Morgan Stanley



2017 Resolution Plan

Public Section

PUBLIC SECTION

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1. Executive Summary

1.1 Introduction

Morgan Stanley (as a stand-alone parent holding company, "**MS Parent**," and on a consolidated basis, the "**Firm**"), is a global financial services firm that, through its subsidiaries and affiliates, provides a wide variety of products and services to a large and diversified group of customers and counterparties. The Firm conducts its business from its headquarters in and around New York City, its regional offices and branches throughout the United States and its principal offices in London, Tokyo, Hong Kong and other world financial centers. The Firm is committed to managing its operations to promote the integrity of the financial system and fulfilling its responsibility to maintain the highest standards of excellence.

The Firm supports regulatory changes made since 2008 that mitigate systemic risk and improve global financial stability. One such regulatory change is the requirement for financial institutions to submit resolution plans. The Firm believes that resolution planning is a key element of systemic regulation to help protect the soundness of the global financial system. Accordingly, the Firm has prioritized resolution planning and made it an essential element of its risk management and strategic planning processes, integrating resolvability criteria into its business-as-usual ("**BAU**") conduct. The Firm has dedicated significant Firm resources to resolution planning, with the involvement of a substantial number of employees across the Firm, including the Firm's senior executive management. In its resolution planning, the Firm is guided by and committed to the key objectives of (i) operating in a manner and with a culture that contributes to the safety and soundness of the global financial system and (ii) enhancing its resilience and resolvability.

The Firm has developed a resolution plan in accordance with the requirements of Section 165(d) of Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "**Dodd-Frank Act**") and its implementing regulations adopted by the Board of Governors of the Federal Reserve System (the "**Federal Reserve Board**") and the Federal Deposit Insurance Corporation (the "**FDIC**") (together, the "**Agencies**" and such plan, the "**2017 Plan**" or the "**Plan**")¹ This "**Public Section**" of the 2017 Plan is submitted concurrently with the Confidential Section of the 2017 Plan, which describes how MS Parent and its Material Entities² could be resolved in a rapid and orderly manner that substantially mitigates the risk that MS Parent's failure would have serious adverse effects on financial stability in the U.S.

The Firm's 2017 Plan articulates a preferred strategy for the resolution of MS Parent and the Material Entities (the "**Resolution Strategy**") detailing how the Firm would be resolved under a range of scenarios and how potential vulnerabilities that might otherwise hinder or prevent a rapid, orderly and value-maximizing resolution would be addressed and overcome. This Resolution Strategy is supported by extensive resolution planning efforts that have been refined and enhanced over a period of years. Moreover, the Firm has put in place a number of practices to help manage its resolvability over time and

¹ Section 165(d) of Title I of the Dodd-Frank Act and the regulations promulgated thereunder (the "**165(d) Rule**") require the Firm to demonstrate how MS Parent could be resolved under the U.S Bankruptcy Code, without extraordinary government support and in a manner that substantially mitigates the risk that the failure of the Firm would have serious adverse effects on U.S. financial stability. The Plan is not binding on a court or resolution authority.

² Material Entity is defined in the 165(d) Rule as a subsidiary or foreign office of the Firm that is significant to the Firm's core businesses and critical activities. A description of the Firm's Material Entities is included as Appendix B to this Public Section.

address risks that may emerge on account of changes in business practices, financial profile or organizational structure.

The Firm believes that its 2017 Plan presents a feasible and credible strategy that demonstrates that the Firm can be resolved without adverse effects on financial stability in the U.S. or on the broader global economy. Based upon the strength of its capital and liquidity positions and the resiliency and credibility of the Resolution Strategy under a wide range of scenarios, the Firm believes that none of the U.S. government, the FDIC's Deposit Insurance Fund nor any foreign governments or taxpayers would incur losses as a result of its failure. The 2017 Plan provides greater detail on all of the actions completed by the Firm to address guidance received from the Agencies and other enhancements to resolvability capabilities. With these actions, the Firm believes that it has the capabilities required to execute its Resolution Strategy.

1.2 Recent Regulatory Feedback and Guidance

In April 2016, the Federal Reserve Board and the FDIC released the April 14, 2016 joint feedback letter (the "**2016 Feedback**") and the 2016 Guidance for 2017 Section 165(d) Annual Resolution Plan Submissions by Domestic Covered Companies that Submitted Resolution Plans in July 2015 (the "**2017 Guidance**" and, together with the 2016 Feedback, the "**Agency Guidance**"). The Agency Guidance issued to each of Morgan Stanley and seven other large financial institutions was divided into six topics: (i) Liquidity, (ii) Derivatives and Trading Activities, (iii) Governance Mechanisms, (iv) Capital, (v) Operational and (vi) Legal Entity Rationalization ("**LER**") and Separability. The 2016 Feedback evaluated each large financial institution's 2015 resolution plan and highlighted areas of required remediation for each institution, with each such area being described as either a "shortcoming" (which was required to be addressed in that institution's 2017 resolution plan) or a "deficiency" (which was required to be addressed in that institution's 2016 submission, unless only one of the Agencies found the relevant aspect of the 2015 resolution plan deficient, in which case it qualified as a shortcoming).

