mechanisms into our BAU practices. Among the most important of these mechanisms is our Support Agreement. The Support Agreement is a binding agreement among Parent, IHC and other of our entities that contractually obligates Parent and IHC to provide appropriate capital and liquidity support to our material entities to ensure their financial health and uninterrupted operation and to support our SPOE strategy. More information about the Support Agreement, the IHC and other enhancements we have made to mitigate potential challenges to pre-bankruptcy capital and liquidity support is provided in Section 3.

We refer to additional governance enhancements collectively as our Crisis Continuum Framework, which was briefly described in Section 3 and includes the following key aspects, each of which is described in more detail in this section:

Regulatory expectations for our governance mechanisms

The 2017 Guidance requires that we:

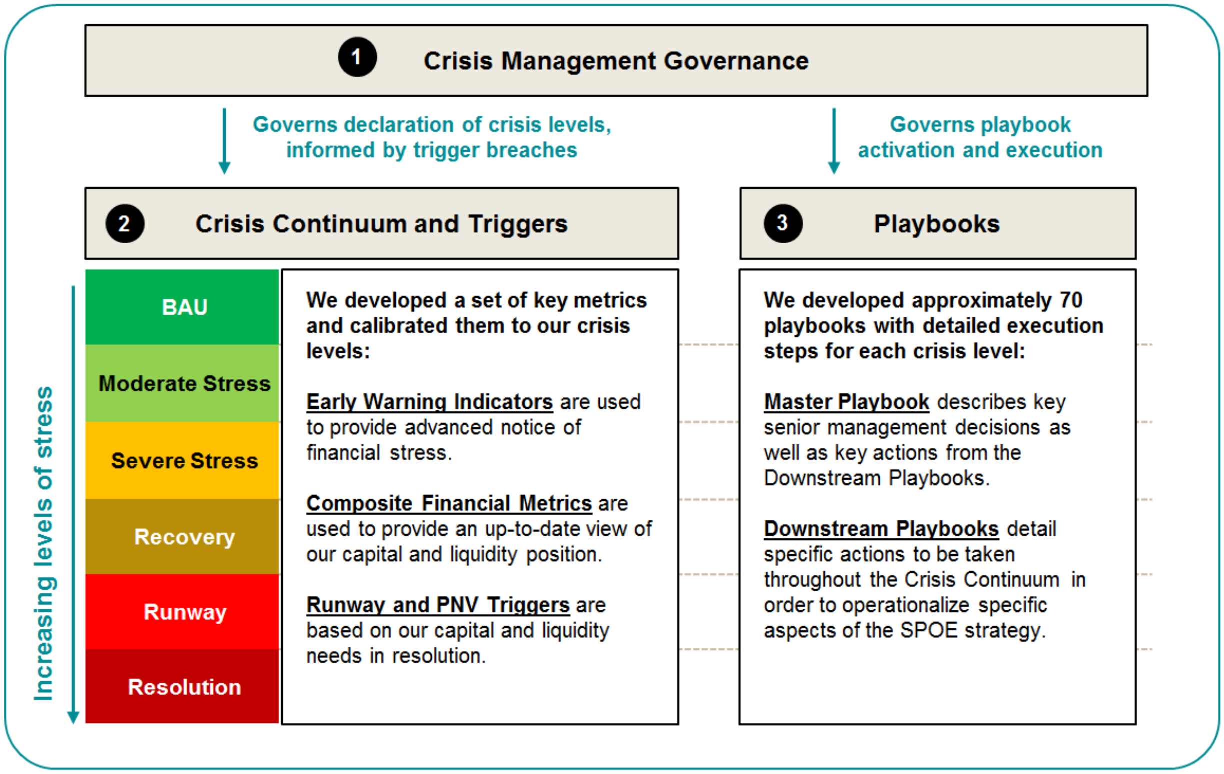
- Identify the governance mechanisms that would ensure execution of required actions by our Board of Directors at the appropriate time;
- Establish clearly identified triggers linked to specific actions to demonstrate that key actions will be taken at the appropriate time in order to address financial, operational, legal and regulatory issues;
- Develop governance playbooks detailing board and senior management actions necessary to facilitate our SPOE strategy and address issues as they arise, incorporating our triggers; and
- Analyze potential challenges and mitigants to planned provision of capital and liquidity support to subsidiaries prior to Parent's bankruptcy filing.

- A strengthened **crisis management governance structure**, to provide a framework for engaging senior teams in charge of decision-making covering all key aspects of our resolution strategy execution, with support from subject matter experts;
- Defined **crisis levels** underpinned by an **enhanced trigger framework**, to support appropriate escalation and a timely response to increasing stress; and
- A **comprehensive set of playbooks**, including a Master Playbook that serves as an overarching guide for senior management to manage and coordinate all firm-wide actions and the execution of other multidisciplinary, resolution-related playbooks.

Together, these governance enhancements constitute our Crisis Continuum Framework—an appropriate governance structure with triggers capable of identifying the onset and escalation of financial stress events in sufficient time to allow for preparation for resolution and to ensure the timely execution of the SPOE strategy if recovery actions are unsuccessful. The Crisis Continuum Framework is our overarching guide that facilitates key decision-making by the right people using the right processes and technology in response to a crisis and provides a framework for seeing that key actions are taken at appropriate times in support of our SPOE strategy.

Figure 5.3-1 illustrates how we have integrated our crisis management governance, Crisis Continuum and triggers, and playbook architecture.

Figure 5.3-1 Crisis Management Governance Framework



Crisis Management Governance

We have strengthened our crisis management governance structure by defining specific responsibilities for each of our crisis management governance bodies, including responsibility for covering key decisions and actions if we were to experience stress. As part of this governance structure, we have created a Crisis Management Coordinator role with responsibility for coordinating the company's response to a crisis.

Illustrated in Figure 5.3-2, our crisis management governance structure consists of the following clearly defined layers:

- Our **Board of Directors** provides oversight of the crisis management efforts and activities carried out by senior management throughout the Crisis Continuum.
- The **Crisis Management Board**, led by our Chief Executive Officer and comprising members of our Executive Committee and our Treasurer, is the most senior management body responsible for making key decisions and escalating issues to the Board of Directors as necessary in response to stress.
- The **Crisis Management Team** is the group responsible for coordinating the response to a stress event. Chaired by the Chief Risk Officer, supported by the Crisis Management Coordinator and comprising representatives from all major functional areas, this team would be convened by the Crisis Management Coordinator as needed during stress to prioritize issues and ensure that key responsive actions are taking place. The Crisis Management Team provides relevant background

as needed to the Crisis Management Board and cascades decisions to functional implementation teams and playbook execution owners.

- Within the Crisis Management Team, we established an additional layer of governance consisting of **functional implementation teams**. The purpose of these teams is to directly manage the implementation of actions in certain functional areas (*i.e.*, the activities performed by playbook execution owners). The lead member of each functional implementation team is also a member of the Crisis Management Team to support direct and timely feedback between both teams.

Figure 5.3-2: Our Crisis Management Governance Structure

In creating our crisis management structure, we used the systems and communication channels laid out in our existing Global Business Continuity program as a base—which helps ensure that we would take a consistent approach to managing crises of any kind, whether financial or non-financial. In particular, we leveraged the existing call tree systems, email distribution lists and surveys used by our Global Business Continuity program to develop a consistent approach for activating playbooks, convening crisis teams, and disseminating and receiving information from across the organization in the event of resolution. The fact that our Global Business Continuity program is tested frequently in BAU gives the systems underlying our crisis management structure greater reliability.

Crisis Continuum and Triggers

We have enhanced our existing Crisis Continuum, including the crisis levels and objectives, to align with our SPOE strategy. Further, we have established a new trigger framework based on capital, liquidity, non-financial and market indicators, which, when breached, are tied to corresponding escalation procedures to ensure a timely response to increasing levels of stress. The trigger framework includes different indicators and metrics that would feed into the triggers.

- **Early Warning Indicators** are capital, liquidity and market-based metrics that are closely monitored against defined thresholds and are calibrated to provide advance notice of potential stress. We monitor these metrics and others on a daily basis using a detailed dashboard that is broadly distributed across the organization. The breach of defined combinations of early warning indicators compels the calculation of composite financial metrics and a full assessment of our financial condition. We also monitor corporate-level operational key risk indicators against defined thresholds, which compel a similar response to the early warning indicators. These operational key risk indicators provide a firm-wide measure of operational risk and are another source of advance notice of potential stress.

- **Composite Financial Metrics** are capital and liquidity metrics that provide an accurate, current and holistic view of the capital or liquidity position of our firm. Within our Crisis Continuum Framework, composite financial metrics are used as triggers for the Moderate Stress, Severe Stress and Recovery crisis levels.

- **Runway Trigger and PNV Trigger** are metrics based on resolution-specific capital and liquidity needs of our material entities. The Runway Trigger signals when our internal financial forecasts predict the PNV Trigger would be breached within a specified time period. The PNV Trigger signals when Parent should downstream substantially all of its remaining capital and liquidity resources to the IHC. At that time, Parent would be restricted from further access to the firm's resources to help ensure that the firm and our operating subsidiaries would still have adequate financial resources after Parent's failure to carry out the SPOE strategy. Shortly thereafter, Parent would be expected to file for bankruptcy. Within our Crisis Continuum Framework, entry into the Runway and Resolution periods is determined based on the Runway Trigger and PNV Trigger, respectively, as described in more detail in Section 3.

We calibrated the trigger thresholds to enable sufficient time for the execution of associated actions and Parent's timely filing for bankruptcy. As a crisis escalates, the Crisis Continuum Framework requires more frequent monitoring and assessment of the stress and escalation of critical information at more frequent intervals. We use our early warning indicators (*e.g.*, stock indices, firm-specific metrics) to provide advance notice of financial stress. We use our composite financial metrics, which are based on capital and liquidity metrics, to determine entry into a defined level of stress up to Recovery.

Our playbook architecture

Our playbooks detail the key actions we would take in response to stress. These documents contain our analysis of how and why we should or could act in certain ways at certain times—enabling us to fully prepare for a variety of stress scenarios and react appropriately to increasing levels of stress.

Our Master Playbook sits above the rest of our playbooks, which we collectively refer to as our Downstream Playbooks, and serves as an overarching guide to ensure a coordinated response in crisis.

Our Downstream Playbooks are a collection of resolution-related playbooks that detail specific actions to be taken throughout the Crisis Continuum in order to operationalize specific aspects of the SPOE strategy. Some of our playbooks are limited to actions that specific material entities would take (such as our board governance playbooks) while others describe specific categories of firm-wide actions we would take to address specific aspects of our strategy, such as bankruptcy, communications and operational actions.

Playbooks

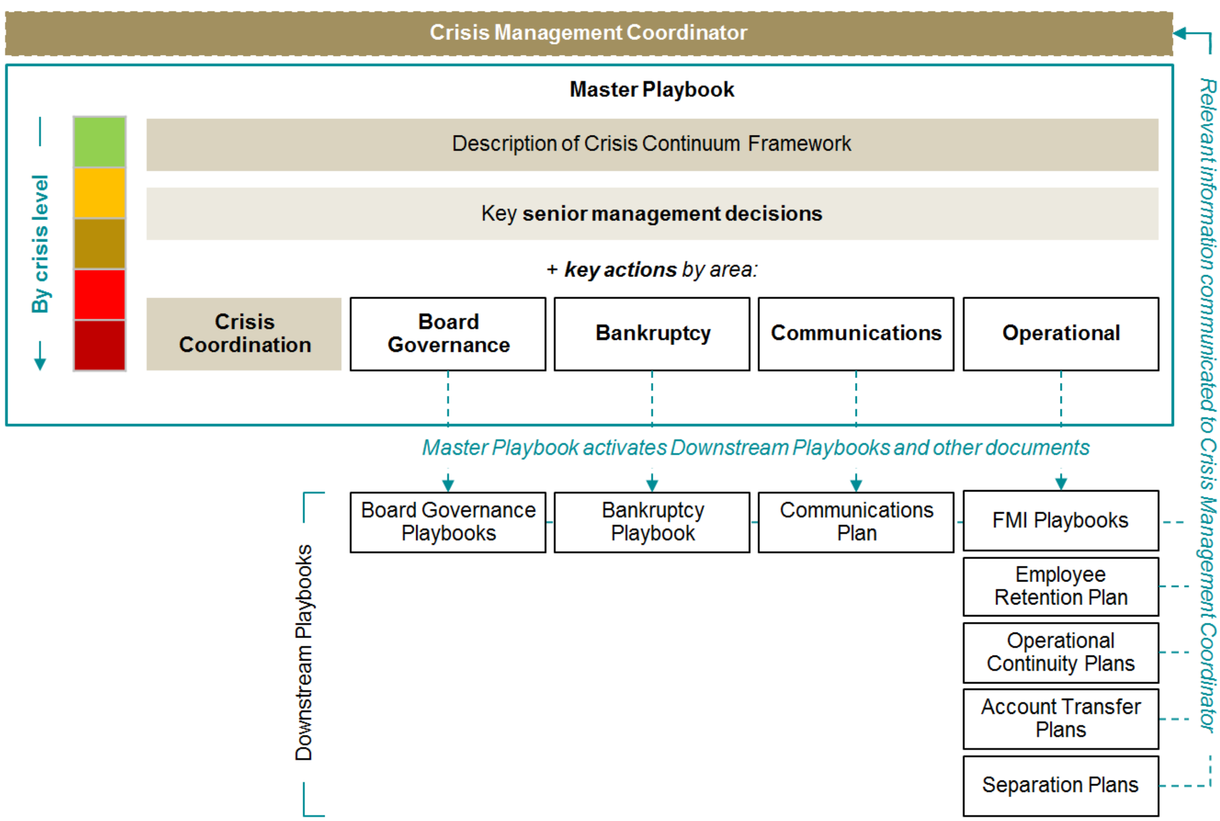
We have developed a comprehensive set of playbooks that detail the key actions required to ensure an effective response to increasing levels of stress. An integral component of our playbook architecture is our newly developed Master Playbook, which is owned by our newly appointed Crisis Management Coordinator, the head of our Global Business Continuity program. The Master Playbook governs the execution of all other resolution-related playbooks, which we refer to as our Downstream Playbooks, and serves as an overarching guide to ensure a coordinated response in crisis.

The activation of the Downstream Playbooks is linked to the levels of stress along the Crisis Continuum. In event of crisis, the Crisis Management Coordinator would convene the Crisis Management Team to assess conditions and consider initiating certain playbooks as appropriate. If a decision were made that activation would be appropriate, the Crisis Management Coordinator would subsequently communicate the initiation decision to relevant functional implementation teams and playbook execution owners using status calls, email distribution lists and call trees. The Crisis Management Coordinator and Crisis Management Team have discretion to activate the playbooks earlier based on circumstances that exist at the time.

To ensure that senior management has a holistic and timely view of relevant actions and information to direct an appropriate response, we have created processes and methods to provide appropriate communication across the crisis management framework. In the event of a crisis, the Crisis Management Team would manage feedback received and would prioritize and disseminate any key information to relevant parties to see that appropriate actions would be taken at the right times. Additionally, the Crisis Management Coordinator would distribute a proprietary survey to Downstream Playbook owners to capture information and updates during a crisis related to actions and decisions captured in the Master Playbook. This survey can be customized based on an actual stress event as needed. The Crisis Management Coordinator can aggregate, filter and prioritize survey results to facilitate discussion with the crisis management governance bodies.

A high-level illustration of our playbook architecture is provided in Figure 5.3-3.

Figure 5.3-3: Playbook Architecture



The following is a high-level overview of our playbook architecture;

- The **Master Playbook** outlines key actions that must be taken by the Crisis Management Coordinator and senior management in crisis, as well as key actions from the Downstream Playbooks aligned to the Crisis Continuum. The Master Playbook further highlights key decisions to be made by senior management to guide the course of the crisis response and the actions to be taken. In addition, the Master Playbook describes key management information systems that would be used to inform decision-making.

- Our **Downstream Playbooks** outline detailed steps and other considerations related to the following categories of actions: board governance, bankruptcy, communications and operational. As previously mentioned, crisis coordination actions are captured within the Master Playbook.

  - The **board governance playbooks** provide a framework for actions to be taken by the Board of Directors and other material entity boards of directors during a crisis. The playbooks guide the boards of directors through the resolution process by describing the major considerations the boards would need to evaluate and the major actions the boards would need to consider to implement our SPOE strategy, consistent with their fiduciary duties, and by setting forth the logistical processes under which the boards of directors would make such decisions. Although the actual decisions made by the relevant boards would be made in light of facts and circumstances at the time of the decision, the board governance playbooks enhance our existing governance processes by providing an outline of potential considerations, expected actions and a framework for decision-making.

  - The **bankruptcy playbook** serves as a framework to guide the preparatory process that we could undertake if we were to experience material financial distress that might lead to failure. The playbook provides steps for preparing to potentially commence a Chapter 11 bankruptcy case in order to implement our SPOE strategy.

  - The **communications playbook** describes the overarching strategy to manage communications with internal and external stakeholders if we were to experience material financial stress. The Communications Playbook provides details of how communications could be triggered and delivered to internal and external stakeholders through each stage of the Crisis Continuum.

  - The **FMI playbooks** are detailed, action-oriented playbooks for each of our key FMI that provide a framework for steps we could take to maintain access to these FMI when we experience stress. Our FMI playbooks also detail contingency plans in the event our primary actions are unsuccessful. More information about our FMI playbooks can be found in Section 5.4.1.

  - The **employee retention plan** is our plan for retaining key employees in the event of stress. It provides a framework for identifying key personnel and outlines actions to be taken to retain key employees during periods of material stress, including events leading to the ultimate resolution of our firm.

  - The **operational continuity plans** are plans we have developed for each of our core business lines and critical operations that provide a framework for operational continuity for these businesses and operations in the event of resolution. The plans describe key operational continuity considerations, the expected impact of Parent's bankruptcy filing and how operations could be maintained after Parent's bankruptcy filing. Certain of our operational continuity plans also contain **account transfer plans**, which cover key considerations related to the transfer of client accounts after Parent's bankruptcy filing.

  - The **separation plans** are comprehensive guides for each object of sale that analyze the relevant considerations related to the divestiture of each object of sale and provide a road map for effectuating a transition, including key preparatory steps. More information about our separation plans can be found in Section 5.6.

Taken together, these governance mechanisms provide a comprehensive plan to manage increasingly severe levels of stress through resolution.

5.4 OPERATIONAL

There are four categories of operational issues important to the successful execution of our SPOE strategy:

- Payment, clearing and settlement activities;
- Managing, identifying and valuing collateral;
- Management information systems; and
- Shared and outsourced services.

The following sections describe enhancements we have made to address each of these categories of issues.

5.4.1 PAYMENT, CLEARING AND SETTLEMENT ACTIVITIES

As a global financial intermediary, payment, clearing and settlement, or PCS, activities are core to our business. PCS activities include all of the "behind the scenes" work that ensures that payments and other transactions mechanically work—*e.g.*, that money is actually sent from one account to another or that money is actually exchanged for securities. Much of this activity is facilitated through financial market infrastructure, or FMI. As a global financial intermediary, we appreciate the importance of maintaining the continuity of our PCS activities in the event we were to experience stress. To enhance our ability to maintain the continuity of these services to our clients and other market participants in the event of failure, we have taken the following four key actions, each of which is described in more detail in this section:

- Established **robust governance of PCS activities** to plan for and coordinate our reactions to FMI and client responses to our stress and failure;
- Enhanced our **FMI playbooks** to ensure that there are robust, action-oriented plans to maintain access to key FMI;
- Analyzed intraday liquidity needs across each FMI and incorporated these into our financial projections—validating that we have **appropriate resources to meet projected needs**, as described in Section 5.2; and
- Significantly **enhanced our PCS reporting capabilities** through the development of a new PCS reporting platform that could produce key information relevant to managing PCS activities in a timely manner if we were to experience stress.

Regulatory expectations for our PCS activities

The 2017 Guidance requires that we:

- Describe arrangements to facilitate our continued access to key FMI;
- Explain how we would satisfy increased requirements our FMI may impose when dealing with us in stress; and
- Continue to develop our related playbooks.

What is FMI and why is continuity important?

FMI refers to financial market infrastructure and consists of financial market utilities, including central securities depositories, central counterparties, securities settlement systems and payment systems, and agent banks, which we use for payment, settlement and custody, or PCS, activities. PCS activities are performed through FMI.

We are a direct member or participant in a number of financial market utilities and depend on relationships with a network of agent banks. See Figure 5.4.1-2 for our key FMI.

Continuity of our PCS activities through FMI is important. As a global custodian and financial intermediary, we support a range of financial institutions, including financial services companies, corporations, central banks, governments and others. These entities rely on us for the smooth and efficient operation of numerous cash and securities markets under all economic conditions. If we were to fail, it is important that we provide for continuity of these activities so as to avoid potential systemic disruption.

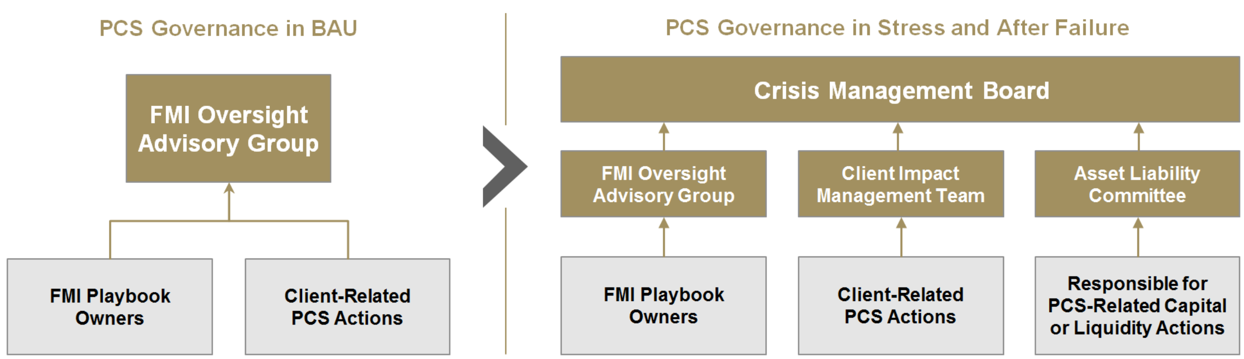
Robust Governance of PCS Activities

We have established robust governance over our PCS activities and clearly defined roles and responsibilities for key stakeholders. The centerpiece of our governance as it relates to FMI is our FMI Oversight Advisory Group, which is responsible for developing and maintaining our PCS-related resolution playbooks. If we were to experience stress, the FMI Oversight Advisory Group would manage the activation and execution our FMI playbooks to ensure efficient and effective management of PCS relationships with the goal of continued access in stress. The FMI Oversight Advisory Group contains representatives from our operational, client facing, credit risk and Treasury groups and interact with FMI on a regular basis.