Of those eight financial institutions who received the 2016 Feedback, the Firm's 2015 Plan was one of only three plans in which the Agencies did not jointly identify any deficiencies.³ While noting that "over the past several years, [the Firm] has taken important steps to enhance the Firm's resolvability and facilitate its orderly resolution in bankruptcy," the Agencies did identify certain shortcomings in the Firm's 2015 Plan in three of the six areas mentioned above, (i) Liquidity, (ii) Derivatives and Trading Activities and (iii) Governance Mechanisms. Because the Agencies did not jointly identify any deficiencies in the Firm's 2015 Plan, the Firm was required in 2016 to submit only (i) a Confidential Section describing the Firm's planned and completed actions to address the shortcomings and (ii) a Public Section explaining the same at a high level (together, the "**October 2016 Status Report**").⁴

The Firm's 2017 Plan sets forth how the Firm has addressed the Agency-identified shortcomings and vulnerabilities as well as the additional steps the Firm has taken to enhance its resolvability and integrate resolution planning into its BAU practices. The 2017 Plan explains how the Firm has made its Resolution Strategy even more resilient and implemented the supporting strategic and legal, financial

³ The Federal Reserve Board considered one item with respect to Liquidity that required remediation to be a deficiency. Because only one of the Agencies found the item to be a deficiency, this item qualified as a shortcoming.

⁴ The Agencies provided formal feedback on the October submissions of peers with deficiencies but no formal feedback to the Firm and other peers without deficiencies.

and operational capabilities required for successful execution of the Resolution Strategy. While the Firm cannot anticipate every possible scenario, as a result of its refinement of the Resolution Strategy and implementation of these additional supporting capabilities, the Firm has become more resilient and more easily resolved in a wider range of circumstances.

1.3 Three Pillars of Resolution Planning

The Firm's development of its Resolution Strategy in accordance with the Dodd-Frank Act and 165(d) Rule has been guided by three primary principles, to which the Firm refers as the "**Three Pillars of Resolution Planning:**"

- Strategic and Legal Framework: The Firm should have the strategic and legal framework to enable implementation of its Resolution Strategy under required time frames and stress conditions.
- **Financial Adequacy:** Each Material Entity should have access to the liquidity and capital needed to execute its resolution strategy without threatening the pre-failure resiliency of MS Parent.
- **Operational Continuity and Capabilities:** Each Material Entity should have access to the personnel, data and systems, facilities, vendors and other nonfinancial resources needed to execute the Resolution Strategy.

1.4 Advantages of the Firm's Revised SPOE Resolution Strategy

In accordance with the Three Pillars of Resolution Planning, the Firm has developed and, since 2012, continually refined, its Resolution Strategy. In July 2015, the Firm submitted its 2015 Plan, which shifted to a Single Point of Entry (**"SPOE**") strategy under which MS Parent would enter resolution proceedings while the Firm's Material Entities would remain solvent and be sold or wound down outside resolution proceedings.

The 2017 Plan describes the Firm's revised SPOE Resolution Strategy. Under this resolution strategy, MS Parent would recapitalize and provide liquidity resources to the Material Entities prior to MS Parent entering proceedings under Chapter 11 of the U.S. Bankruptcy Code ("**Chapter 11**") in order to enable the Material Entities to remain solvent and be sold or wound down without entering resolution proceedings. The Firm believes that such an SPOE approach is most likely to maximize the value of the Firm for MS Parent stakeholders and minimize the impact of the failure of the Firm on U.S. financial stability and the broader economy.

The Firm's SPOE Resolution Strategy offers a number of advantages over a multiple point of entry ("**MPOE**") strategy, where individual Material Entities enter into their own resolution proceedings, including the following:

- Maintaining continuity of performance by the Firm's Material Entities, which would remain solvent and would not enter standalone bankruptcy or insolvency proceedings;
- Reducing the losses that would be associated with the abrupt shut down of Material Entities and the termination of their qualified financial contracts ("QFCs") and other transactions (including potentially large claims that could be brought against MS Parent based on its guarantees of

financial contracts to which Material Entities are party), and the liquidation of collateral for such transactions in an MPOE resolution;

- Minimizing potential financial contagion by confining financial losses to MS Parent creditors, which are effectively junior to the creditors of the Material Entities and would be at risk of absorbing losses of the Firm; and
- Minimizing the complexity of resolution proceedings and avoiding the prospect of multiple competing resolution proceedings for different subsidiaries of the Firm.

1.5 The 2017 Plan

The following features of the 2017 Plan are summarized as follows:

- **Resolution Objectives,** the specific objectives that the Firm has deemed critical to the development of its Resolution Plan.
- **Resolution Strategy,** the Firm's Resolution Strategy, under which MS Parent would be resolved under the U.S. Bankruptcy Code and the Material Entities would remain solvent and be sold or wound down outside resolution proceedings.
- **Resolvable Morgan Stanley,** the main actions the Firm has taken to enhance its resolvability and embed resolution planning and capabilities into BAU practices and procedures, as aligned to the Three Pillars of Resolution Planning.