We further enhanced our PCS governance structure in 2017 by creating a new client impact management team as the central coordination body for all client-related actions, including those related to PCS activities. If we were to experience stress, the FMI Oversight Advisory Group and the Client Impact Management Team would act in concert with our Asset Liability Committee that manages the implementation of capital and liquidity related actions. In the context of our PCS activities, the Asset Liability Committee is responsible for monitoring the capital and liquidity position of the firm and overseeing the execution of related contingency actions. In the event of crisis, the Asset Liability Committee would communicate with the FMI Oversight Advisory Group and Client Impact Management Team to manage the collateral and funding requirements at FMI and provide input related to implementation of certain responsive actions. The Crisis Management Board would oversee the activities of these three groups.

Figure 5.4.1-1 illustrates the PCS governance structure in BAU and how it would transition if we were to experience stress or failure.

Figure 5.4.1-1: PCS Governance Structure



One of the FMI Oversight Advisory Group's key responsibilities is to identify key FMI at least annually using a methodology that combines quantitative and qualitative factors. The quantitative and qualitative factors we evaluate include:

- Volumes and value of transactions;
- Assets under custody held by our agent banks;
- Reliance of a core business line or critical operation;
- Substitutability; and
- Risk from loss of access.

Our key FMI for our 2017 Plan are listed in Figure 5.4.1-2.

Figure 5.4.1-2: Key FMI

Central Counterparty	
Fixed Income Clearing Corporation – GS	National Securities Clearing Corporation
Fixed Income Clearing Corporation – MBSD	Options Clearing Corporation
LCH Clearnet Limited	
Central Securities Depository	
Clearstream Banking Frankfurt	Euroclear Nederlands
Clearstream Banking Luxembourg	Euroclear U.K. & Ireland
Depository Trust Company	Monte Titoli
Euroclear Bank SA/NV	
Payment	
Clearing House Automated Payment System	FedACH Services
Clearing House Interbank Payments System	Fedwire Funds Service
CLS Bank International	Trans-European Automated Real-Time Gross Settlement Express Transfer System
Electronic Payments Network	
Securities Settlement System	**Vendor**
Fedwire Securities	Society for Worldwide Interbank Financial Telecommunication (SWIFT)
Agent Bank	
BNP Paribas	Mizuho Corporation Bank Ltd.
Citigroup	Skandinaviska Enskilda Banken
Deutsche Bank	The Bank of Tokyo – Mitsubishi UFG Ltd
HSBC	

FMI Playbooks

Our FMI playbooks are detailed, action-oriented playbooks that provide a framework for the steps we could take to maintain continued access to our key FMI if we were to experience stress. Our FMI playbooks also describe contingency arrangements we could take if our primary actions are unsuccessful. The playbooks identify the range of potential actions that FMI could take if we were to experience stress and how we would anticipate responding to such actions. Now in their third iteration, we have continued to refine and enhance these playbooks to reflect our evolving understanding of what may happen in stress and measures we can take to reduce systemic risk. Our 2017 FMI playbooks address the following:

- **Credit, Collateral and Funding Arrangements**: If we were to experience stress, we anticipate that funding and collateral requirements related to FMI access may increase as FMI seek to minimize their own risk. Our playbooks include an assessment of credit extended by each individual FMI and the related incremental funding and collateral that may be required in stress.

- **Contractual Arrangements**: We have reviewed and assessed contractual arrangements associated with continued access to FMI. Each playbook describes the current legal framework governing the relationship and anticipated rights of the parties in a stress event.
- **Communication Steps**: Communication with key FMI is important during stress as we would look to maintain continued access. The playbooks provide a framework for the content, timing and stakeholders that may be involved in communications throughout a stress event.
- **Operational Handbook**: Each playbook has an appendix, which is the operational handbook in stress. It includes a detailed, action-oriented inventory of steps that we could take to provide for continuity of access, including the expected timing of actions and responsible parties.

Assessment of Liquidity Needs

As described in Section 5.2, we have aggregated our conservatively quantified funding needs for each FMI across different tiers of stress and incorporated this funding need into the financial projections underlying our plan.

Enhanced PCS Reporting Capabilities

We have developed robust reporting capabilities that provide a comprehensive and granular view of our PCS-related exposures and obligations on a daily basis. Moreover, our capabilities satisfy the heightened supervisory expectations for resolution preparedness described in SR 14-1 issued by the Federal Reserve.[3] Specifically, we have developed a PCS reporting platform that leverages NEXEN, our next-generation, intuitive, secure and powerful technology platform. Using NEXEN, the PCS reporting platform synthesizes data from dozens of data systems across our firm on a daily basis, comprising over 18 million lines of data over 50 files, into a centralized data repository. The PCS reporting platform uses this data to create, on a T+1 basis, over 50 unique PCS reports reflecting values and volumes of payment, clearing, settlement and counterparty activities and exposures by legal entity, financial market utility exposures, sub-custodial exposures and Nostro account exposures.

In developing our PCS reporting platform, we have improved efficiency, accuracy and timing of data through the following key enhancements:

- **Streamlined Data Sourcing**: We have automated data sourcing processes by having each source system automatically push information into a centralized data lake on a daily basis.

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[3] See the Federal Reserve's letter *SR 14-1: Heightened Supervisory Expectations for Recovery and Resolution Preparedness for Certain Large Bank Holding Companies – Supplemental Guidance on Consolidated Supervision Framework for Large Financial Institutions*, available here.

- **Centralized Data Repositories**: We have created a centralized infrastructure that loads and stores data into separate repositories by core business line and critical operation, which has been mapped to data elements such as legal entities, FMI and pricing rates at a granular level.

- **Developed PCS Reporting Engine**: We have developed a reporting engine to produce a suite of PCS reports that can be scheduled to deliver reporting to management and governance groups or produced on demand through a single interface.

In addition to our PCS reporting enhancements, we have continued to develop our ability to monitor and manage intraday credit and intraday liquidity exposures associated with our PCS activities.

Intraday credit is monitored through our enterprise risk integration platform, which aggregates risk reports across our firm and can produce minute-by-minute intraday credit exposure reports on a T+1 basis across legal entities, businesses, products and clients.

We monitor and manage intraday liquidity through our real-time monitoring system—Liquid Plus. As described in Section 5.2, Liquid Plus provides granular information on our intraday activities, alerts users to variances from historical averages and instantly can obtain transaction-level data for research and analysis.

These capabilities provide a holistic view of all PCS activity at the firm and will arm senior management with the relevant information necessary to manage and maintain continuity of PCS activities in resolution.

5.4.2 MANAGING, IDENTIFYING AND VALUING COLLATERAL

We have established appropriate capabilities to manage, identify and value collateral in BAU and stress. Collateral management activities for the purposes of our resolution planning are collateralized financial transactions where we act as principal. We have upgraded our governance and operational capabilities to support these activities across material entities, counterparties and jurisdictions. Our enhancements provide transparency into our activities and an ability to flexibly query collateral data across the firm. We have also developed an understanding of the anticipated behavior of collateral pledged to and by us if we were to experience stress, informing our capital and liquidity forecasting.

Regulatory expectations for our collateral management capabilities

The 2017 Guidance requires that we have:

- The capability to manage, identify and value the collateral we receive from and post to external parties and affiliates; and
- A comprehensive collateral management policy that outlines how we approach collateral and that services as a single source for governance.

Given the predominantly fee-based nature of our business model, we take relatively less risk as a proportion of our total balance sheet than many other G-SIBs, and we take a conservative approach to managing this risk through collateralization. Activities in which we manage risk through the receipt or posting of collateral include securities financing, margin loans, derivatives, FX transactions and securities lending where the firm indemnifies clients for loss or return of securities.

We have significantly enhanced our collateral management capabilities to address risks associated with managing collateral in all market and firm-specific stress conditions. If we were to face stress, we recognize that we could encounter certain risks associated with our collateral activities, including increased collateral requirements from our counterparties in recognition of our elevated credit risk, challenges managing increased volumes as counterparties work to unwind positions, margin shortfall or increased challenges in valuing margin requirements in a stressed market environment, and funding risk. Since the 2016 Submission, we have established an enterprise-wide policy serving as a single framework for how we manage collateral. Additionally, we have made enhancements to our enterprise-wide collateral repositories and reporting platforms. These actions have substantially improved transparency into our collateral management position in BAU and in a time of stress. The combination of enhancements contributes to an already robust set of capabilities.

We have made the following three key enhancements related to our collateral management activities, each of which is described in more detail below:

- Enhanced governance and policies;
- Enhanced operational efficiency and risk management; and
- Analysis of collateral behavior in resolution.

Enhanced Governance and Policies

We have significantly enhanced our internal collateral management governance framework, ensuring that all of our activities to manage collateral are governed by a single set of policies and operate under unified oversight. We have developed a Financial Collateral Management Enterprise Policy, which sets forth a single framework for principal collateralized counterparty risk and collateral postings and governs all related collateral policies and procedures. Further, we have updated these related policies and procedures, including the firm's Financial Collateral Counterparty Risk Policy and business-specific procedures. Oversight of collateral management activities is provided by our senior governance bodies, including the Senior Risk Management Committee as well as the Principal Collateral Risk Advisory Group and the Collateral Margin Review Committee. These enhancements help us to ensure that we take a consistent approach across the firm to collateral related activities such as the management and establishment of margin requirements, the posting of collateral to FMUs and rehypothecation and that we respond in a coordinated way to new or changing legal, regulatory or business circumstances.

Operational Efficiency and Risk Management

We have implemented flexible enterprise-wide system infrastructure to effectively support and manage potential risks related to collateral and to enhance our reporting capabilities related to managing, identifying and valuing the collateral that we receive from and post to external parties and our affiliates.

The most notable actions taken to improve risk management and enhance operational efficiency include the development of:

- **Enterprise Risk Integration**, a robust data sourcing and enterprise-wide reporting platform that provides a holistic centralized view of collateral across the organization;
- **Legal Agreement Repository**, a comprehensive legal agreement repository solution that catalogs key contracts, netting and rehypothecation rights, described in Section 5.4.3; and
- **Counterparty Potential Future Exposure**, a robust simulation engine that, for our securities finance activities, quantifies net potential future exposures relating to certain transactions by simulating decreases in loan and collateral values at a variety of confidence levels, providing insight into potential risks in different firm and market conditions.

Analysis of Collateral Behavior in Stress

As part of our capital and liquidity analysis, we have analyzed how we anticipate collateral pledged to and by us would behave in stress. This analysis includes how this collateral might be unwound and returned, as well as any potential friction, change in thresholds and potential impact to the execution of our SPOE strategy. Specifically, we have assessed the operational capabilities to generate liquidity from collateral received from clients. We have also identified scenarios where early termination could be triggered if Parent files for bankruptcy. The findings of these analyses are utilized in our capital and liquidity forecasts, which are described in more detail in Section 5.1.

Based on our evaluation of collateral management activities conducted within each of our businesses, we do not anticipate our collateral management operations will be an impediment to our orderly resolution. We believe we have the required operational capabilities and financial resources to maintain continuity of collateral management activities in resolution.

5.4.3 MANAGEMENT INFORMATION SYSTEMS

We have enhanced our enterprise-wide management information systems, or MIS, infrastructure to build the reporting capabilities necessary to support our business and to execute our SPOE strategy. Recognizing the importance of timely and reliable enterprise-wide MIS reporting if we were to experience stress, we have invested significant resources to build strong data governance and to develop highly granular reporting capabilities using our strategic MIS infrastructure solution, known as the Enterprise Data Ecosystem. In addition, we have identified the MIS reports that we would need to support our SPOE strategy and demonstrated our ability to produce them on a timely basis.

Regulatory expectations for our management information systems

The 2017 Guidance requires that we:

- Perform a detailed analysis of the specific types of financial and risk data that would be required to execute our SPOE strategy and how frequently we would need to produce the information at the appropriate level of granularity; and
- Develop the capabilities to readily produce this data on a legal entity basis and have controls to ensure data integrity and reliability.

Data Governance

We have established an enterprise-wide data governance structure and framework that provides broad oversight across the firm, including MIS related to the SPOE strategy. Our enterprise-wide Data Governance Policy defines our approach for data management, which consists of clearly articulated roles and responsibilities, common data standards and common processes. Specifically, we have:

- Defined roles and responsibilities across the firm for data management. This includes a senior-level Data Advisory Council to provide strategic leadership over our data management activities.
- Implemented common data standards to ensure a strong and homogeneous approach to data management across our firm. For example, we have implemented a business glossary that establishes common definitions of business concepts to which individual data elements are linked.
- Established standard processes to manage data over its life cycle. As shown in Figure 5.4.3-1 below, we use our Enterprise Data Ecosystem to derive substantial synergies by centralizing many of our data management activities within our enterprise-wide MIS infrastructure.

Our enterprise-wide management information systems

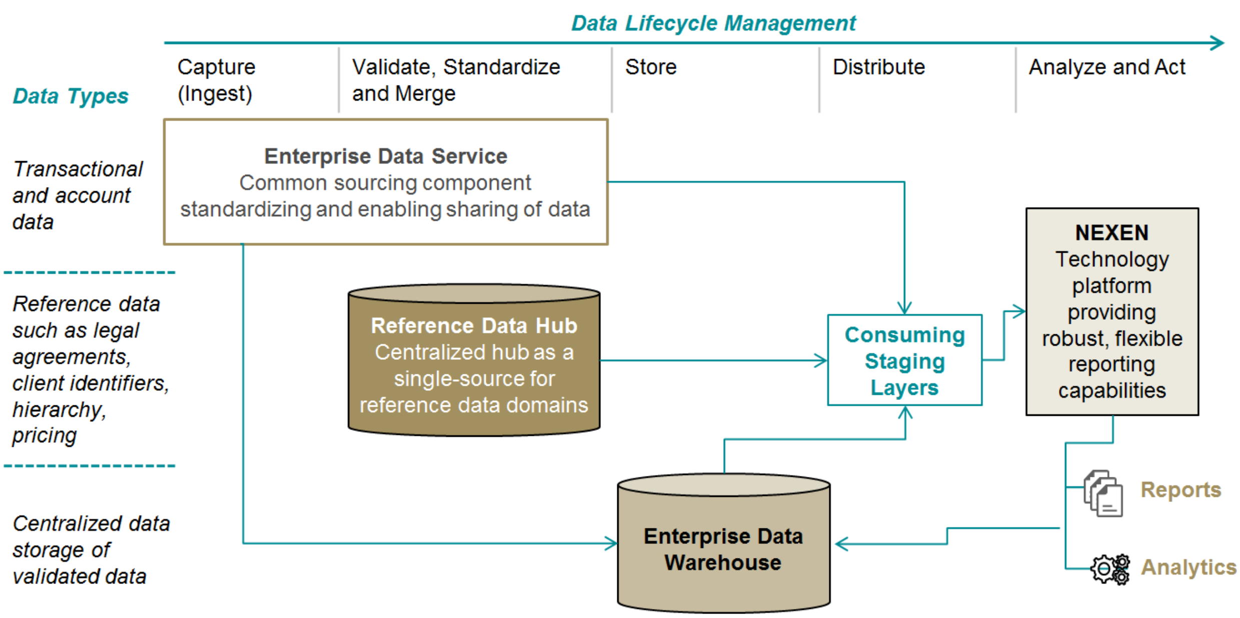
Our MIS refer to the systems we use to collect and maintain information that our management uses to monitor our firm's financial health, risks and operations and to inform strategic decision-making. Our MIS also produce information that we report to satisfy regulatory requirements. Our core business lines and critical operations use this information to perform functions necessary to run these businesses and operations.

Our MIS infrastructure consists of various platform and mainframe technologies to capture, validate, standardize, merge, store and distribute data as well as NEXEN, a platform we have developed to provide robust, flexible reporting capabilities to enhance our risk management and decision-making ability in BAU and if we were to experience stress or fail. This section describes in more detail our MIS systems and reporting capabilities as well as enhancements we have made to our MIS infrastructure to help ensure that reliable information is available on a timely basis at the appropriate level of granularity to support our SPOE strategy.

Enterprise Data Ecosystem

We maintain an innovative MIS infrastructure that provides a single source of information and reporting to support both our business and clients in BAU and if we were to experience stress or fail. Since July 2015, we have completed material upgrades to our MIS infrastructure centered on creating common enterprise services that significantly enhance our reporting capability and produce the data necessary to execute the SPOE strategy and to meet expectations in SR 14-1. These common enterprise services serve to create the Enterprise Data Ecosystem, a set of disciplines, technologies, applications and procedures used to manage, harmonize and govern data acquired from core business systems across the data management life cycle. Our Enterprise Data Ecosystem employs NEXEN, our next generation technology platform that provides robust, flexible reporting capabilities. The Enterprise Data Ecosystem is illustrated in Figure 5.4.3-1.

Figure 5.4.3-1: Enterprise Data Ecosystem Simplified Schematic



The Enterprise Data Ecosystem includes the following components:

- The **Enterprise Data Service** is a centralized data hub that gathers broad and granular data from source systems and distributes that data in a normalized form to multiple consumers in both batch and real time. This allows consumers to consistently describe, aggregate, merge and calculate information from business transactional data.
- The centralized **Reference Data Hub** providing one unique access point for all reference data domains, ensuring data consistency and validity. We built two new capabilities within these domains primarily to support our resolvability:
    - The **Legal Agreement Repository**, which includes approximately 800,000 documents, encompassing over 400 contract types across the material entities. The Legal Agreement Repository is able to filter through documents and report on multiple contractual dimensions across various provisions and agreement types.

- The **Netting Flag Utility**, which is a central repository of netting rulesets used to determine net exposure to counterparties.

- The **Enterprise Data Warehouse** is the firm's data lake, a linear scalable platform that supports structured and unstructured data and serves as the primary component of the big data ecosystem. The Enterprise Data Warehouse provides users with multiple connectivity options for maximum flexibility and supports an open source analytics platform.

MIS Reporting Capabilities

Leveraging the Enterprise Data Ecosystem and NEXEN, we have developed broad and granular reporting capabilities that serve to enhance our risk management and decision-making ability in BAU and if we were to experience stress or fail. These reporting capabilities include:

- **Risk Reports**: Through the Enterprise Risk Integration program, we have developed dynamic reports that provide a comprehensive enterprise-wide view across risk categories.

- **PCS Reports**: We have developed PCS reporting capabilities to enhance our ability to understand obligations and exposures associated with PCS activity. This includes the ability to track payments by clients and counterparties by legal entity, values and volumes of various transaction types, used and unused capacities for lines of credit and exposures to and volumes transacted with FMI in all entities. These capabilities are described in more detail in Section 5.4.1.

- **Advanced Measures – Stress Margin Shortfall and Counterparty Potential Future Exposure**: We have enhanced the risk management of principal and agency securities lending and finance transactions.

    - <u>Stress Margin Shortfall</u> calculates a historical estimate of loss or margin shortfall in stressed market conditions, taking into account both asset volatility as well as correlation within the collateral schedule and between collateral schedules and securities on loans for each counterparty.

    - <u>Counterparty Potential Future Exposure</u> quantifies the potential future exposure to a counterparty by stressing replacement cost values of transactions at a specified confidence level using a simulation methodology to project future market scenarios.

- **Overnight Liquidity and Funding**: We have enhanced our data platform to produce daily reports to monitor liquidity reserves and relevant custodial arrangements by material entity.

- **Intraday Liquidity and Funding**: We have the ability to monitor and measure multi-currency inflows/outflows, described in more detail in Section 5.2.

MIS Needs in Resolution – MIS Data Catalog and Resolution Repository

We have completed a detailed analysis to ensure that our MIS reporting capabilities can produce the MIS reports needed to execute our SPOE strategy. We developed an MIS data catalog to document these MIS needs and link them to our reporting capabilities. Additionally, we built an MIS resolution repository to serve as a single source for the automated MIS reports identified in the MIS data catalog. The MIS resolution repository would serve to facilitate a more effective and efficient decision-making process if we

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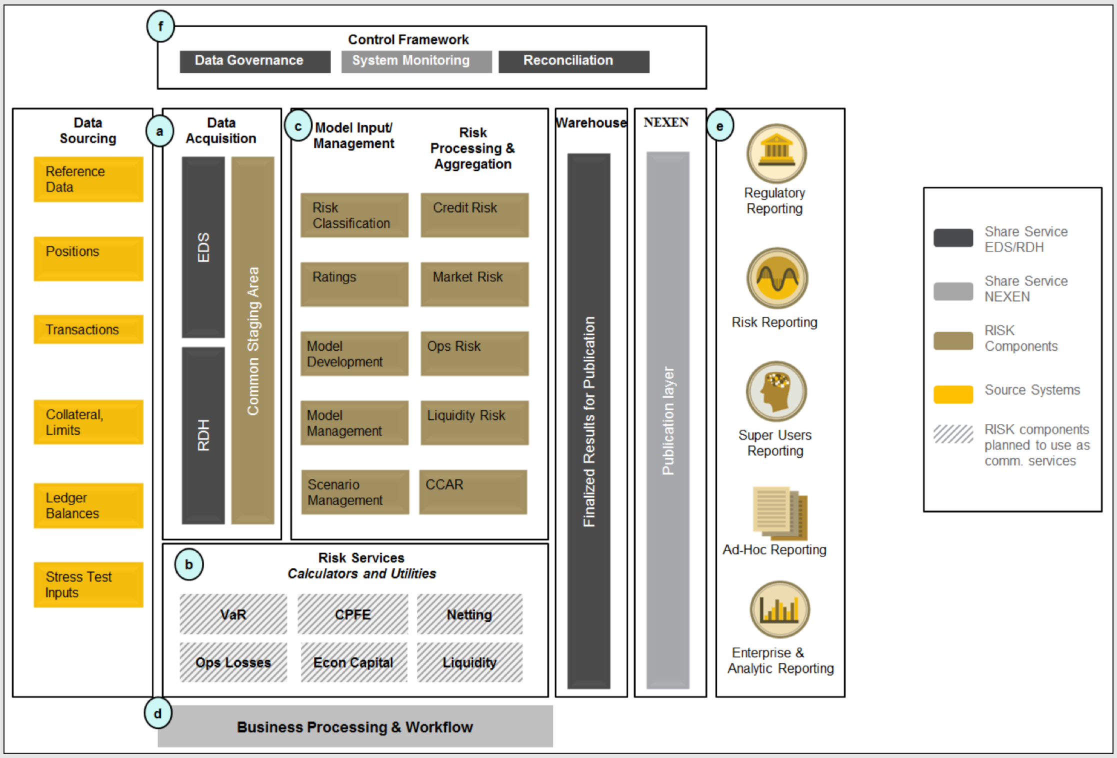
were to experience stress or fail by consolidating all relevant information in one readily accessible location.

Example of MIS reporting capabilities: Risk reporting

Through the Enterprise Risk Integration program, we developed an innovative enterprise risk MIS and data aggregation capability that is comprehensive, flexible, scalable and sustainable. This capability comprises standardized reports and sophisticated quantitative analytics to enhance decision-making and risk management processes. Our risk reporting provides an enterprise-wide view across risk categories that delivers increased visibility related to exposure (gross and net) by client, legal entity, country, collateral position and, where relevant, line of business.