The Firm has focused on, and invested in, enhancing its resolvability and addressing the Agency Guidance. These investments in resolution planning have resulted in the extensive integration of resolution preparedness into the Firm's governance and related BAU practices and procedures. With this Plan, the Firm has not only addressed Agency-identified shortcomings, but also executed the commitments made in its 2015 Plan and October 2016 Status Report and further enhanced its resolvability capabilities pursuant to additional Agency Guidance as well as self-identified areas for improvement. The Firm believes that it has the capabilities required to execute its Resolution Strategy and is confident that, as a result of these enhancements, it could be resolved in a rapid and orderly manner without endangering financial stability or requiring extraordinary taxpayer or government support.

1.5.1 Resolution Objectives

The overarching goal of the Firm's Resolution Strategy and supporting resolution planning efforts and capabilities is to provide that if the Firm were to encounter Material Financial Distress⁵ or fail, it could be resolved within the time frames and under the stress conditions mandated by the Agencies and without taxpayer or government support or disruption to U.S. and global financial stability. The Firm has developed a Resolution Strategy that would maintain solvency of its Material Entities, including its insured depository institutions ("**IDIs**"), and sustain its Critical Operations⁶ and Critical Economic

⁵ The 165(d) Rule defines Material Financial Distress to mean that (i) the Firm has incurred, or is likely to incur, losses that will deplete all or substantially all of its capital, and there is no reasonable prospect for the Firm to avoid such depletion; (ii) the Firm's assets are, or are likely to be, less than its obligations to creditors and others; or (iii) the Firm is, or is likely to be, unable to pay its obligations (other than those subject to a bona fide dispute), in the normal course of business.

⁶ As defined in the 165(d) Rule.

Functions⁷ (collectively, "**Critical Functions**")⁸ under a broad range of internal or external stresses. It has identified several key objectives guiding the development of this strategy, which are set forth below:

- Avoiding interruptions in performance to the customers and counterparties of the Firm's designated Critical Functions until such Critical Functions can be transferred to an alternate provider or wound down in an orderly manner;
- Minimizing the spread of financial distress into the market due to payment defaults on shortterm obligations, counterparty terminations of their QFCs with the Firm, fire sales of assets by the Firm to keep up with its financial obligations or trapping of customer assets.
- Preserving the ability of marketable business lines to be separated from the Firm and sold in a wide range of scenarios;
- Eliminating reliance on a regulator to take discretionary actions (or forbear from taking discretionary actions);
- Eliminating reliance on an affiliate to take actions to benefit another affiliate (except as required by contract) or to forbear from taking actions if such action or forbearance could materially increase the risk that the affiliate itself would default on its obligations to third parties;
- Eliminating reliance on U.S. or foreign government financial support; and
- Eliminating significant risk to the FDIC's Deposit Insurance Fund.

1.5.2 Resolution Strategy

The Firm has developed its Resolution Strategy to achieve the Resolution Objectives. Under the Resolution Strategy, MS Parent would fail and file for bankruptcy under Chapter 11 but the Firm's Material Entities would remain solvent and would be sold or wound down as follows:

- The Firm's Wealth Management ("WM") and Investment Management ("IM") Core Business Lines⁹ would be sold; and
- Each of the Firm's Institutional Securities Group's ("ISG") U.S., UK and Japan "Material Operating Entities" ("MOEs") would be wound down in an orderly manner outside of insolvency or resolution proceedings (the "ISG Solvent Wind Down").

The Firm's Resolution Strategy is described in further detail in Section 3 Resolution Strategy.

1.5.3 Resolvable Morgan Stanley

As described in further detail in this section, the Firm has implemented the steps necessary (i) to put in place a strategic and legal framework to enable implementation of its Resolution Strategy under required time frames and stress conditions, (ii) for each Material Entity to have access to the liquidity and capital needed to execute its resolution strategy without threatening the pre-failure resiliency of MS Parent and (iii) for each Material Entity to have access to the personnel, data and systems, facilities, vendors and other nonfinancial resources needed to execute the Resolution Strategy. Together, the

⁷ As designated by UK regulatory authorities.

⁸ A collective term referring to the Firm's Critical Operations and Critical Economic Functions as designated by the Agencies and PRA, respectively.

⁹ Core Business Line is defined in the 165(d) Rule as a business line of the Firm, including associated operations, services, functions and support, that, in the view of the Firm, upon failure would result in a material loss of revenue, profit, or franchise value. A description of the Firm's Core Business Lines is included as Appendix A to this Public Section.

Firm's continued focus on the Three Pillars of Resolution Planning supports the credibility of the Resolution Strategy and demonstrates the Firm's increased resilience and resolvability.

Prior to July 2015, the Firm, among other achievements, (i) had executed a binding "**Support Agreement**" providing for downstreaming of required resources to Material Entities; (ii) developed a bottom-up Resolution Contingency Funding Plan ("**Resolution CFP**") financial model, now referred to as the "**Resolution Financial Model**," designed to quantify the amount and location of Material Entity liquidity and capital requirements in resolution, (iii) committed to and advanced the Gladiator Program, a major restructuring to protect shared services in a network of shared service entities; and (iv) commenced the remediation of cross default provisions in subsidiary QFCs including through adherence to the ISDA Universal Resolution Stay Protocol (the "**ISDA Protocol**"). All of these innovations have been encouraged by subsequent guidance provided by the Agencies.