Our risk reporting uses the Enterprise Data Ecosystem and NEXEN infrastructure. The key components of our risk reporting architecture are illustrated at a high level below.



a. Data acquisition: Acquires data through the Enterprise Data Service and Reference Data Hub and places it into a common risk data staging layer in a product canonical form.

b. Risk Services Calculators and Utilities: Contains risk calculators and utilities that can be flexibly leveraged for multiple uses.

c. Model Input Management: Provides model management tools, analytical libraries, and a sandbox development environment.

d. Business Processing and Workflow: Leverages data from the data staging layer, invokes calculations in the services layer and aggregates results.

e. Reporting: Uses enterprise business intelligence tools for flexible reporting and NEXEN for dashboards and visualization. NEXEN Workflow is used for risk approvals and manual adjustments. Historical reports and data are maintained in Enterprise Data Warehouse.

f. Control Framework: Incorporates the Data Governance Framework.

5.4.4 SHARED AND OUTSOURCED SERVICES

We have enhanced the continuity and governance of our shared and outsourced services and identified and mitigated potential risks that could disrupt these services if we were to experience stress. Successful execution of our SPOE strategy requires that our core business lines and critical operations remain operational and continue to provide services to the broader financial markets without disruption. To help see that these core business lines and critical operations would continue operating if we were to experience stress, we have taken steps to ensure that the critical services upon which these business lines and operations rely would themselves remain available in stress and after failure. For these purposes, we define critical services broadly, as explained below, to include services provided by business partners (*e.g.*, Human Resources or Finance), business lines, key assets (*e.g.*, intellectual property) and third-party vendors.

Regulatory expectations for addressing our shared and outsourced services

The 2017 Guidance requires that we:

- Identify all critical services;
- Map how and where these services support our core business lines and critical operations;
- Incorporate this mapping into our LER Criteria and implementation efforts, which is also described in Section 5.5; and
- Mitigate operational continuity risks identified by the mapping, in part through establishing service-level agreements for all critical services.

We have taken four key actions to provide for the continuity of our critical services, each of which is described in more detail in this section:

- We have enhanced our governance and executive focus on critical services;
- We have developed a taxonomy to describe our critical services and map our interconnections;
- We have used the mapping of our interconnections to identify and mitigate certain potential risks to operational continuity and, with respect to the divestiture of our objects of sale, separability; and
- We have financially and structurally strengthened our continuity.

Enhanced Governance and Executive Focus

We formed an enterprise-wide strategic team in February 2015 to significantly enhance the management and governance of our shared and outsourced services. This team, known as our Third-Party Governance team, is part of our Global Procurement department and through its charter governs all engagements utilizing shared or outsourced services. In addition to formalizing governance and processes around shared and outsourced services, the formation of the Third-Party Governance team raised senior management engagement in our shared and outsourced services strategy. The Third-Party Governance team is co-chaired by the Chief Financial Officer and Chief Risk Officer and includes members representing all key functional groups within our firm.

Enhanced Mapping of Our Critical Services and Interconnections

We have developed a detailed taxonomy and data-driven application, Connection, to define and map our critical services.

What are critical services?

Critical services are the shared and outsourced services that must be maintained to ensure the operational continuity of our core businesses and critical operations in resolution. We have defined critical services broadly to include key assets and key third parties, as well as services.

Business Partners

Services provided by our business partners such as Finance and Human Resources

Business Lines

Services provided by one business to a core business line or critical operation—*e.g.*, a broker-dealer executing the trades ordered by an asset management business

Key Assets

Key assets, including systems, personnel, real estate and intellectual property

Key Third Parties

Key third-party services, including external vendors, financial market utilities and agent banks

We have mapped interconnections between (1) our core business lines, critical operations and objects of sale and (2) the parts of our business that provide critical services to these businesses, operations and objects. Our mapping utilizes a three-level taxonomy, an example of which is illustrated in Figure 5.4.4-1, which breaks down the structure of our operations in a granular, clear and consistent manner. This taxonomy helps us to categorize and understand which parts of our firm use and provide critical services and which activities depend on these services.

Figure 5.4.4-1: Illustrative Example of How We Classify Our Services

Our mapping exercise identified the key interconnections at the firm relevant for maintaining the continuity of our core business lines and critical operations, as well as interconnections relevant for the separability of our objects of sale. For example, as part of the

How have we addressed potential risks associated with operational interconnectedness?

We have mitigated potential risks to the continuity of operational interconnections in a real-world crisis (*e.g.*, service dependencies between our legal entities, core business lines and critical operations). We have done this by first identifying key interconnections across our firm and completing a detailed review of potential risks to continuity related to these interconnections. Where necessary, we have also taken actions to mitigate these potential risks and ensure the interconnections would be appropriately addressed in a real-world crisis to support operational continuity.

mapping exercise we confirmed legal entity ownership of all trademarks and patents. Using our Connection application, we identified, reviewed and validated tens of thousands of discrete interconnection relationships throughout the firm through a comprehensive process involving business line and business partner stakeholders from across the organization. Additional information about operational interconnectedness between our material entities is provided in Section 7.1.2.

On a forward-looking basis, we have developed capabilities to maintain an up-to-date understanding of our interconnections through our Connection application. This application allows us to refresh our interconnections mapping as needed to maintain a current understanding of the interconnections across our firm.

What is Connection?

Connection is a data-driven tool that records the relationships between critical services, core business lines, critical operations, material entities and the entities providing the services.

Connection's reporting capabilities help us to identify dependencies and visualize interconnections throughout our firm.

TOOL USER INTERFACE

- Reporting functionality facilitates data verification
- Consistent use of data across core business lines and critical operations
- Ability to generate regulatory reports

VERIFICATION REPORTS

- Reports are used to support verification of mapping relationships
- Data is imported and exported from the tool in an automated manner

INTERCONNECTION REPORTS

- Reports describe the relationship of services
- Primary report used for operational continuity analysis

VISUALIZATION

- Data can be presented in a manner suitable for appropriate analytics

Analysis and Mitigation of Potential Risks

We have developed a comprehensive risk identification framework to identify and mitigate potential risks to orderly resolution that may arise from interconnections at our firm. The framework builds on applicable Financial Stability Board guidance, industry best practices for recovery and resolution-related risks, and elements of our LER Criteria that address operational continuity and separability—our LER Criteria are discussed in

Incorporation of the critical services mapping into our LER Criteria and implementation

In addition to our other enhancements, we leveraged our critical services mapping to enhance our legal entity rationalization efforts.

We designed our LER Criteria to ensure that our legal entity structure facilitates operational continuity and separability. These elements of our LER Criteria provide a mechanism to ensure that key business decisions contemplate potential risks identified through our critical services mapping.

More information on our LER Criteria and legal entity rationalization efforts is provided in Section 5.5.

more detail in Section 5.5. Our framework uses the results of our critical services mapping and classifies interconnections into types of dependencies that potentially could be disrupted if we were to experience stress, including:

- **Business partner service continuity**, including but not limited to services provided by our business partners (*e.g.*, our Finance and Human Resources departments);
- **Business line service continuity**, including but not limited to services provided by one line of business to another (*e.g.*, custody services);
- **Access to key third parties**, including but not limited to services provided by third-party vendors, financial market utilities and agent banks; and
- **Access to key assets**, including but not limited to systems, intellectual property (including patents, trademarks and software), personnel and real estate facilities.

We have also identified and assessed scenarios that potentially could lead to disruptions of critical services:

- **Separation of objects of sale** (*e.g.*, membership in a financial market utility held by an object of sale that potentially could be needed by RemainCo);
- **Actions taken by third parties** (*i.e.*, actions taken by a third party that potentially could disrupt the provision of services); and
- **Actions taken by affiliates** (*i.e.*, actions taken by an affiliate that could potentially disrupt the provision of services).

Through this exercise, we developed a comprehensive inventory of potential risks to operational continuity and separability.

Using our inventory of potential risks, we have identified and executed upon various mitigation actions to address these potential risks, including, for example:

- **Contractual Changes to Include Resolution-Friendly Language**: We have implemented a number of actions related to our inter-affiliate and third-party vendor contracts to mitigate potential risks to the continuity of services provided under these contracts, including:
  - Developing and publishing a global Third-Party Governance policy to oversee agreements with third-party vendors and between our affiliates.
  - Developing and implementing a resolution-friendly contractual framework that governs inter-affiliate services. Our framework clearly identifies services provided by one affiliate to another using a master agreement

Resolution-friendly language

We have added resolution-friendly language to key vendor contracts and to our inter-affiliate contractual framework, preventing immediate termination or refusal of renewal following resolution, including in the event that a business is sold.

supplemented by specific service-level descriptions for each inter-affiliate relationship.

  - Implementing PeopleSoft, a central and searchable repository system that stores components of our inter-affiliate agreement framework.

  - Reviewing our key vendor relationships and engaging in an outreach program to amend all contracts where doing so would be beneficial for continuity of service in a failure scenario. Ultimately, we successfully amended over 1,000 contracts with key vendors to include resolution-friendly language.

  - Detailing contingency strategies for certain service recipients. These include considerations that would trigger an exit from a service arrangement as well as substitutability options (*e.g.*, transitioning service to another inter-affiliate or a third-party vendor).

  - Finally, developing a tool, our Third-Party Governance Application, designed to manage and automate third-party risk assessment processes across multiple platforms. This tool enables sound oversight and risk management of supplier and affiliate service engagements.

- **Retention of Key Employees**: We have enhanced our employee retention plan, discussed in Section 5.3, which is our plan for retaining key employees during a crisis. This plan provides a framework for identifying key personnel and outlines actions to be taken to retain key employees during periods of material stress. Our financial forecasts incorporate the costs associated with our employee retention plan.

- **Operational Continuity Plans**: We have developed operational continuity plans, discussed in Section 5.3, to provide a framework for the operational continuity of our core business lines and critical operations in the event of resolution. These plans describe key operational continuity considerations, the expected impact of Parent's failure and how operations could be maintained after Parent's bankruptcy filing.

- **Account Transfer Plans**: We have also developed client account transfer plans, discussed in Section 5.3, for certain of our core business lines and critical operations, which cover key considerations related to the transfer of client accounts after Parent's failure.

- **Dual-Hatted Employees**: We have developed strategies to mitigate the risk that our core business lines and critical operations could lose access to key employees as a result of actions that occur in connection with Parent's failure. For example, we have identified key employees that could leave the organization if we were to divest an object of sale. We have also identified the key risks related to the services these employees provide and developed strategies to mitigate them, where necessary.

Financially and Structurally Strengthened Continuity

We have enhanced the financial resources of our service-providing entities and realigned them to a more optimal structure supporting resolvability. Specifically, we have pre-positioned at least six months of working capital within our internal service providers to bolster their financial strength and reduce their financial dependency on other entities within our firm. In addition, we have simplified the legal entity structure of our internal service providers and established clean funding pathways by consolidating these entities within a rationalized structure under the Bank.

5.5 LEGAL ENTITY RATIONALIZATION

We recognize the importance of maintaining a rational legal entity structure that facilitates the successful, rapid and orderly execution of our SPOE strategy. Therefore, we have taken action to ensure that our legal entity structure supports the execution of our SPOE strategy and that any changes to our structure will continue to support our resolvability on an ongoing basis.

Our LER Criteria, comprising four overarching goals and supporting principles, are central to the rationalization of our structure. We have updated our LER Criteria to align with our SPOE strategy and to ensure that our criteria support our resolvability under different market conditions and minimize the risk to financial stability in the event of our failure. We have applied our updated LER Criteria to each entity in our full legal entity footprint through a consistent and standardized approach, confirming the resolvability of our overall structure. We have embedded resolvability considerations in the processes and policies governing the structure and activities of legal entities to ensure that our legal entity structure continues to align and adhere to our LER Criteria under changing market and business conditions. These actions are supported on an ongoing basis through a comprehensive legal entity rationalization governance structure.

What is legal entity rationalization?

Legal entity rationalization refers to our efforts to make our legal entity structure, or organizational chart, more rational. We have done this by restructuring our legal entities to support the execution of our SPOE strategy—for example, by aligning the core legal entities of our Asset Management business under one Asset Management holding company.

Regulatory expectations for our legal entity rationalization actions

The 2017 Guidance requires that we:

- Develop and implement LER Criteria that support our SPOE strategy, improve our resolvability under different market conditions and over time, and minimize risk to U.S. financial stability in the event of our failure; and
- Build our LER Criteria into our ongoing process for creating, maintaining and optimizing our structure and operations on a continuous basis.

Legal Entity Rationalization Governance Framework

We have established a comprehensive legal entity rationalization governance structure that embeds legal entity rationalization considerations into our ongoing business processes, ensuring that our legal entity structure and activities are aligned with the LER Criteria on an ongoing basis. Our comprehensive legal entity rationalization governance is built around our Entity Governance Committee, LER Criteria, Entity Governance Policy, and our enhancements to the legal entity rationalization governance framework to embed legal entity rationalization considerations into our business processes and legal entity-related policies.

- **Entity Governance Committee**: We have created the Entity Governance Committee, a permanent governing body, to oversee our legal entity structure and its adherence to the LER Criteria. The seniority and breadth of Entity Governance Committee membership, and the frequency with which it meets, ensures that BAU proposals that impact the structure or activities of legal entities align with our LER Criteria and facilitate the successful execution of our SPOE strategy. Its composition and mandate empower the Entity Governance Committee to pursue these goals effectively.
    - Members of the Entity Governance Committee include senior representatives of our businesses and business partner groups. The committee's Chairman, our Chief Lending Officer and former Treasurer, reports directly to the Entity Governance Committee's two

executive co-sponsors, the Chief Financial Officer and the Chief Executive Officer of Investment Services. The Entity Governance Committee's charter positions it directly below our Chairman and Chief Executive Officer within our corporate structure.

- The Entity Governance Committee has the authority to comprehensively assess the resolvability of our legal entity structure. Its responsibilities include, among others:
  - Providing strategic direction to achieve the most efficient structure for legal entities, branches and representative offices of our firm to support resolvability;
  - Designing and maintaining the LER Criteria;
  - Overseeing the application of the LER Criteria;
  - Designing a target entity structure for enhanced resolvability;
  - Providing strategic direction to ensure the development of a legal entity structure that is simple, demonstrably rational and aligned with our business strategy; and
  - Ensuring that documented policies and procedures regarding legal entities incorporate resolvability considerations into change initiatives within the organization.

- **LER Criteria**: Our LER Criteria provide the framework for ensuring that our legal entity structure remains aligned with our SPOE strategy and thereby remains resolvable. Under the oversight of the Entity Governance Committee, we have updated our LER Criteria to align to the 2017 Guidance and applied the LER Criteria to each legal entity in our firm. Our LER Criteria are objective and actionable to facilitate their application by members of our business who propose changes to our legal entity structure or activities and by those tasked with considering the resolvability impacts of our business proposals. The four goals of our updated LER Criteria are to:
  - Facilitate the recapitalization and liquidity support of material entities;
  - Facilitate the sale, transfer or wind down of certain discrete operations and support the operational continuity of critical operations and critical services;
  - Protect our bank subsidiaries from risks arising from non-bank activities; and
  - Minimize complexity that could impede an orderly resolution and minimize redundant and dormant entities.
- **Entity Governance Policy**: We have created a firm-wide Entity Governance Policy that defines the scope of activities overseen by the Entity Governance Committee and established a procedure for escalating certain business proposals for Entity Governance Committee review and approval. The policy establishes the process for applying the LER Criteria to all proposed changes to our legal entity structure as well as any changes to activities conducted in a legal entity that may impact resolvability. The policy also outlines the escalation process for business proposals that may impact resolvability as a result of these changes. The scope of activities defined in the Entity Governance Policy includes changes to our legal entity structure and any significant modifications to activities in legal entities that may impact resolvability or that are otherwise important. The scope of changes subject to review and approval includes, but is not limited to, the following:

- Changes to legal entities, including entity formation, dissolution, reorganization, changes to ownership, acquisitions, divestitures and joint ventures;

- Requests for new regulatory licenses or permissions, or material changes to existing licenses or permissions;

- Changes to business activities, including, for example, a new product offering that is dissimilar to other products offered by that entity, or changes to an entity's booking models;

- Changes to operations that involve the transfer of servicing capabilities to another entity within our firm, the establishment of new service delivery locations operated by one of our entities, the establishment of intra-group servicing relationships, or the expansion or reduction in size or responsibilities of one of our entities that may impact another of the entities within our firm; and

- Capital contributions and similar funding requests, such as guarantees and intra-company loans.

- **Enhancements to Legal Entity Rationalization Governance Framework**: To ensure that resolvability considerations are embedded in our firm-wide decision-making processes, the Entity Governance Committee has enhanced our legal entity rationalization governance framework by incorporating business-level committees into our legal entity rationalization governance structure, updated our business proposal procedure to incorporate resolvability concerns and aligned legal entity-related policies throughout our firm with the Entity Governance Policy.

Application of LER Criteria to All of Our Legal Entities

We have developed a standard process for applying our LER Criteria to all legal entities on a consistent basis, including our material entities. Through this process, we applied our LER Criteria to all of our legal entities. This process validated that our current legal entity structure does not pose impediments to resolvability.

Actions Taken to Ensure Alignment with LER Criteria

We made material enhancements to our legal entity structure to align it with our LER Criteria. Collectively, we have taken meaningful steps to simplify and rationalize our legal entity structure to ensure it facilitates orderly resolution. Some of the enhancements we made to our legal entity structure include:

- Aligning the core legal entities of our Asset Management business under an Asset Management holding company;

- Creating a rational structure for our internal service providers, which have approximately 18,000 employees, by grouping them together under intermediate holding companies and transferring servicing capabilities between entities to centralize certain functions in certain entities;

- Reducing the size of our legal entity footprint through the proactive dissolution of dormant, low-activity and redundant entities.

5.6 SEPARABILITY

We recognize the need for flexibility and optionality in our SPOE strategy so that it will facilitate our resolution in an orderly manner regardless of the market conditions that exist at the time of failure. To create meaningful flexibility and optionality in a range of conditions, we have taken important steps to identify businesses that could be divested in resolution and to make the options actionable.

We identified a number of our discrete businesses that could be sold, wound down or transferred after the firm reaches a stable financial condition. We call these our objects of sale. We engaged in an extensive process to identify our objects of sale, conducting substantial due diligence and analysis, leveraging the expertise of various internal and external subject matter experts. For each object of sale, we identified a range of specific divestiture strategies that describe the manner in which we anticipate each business could be divested in resolution.

We developed comprehensive separation plans for each object of sale that guide the execution of separation options in resolution. Each separation plan is a detailed, end-to-end execution guide that can be used to manage the range of divestiture options and contains detailed business, financial, operational and legal analyses. As part of our analysis, we identified potential frictions to the timely separation of each object of sale and engaged in actions to mitigate these risks. Each separation plan also contains a walk-through of the step-by-step process for executing a transaction with respect to the relevant object of sale, including key preparatory actions that would facilitate rapid divestiture.

Regulatory expectations for separability

The 2017 Guidance requires that we:

- Identify discrete operations that could be sold or transferred in resolution under different market conditions;
- Analyze the feasibility of selling or transferring these options; and
- Establish a data room to collect and annually refresh carve-out financial statements, valuation analyses and legal risk assessments that facilitate buyer due diligence as well as other information pertinent to a potential divestiture.

Increased flexibility due to our size

We are less than one quarter of the average size of the other U.S. G-SIBs. Our smaller size would give us increased flexibility in executing our SPOE strategy because we would not face as great a pressure to scale our business down, allowing us to continue normal operations and flexibly execute our strategy. Our smaller operations could also be absorbed in the market more readily.

To further enhance the actionability of our separation options, we created electronic data rooms to enable prompt commencement of a sale process for each object of sale. Each data room contains up-to-date, multidisciplinary materials related to the object of sale and collectively represents the key information that would be expected to be made available to facilitate buyer due diligence in a traditional sales process.

Objects of Sale and Divestiture Strategies

We identified our objects of sale and associated divestiture strategies through a robust process that involved active engagement from senior management, business leaders, and internal and external advisors.

The selection of our objects of sale reflects the target composition of our RemainCo, which we anticipate will be built around our custody business and a series of complementary businesses with a similar client base and integrated operational infrastructure. With the primary goal of developing optionality in resolution under different market conditions, we evaluated, among other things, the marketability of each business in stress, feasibility of separation and the impact of separation on the viability of RemainCo.

Through this process, we identified objects of sale with significant diversity in terms of business model, size, geographic concentration and population of potential interested buyers.

Meaningful Optionality. Our objects of sale individually and collectively have the following characteristics that would provide the firm with meaningful optionality in stress:

- **Diversity of Business Models.** Our objects of sale represent a cross-section of the firm's unique and diversified business model, which has a global presence and serves a multitude of different markets. This diversity allows disposal of the options, if needed, along different product and geographic lines, allowing for flexibility under various market conditions.
- **Lower Sensitivity to Adverse Market.** Certain objects of sale are fee-based operational services with annuity-like revenue streams that are less sensitive to fluctuating market conditions. They are less volatile and more attractive in poor market conditions.
- **Attractiveness to a Range of Potential Buyers.** Our objects of sale are attractive to a range of potential buyers, including new market entrants and existing competitors. Key potential acquirers include asset managers, private equity firms and financial institutions, among others.
- **Relative Ease of Separation.** Most of our objects of sale operate with relative independence from the remainder of the firm and are well suited for rapid divestiture in stress.
- **Variability in Size.** Our objects of sale range from small to large businesses providing variability with respect to their ability to be absorbed by potential acquirers.

Separation Plans

We developed a comprehensive guide for each object of sale—a separation plan—that analyzes the relevant considerations related to the divestiture of the object of sale, and provides a road map for effectuating a transaction, including key preparatory steps. The analysis includes a detailed mapping of all the key touchpoints between the object of sale and the remainder of the firm, and identifies potential frictions to the successful separation of the object of sale. For all key frictions, we developed associated mitigants that address the identified issues. Among other things, separation analyses contained in each separation plan include:

- **Business Impact Analysis**: An analysis of the business impact of separation of the object of sale from RemainCo, including an assessment of potential impacts on the client franchise of RemainCo and of expected reputational impacts.
- **Financial Impact Analysis**: An analysis of the financial impact of separation of the object of sale on the capital and liquidity position of the RemainCo.
- **Operational Impact Analysis**: An analysis of the key operational interconnections between the object of sale and RemainCo, including a mapping of key touchpoints between the object of sale and the remainder of the firm. Through this exercise, we identified potential risks to the successful separation of the object of sale and developed associated mitigants.
- **Legal Impact Analysis**: An analysis of legal issues related to the separation of the object of sale, including consideration of regulatory notifications, contracts, employees, intellectual property and other issues.

Data Rooms and Transaction Preparedness

While our extensive separation analysis provides an important framework to facilitate rapid divestiture of our objects of sale, we needed to make separability actionable. To ensure that our divestiture options can be executed on short notice and in a time of stress, we built an infrastructure around transaction preparedness. Most importantly, we developed electronic data rooms for each of our objects of sale and populated the data rooms with materials that would be expected to be made available in a traditional sale process to facilitate buyer due diligence. In short, we are ready today to launch a sale process for any of our objects of sale, and will be at the appropriate time if we ever were to fail.

While our data rooms currently contain up-to-date information about each object of sale, we recognize that resolution planning requires flexibility, and that resolution inherently could occur at an unknown time in the future. Accordingly, we have developed procedures and a governance structure for maintaining and refreshing the data room materials on a recurring basis. Further, we have incorporated separability-related governance into our crisis management governance structure, and established option-specific "Divestiture Task Forces" to execute on the respective separation plans.