Furthermore, as described in greater detail in Section *4 Resolvable Morgan Stanley*, the Firm has addressed all of the Agency-identified shortcomings described in the 2016 Feedback. Exhibit 1.5-1 summarizes the Firm's completed actions addressing these shortcomings.

AREA OF VULNERABILITY WITH SHORTCOMING	ACTIONS TAKEN TO ADDRESS			
	 Enhanced the Firm's liquidity modeling capabilities, including the development of a new liquidity stress test model and further enhancements and automation of the Resolution Financial Model 			
	• Improved the Firm's minimum operating liquidity ("MOL") ¹⁰ methodology			
Liquidity	 Implemented an enhanced cash management structure for MOEs, which increases the transparency of legal entity-specific requirements and allows for more effective cash management at the legal entity level 			
	Created the Financial Resource Positioning Framework			
Derivatives and	 Incorporated the usage of hedging transactions and associated costs within the Firm's Active Wind Down analysis 			
Trading	 Provided incremental information on the non-systemic residual derivatives portfolio remaining after the Active Wind Down during the Resolution Period 			
	 Enhanced the Firm's trigger and escalation framework and Governance Playbooks, which facilitate timely decision making and action execution in implementing the Resolution Strategy 			
Governance Mechanisms	Engaged in enhanced legal analysis of potential challenges by creditors of MS Parent			
Meetianisiis	 Enhanced the Firm's framework for the provision of MS Parent support to Material Entities to ensure any such support is executed in a manner resilient to potential challenges by creditors of MS Parent 			

Exhibit 1.5-1: The Firm's Completed Actions Addressing the 2016 Feedback Shortcomings

The Firm has invested significant resources so that it would be able to implement the Resolution Strategy. The Firm has considered and addressed vulnerabilities to the successful implementation of the Resolution Strategy identified in Agency Guidance, as well as the Firm's own self-identified areas for

¹⁰ This refers to the amount of liquidity that an entity needs to run its daily operations.

improvement. The Firm has undertaken significant enhancements to its capabilities across all Three Pillars of Resolution Planning, with its most notable achievements described below.

With respect to the Strategic and Legal Framework pillar, the Firm has:

- Performed an enhanced legal analysis to confirm that support provided by MS Parent in a resolution scenario is resilient to potential challenges by creditors of MS Parent;
- Perfected security interests in MS Parent's Contributable Assets;
- Enhanced its stress and Resolution Period trigger and escalation framework with a set of new and amended triggers based on capital and liquidity metrics which are linked to specific Firm actions;
- Produced separate governance playbooks for MS Parent and each Material Entity, including fiduciary duties analyses prepared by external counsel, to ensure timely decision-making and action execution;
- Enhanced and expanded its LER Criteria and assessed the Firm's legal entities against this criteria;
- Enhanced its Material Entity designation process and designated 10 new Material Entities;
- Enhanced its separability analysis to support sales strategies for WM and IM, including through the preparation of sale package buyer documents, carve out financials and valuations; and
- Created virtual data rooms containing relevant buyer due diligence materials.

With respect to the Financial Adequacy pillar, the Firm has:

- Developed a Resolution Liquidity Adequacy and Positioning ("RLAP") model to estimate standalone liquidity requirements for each Material Entity, incorporated this model into the Firm's Contingency Funding Plan ("CFP"), which is the Firm's internal liquidity stress testing framework, and improved the Firm's other liquidity and capital modeling capabilities;
- Deployed an enhanced cash management process, described in Section 4.2.1.4 Enhanced Cash Management Process: Cash Management at the Legal Entity-Level Funding, by which cash flows are managed at the MS Parent and MOE (rather than consolidated) level to reduce the Firm's reliance on netting benefits across MOEs and to reduce potential inter-affiliate funding frictions;
- Enhanced the Resolution Financial Model, including through sensitivity analyses, to demonstrate that the Firm has adequate resources to execute its Resolution Strategy in a range of scenarios;
- Created and implemented the "Financial Resource Positioning Framework," which the Firm uses to determine the appropriate amount of financial resources (i.e., liquid assets and internal loss absorbing capacity ("ILAC")) to be positioned at MS Parent and Material Entities;
- Enhanced the Firm's Derivatives and Trading Activities capabilities, including more detailed analysis of the Active Wind Down and Passive Wind Down of the Firm's derivatives portfolios; and
- Strengthened inter-affiliate contracts and service level agreements to promote resolvability.

With respect to the Operational Continuity and Capabilities pillar, the Firm has:

- Enhanced its strategy to maintain access to critical FMUs and agent banks by developing new playbooks and enhancing existing playbooks, including through analysis of incremental liquidity requirements in resolution;
- Confirmed the Firm's full suite of resolution capabilities and supporting systems through the Annual Resolvability Enhancement Assessment ("AREA") process;¹¹
- Completed Project Gladiator, including the migration of shared operational resources and services from MOEs to an operationally and financially resilient global network of Material Service Entities ("MSE");¹²
- Expanded and enhanced its operational mapping process;
- Executed and updated service-level agreements ("SLAs") between Material Entities;
- Reviewed critical contract provisions and remediated as necessary;
- Enhanced its Guarantee Administrative Priority Motion by including alternative relief in the form of a transfer motion;
- Identified its QFC population and engaged a vendor to digitize QFC cross-default provisions; and
- Remediated termination rights in QFCs via ISDA Protocol adherence and entry into bilateral amendments.

The Firm is dedicated to integrating resolution planning into BAU activities and has made significant, demonstrable progress in embedding its resolution planning objectives and efforts into BAU activities. Notwithstanding that the actions taken by the Firm to date have been more than sufficient to make the Firm resolvable as required by the Dodd-Frank Act and 165(d) Rule, the Firm is also continuing to assess and further develop its resolution planning capabilities beyond July 2017.

1.6 Conclusion

In its 2015 Plan, the Firm described an SPOE Resolution Strategy that included a number of innovations, such as its binding Support Agreement and financial modeling capabilities, to facilitate the orderly resolution of the Firm without an adverse effect on financial stability. In its October 2016 Status Report, the Firm described its approach to addressing each of the shortcomings identified in the Agency Guidance. The Firm has now completed the commitments made in its 2015 Plan and the remediation activities and other required actions detailed in its Status Report. With these actions, the Firm is confident that it could be resolved in a rapid and orderly manner without endangering financial stability or requiring extraordinary taxpayer or government support.

The following Public Section and the 2017 Plan more fully describe how these completed actions remediate all the shortcomings and fully address the Agency Guidance. In particular, the following Public Section provides (i) a more detailed summary of the Resolution Strategy; (ii) a description of the Firm's resolution capabilities with respect to each vulnerability described in the 2017 Guidance; (iii) an overview of the Firm's resolution planning governance structure, review and challenge framework and

¹¹ AREA is the Firm's process to assess, in an objective and formal manner, the sufficiency of existing practices that support robust recovery and resolution preparedness, relative to explicit regulatory rules, expectations and guidance. Through AREA, the Firm evaluates its ability to execute certain functions and produce the data, reporting and analysis (inclusive of contractual, financial, risk and operational information, at the appropriate level of detail) that would be required to execute the Resolution Strategy in a timely manner.

¹² Material Service Entities provide support services, functions and/or resources that are significant to Material Entities, in support of Core Business Lines and Critical Operations.

other processes that have been developed to sustain and enhance the Firm's resolvability capabilities; and (iv) brief summaries of completed remediation projects within the Firm's Recovery and Resolution Enhancement Program ("**RREP**"). The Public Section also includes eight appendices that provide additional information regarding the Firm pursuant to the requirements of the 165(d) Rule, as well as a Glossary.

2. Firm Overview

The Firm is a global financial services institution that, through its subsidiaries and affiliates, advises, and originates, trades, manages and distributes capital for governments, institutions and individuals. MS Parent was originally incorporated under the laws of the State of Delaware in 1981, and its predecessor companies date back to 1924. The Firm is a financial holding company regulated by the Federal Reserve Board under the Bank Holding Company Act of 1956, as amended. The Firm conducts its business from its headquarters in and around New York City, its regional offices and branches throughout the U.S. and its principal offices in London, Tokyo, Hong Kong and other world financial centers. As of December 31, 2016, the Firm had 55,311 employees worldwide.

The Firm is a global financial services institution that maintains significant market positions in each of its Core Business Lines: ISG, WM and IM.¹³ Since its founding, the Firm has served the capital markets and advisory needs of its clients within its ISG business, for which the underlying business model has continuously evolved to adapt to the changing economic and regulatory landscape. Over the years, the Firm has diversified into other businesses, including retail services within WM and institutional asset management services within IM. All aspects of the Firm's businesses are highly competitive, and the Firm expects them to remain so in the future. The Firm competes in the U.S. and globally for clients, market share and human talent in all aspects of its Core Business Lines. The Firm competes with commercial banks, brokerage firms, insurance companies, electronic trading and clearing platforms, financial data repositories, mutual fund sponsors, hedge funds, energy companies and other companies offering financial or ancillary services in the U.S. and globally.

The Firm executes the global business operations related to its three Core Business Lines through a number of legal entities within its structure. While legal entities may exist in the Firm's structure to support a variety of business operations and financial efficiencies, the vast majority of the Firm's business operations are conducted through a concentrated subset of the legal entity population, which the Firm designates as its Material Entities.¹⁴

Exhibit 2-1 identifies the entities that have been designated as the Firm's Material Entities for the 2017 Plan.

	MATERIAL ENTITY NAME	DESCRIPTION			
Ма	Material Operating Entities				
1	Morgan Stanley & Co. LLC ("MSCO")	U.S. Institutional Broker-Dealer, FCM			
2	Morgan Stanley & Co. International plc ("MSIP")	UK Broker-Dealer			
3	Morgan Stanley MUFG Securities Co., Ltd. ("MSMS")	Japan Broker-Dealer			
4	Morgan Stanley Capital Services LLC ("MSCS")	U.S. Swap Dealer			
5	Morgan Stanley Capital Group, Inc. ("MSCG")	U.S. Commodities, Swap Dealer			

Exhibit 2-1: List of Material Entities Included in the 2017 Plan

¹³ The Firm's Core Business Lines are discussed in greater detail in Appendix A: Description of Core Business Lines.