What is an electronic data room and what purpose does it serve?

An electronic data room is a secure, virtual space for housing and hosting information. Electronic data rooms are often used in merger, acquisition and other potential business combination transactions to facilitate the provision of information about a "target company" to a potential acquirer of the target business. Often times, there are multiple interested parties in a particular target business. An electronic data room is an efficient and secure mechanism to collect, store and provide the same set of materials to all of these parties at the same time. In a typical acquisition transaction, there is usually lead time involved in setting up an electronic data room.

Sample Data Room Materials

- Business Background
- Human Resources
- Financials
- Technology
- Clients
- Legal, Regulatory and Compliance
- Real Estate
- Sales and Marketing
- Corporate
- Risk
- Operations
- Insurance
- Intellectual Property
- Contracts

5.7 GLOBAL COOPERATION

As a financial intermediary with a global footprint, we recognize the importance of global cooperation to the successful execution of the SPOE strategy on a cross-border basis. If we were to experience stress, we anticipate that local authorities of our non-U.S. material entities would act in the interests of their local financial system and local stakeholders, and in our 2017 Plan we assume that they do so. As such, we have taken important actions to minimize potential local market disruption and cross-border contagion risk associated with our potential failure, providing a basis for global cooperation to remain in the national interest of each non-U.S. authority. Specifically, we have:

Regulatory expectations for global cooperation

Agency guidance requires that we:

- Identify the actions we and local regulatory authorities could take to support the successful execution of the SPOE strategy on a cross-border basis;
- Describe the consequences to our strategy if these specific actions were not taken at the appropriate time; and
- Explain how we would ensure continuity of our critical operations even if these actions were not taken at the appropriate time.

- Analyzed the potential actions that local authorities in each key jurisdiction could take during a failure scenario and the potential impacts of these actions;
- Pre-positioned capital and liquidity at our non-U.S. material entities, using local capital and liquidity requirements as a baseline and adding buffer amounts to help ensure that our non-U.S. material entities would be sufficiently capitalized and would have sufficient liquidity throughout the SPOE strategy;
- Completed actions to provide for the operational continuity of our non-U.S. material entities (such as by inserting resolution-friendly language into inter-affiliate and third-party service agreements, preparing FMI playbooks and operational continuity plans for our non-U.S. activities); and
- Enhanced our crisis management governance structure and communication strategy to help ensure productive and appropriately frequent communication with regulators and other external stakeholders.

6 RESOLUTION PLANNING GOVERNANCE

We have dedicated significant firm-wide resources to develop and embed resolvability principles into our operating model. This process is guided by the 2017 Resolvability Program, a comprehensive governance and management structure that oversees our resolution planning efforts and builds substantially on prior work done through our enterprise-wide resolvability framework, described in our 2015 Plan. Our 2017 Resolvability Program enhances this prior framework and governance, broadening its scope, increasing senior-level membership, defining ownership and participation from many of our business and business support teams and calling for substantial investments of additional resources. Our 2017 Resolvability Program is designed to identify ways to improve our resolvability, including our operational and infrastructure capabilities to support our resolvability, while also enhancing our resiliency, business efficiencies and overall risk management capabilities.

Figure 6-1 displays our Resolution Planning Governance Structure, which leverages established roles and responsibilities and committee charters for the global management of risk and incorporates enhancements designed to address resolution planning specifically—integrating resolution considerations into the management and oversight of all of our operations.

Figure 6-1: Resolution Planning Governance Structure

The Resolvability Steering Committee drives our resolution planning governance, with our Board of Directors having ultimate oversight. From top to bottom, our resolution planning governance structure consists of:

- **Board of Directors**: The Board of Directors has ultimate responsibility for approving our resolution plan. The Finance Committee of the Board of Directors also provided significant oversight over the capital- and liquidity-related aspects of the plan.

- **Senior Risk Management Committee**: The Senior Risk Management Committee is the most senior management body responsible for evaluating and providing strategic direction on emerging risk issues, including issues that pertain to resolvability.

- **Resolvability Steering Committee**: Composed of various members of our senior leadership, the Resolvability Steering Committee provides 2017 Resolvability Program governance, strategic direction, oversight and coordination for our resolution planning efforts, and escalates topics as appropriate to other governing bodies, as shown above in Figure 6-1. Demonstrating our commitment to resolvability, the Resolvability Steering Committee has met on a recurring, weekly basis since its formation last year.

- **Resolvability Leadership Team**: The Resolvability Leadership Team—which includes members of our Office of Recovery and Resolution Planning, Corporate Program Management Office, and Legal and Internal Audit departments—provides direction to, and monitoring of, the workstreams and projects in the 2017 Resolvability Program. It is also tasked with identifying key strategic issues and execution risks and raising them to the Resolvability Steering Committee as appropriate. Since its formation, the Resolvability Leadership Team has met three times per week, totaling approximately 120 meetings leading up to submitting this 2017 Plan.

Controls

We have established rigorous project management controls and completed independent review exercises to ensure adherence to our Recovery and Resolution Planning Policy, which outlines governance roles and responsibilities for recovery and resolution planning.

7 OTHER BACKGROUND INFORMATION

This section contains the following background information on our firm and our resolution planning:

- **Section 7.1**: Our core business lines and material entities;
- **Section 7.2**: A summary of financial information regarding our assets, liabilities, capital and major funding sources;
- **Section 7.3**: Our derivatives and trading activities;
- **Section 7.4**: A description of our foreign operations;
- **Section 7.5**: Our material supervisory authorities; and
- **Section 7.6**: Our principal officers.

7.1 OUR CORE BUSINESS LINES AND MATERIAL ENTITIES

For resolution planning purposes, we must designate certain of our business lines as core business lines and certain of our entities as material entities. Our core business lines are business lines that would lead to a material loss of our revenue, profit or franchise value if discontinued, and our material entities are entities that are important to the activities of our core business lines or critical operations.

Making these designations allows us to focus our resolution planning efforts on the business lines that are important to our revenue, profitability and franchise value as well as the entities that are important to these core business lines and to our critical operations. We make these determinations annually following a rigorous, well-defined process. Please refer to Section 2 for an overview of how we designate our core business lines and material entities. Our rationale for designating each material entity is provided in Section 7.1.2.

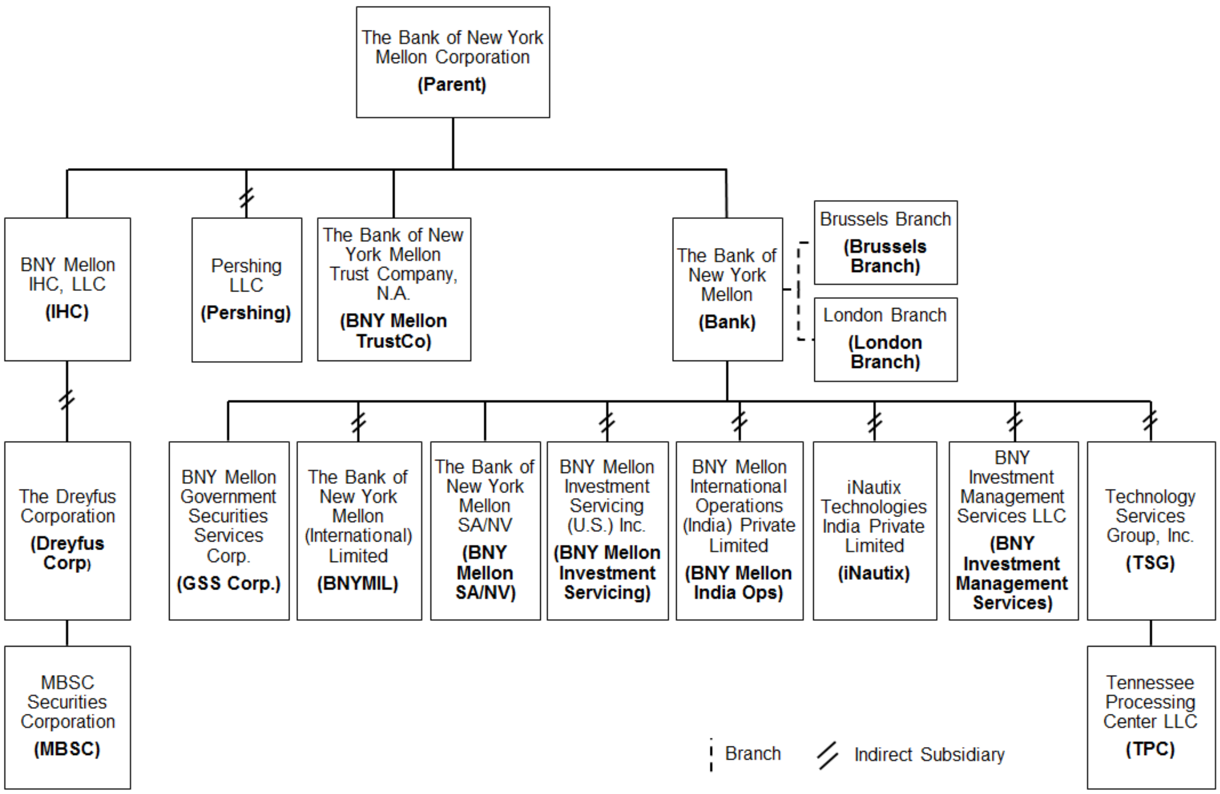
7.1.1 CORE BUSINESS LINES

Please refer to Section 2 for a description of our core business lines.

7.1.2 MATERIAL ENTITIES

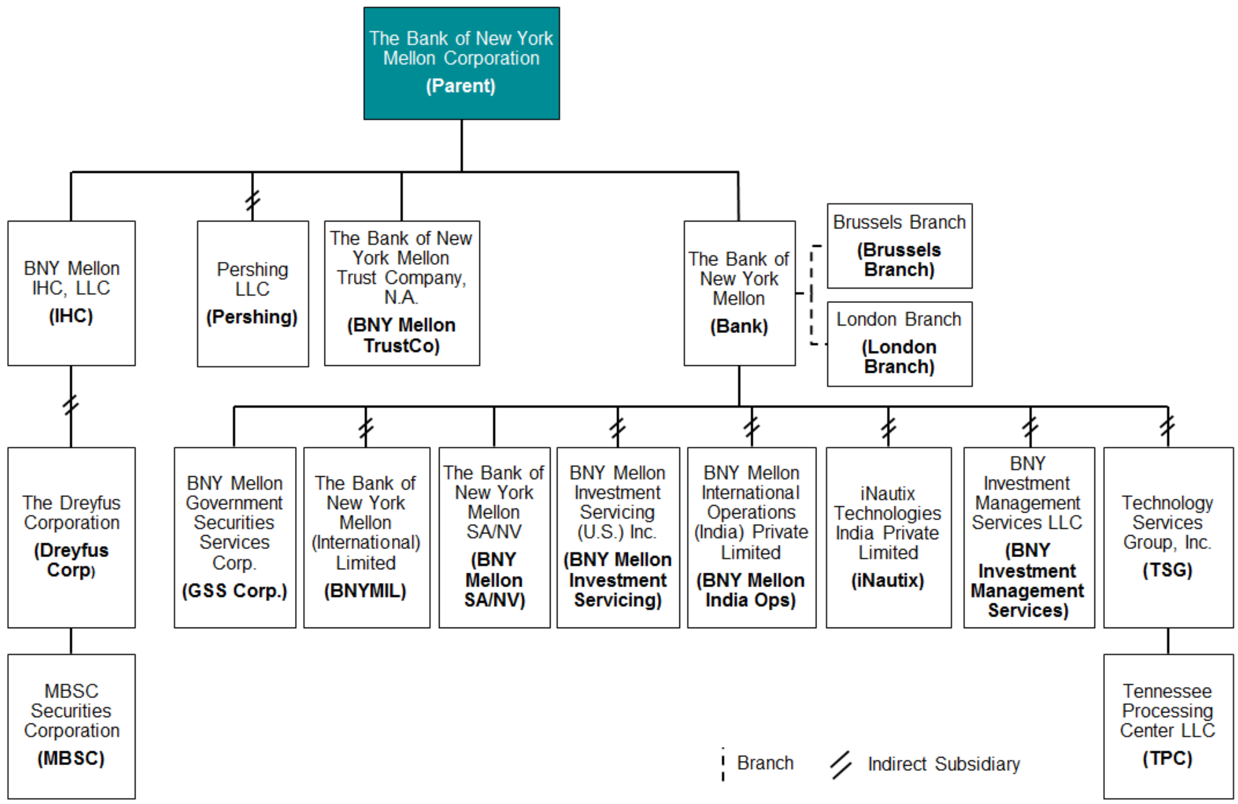
The entities described below are our material entities for purposes of the 2017 Plan. Figure 7.1-1 below is a pictorial representation of the organizational structure of our material entities.

Figure 7.1-1: High-Level Organizational Structure of Material Entities



Parent

The Bank of New York Mellon Corporation



Parent, a Delaware corporation headquartered in New York, New York, is registered as a bank holding company and a financial holding company under the Bank Holding Company Act of 1956, as amended by the Gramm-Leach-Bliley Act and by the Dodd-Frank Act. Parent is subject to supervision by the Federal Reserve.

On a stand-alone basis, the majority of Parent's assets are investments in and advances to subsidiaries and associated companies. Parent's liabilities primarily consist of borrowed funds with a remaining maturity of more than one year, affiliate borrowings and other liabilities which are primarily accrued taxes and other expenses. For information regarding the consolidated balance sheet of Parent, please see Section 7.2 below. Parent had $38.8 billion in shareholder's equity as of December 31, 2016. For the 12 months ended December 31, 2016, we had total consolidated revenue of $15.2 billion and net income of $3.5 billion.

For its structural funding and ongoing liquidity needs, Parent's major sources of liquidity include cash on hand, dividends from subsidiaries and access to debt and equity markets. Following the pre-funding of the IHC in the second quarter of 2017, the IHC has also provided Parent with a committed line of credit that allows Parent to draw funds necessary to service near-term obligations. Parent's major use of funds are payment of dividends, repurchases of common stock, principal and interest payments on borrowings and additional investments in, and loans to, its subsidiaries.

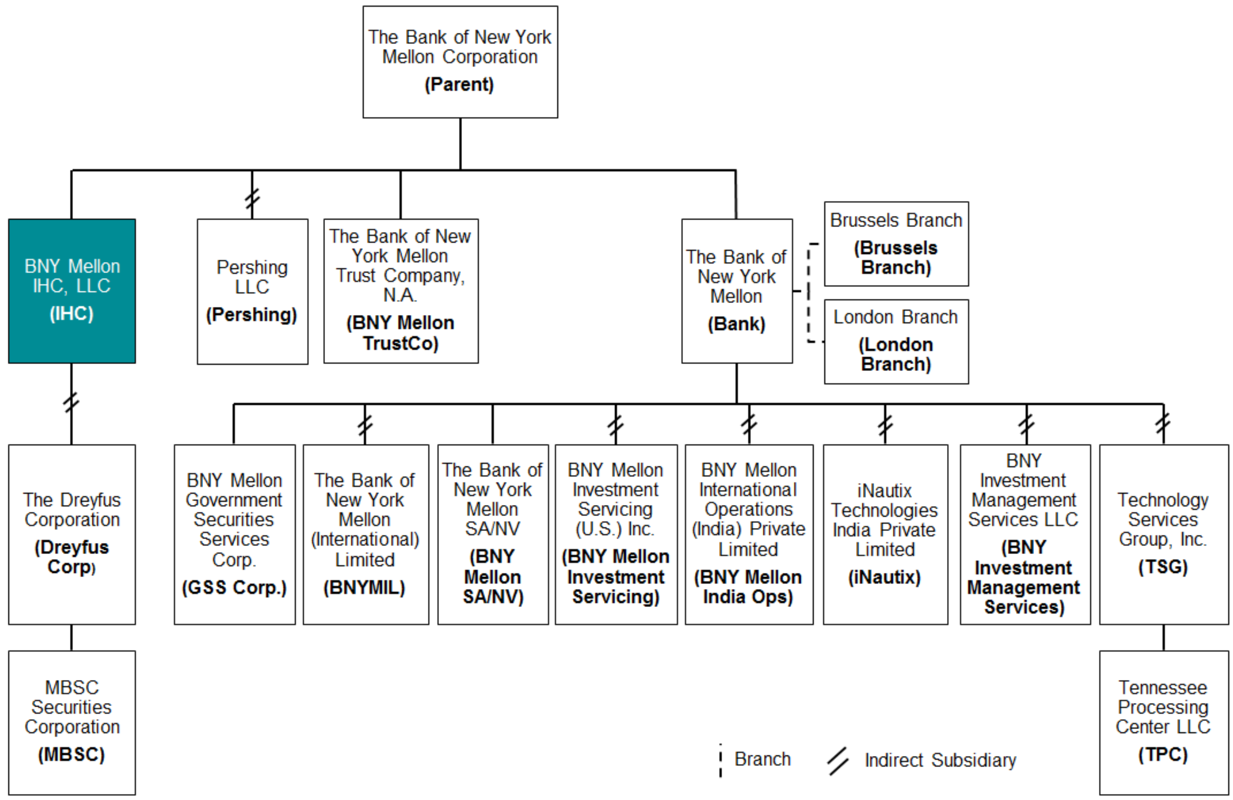
Our material entities generally do not have significant operational dependencies on Parent. However, Parent serves as a source of funding for the material entities, raising funds in public markets and providing those funds to the IHC and other material entities. As of December 31, 2016, there were no upstream guarantees provided to Parent.

Parent has been designated a material entity because it is the covered company under the Title I Rule and because of the pivotal role it would play in resolution and its BAU role as a source of funding for other material entities.

Additional information related to Parent is contained in reports filed with the SEC, including the 2016 Annual Report, the Quarterly Reports on Form 10-Q and the Current Reports on Form 8-K, available at www.bnymellon.com.

Banks, Broker-Dealers and Other Operating Entities

BNY Mellon IHC, LLC



The IHC, a Delaware limited liability company and a direct subsidiary of Parent, has been established to facilitate the provision of capital and liquidity resources to certain key subsidiaries in the event of material financial distress or failure. Pursuant to the Support Agreement, Parent transferred its intercompany loans and most of its cash to the IHC, and the Support Agreement requires Parent to continue to transfer cash and other liquid financial assets to the IHC from time to time, subject to certain amounts retained by Parent to meet its near-term cash needs. In connection with the initial transfer, the IHC issued unsecured subordinated funding notes to Parent. The IHC has also provided Parent with a committed line of credit that allows Parent to draw funds necessary to service near-term obligations. As a result, during BAU, Parent is expected to continue to have access to the funds necessary to pay dividends, repurchase common stock, service its debt, and satisfy its other obligations. If our projected liquidity resources deteriorate so severely that failure of Parent becomes imminent, the committed line of credit will automatically terminate, with all amounts outstanding becoming due and payable, and the Support Agreement will require Parent to transfer most of its remaining assets (other than stock in subsidiaries and a cash reserve to fund bankruptcy expenses) to the IHC.

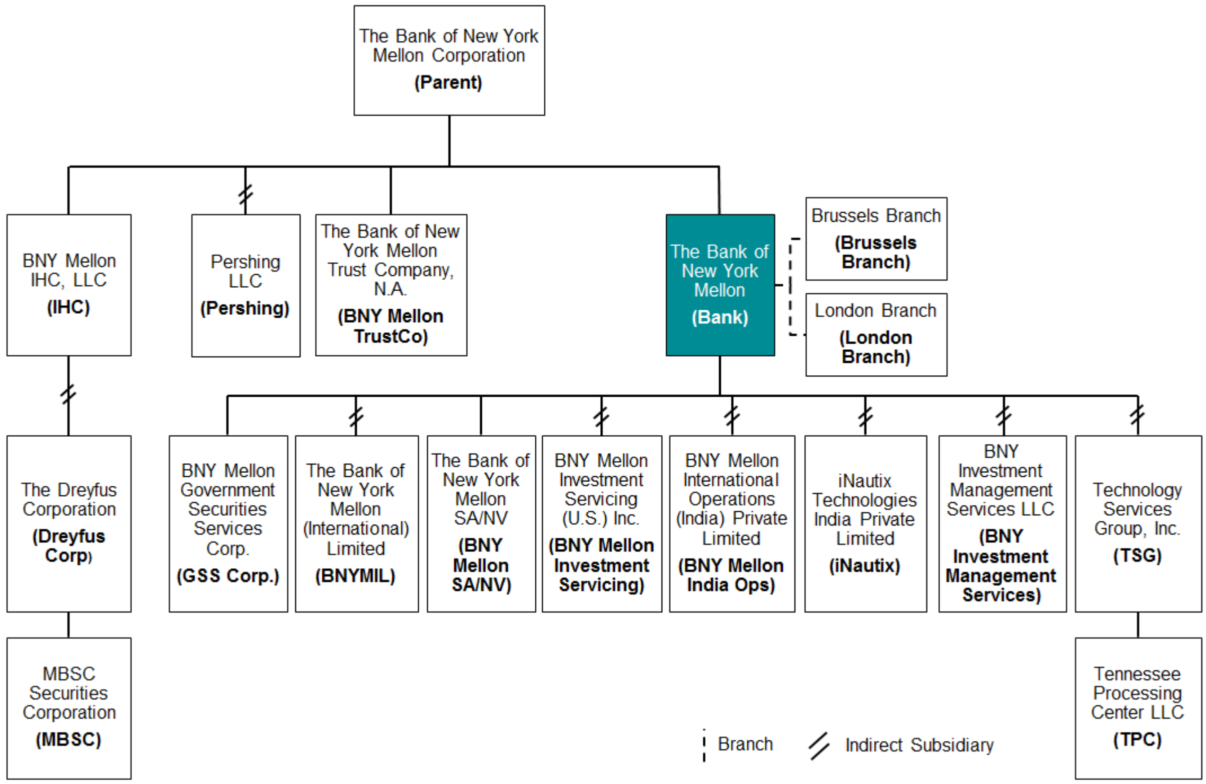
The IHC's primary assets are cash, intercompany receivables and equity investments in subsidiaries and its primary liabilities consist of funding notes.

Our material entities have financial dependencies on the IHC, as it is our key funding entity and is therefore significant to all core business lines and critical operations.

The IHC has been designated a material entity because of the important financial role it plays in resolution, in support of other material entities and hence our core business lines and critical operations. It is the key provider of financial resources during stress, which would keep our material entities operational.

Banks, Broker-Dealers and Other Operating Entities

The Bank of New York Mellon



The Bank, which is our largest banking subsidiary, is a New York state-chartered bank and a member of the Federal Reserve System and is subject to regulation, supervision and examination by the Federal Reserve, the FDIC and the New York State Department of Financial Services. The Bank has 14 foreign branches and various subsidiaries, and it houses our Investment Services businesses, including Asset Servicing, issuer services and broker-dealer services, as well as the bank-advised business of Asset Management.