¹⁴ The Firm's Material Entities are discussed in greater detail in Appendix B: Description of Material Entities.

6	Morgan Stanley Bank, N.A. ("MSBNA")	U.S. National Bank	
7	Morgan Stanley Private Bank, N.A. ("MSPBNA")	U.S. National Bank	
8	Morgan Stanley Smith Barney LLC ("MSSB")	U.S. Retail Broker-Dealer	
9	Morgan Stanley Investment Management Inc. ("MSIM Inc.")	U.S. Investment Advisor	
10	Morgan Stanley Investment Management Ltd. ("MSIM Ltd.")	U.K. Investment Advisor	
Mat	erial Service Entities		
11	Morgan Stanley Services Group ("MSSG")	U.S Support Services Provider	
12	MS Financing LLC ("MSFL")	U.S. Real Estate & Procurement Company	
13	Morgan Stanley UK Group ("MSUKG")	UK Real Estate Company	
14	Morgan Stanley UK Limited ("MSUKL")	UK Support Services Provider	
15	Morgan Stanley Smith Barney Financing LLC ("MSSBF")	U.S. Real Estate and Procurement Company	
16	Morgan Stanley Smith Barney FA Notes Holding LLC ("MSSBFA")	U.S. F.A. Notes Financing Company	
17	Morgan Stanley Japan Group Co., Ltd ("MSJG")	Japan Support Services Provider	
18	Morgan Stanley Services Canada Corp ("MSSCC")	Canada Technology Workforce Center	
19	Morgan Stanley Hungary Analytics Limited ("MSHAL")	Hungary Workforce Center	
20	Morgan Stanley Advantage Services Private Limited ("MSASPL")	India Workforce Center	
21	Morgan Stanley Management Services (Shanghai) Limited ("MSMSSL")	China Workforce Center	
22	Morgan Stanley Services Holdings ("MSSH")	U.S. Payroll Company	
23	Morgan Stanley Asia Limited ("MSAL")	Hong Kong Broker-Dealer and Support Service Provider	
24	Morgan Stanley Solutions India Private Limited ("MSSIPL")	India Workforce Center	
25	Morgan Stanley Hong Kong Ltd ("MSHKL")	Hong Kong Fixed Asset Holding Company	
26	Morgan Stanley Employment Services UK Limited ("MSES")	UK Pay Company	
27	Morgan Stanley Bank Aktiengesellschaft ("MSBAG")	German Bank ¹⁵	

¹⁵ MSBAG is an MSE due to the materiality of the services it provides to MOEs.

3. Resolution Strategy

3.1 Overview

The Firm has developed its Resolution Strategy and articulated how this strategy could be successfully implemented by the Firm within the time frames and under the stress conditions mandated by the Agencies without taxpayer or government support and without disruption to U.S. and global financial stability. Consistent with its Resolution Objectives, the Firm has developed an SPOE Resolution Strategy under which MS Parent would fail and file for bankruptcy under Chapter 11 but the Firm's Material Entities would remain solvent and would be sold or wound down as described below. Throughout the resolution of the Firm, operational continuity and access to all critical internal and external services would be maintained to implement the Resolution Strategy, prevent the failure of any Material Entities and maximize the value preserved for MS Parent's bankruptcy estate. At the end of the Resolution Period, the Firm would essentially no longer exist.

Hypothetical Resolution Scenario

To develop its Resolution Strategy, the Firm has used a hypothetical failure scenario and associated assumptions mandated by regulatory guidance (the "**Hypothetical Resolution Scenario**"). Under the Hypothetical Resolution Scenario, the Firm is required to assume that it would face a severe idiosyncratic stress event in a severely adverse economic environment, requiring resolution of the Firm. The Firm is also required to assume that it does not take any recovery actions or that any recovery actions taken would not be successful. The Plan describes how, in the Hypothetical Resolution Scenario, MS Parent could be resolved in a manner that satisfies the requirements of the 165(d) Rule.

The Hypothetical Resolution Scenario and the related assumptions are hypothetical and do not necessarily reflect an event or events to which the Firm is or may become subject. The Firm's resolution planning efforts are aimed at increasing the Firm's resilience and resolvability under a variety of scenarios. The Hypothetical Resolution Scenario includes a set of extremely severe economic assumptions, which require the Firm to absorb large losses and experience severe liquidity outflows in a severely adverse macroeconomic environment. The Resolution Strategy is not binding on any court or other resolution authority. The Resolution Strategy is dynamic and, in the unlikely event that a real event of Material Financial Distress were to occur, actual events at the time would be based on the facts and circumstances during the actual period of Material Financial Distress, including decisions and actions of regulators and other parties.

Support Agreement Framework

A central component of the Firm's SPOE Resolution Strategy is the "**Support Agreement Framework**," which is comprised of the following:

The trigger and escalation framework that includes triggers based on capital and liquidity
metrics and which prescribes when the Firm must take clearly identified actions and initiate
related communications to implement the Resolution Strategy, including recapitalizing and
providing liquidity to the Material Entities in amounts projected to be sufficient to allow the
Material Entities to remain solvent and implement the Resolution Strategy.