The Bank's material assets consist of cash, interest-bearing deposits, available-for-sale/held-to-maturity securities and loans. Its primary liabilities are deposits. For more information regarding the balance sheet of the Bank, please see Section 7.2 below. The Bank had $24 billion in total bank equity capital as of December 31, 2016. For the 12 months ended December 31, 2016, the Bank had total interest income of $2.8 billion, total noninterest income of $7.2 billion, and net income of $2.3 billion. The Bank is largely self-funded through deposits received from its clients.

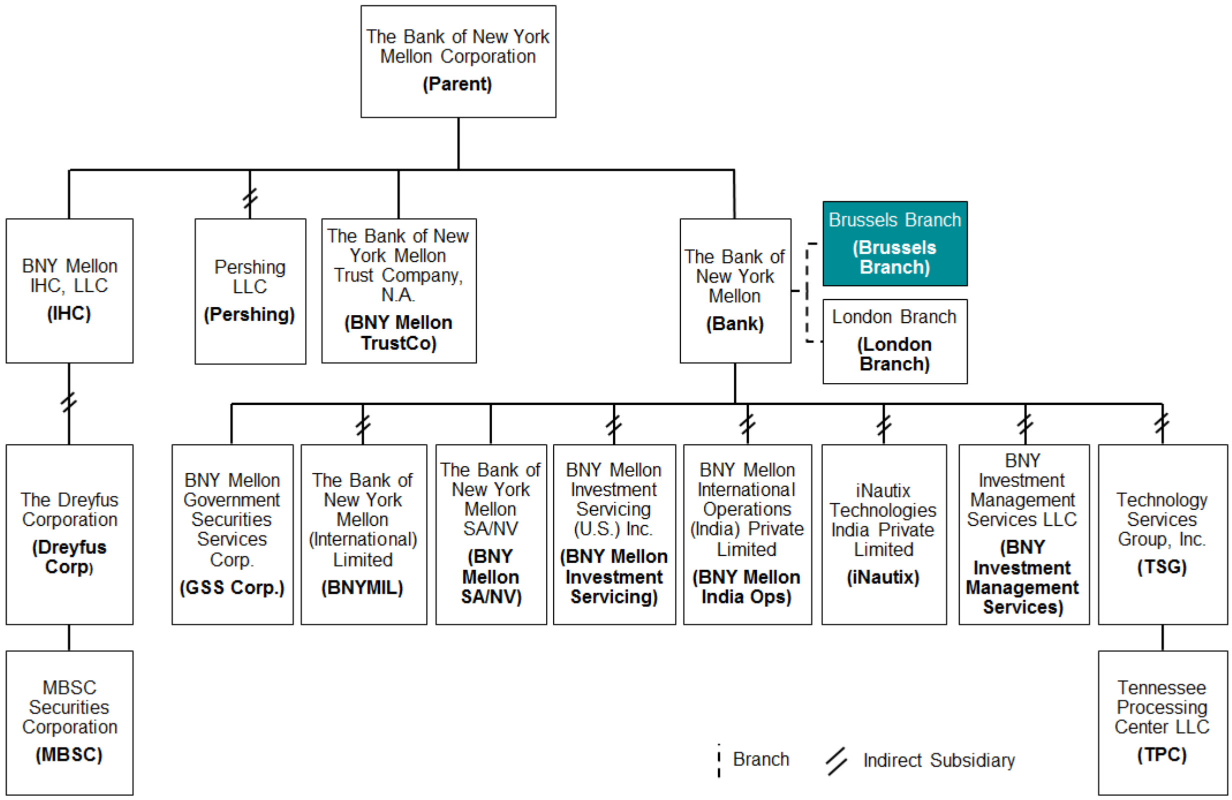
Our material entities have operational dependencies on the Bank, including the provision by the Bank of (1) services to Pershing, such as securities lending and clearing and settlement of U.S. government securities, and (2) Asset Servicing and Corporate Trust services to clients of BNY Mellon TrustCo. The Bank has operational dependencies on our other material entities, including the Brussels Branch, BNY Mellon SA/NV, BNY Mellon TrustCo and Dreyfus Corp, as more fully described in the applicable material entity descriptions provided below. The Bank also relies on information technology infrastructure and support through TSG, TPC and iNautix, as well as operational support through BNY Mellon India Ops.

The Bank has been designated a material entity because it is the key banking entity supporting our Investment Services business, including our Asset Servicing and Corporate Trust core business lines. Additionally, the Bank and its subsidiaries provide most of our shared services.

Additional information related to the financial condition of the Bank is contained in its Report of Condition and Income (Call Report) available at the Federal Financial Institutions Examination Council website at www.ffiec.gov.

Banks, Broker-Dealers and Other Operating Entities

The Bank of New York Mellon – Brussels Branch



The Brussels Branch is a branch of the Bank and provides Investment Services (mainly global custody and global clearing services) for institutional clients primarily located in Asia and the United States. In Belgium, the Brussels Branch is supervised by the National Bank of Belgium and the Belgian Financial Services and Market Authority and is also regulated by the Federal Reserve.

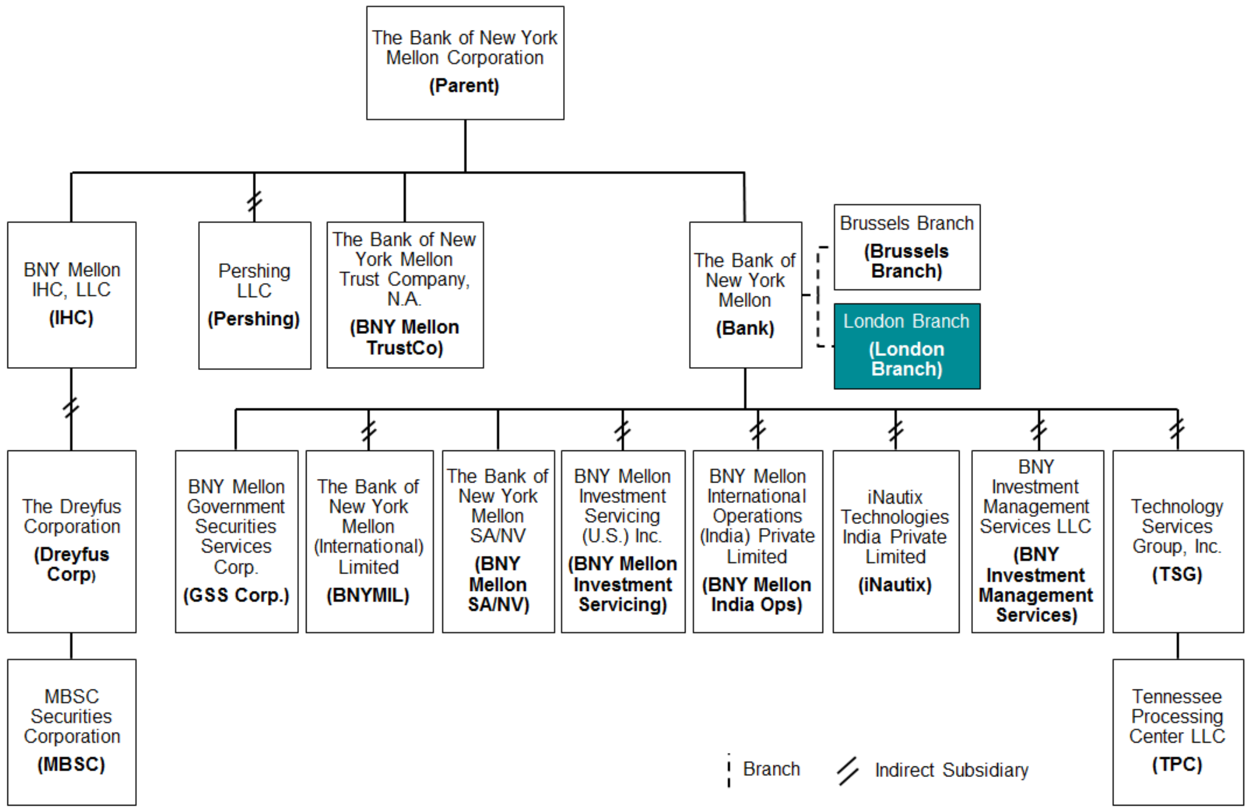
The Brussels Branch's primary assets are amounts due from affiliates which exist as a result of movements of excess deposits from the Brussels Branch to BNY Mellon SA/NV and other branches of the Bank. Generally, excess deposits of the Brussels Branch are invested with BNY Mellon SA/NV and other branches of the Bank in demand deposit accounts. Material liabilities of the Brussels Branch consist primarily of deposits received from its Asset Servicing clients. As a branch of the Bank, the Brussels Branch has no independent equity capital. The Brussels Branch does not have direct access to FMI. Similar to other legal entities with indirect access to FMI, the Brussels Branch may generate intraday liquidity needs due to timing mismatches related to client-related PCS activities. These intraday liquidity needs are supported by our other legal entities with direct FMU membership or agent bank contractual relationships.

Our material entities have operational dependencies on the Brussels Branch, including the provision of Asset Servicing services, consisting of the servicing and safekeeping of global assets via global sub-custodian and directly owned networks, to some clients of the Bank. The Brussels Branch also has operational dependencies on our other material entities, including BNY Mellon SA/NV, as more fully described in BNY Mellon SA/NV material entity description provided below. The Brussels Branch receives information technology infrastructure and support from TSG, TPC and iNautix, as well as operational support from BNY Mellon India Ops through its reliance on BNY Mellon SA/NV.

The Brussels Branch has been designated a material entity because it is significant to the activities of our Asset Servicing core business line, providing investment and banking services.

Banks, Broker-Dealers and Other Operating Entities

The Bank of New York Mellon – London Branch



The London Branch is a branch of the Bank that extends the geographical reach of the Bank by providing services to its local and international client base. The London Branch is subject to regulation by the Prudential Regulation Authority and Financial Conduct Authority, as well as the Federal Reserve. The London Branch is engaged in the Corporate Trust, Asset Servicing, Depositary Receipts, Wealth Management and Markets businesses.

The London Branch's primary assets are interest bearing placements with banks, securities and balances due from affiliates. Material liabilities of the London Branch primarily consist of deposits associated with its Asset Servicing and Corporate Trust activities. The London Branch also has a material due to affiliates balance that reflects the London Branch's role in facilitating the flow of funds throughout our firm, acting as the EMEA regional hub for Sterling liquidity. As a branch of the Bank, the London Branch has no independent equity capital.

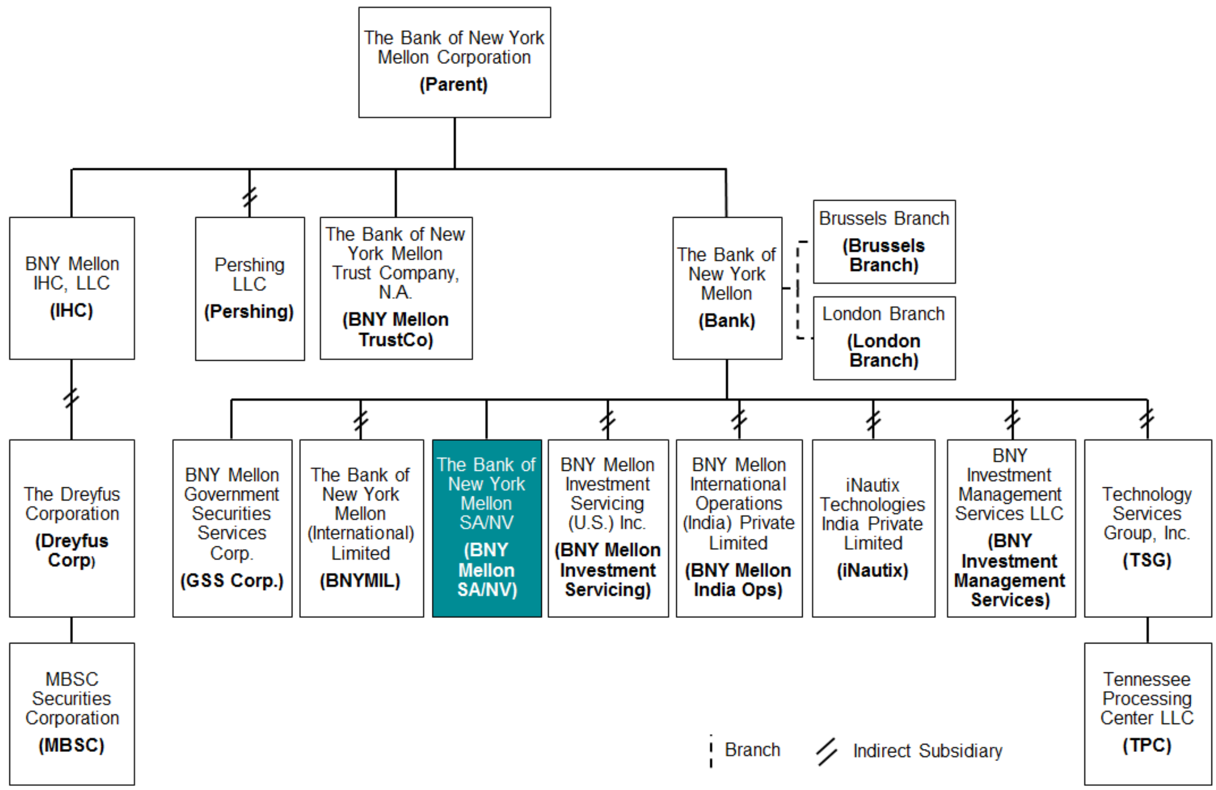
The London Branch retains a sufficient inventory of unencumbered liquid assets to meet its liquidity obligations, including intraday obligations. The London Branch's excess funds are maintained on deposit with the Bank for corporate treasury centralized management, with the amounts being repayable on demand should funds be required at short notice.

Other material entities have operational dependencies on the London Branch, including the provision by the London Branch of (1) securities lending services and global corporate trust services to the Bank's clients, and (2) securities lending services for BNY Mellon SA/NV. The London Branch has operational dependencies on our other material entities, including BNY Mellon SA/NV, as more fully described in BNY Mellon SA/NV material entity description provided below. The London Branch also relies on information technology infrastructure and support through TSG, TPC and iNautix, as well as operational support through BNY Mellon India Ops.

The London Branch has been designated a material entity because it is significant to the activities of our Investment Services business, including our Asset Servicing and Corporate Trust core business lines.

Banks, Broker-Dealers and Other Operating Entities

The Bank of New York Mellon SA/NV



BNY Mellon SA/NV is the main banking subsidiary of the Bank in continental Europe. It is authorized and regulated as a credit institution by the National Bank of Belgium and is also supervised by the European Central Bank. BNY Mellon SA/NV has its principal office in Brussels and branches in Amsterdam, Dublin, Frankfurt, London, the City of Luxembourg, Paris and Milan.

BNY Mellon SA/NV's activities primarily consist of providing Asset Servicing products focused on global custody and collateral management. In addition, it provides Corporate Trust services through its branch in Dublin, performs specific functions related to global securities service delivery including client onboarding and custody, and provides services to Markets, including collateral management and segregation services and FX services.

BNY Mellon SA/NV plays an important part in facilitating the movement of funds and securities settlement throughout our firm and receives significant cash balances from our other entities. Accordingly, its balance sheet reflects significant due to affiliate liabilities as well as deposit liabilities primarily related to asset servicing activities. Consistent with the characteristics of its underlying liabilities, BNY Mellon SA/NV's assets are primarily balances due from affiliates, available-for-sale securities, and placements through which excess funds received are invested. BNY Mellon SA/NV retains a sufficient inventory of unencumbered liquid assets to meet its liquidity obligations, including intraday obligations.

Our material entities have operational dependencies on BNY Mellon SA/NV, including the provision by BNY Mellon SA/NV of (1) operational services related to global collateral management and global securities operations services for our clients, including support to the London Branch's clients, and (2) operational activities on behalf of the Brussels Branch.

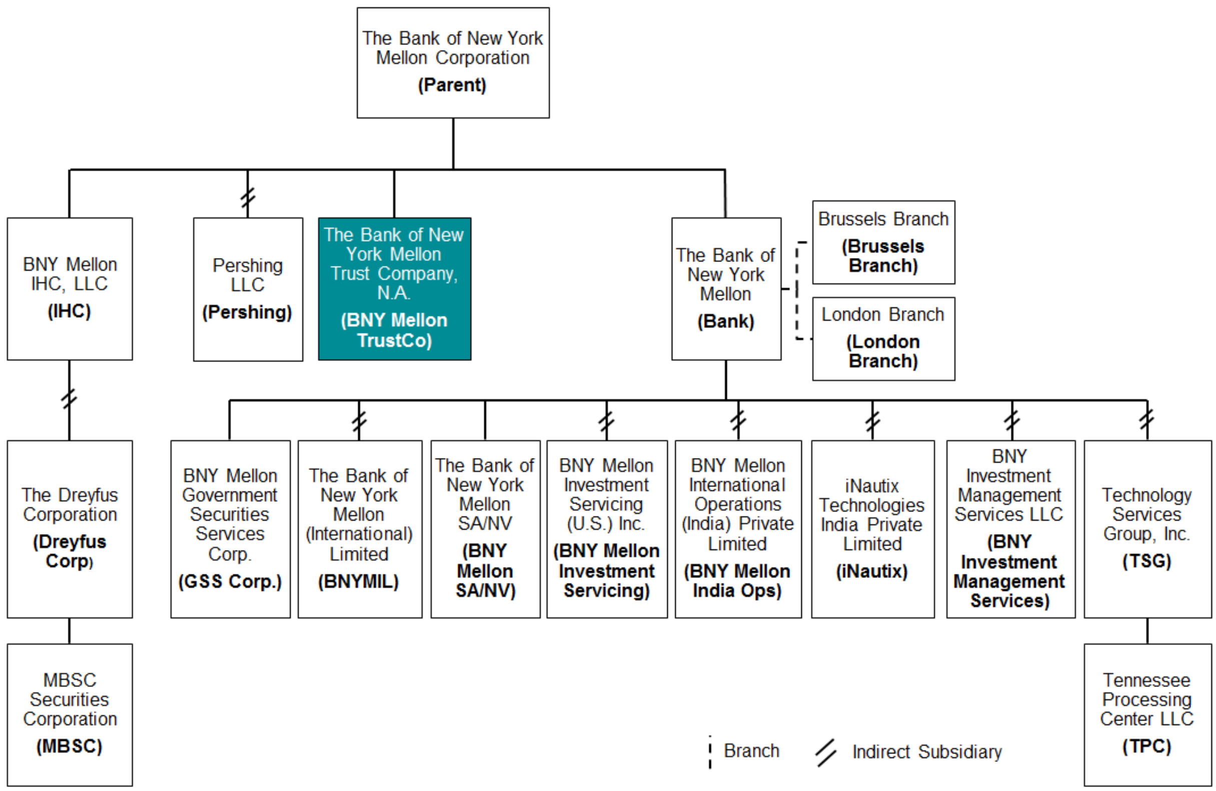
BNY Mellon SA/NV has operational dependencies on our other material entities, namely the Bank and its material entity subsidiaries, including information technology infrastructure and support insourced from TSG, TPC and iNautix, as well as from BNY Mellon India Ops.

BNY Mellon SA/NV has been designated a material entity because it is a key banking entity supporting our Investment Services business, including our Asset Servicing and Corporate Trust core business lines.

Additional information related to BNY Mellon SA/NV is contained in its 2016 Pillar 3 Disclosure published in accordance with the requirements of the National Bank of Belgium, available at www.bnymellon.com.

Banks, Broker-Dealers and Other Operating Entities

The Bank of New York Mellon Trust Company, National Association



BNY Mellon TrustCo is chartered as a national banking association subject to primary regulation, supervision and examination by the Office of the Comptroller of the Currency. BNY Mellon TrustCo primarily performs front office administrative activities for fiduciary, agency and custody accounts related to the Corporate Trust business and, to a much lesser extent, Asset Servicing. In addition, BNY Mellon TrustCo provides limited support to Wealth Management as well as provides limited operational support to global securities service delivery. BNY Mellon TrustCo's principal office is located in Los Angeles, California, with offices at 22 U.S. locations within 16 states.

BNY Mellon TrustCo's primary assets are available-for-sale securities and goodwill & intangibles. BNY Mellon TrustCo has de minimis deposits, and its primary liabilities include accrued taxes and other expenses. As of December 31, 2016, BNY Mellon TrustCo had $2.1 billion in total assets, $293.4 million in total liabilities and $1.8 billion in total bank equity capital. For the 12 months ended December 31, 2016, BNY Mellon TrustCo had total interest income of $8.9 million, total noninterest income of $421.8 million, and net income of $94.5 million. BNY Mellon TrustCo does not require significant funding in the normal course of business. As BNY Mellon TrustCo operates with excess liquidity, it invests excess funds in its Federal Reserve Bank ABA on a regular basis.

Our material entities have some operational dependencies on BNY Mellon TrustCo, including BNY Mellon TrustCo providing Corporate Trust document custody and some sales and administrative support services to the Bank. BNY Mellon TrustCo has operational dependencies on our other material entities, including the Bank, as more fully described in the Bank material entity description provided above. BNY Mellon

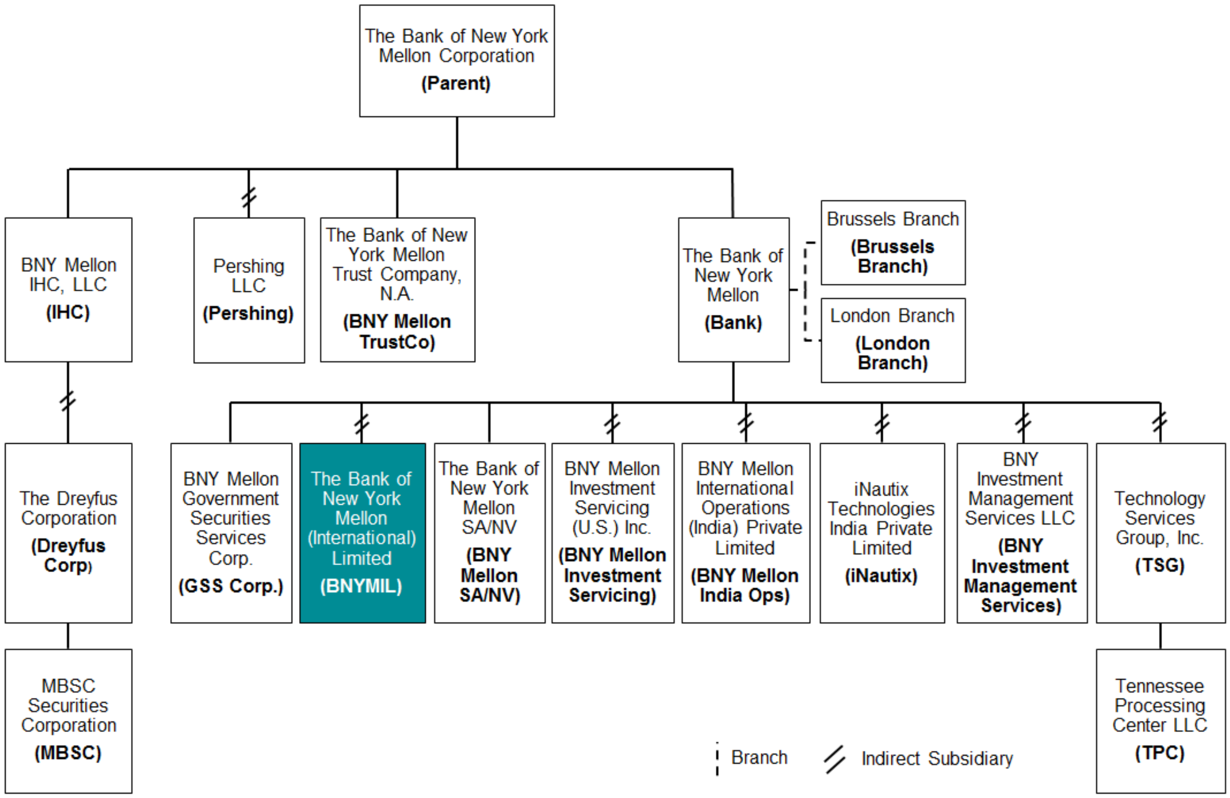
TrustCo also relies on information technology infrastructure and support through TSG, TPC and iNautix, as well as operational support through BNY Mellon India Ops.