- The "**Support Agreement**," a contractually binding mechanism that commits MS Parent and certain of its subsidiaries to support the Material Entities upon the occurrence of certain triggers and ensures that resources are made available to those Material Entities that need them.
- The "Security Agreement" that creates perfected security interests in assets of MS Parent that could be contributed to the Material Entities, incentivizing MS Parent to perform its obligations under the Support Agreement and mitigating any potential legal challenges to MS Parent's provision of support to the Material Entities.

The Support Agreement Framework would govern the progression of the Resolution Strategy prior to MS Parent's failure. The Support Agreement Framework includes a full continuum of triggers based on liquidity and capital metrics, described below and illustrated in Exhibit 3.1-1, which are linked to specific Firm actions and which identify when and under what conditions the Firm, including MS Parent and its Material Entities, would transition from BAU conditions to a Stress Period and from a Stress Period to the pre-resolution Runway Period and, in the unlikely event recovery actions proved to be unsuccessful, the Resolution Period.

Resolution Chronology

The timeline for the Resolution Strategy is illustrated in Exhibit 3.1-1:



Exhibit 3.1-1: The Resolution Continuum and Trigger Framework

During BAU, substantial capital and liquidity have been pre-positioned at the Material Entities, as described further in Section 4.2.3 *Financial Resource Positioning Framework.* Upon the occurrence of a Calculation Trigger (marked A in the Exhibit 3.1-1), the Firm would exit BAU and enter the Stress Period. This Stress Period would last until the occurrence of either (i) a Distress Trigger (marked B), at which point the Firm would recognize that recovery actions have been unsuccessful and resolution, rather than recovery, is a potentially more likely outcome, or (ii) the Firm's recovery. During the Runway Period that would begin upon the occurrence of a Distress Trigger, the Firm would finalize strategic preparatory actions for a potential resolution. Pursuant to the Support Agreement as enhanced for purposes of the 2017 Plan (the **"2017 Support Agreement**"), upon the occurrence of a Support Trigger (marked C), MS Parent would be required to contribute to the Material Entities sufficient Contributable Assets (i.e., MS Parent assets other than certain excluded assets, such as interests in subsidiaries and a Holdback for bankruptcy expenses) to meet the Material Entities' Resolution Capital Execution Need

("**RCEN**")¹⁶ and Resolution Liquidity Execution Need ("**RLEN**").¹⁷ Such support would be provided during the Support Completion Period (marked E). In addition, upon occurrence of the Support Trigger, any remaining inter-company debts of the Material Entities, or certain intermediate entities, that are ultimately owed to MS Parent would be subordinated to external creditors of such entities and their maturities would be extended. This support, together with the financial resources already held by the Material Entities prior to the occurrence of the Support Trigger, would be sufficient to allow the Material Entities to remain solvent and implement the Resolution Strategy.

The obligations of MS Parent under the 2017 Support Agreement are secured on a senior basis by substantially all of the Contributable Assets of MS Parent. As a result, claims of the Material Entities against the assets of MS Parent (other than the stock of its subsidiaries) will be effectively senior to unsecured obligations of MS Parent. MS Parent, like most parent holding companies, has no operations and depends on dividends, distributions and other payments from its subsidiaries to fund dividend payments and to fund all payments on its obligations, including debt obligations.

Contemporaneously with the occurrence of the Support Trigger, a Bankruptcy Governance Trigger (marked D) would occur, prompting the MS Parent Board to consider commencing voluntary proceedings under Chapter 11 for MS Parent. Shortly thereafter, MS Parent would be expected to commence a voluntary case under Chapter 11 (marked F), while the Firm's Material Entities would remain solvent and outside of resolution proceedings.¹⁸ The commencement of MS Parent's Chapter 11 case would mark the end of the Runway Period and the beginning of the Stabilization Period.

Exhibit 3.1-2 illustrates which MOEs and MSEs will be sold or wound down under the Resolution Strategy.



Exhibit 3.1-2: Firm Resolution Strategy

¹⁶ RCEN provides the estimate of the amount of capital that each Material Entity requires for the execution of the Firm's Resolution Strategy following the bankruptcy filing of MS Parent, while still maintaining capital levels that allow them to operate or to be wound down in an orderly manner.

¹⁷ RLEN provides the estimate of the amount of liquidity that each Material Entity requires to operate during the Resolution Period in accordance with the Firm's Resolution Strategy.

¹⁸ In order to avoid the close-out on unfavorable terms of QFCs entered into by these Material Entities, MS Parent would seek expedited Bankruptcy Court approval of a motion to elevate guarantees of subsidiary QFCs to administrative priority status or, in the event the bankruptcy court does not approve such elevation, to transfer certain MS Parent assets and guarantee obligations of subsidiary QFCs to a NewCo owned by a trust for the sole benefit of MS Parent's bankruptcy estate.