BNY Mellon TrustCo has been designated a material entity because it is significant to the activities of our Investment Services business, including our Corporate Trust core business line, performing front office administrative activities.

Additional information related to the financial condition of BNY Mellon TrustCo is contained in its Report of Condition and Income (Call Report) available at the Federal Financial Institutions Examination Council website at www.ffiec.gov.

Banks, Broker-Dealers and Other Operating Entities

The Bank of New York Mellon (International) Limited



BNYMIL, a U.K.-based indirect subsidiary of the Bank, provides custody, depository, transfer agency and fund accounting services in support of our Asset Servicing business. BNYMIL's business is headquartered in London, England, with a branch in Luxembourg.

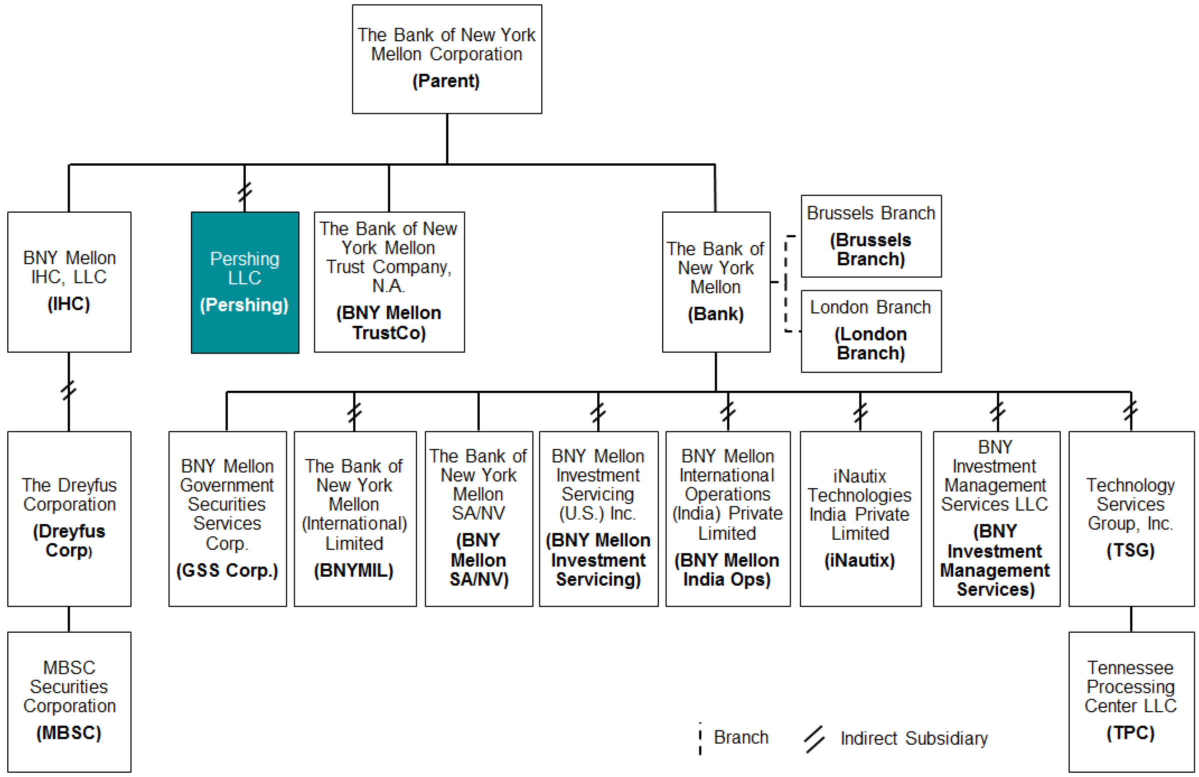
BNYMIL's primary material assets are interest-bearing deposits with banks. This includes deposits placed with the Bank of England, a small number of highly rated external financial institutions and placements with other affiliated entities of ours. Material liabilities of BNYMIL are comprised primarily of customer deposits. These deposits are a combination of deposits placed by asset servicing clients and intercompany deposits from other affiliated entities of ours. BNYMIL does not require external funding and seeks to maintain a very liquid balance sheet at all times.

Our material entities have operational dependencies on BNYMIL, as it has significance to our Asset Servicing business. All operations of BNYMIL are undertaken by staff outsourced to other entities, predominantly the London Branch, as BNYMIL has no staff. IT infrastructure, development and support from TPG, TPC and iNautix and operational support from BNY Mellon India Ops and BNY Mellon SA/NV are provided to BNYMIL via the London Branch.

BNYMIL has been designated a material entity because of its significance to the Investment Services business, including our Asset Servicing core business line.

Banks, Broker-Dealers and Other Operating Entities

Pershing LLC



Pershing, a Delaware limited liability company and indirect, non-bank subsidiary of Parent, is an SEC-registered broker-dealer providing business solutions to financial organizations globally by delivering dependable operational support, order execution services, flexible technology, and an expansive array of investment solutions, practice management support and service excellence in support of the Clearing Services business. Pershing is headquartered in Jersey City, New Jersey.

Pershing's primary assets consist of receivables from customers, cash and securities segregated for regulatory purposes and securities borrowed. Pershing's primary liabilities include customer payables, securities sold under repurchase agreements and broker-dealer and clearing organizations payables. As of December 31, 2016, Pershing had total assets of $32.5 billion, total liabilities of $29.5 billion and $2.9 billion in total member's equity.

Pershing has uncommitted lines of credit with non-affiliated banks for liquidity purposes which are guaranteed by Parent, amounting to $1.5 billion in aggregate. There were no borrowings against these lines of credit as of December 31, 2016. Pershing also has two unsecured loan facilities with its parent company, Pershing Group LLC, amounting to $6.4 billion in aggregate. At December 31, 2016, there were borrowings against these facilities of $840 million. Pershing also has loan agreements with three affiliates. As of December 31, 2016, there were borrowings against the loans of approximately $126 million.

Pershing also has entered into a repurchase agreement with an affiliate and at December 31, 2016 had a payable of $84.2 million under the agreement.

Our material entities do not have any significant operational dependencies on Pershing. Pershing depends on the Bank for certain services, including securities lending and clearing and settlement of government securities, which are provided on the same basis as they are provided to other clients of the Bank. Pershing also relies on information technology infrastructure and support through TSG, TPC and iNautix.

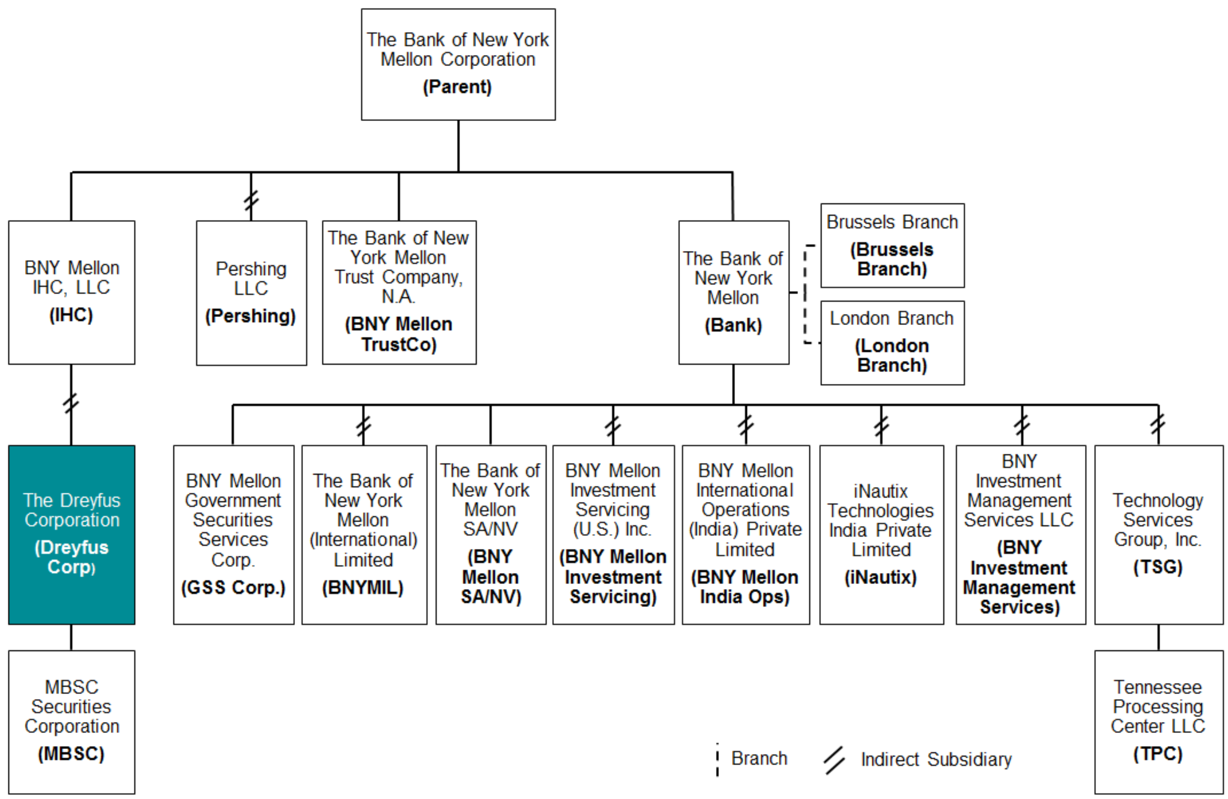
Pershing has been designated a material entity because it is the main operating entity for our Clearing Services core business line. Pershing serves a broad array of clients including broker-dealers, independent registered investment advisors, hedge funds, ’40 Act Funds and other financial intermediaries.

We anticipate that Pershing may be divested to a third party in connection with the SPOE strategy.

Additional information related to the financial condition of Pershing is contained in its Statement of Financial Condition filed with the SEC and available at www.sec.gov.

Banks, Broker-Dealers and Other Operating Entities

The Dreyfus Corporation



Dreyfus Corp, a New York corporation, is an indirect subsidiary of Parent, with its principal place of business in New York, New York. Dreyfus Corp is registered with the SEC as an investment adviser and is regulated under the Investment Advisers Act of 1940. Dreyfus Corp is an investment management company, serving as adviser and administrator to mutual funds and other portfolios. Dreyfus Corp provides services to the Asset Management business.

As Dreyfus Corp's primary business is providing investment advisory and administrative services to the Dreyfus family of funds, it does not need to fund significant assets in the normal course of business. Dreyfus Corp's primary assets are cash and cash equivalents, goodwill and intangibles. Deferred income taxes (primarily associated with goodwill and intangibles) account for most of its liabilities.

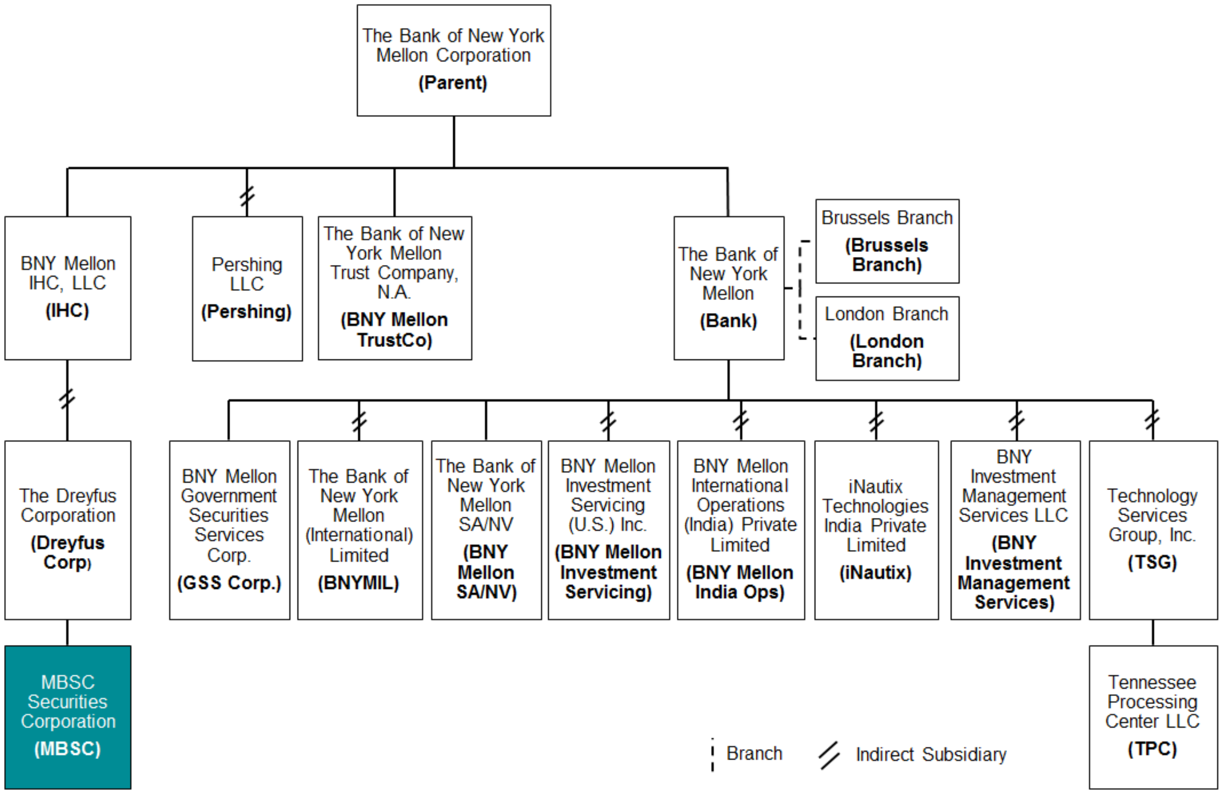
Our material entities have operational dependencies on Dreyfus Corp, including the provision by BNY Mellon Cash Investment Strategies, a division of Dreyfus, of credit risk-related services to our securities lending business. Dreyfus Corp has operational dependencies on our other material entities, including MBSC, as more fully described in the MBSC material entity description provided below. Dreyfus Corp also relies on information technology infrastructure and support through TSG, TPC and iNautix, as well as operational support through BNY Mellon India Ops.

Dreyfus Corp has been designated a material entity because of the support it provides to elements of our Asset Management core business line, providing services for specific Investment Management products.

We anticipate that Dreyfus Corp may be divested to a third party in connection with the SPOE strategy.

Banks, Broker-Dealers and Other Operating Entities

MBSC Securities Corporation



MBSC, a New York corporation, is a subsidiary of Dreyfus Corp, with its principal place of business in New York, New York. MBSC is an SEC-registered broker-dealer and a member of FINRA. MBSC provides underwriting and distribution services for the Dreyfus family of funds and shareholder services to retail and institutional/intermediary Dreyfus fund investors. MBSC provides services to the Asset Management business.

MBSC's primary assets are available-for-sale securities and accounts receivable. MBSC's primary liabilities consist of accounts payable and accrued expenses. MBSC does not have significant balance sheet funding requirements.

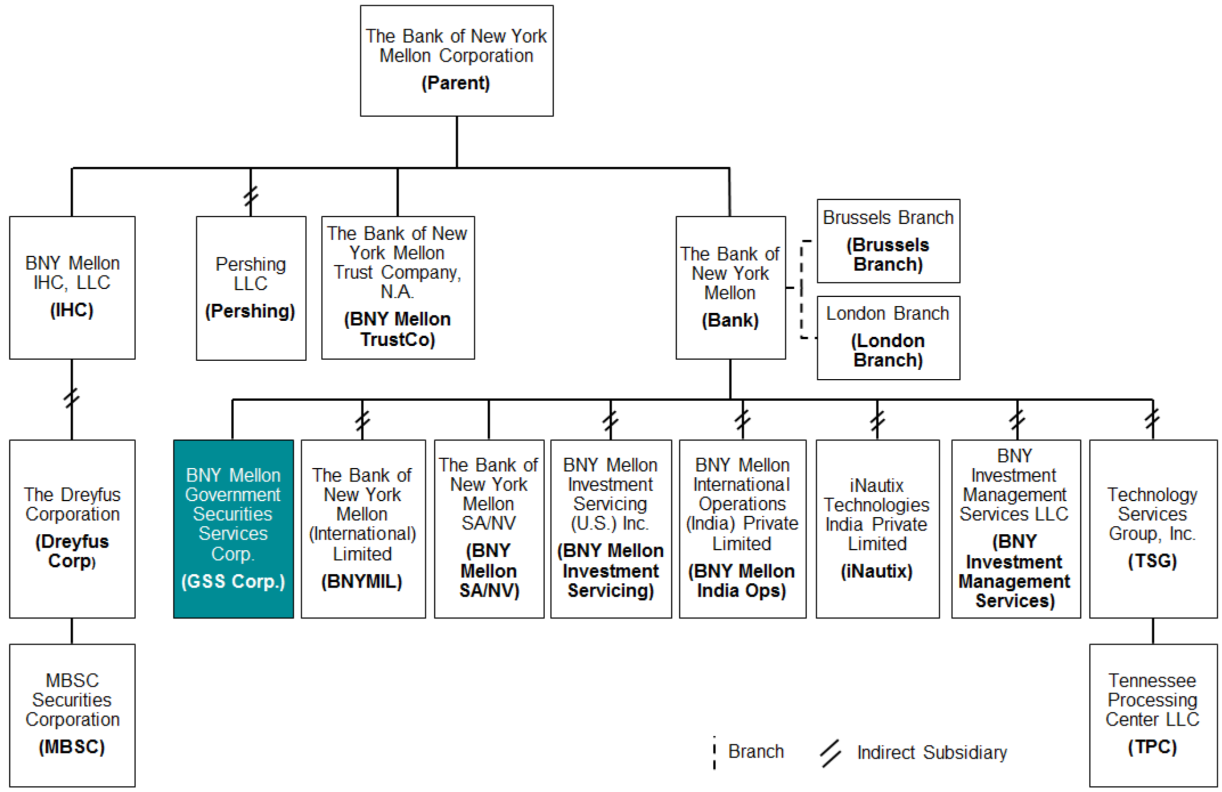
Our material entities have operational dependencies on MBSC, including the provision by MBSC of distribution and sales of mutual funds sponsored and/or administered by Dreyfus Corp. MBSC has operational dependencies on our other material entities, including information technology infrastructure and support through TSG, TPC and iNautix.

MBSC has been designated a material entity because of the support it provides to elements of our Asset Management core business line, providing services for specific Investment Management products.

We anticipate that MBSC may be divested to a third party in connection with the SPOE strategy.

Banks, Broker-Dealers and Other Operating Entities

BNY Mellon Government Securities Services Corp.



GSS Corp., a Delaware corporation and a direct subsidiary of the Bank, houses personnel, processes and technology involved in U.S. government securities clearing and settlement and U.S. tri-party repo clearing and settlement services. GSS Corp. provides services to the Bank and other entities of our firm and has no external clients. GSS Corp. is headquartered in New York, New York.

GSS Corp.'s primary assets are cash and cash equivalents and capitalized system software, and its primary liabilities consist of an intercompany loan from the Bank that represents approximately 50% of its total liabilities and deferred tax liabilities, which are related to systems transferred from the Bank, and are required to support the U.S. government securities clearing and settlement and U.S. tri-party repo clearing and settlement operational activities.

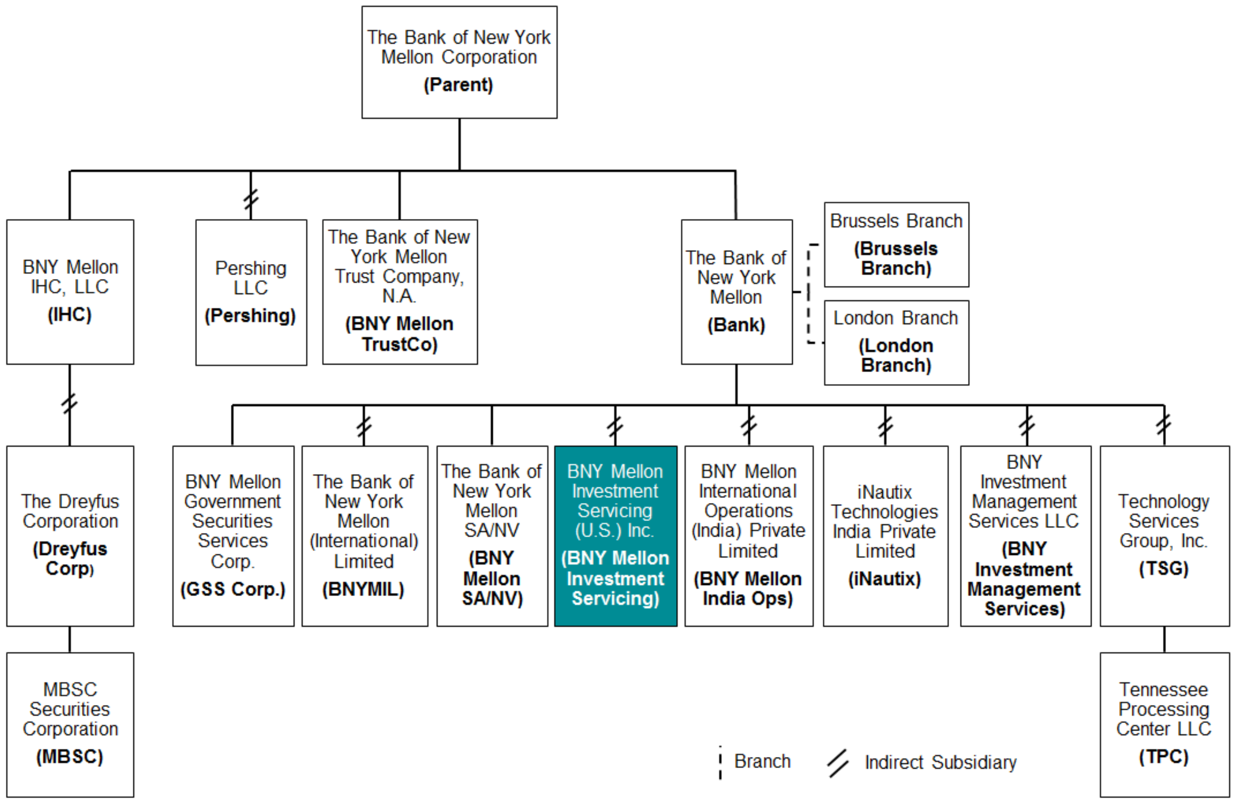
Revenue for GSS Corp. is earned through performing the processing activities necessary to complete transactions between the Bank and its clients related to U.S. government securities clearing and settlement and U.S. tri-party repo clearing and settlement.

Our material entities have operational dependencies on GSS Corp., as it houses key operations required to execute U.S. government securities clearing and settlement and U.S. tri-party repo clearing and settlement services. GSS Corp. is reliant on operational support from BNY Mellon India Ops, the London Branch, BNY Mellon SA/NV, comptroller support from Pershing, information technology development and support from iNautix, and the Bank for access to certain critical services and assets.

GSS Corp. has been designated a material entity because of its operational and technological significance to our company, for example to our GSS Services business.

Banks, Broker-Dealers and Other Operating Entities

BNY Mellon Investment Servicing (US) Inc.



BNY Mellon Investment Servicing, a Massachusetts corporation and indirect subsidiary of the Bank, offers transfer agency, document solutions and ClearSky in support of our Asset Servicing business. BNY Mellon Investment Servicing is headquartered in Wilmington, Delaware.

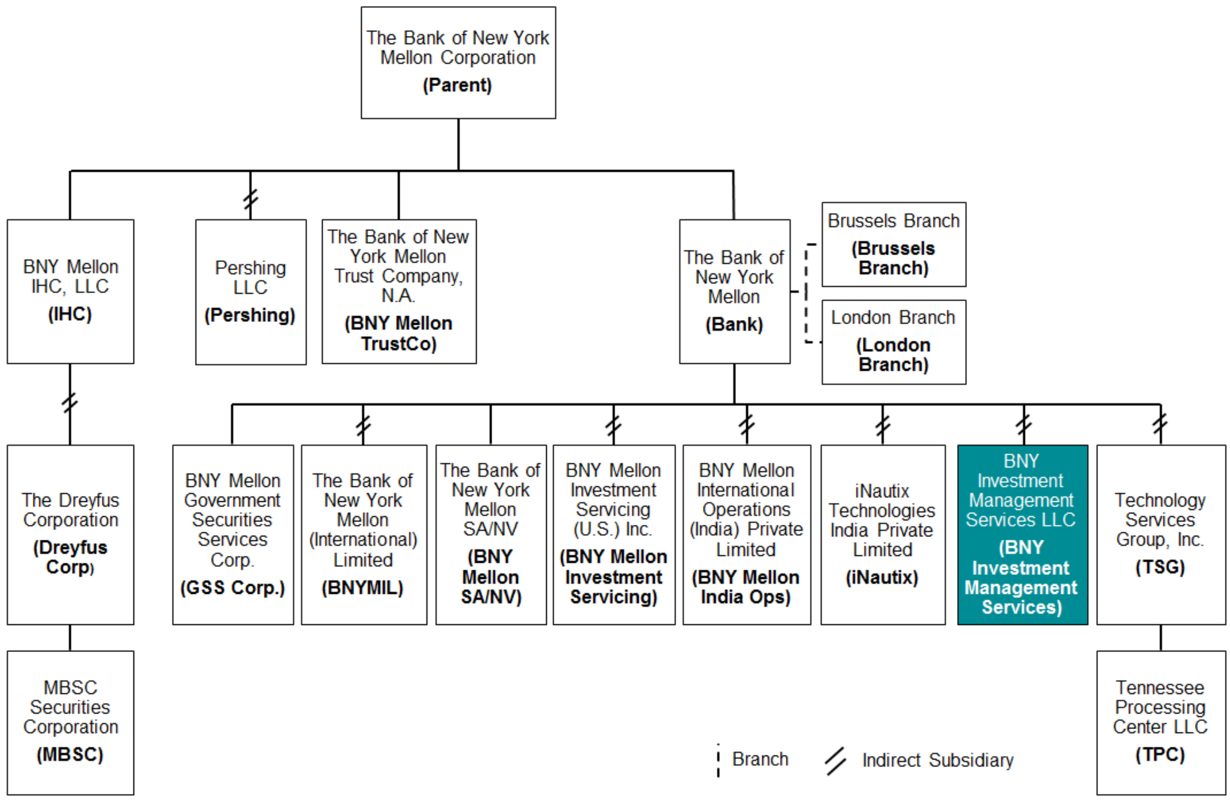
BNY Mellon Investment Servicing's primary assets are cash and goodwill and intangibles, and its primary liabilities consist of accrued expenses and other current liabilities. BNY Mellon Investment Servicing does not have significant balance sheet funding requirements.

Our material entities have operational dependencies on BNY Mellon Investment Servicing, including the provision by BNY Mellon Investment Servicing of operational support services to our Asset Servicing business. BNY Mellon Investment Servicing has operational dependencies on our other material entities, including The Bank of New York Mellon for various settlement and reconciliation services and Pershing LLC to clear and settle certain transactions through their clearing relationship with NSCC. BNY Mellon Investment Servicing also relies on information technology infrastructure and support through TSG, TPC and iNautix, as well as operational support through BNY Mellon India Ops.

BNY Mellon Investment Servicing has been designated a material entity because of its operational significance to our Investment Servicing business, including the Asset Servicing core business line.

Service Entities

BNY Investment Management Services LLC



BNY Investment Management Services, a Delaware limited liability company and indirect subsidiary of the Bank, provides operational support to our Asset Servicing business, as well as to our funds transfer operations. BNY Investment Management Services maintains a sizable presence in Lake Mary and Orlando, Florida.

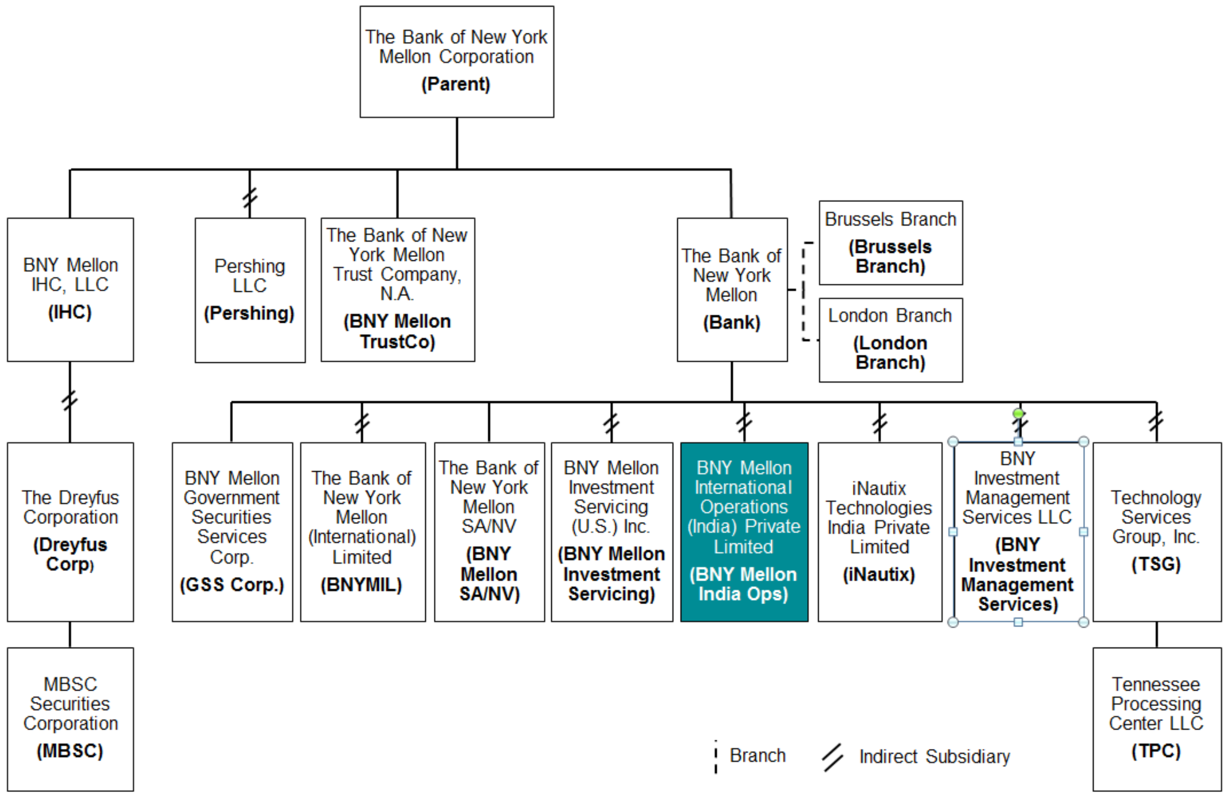
BNY Investment Management Services' primary assets are interest-bearing deposits with affiliated banks and accounts receivable and other assets. BNY Investment Management Services' primary liabilities include accounts payable and accrued taxes and other expenses. BNY Investment Management Services does not have significant balance sheet funding requirements. In order to ensure they are in a financial position to maintain the continuity of their operations, we have pre-funded our internal service providers with six months of working capital.

Our material entities have operational dependencies on BNY Investment Management Services, including the provision by BNY Investment Management Services of operational support services to our Asset Servicing business, as well as to our funds transfer operations. BNY Investment Management Services has operational dependencies on our other material entities, including information technology infrastructure and support through TSG, TPC and iNautix.

BNY Investment Management Services has been designated a material entity because of its operational significance to our Investment Servicing business, including our Asset Servicing core business line.

Service Entities

BNY Mellon International Operations (India) Private Limited



BNY Mellon India Ops, a private limited company organized in India and currently an indirect subsidiary of the Bank, is a service entity providing operational support, primarily middle- and back-office support, to our businesses. BNY Mellon India Ops has locations in Chennai and Pune, India.

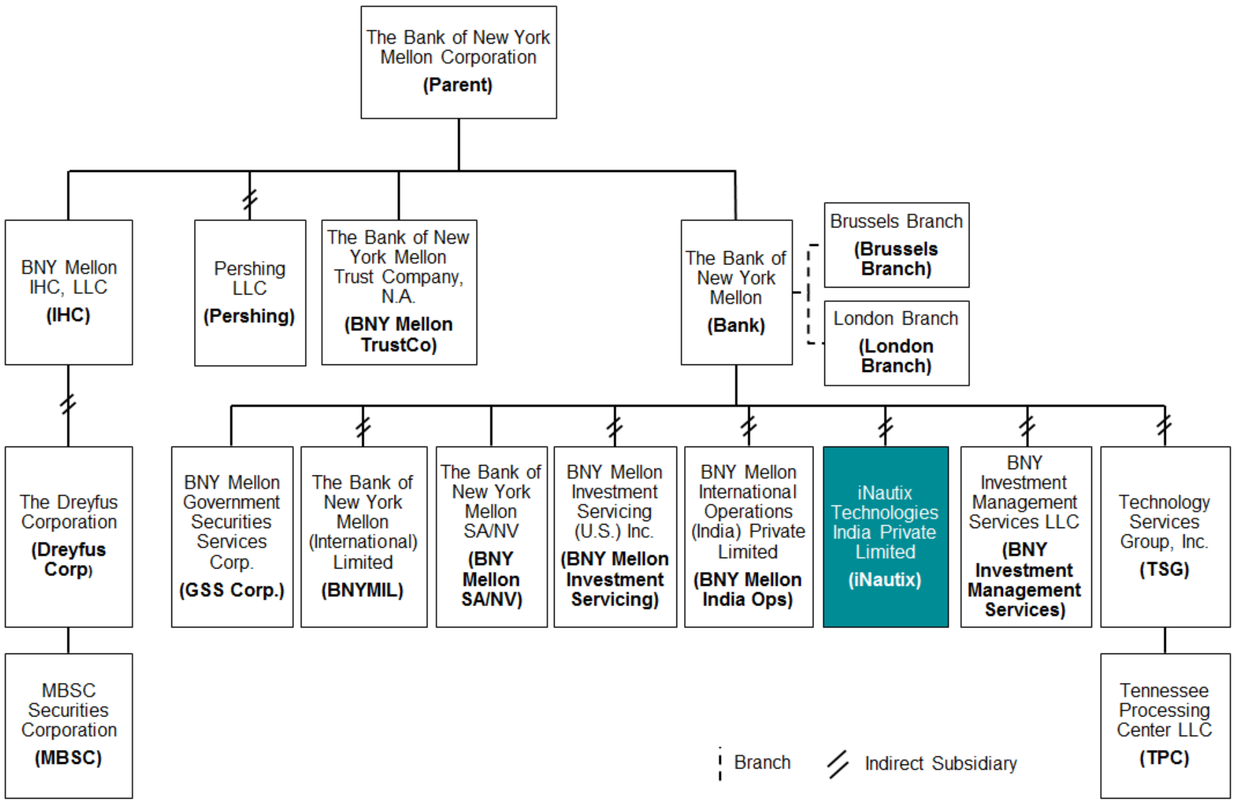
BNY Mellon India Ops' primary assets are cash, interest-bearing deposits, premises and equipment and accounts receivable. Other assets largely consist of prepaid expenses related to corporate taxes, deposits and advanced payments on employee medical insurance plans. BNY Mellon India Ops' primary liabilities include accounts payable and accrued taxes and other liabilities. BNY Mellon India Ops does not have external debt and is primarily equity funded. BNY Mellon India Ops generally relies on revenues generated from services performed for our affiliates for funding. In order to ensure they are in a financial position to maintain the continuity of their operations, we have pre-funded our internal service providers with six months of working capital.

Our material entities and BNY Mellon India Ops have operational dependencies on each other, including information technology infrastructure and support to BNY Mellon India Ops through TSG, TPC and iNautix and operational support from the London Branch and BNY Mellon Investment Servicing.

BNY Mellon India Ops has been designated a material entity because of its operational significance to several of our businesses.

Service Entities

iNautix Technologies India Private Limited



iNautix, a private limited company organized in India and an indirect subsidiary of the Bank, provides technology development, business and technology operations and remote infrastructure management services for our businesses. iNautix also develops and delivers comprehensive technology solutions and software development products for our clients. iNautix is located in Chennai and Pune, India.

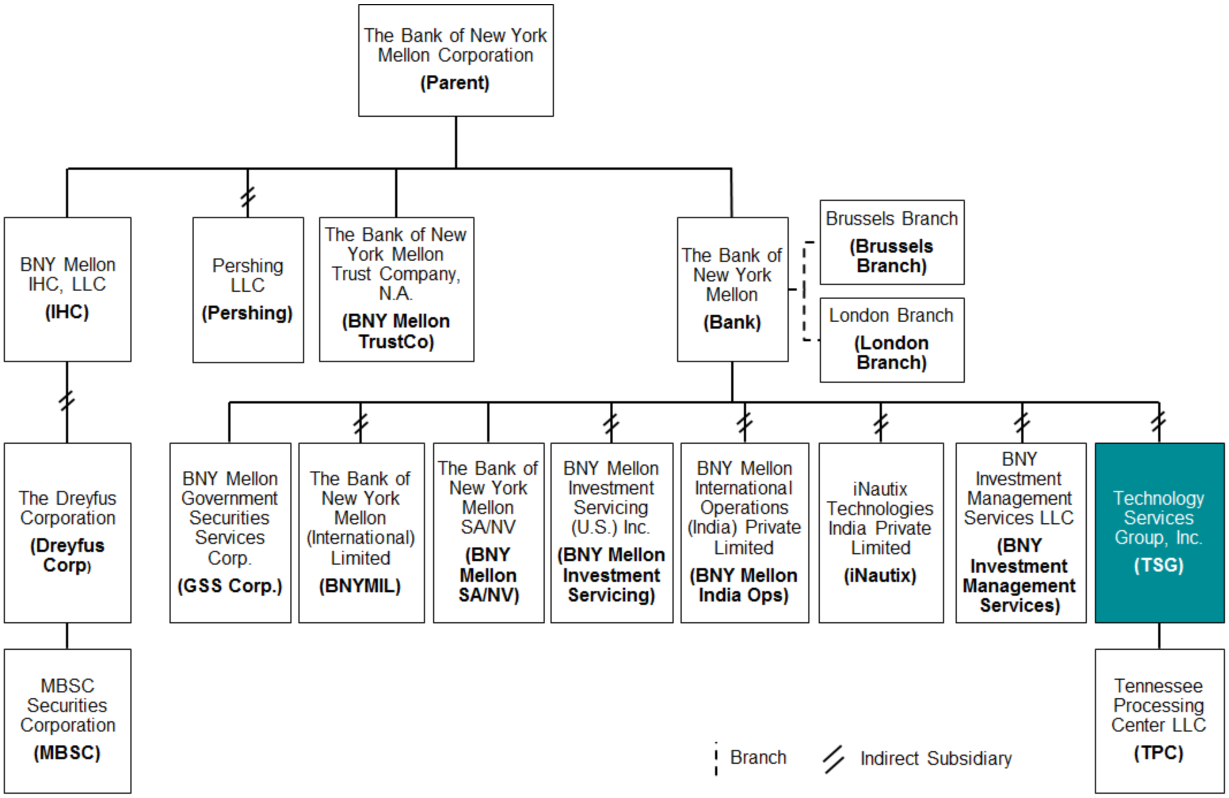
iNautix's primary assets are interest-bearing deposits, accounts receivable, and premises and equipment. iNautix's liabilities include accounts payable and accrued taxes and other liabilities. iNautix does not have external debt and is primarily equity funded. iNautix generally relies on revenues generated from services performed for our affiliates for funding. In order to ensure they are in a financial position to maintain the continuity of their operations, we have pre-funded our internal service providers with six months of working capital.

Our material entities have operational dependencies on iNautix, as iNautix is a service entity providing information technology infrastructure and support to our businesses. iNautix has operational dependencies on our other material entities, including information technology infrastructure and support through TSG and TPC.

iNautix has been designated a material entity because of its information technology servicing support to much of our firm.

Service Entities

Technology Services Group, Inc.



TSG, a New York corporation and indirect subsidiary of the Bank, owns and operates technology infrastructure that supports our businesses. TSG is headquartered in Jersey City, New Jersey.

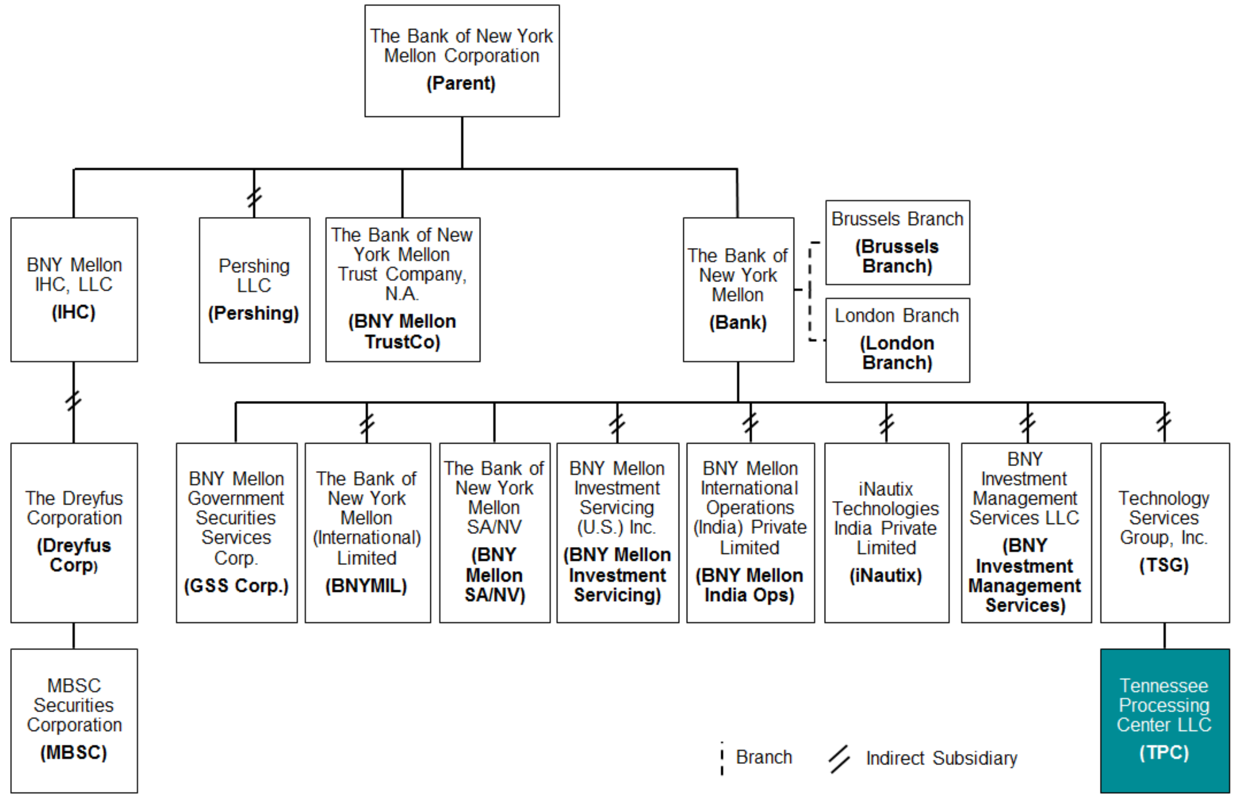
TSG's primary assets are accounts receivable, non-interest bearing assets due from affiliates, and premises and equipment. TSG's primary liabilities include accounts payable, borrowed funds, and accrued taxes and other expenses. TSG generally relies on revenues generated from services performed for our affiliates for funding. In order to ensure they are in a financial position to maintain the continuity of their operations, we have pre-funded our internal service providers with six months of working capital.

Our material entities have operational dependencies on TSG, as TSG is a service entity providing information technology infrastructure and support to our businesses. TSG has operational dependencies on our other material entities, including staff support from iNautix, BNY Mellon India Ops and the London Branch, as well as staff and hardware support from TPC.

TSG has been designated a material entity because of its technology servicing support to much of our firm.

Service Entities

Tennessee Processing Center LLC



TPC, a Delaware limited liability company and wholly-owned subsidiary of TSG, owns and operates technology infrastructure that supports our businesses. TPC is headquartered in Nashville, Tennessee.

TPC's primary assets are investments in premises and equipment and its primary liabilities consist of accounts payable. TPC generally relies on revenues generated from services performed for our affiliates for funding. In order to ensure they are in a financial position to maintain the continuity of their operations, we have pre-funded our internal service providers with six months of working capital.

Our material entities have operational dependencies on TPC, as TPC is a service entity providing information technology infrastructure and support to our businesses. TPC has operational dependencies on our other material entities, including staff support from iNautix and TSG and remote support from BNY Mellon India Ops and the London Branch.

TPC has been designated a material entity because of its ownership of technology that in turn supports much of our firm.

7.2 SUMMARY OF FINANCIAL INFORMATION REGARDING ASSETS, LIABILITIES, CAPITAL AND MAJOR FUNDING SOURCES

The table below provides a consolidated balance sheet for Parent as of December 31, 2016.

(dollar amounts in millions, except per share amounts)	
Assets	
Cash and due from:	
Banks	$4,822
Interest-bearing deposits with the Federal Reserve and other central banks	58,041
Interest-bearing deposits with banks	15,086
Federal funds sold and securities purchased under resale agreements	25,801
Securities:	
Held to maturity (fair value of $40,669)	40,905
Available for sale	73,822
Total securities	114,727
Trading assets	5,733
Loans (includes $- at fair value)	64,458
Allowance for loan losses	(169)
Net loans	64,289
Premises and equipment	1,303
Accrued interest receivable	568
Goodwill	17,316
Intangible assets	3,598
Other assets (includes $1,339 at fair value)	20,954
Subtotal assets of operations	332,238
Assets of consolidated investment management funds, at fair value:	
Trading assets	979
Other assets	252
Subtotal assets of consolidated investment management funds, at fair value	1,231
Total assets	$333,469
Liabilities	
Deposits:	
Non-interest bearing (principally U.S. offices)	$78,342
Interest-bearing deposits in U.S. offices	52,049
Interest-bearing deposits in Non-U.S. offices	91,099
Total deposits	221,490
Federal funds purchased and securities sold under repurchase agreements	9,989
Trading liabilities	4,389
Payables to customers and broker-dealers	20,987
Other borrowed funds	754
Accrued taxes and other expenses	5,867
Other liabilities (including allowance for lending-related commitments of $112, also includes $597, at fair value)	5,635
Long-term debt (includes $363 at fair value)	24,463
Subtotal liabilities of operations	293,574
Liabilities of consolidated investment management funds, at fair value:	

BNY MELLON | Invested

(dollar amounts in millions, except per share amounts)	
Trading liabilities	282
Other liabilities	33
Subtotal liabilities of consolidated investment management funds, at fair value	315
Total liabilities	293,889
Temporary equity	
Redeemable non-controlling interests	151
Permanent equity	
Preferred stock – par value $0.01 per share; authorized 100,000,000 shares; issued 35,826 shares	3,542
Common stock – par value $0.01 per share; authorized 3,500,000,000; issued 1,333,706,427 shares	13
Permanent Equity – Continued	
Additional paid-in capital	25,962
Retained earnings	22,621
Accumulated other comprehensive loss, net of tax	(3,765)
Less: Treasury stock of 286,218,126 common shares, at cost	(9,562)
Total The Bank of New York Mellon Corporation shareholders' equity	38,811
Non-redeemable non-controlling interests of consolidated investment management funds	618
Total permanent equity	39,429
Total liabilities, temporary equity and permanent equity	$333,469

Source: 2016 Annual Report.

The table below provides a consolidated balance sheet for the Bank as of December 31, 2016.

(dollar amounts in millions)	
Assets	
Cash and balances due from depository institutions:	
Non-interest-bearing balances and currency and coin	$4,245
Interest-bearing balances	69,260
Securities:	
Held-to-maturity securities	39,852
Available-for-sale securities	68,602
Federal funds sold and securities purchased under agreements to resell:	
Federal funds sold in domestic offices	0
Securities purchased under agreements to resell	14,616
Loans and lease financing receivables:	
Loans and leases held for sale	0
Loans and leases, net of unearned income	33,868
Less: Allowance for loan and lease losses	143
Loans and leases, net of unearned income and allowance	33,725
Trading assets	3,439
Premises and fixed assets (including capitalized leases)	1,053
Other real estate owned	4
Investments in unconsolidated subsidiaries and associated companies	515
Direct and indirect investments in real estate ventures	0
Intangible assets:	
Goodwill	6,244
Other intangible assets	927

(dollar amounts in millions)	
Other assets	15,094
Total assets	$257,576
Liabilities	
Deposits:	
In domestic offices	$110,284
Non-interest bearing	69,903
Interest-bearing	40,381
In foreign offices, Edge and Agreement subsidiaries, and IBFs	102,533
Non-interest bearing	7,872
Interest-bearing	94,661
Federal funds purchased and securities sold under agreements to repurchase:	
Federal funds purchased in domestic offices	152
Securities sold under agreements to repurchase	2,392
Trading liabilities	3,747
Other borrowed money (includes mortgage indebtedness and obligations under capitalized leases)	7,066
Subordinated notes and debentures	515
Other liabilities	6,489
Total liabilities	233,178
Equity Capital	
Perpetual preferred stock and related surplus	0
Common stock	1,135
Surplus (excludes all surplus related to preferred stock)	10,516
Retained earnings	14,417
Accumulated other comprehensive income	(2,020)
Other equity capital components	0
Total bank equity capital	24,048
Non-controlling (minority) interests in consolidated subsidiaries	350
Total equity capital	24,398
Total liabilities and equity capital	$257,576

Source: Federal Financial Institutions Examination Council Call Report, December 2016.

7.2.1 OUR CAPITAL IN BAU

The table below provides regulatory capital ratios for Parent and the Bank, as of December 31, 2016. A description of how we expect we would manage our capital in a crisis is included in Section 5.1 above.

	Well Capitalized	Minimum Required *(a)*	Capital Ratios
Consolidated regulatory capital ratios: *(b)*			
Standardized:			
CET1 ratio	N/A *(c)*	5.5%	**12.3%**
Tier 1 capital ratio	6%	7	**14.5**
Total (Tier 1 plus Tier 2) capital ratio	10	9	**15.2**
Advanced:			
CET1 ratio	N/A *(c)*	5.5%	10.6%
Tier 1 capital ratio	6%	7	12.6
Total (Tier 1 plus Tier 2) capital ratio	10	9	13.0
Leverage capital ratio *(b)*	N/A *(c)*	4	6.6
SLR *(d)*	5 *(c)(e)*	3	6.0
Selected regulatory capital ratios – fully phased-in – Non-GAAP: *(c)*			
Estimated CET1 ratio:			
Standardized Approach	8.5% *(e)*	5.5%	**11.3%**
Advanced Approach	8.5 *(e)*	5.5	**9.7**
Estimated SLR *(d)*	5 *(e)*	3	**5.6**
The Bank of New York Mellon regulatory capital ratios:			
Advanced:			
CET1 ratio	6.5%	5.125%	**13.6%**
Tier 1 capital ratio	8	6.625	**13.9**
Total (Tier 1 plus Tier 2) capital ratio	10	8.625	**14.2**
Leverage capital ratio	5	4	**7.2**
SLR *(d)*	6	3	**6.5**
Selected regulatory capital ratios – fully phased-in – Non-GAAP			
Estimated SLR	6%	3%	**6.1%**

Source: 2016 Annual Report.

(a) Minimum requirements for December 31, 2016 include Basel III minimum thresholds plus then applicable buffers. See page 57 of our 2016 Annual Report for the minimum ratios with buffers phased in to 2017 levels.

(b) For our CET1, Tier 1 capital and Total capital ratios, our effective capital ratios under U.S. capital rules are the lower of the ratios as calculated under the Standardized and Advanced Approaches. The leverage capital ratio is based on Tier 1 capital, as phased-in and quarterly average total assets.

(c) The Federal Reserve's regulations do not establish well-capitalized thresholds for these measures for bank holding companies. See "Supplemental Information –Explanation of GAAP and Non-GAAP financial measures" beginning on page 121 of our 2016 Annual Report for a reconciliation of these ratios.

(d) The SLR does not become a binding measure until the first quarter of 2018. The SLR is based on Tier 1 capital, as phased in, and average quarterly assets and certain off-balance sheet exposures.

(e) Fully phased-in Basel III minimum with expected buffers. See page 57 of our 2016 Annual Report for the capital ratios with the phase-in of the capital conservation buffer and the U.S. G-SIB surcharge, as well as the introduction of the SLR buffer.

The following table presents the amount of capital by which Parent and the Bank exceeded the capital thresholds determined under the transitional rules at Dec. 31, 2016.

Capital above thresholds at Dec. 31, 2016 *(in millions)*	**Consolidated**	**The Bank of New York Mellon** *(b)*
CET1	$8,716 *(a)*	$9,644
Tier 1 capital	9,530 *(a)*	8,091
Total capital	5,152 *(b)*	5,747
Leverage capital	8,393 *(a)*	5,824

Source: 2016 Annual Report.

(a) Based on minimum required standards, with applicable buffers.

(b) Based on well-capitalized standards.

Capital ratios vary depending on the size and composition of the balance sheet at quarter-end and level and types of investments in assets. The balance sheet size fluctuates from quarter to quarter based on levels of customer and market activity. In general, when servicing clients are more actively trading securities, deposit balances and the balance sheet as a whole are higher. In addition, when markets experience significant volatility or stress, our balance sheet size may increase considerably as client deposit levels increase.

7.2.2 OUR FUNDING AND LIQUIDITY IN BAU

This section discusses our funding and liquidity position as well as our ongoing efforts to manage liquidity risk in BAU. A description of how we expect we would manage liquidity risk in a crisis is included in Sections 5.1 (discussing liquidity generally) and 5.2 (discussing intraday liquidity specifically), above.

We fund ourselves in BAU primarily through deposits and, to a lesser extent, other short-term borrowings and long-term debt. Short-term borrowings consist of federal funds purchased and securities sold under repurchase agreements, payables to customers and broker-dealers and other borrowed funds. Certain other borrowings, for example, securities sold under repurchase agreements, require the delivery of securities as collateral.

We define liquidity as the ability of Parent and its subsidiaries to access funding or convert assets to cash quickly and efficiently, or to rollover or issue new debt, especially during periods of market stress and in order to meet its short-term (up to one year) obligations. Liquidity risk is the risk that we cannot meet our cash and collateral obligations at a reasonable cost for both expected and unexpected cash flows without adversely affecting daily operations or our financial condition.

Liquidity risk can arise from cash flow mismatches, market constraints from the inability to convert assets to cash, the inability to raise cash in the markets, deposit run-off or contingent liquidity events. We also manage liquidity risks on an intraday basis, in a manner designed to ensure that we can access required funds during the business day to make payments or settle immediate obligations, often in real time. Changes in economic conditions or exposure to credit, market, operational, legal and reputational risks also can affect our liquidity risk profile and are considered in our liquidity risk framework.

Our overall approach to liquidity management is to ensure that sources of liquidity are sufficient in amount and diversity such that changes in funding requirements at Parent and at our significant bank and broker-dealer subsidiaries can be accommodated routinely without material adverse impact on earnings, daily operations or our financial condition.

We seek to maintain an adequate liquidity cushion in both normal and stressed environments and seek to diversify funding sources by line of business, customer and market segment. In addition, we monitor and control liquidity exposures and funding needs within and across significant legal entities, branches, currencies and business lines, taking into account, among other factors, any applicable restrictions on the transfer of liquidity among entities.

Additionally, we seek to maintain liquidity ratios within approved limits and liquidity risk tolerance, maintain a liquid asset buffer that can be liquidated, financed and/or pledged as necessary, and control the levels and sources of wholesale funds. Moreover, we also manage potential intraday liquidity risks, which are the risks that the firm cannot fund or settle obligations during the business day.

Sources of intraday liquidity risks include timing mismatches of inflows and outflows, the inability to hold or raise intraday cash, and unexpected market or idiosyncratic events. We monitor and manage intraday liquidity against existing and expected intraday liquid resources (such as cash balances, remaining intraday credit capacity, intraday contingency funding and available collateral) to enable us to meet our obligations under normal and reasonably severe stressed conditions.

When monitoring liquidity, we evaluate multiple metrics in order to have sufficient liquidity for expected and unexpected events. Metrics include cash flow mismatches, asset maturities, debt spreads, peer ratios, liquid assets, unencumbered collateral, funding sources and balance sheet liquidity ratios. We also maintain various internal liquidity limits as part of our standard analysis to monitor depositor and market funding concentration, liability maturity profile and potential liquidity draws due to off-balance sheet exposure.

U.S. regulators have established an LCR requirement that requires certain banking organizations, including us, to maintain a minimum amount of unencumbered HQLA sufficient to withstand the net cash outflow under a hypothetical standardized acute liquidity stress scenario for a 30-day time horizon.

The following table presents the consolidated HQLA and LCR as of the December 31, 2016.

Consolidated HQLA and LCR

(in billions)	**Dec. 31, 2016**
Securities *(a)*	$104
Cash *(b)*	52
Total consolidated HQLA *(c)*	$156
Liquidity coverage ratio	114%

(a) Primarily includes U.S. Treasury, U.S. agency, sovereign securities, securities of U.S. government-sponsored enterprises, investment-grade corporate debt and publicly traded common equity.

(b) Primarily includes cash on deposit with central banks.

(c) Consolidated HQLA presented before adjustments. After haircuts and the impact of trapped liquidity, consolidated HQLA totaled $127 billion.

We also perform liquidity stress tests to ensure that we maintain sufficient liquidity resources under multiple stress scenarios. Stress tests are based on scenarios that measure liquidity risks under unlikely but plausible events. We perform these tests under various time horizons ranging from one day to one year in a base case, as well as supplemental tests to determine whether the Company's liquidity is sufficient for severe market events and firm-specific events.

Additional information related to our assets, liabilities, capital and major funding sources is contained in our reports filed with the SEC, including the 2016 Form 10-K, the Quarterly Reports on Form 10-Q and the Current Reports on Form 8-K, available at www.bnymellon.com.

7.3 DERIVATIVES AND TRADING ACTIVITIES

Hedging derivatives

We utilize interest rate swap agreements to manage our exposure to interest rate fluctuations. For hedges of available-for-sale investment securities, deposits and long-term debt, the hedge documentation specifies the terms of the hedged items and the interest rate swaps and indicates that the derivative is hedging a fixed rate item and is a fair value hedge, that the hedge exposure is to the changes in the fair value of the hedged item due to changes in benchmark interest rates, and that the strategy is to eliminate fair value variability by converting fixed rate interest payments to LIBOR.

The available-for-sale investment securities hedged consist of U.S. Treasury bonds, agency commercial mortgage-backed securities, sovereign debt and covered bonds that had original maturities of 30 years or less at initial purchase. The swaps on all of these investment securities are not callable. All of these securities are hedged with "pay fixed rate, receive variable rate" swaps of similar maturity, repricing and fixed rate coupon.

The fixed rate long-term debt instruments hedged generally have original maturities of five to 30 years. We issue both callable and non-callable debt. The non-callable debt is hedged with "receive fixed rate, pay variable rate" swaps with similar maturity, repricing and fixed rate coupon. Callable debt is hedged with callable swaps where the call dates of the swaps exactly match the call dates of the debt.

In addition, we enter into foreign exchange hedges. We use forward foreign exchange contracts with maturities of nine months or less to hedge our Indian rupee, British pound, Hong Kong dollar, euro, Singapore dollar and Canadian dollar foreign exchange exposure with respect to foreign currency forecasted revenue and expense transactions in entities that have the U.S. dollar as their functional currency. Forward foreign exchange contracts are also used to hedge the value of our net investments in foreign subsidiaries. These forward foreign exchange contracts have maturities of less than two years. The derivatives employed are designated as hedges of changes in value of our foreign investments due to exchange rates. Changes in the value of the forward foreign exchange contracts offset the changes in value of the foreign investments due to changes in foreign exchange rates.

We use forward foreign exchange contracts with remaining maturities of two months or less as hedges against our foreign exchange exposure with respect to certain short-term borrowings in currencies other than the functional currency of the issuing entity. These hedges are designated as cash flow hedges and are effected such that their maturities and notional values match those of the corresponding transactions.

Trading activities (including trading derivatives)

We manage trading risk through a system of position limits, a VaR methodology based on Monte Carlo simulations and other market sensitivity measures. Risk is monitored and reported to senior management by a separate unit on a daily basis. Based on certain assumptions, the VaR methodology is designed to capture the potential overnight pre-tax dollar loss from adverse changes in fair values of all trading positions. The calculation assumes a one-day holding period for most instruments, utilizes a 99% confidence level, and incorporates the non-linear characteristics of options. The VaR model is one of several statistical models used to develop economic capital results, which is allocated to lines of business for computing risk-adjusted performance.

As the VaR methodology does not evaluate risk attributable to extraordinary financial, economic or other occurrences, the risk assessment process includes a number of stress scenarios based upon the risk factors in the portfolio and management's assessment of market conditions. Additional stress scenarios based upon historical market events are also performed. Stress tests, by their design, incorporate the impact of reduced liquidity and the breakdown of observed correlations. The results of these stress tests are reviewed weekly with senior management.

Counterparty credit risk and collateral

We assess the credit risk of our counterparties through regular examination of their financial statements, confidential communication with the management of those counterparties and regular monitoring of publicly available credit rating information. This and other information is used to develop proprietary credit rating metrics used to assess credit quality. Collateral requirements are determined after a comprehensive review of the credit quality of each counterparty. Collateral is generally held or pledged in the form of cash or highly liquid government securities. Collateral requirements are monitored and adjusted daily.

Additional information related to our use of derivative instruments is contained in our reports filed with the SEC, including the 2016 Form 10-K, the Quarterly Reports on Form 10-Q and the Current Reports on Form 8-K, available at www.bnymellon.com.

7.4 DESCRIPTION OF FOREIGN OPERATIONS

Our primary international activities consist of asset servicing and global payment services in our Investment Services business and asset management in our Investment Management business.

At December 31, 2016, we had approximately 8,800 employees in Europe, the Middle East and Africa, approximately 14,700 employees in the Asia-Pacific region and approximately 700 employees in other global locations, primarily Brazil.

Additional information related to our international operations is contained in our reports filed with the SEC, including the 2016 Form 10-K, the Quarterly Reports on Form 10-Q and the Current Reports on Form 8-K, available at www.bnymellon.com.

7.5 MATERIAL SUPERVISORY AUTHORITIES

We are registered as a financial holding company under the Bank Holding Company Act of 1956, as amended by the Gramm-Leach-Bliley Act and by the Dodd-Frank Act. We are subject to supervision by the Federal Reserve.

The Bank, which is our largest banking subsidiary, is a New York state-chartered bank and a member of the Federal Reserve System and is subject to regulation, supervision and examination by the Federal Reserve, the FDIC and the New York State Department of Financial Services. Our national bank subsidiaries, BNY Mellon, N.A. and BNY Mellon TrustCo, are chartered as national banking associations and subject to primary regulation, supervision and examination by the Office of the Comptroller of the Currency.

We operate a number of broker-dealers that engage in securities underwriting and other broker-dealer activities in the United States. These companies are SEC-registered broker-dealers and members of FINRA. Our nonbank subsidiaries engaged in securities-related activities are regulated by supervisory agencies in the countries in which they conduct business.

Certain of our public finance and advisory activities are regulated by the Municipal Securities Rulemaking Board.

Certain of our subsidiaries are registered with the CFTC as commodity pool operators or commodity trading advisors and, as such, are subject to CFTC regulation. The Bank is provisionally registered as a Swap Dealer (as defined in the Dodd-Frank Act) with the CFTC, and is a member of the NFA in that same capacity. As a Swap Dealer, the Bank is subject to regulation, supervision and examination by the CFTC and the NFA.

Certain of our subsidiaries are registered investment advisors under the Investment Advisers Act of 1940, as amended, and as such are supervised by the SEC. They are also subject to various U.S. federal and state laws and regulations and to the laws and regulations of any countries in which they conduct business. Our subsidiaries advise both public investment companies, which are registered with the SEC under the 1940 Act, including the Dreyfus family of mutual funds, and private investment companies which are not registered under the 1940 Act.

Certain of our investment management, trust and custody operations provide services to employee benefit plans that are subject to the Employee Retirement Income Security Act of 1974, as amended, administered by the U.S. Department of Labor.

In Europe, our branches are subject to regulation in the countries in which they are established, in addition to being subject to oversight by the U.S. regulators referred to above. BNY Mellon SA/NV is a public limited liability company incorporated under the laws of Belgium. BNY Mellon SA/NV has been granted a banking license by the National Bank of Belgium, and is authorized to carry out all banking and savings activities as a credit institution. The European Central Bank has responsibility for the supervision of 120 significant banks and banking groups in the euro area, including BNY Mellon SA/NV. The European Central Bank’s supervision is carried out in conjunction with the relevant national prudential regulator (the National Bank of Belgium, in BNY Mellon SA/NV’s case).

Certain of our financial services operations in the United Kingdom are subject to regulation and supervision by the FCA and the PRA. The PRA is responsible for the authorization and prudential regulation of firms that carry on PRA-regulated activities, including banks. PRA-authorized firms are also subject to regulation by the FCA for conduct purposes. In contrast, FCA-authorized firms (such as investment management firms) have the FCA as their sole regulator for both prudential and conduct purposes although subject to the residual overarching jurisdiction of the PRA, if matters of systemic significance are in issue. As a result, FCA-authorized firms must comply with FCA prudential and conduct rules and the FCA's Principles for Businesses, while dual-regulated firms must comply with the FCA conduct rules and FCA Principles, as well as the applicable PRA prudential rules and the PRA's Principles for Businesses.

The PRA regulates BNYMIL, our UK incorporated bank, as well as the London Branch and, to a more limited extent, BNY Mellon SA/NV. Certain of our UK incorporated subsidiaries are authorized to conduct investment business in the United Kingdom. Their investment management advisory activities and their sale and marketing of retail investment products are regulated by the FCA. Certain UK investment funds, including BNY Mellon Investment Funds, are registered with the FCA and are offered for retail sale in the United Kingdom.

The types of activities in which the foreign branches of our banking subsidiaries and our international subsidiaries may engage are subject to various restrictions imposed by the Federal Reserve. Those foreign branches and international subsidiaries are also subject to the laws and regulatory authorities of the countries in which they operate.

Additional information related to our supervision and regulation is contained in our reports filed with the SEC, including the 2016 Form 10-K, the Quarterly Reports on Form 10-Q and the Current Reports on Form 8-K, available at www.bnymellon.com.

7.6 PRINCIPAL OFFICERS

The Executive Committee and Other Executive Officers of Parent are:

Gerald L. Hassell* Chairman and Chief Executive Officer	**Bridget E. Engle** Chief Information Officer
Michael Cole-Fontayn Chairman, Europe, Middle East and Africa	**J. Kevin McCarthy*** General Counsel
J. David Cruikshank Chairman, Asia Pacific	**Michelle M. Neal*** Chief Executive Officer, BNY Mellon Markets
Thomas P. (Todd) Gibbons* Chief Financial Officer	**Brian T. Shea*** Chief Executive Officer, Investment Services
Mitchell E. Harris* Chief Executive Officer, Investment Management	**Douglas H. Shulman** Head of Client Service Delivery
Monique R. Herena* Chief Human Resources Officer	**James S. Wiener*** Chief Risk Officer
Kurtis R. Kurimsky* Corporate Controller	

*Designated as an Executive Officer

8 CONCLUSION

We understand the role that we play for our clients and the markets in which we operate. We embrace our responsibility to manage risk every day and to ensure that, were a resolution of our firm ever necessary, it could be accomplished with minimal disruption to financial markets. Resolution planning is far more than a simple compliance exercise for us. We have developed a thorough, carefully considered SPOE strategy with associated capabilities to make the strategy actionable. We believe that our 2017 Plan demonstrates that, in the event of material financial stress or failure, we are prepared for a rapid and orderly resolution under the Bankruptcy Code.

Invested in our clients.

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