During the Stabilization Period, a sale process would be initiated for the Firm's highly marketable Core Business Lines that would likely retain significant franchise value in a resolution scenario: (i) WM, including the U.S. retail broker-dealer (MSSB) and U.S. Banks (MSBNA and MSPBNA); and (ii) IM, including the U.S. investment advisor (MSIM Inc.) and UK investment advisor (MSIM Ltd.). In addition, the ISG Solvent Wind Down would be commenced.

Under the ISG Solvent Wind Down, ISG's MOEs in the U.S. (MSCO, MSCS and MSCG), the U.K. (MSIP) and Japan¹⁹ (MSMS) would be wound down outside stand-alone bankruptcy or other insolvency proceedings. The ISG Solvent Wind Down is not in any way dependent on financial resources from the sale of WM and IM and the sale of WM and IM would not affect any operational capabilities supporting the ISG Solvent Wind Down, or vice versa.

Advantages of the Firm's SPOE Resolution Strategy

The Firm strongly believes that its Resolution Strategy has the following significant advantages, among others:

- It preserves the value of Core Business Lines and Critical Functions by allowing them to be sold or wound down in an orderly fashion without the Material Entities entering insolvency or resolution proceedings.
- WM retail brokerage customers and ISG Prime Brokerage customers retain seamless, full and timely access to their accounts and are fully protected during the execution of the Resolution Strategy, and neither MSBNA or MSPBNA depositors nor the FDIC's Deposit Insurance Fund suffer losses.
- All liabilities of Material Entities are paid as they become due, including liabilities to derivatives counterparties, which will either be paid as scheduled or through novations or consensual tear-ups.
- The early terminations of financial contracts based on cross default rights, and related significant losses, are avoided.
- Secured funding counterparties are able to receive payment of cash without foreclosing on securities collateral, and securities lenders are able to receive their securities without foreclosing on cash collateral.
- No customer assets are trapped.

The Resolution Strategy is executable from a business, financial and operational point of view. The financial feasibility of the Resolution Strategy has been analyzed using conservative assumptions and detailed, robust capital and liquidity frameworks. The Firm continues to take significant steps to ensure that its Resolution Strategy is operationally feasible, as described in the following sections.

3.2 ISG Solvent Wind Down

The Firm selected wind down as its strategy for ISG because, although a sale of ISG (alone or as part of a sale of the overall Firm) or continuing the business as a going concern are theoretically possible,

¹⁹ The Firm also has a backup strategy to sell the Firm's Japan JV interests in MSMS and MUMSS (a non-Material Entity) to MUFG that may be pursued instead of a solvent wind down of MSMS, depending on the facts and circumstances of an actual resolution scenario.

historical examples and the Firm's scenario modeling indicate that a sale would likely not be practical. Therefore, to ensure that the ISG business can be resolved in an orderly manner in a broad range of scenarios, the Firm has elected to demonstrate that its ISG MOEs could be wound down without entering resolution proceedings, which the Firm refers to as the Solvent Wind Down.

The objective of the ISG Solvent Wind Down is a rapid and orderly wind down of its MOEs MSCO, MSIP, MSMS, MSCS, MSCG and, to the extent necessary, MSBNA's ISG positions,²⁰ in a manner that maximizes value and minimizes cost and disruptions to the broader financial system and economy. The liquidity and capital support provided by MS Parent during the Runway Period pursuant to the Support Agreement Framework and the override of cross defaults in QFCs to which the ISG MOEs are parties would enable the ISG MOEs to remain outside of resolution proceedings. The ISG Solvent Wind Down entails a wind down of sales and trading activity, a transfer of Prime Brokerage customer assets and a cessation of investment banking and capital markets activities. Consistent with the Firm's resolution objectives, the Firm believes that the ISG Material Entities':

- Sales and trading portfolios should be sufficiently liquid to convert non-cash assets into cash at
 a rate faster than the rate of net liquidity outflows without breaching any capital constraints or
 transmitting liquidity risk into the market;
- Operational capacity and infrastructure should be sufficient to quickly transfer Prime Brokerage assets and client clearing positions to alternate providers; and
- Investment banking and capital markets activities should be readily absorbed by peer institutions without any undue impact on existing clients or the market.

3.3 Wealth Management and Investment Management Sales

As highly marketable businesses with steady cash flows, WM and IM are likely to generate interest from a diverse buyer pool even in stressed market conditions at valuations reflecting assumptions appropriate to resolution. Although the details of the WM and IM sales will depend, in many respects, on whether these businesses are sold to financial or strategic buyers, the Firm has attempted to maintain flexibility in its resolution planning efforts to accommodate both financial and strategic buyers.

The Firm believes that the WM and IM Material Entities should have sufficient capital and liquidity throughout the resolution process. To demonstrate that WM and IM will maintain business continuity through completion of the sale, the Firm has used existing BAU and resolution plan processes, including those described in Section 4.3 *Operational Continuity and Capabilities*, to identify key front- and back-office dependencies and to develop a strategy to maintain service continuity and retain business value.

To demonstrate that WM and IM are separable, the Firm has a strategy for dedicated personnel, vendor services, technology and leases and related contracts to be transferred to each buyer on the first day after the divestiture. Necessary shared services and resources may be provided to buyers by operationally and financially resilient MSEs pursuant to transition services agreements ("**TSAs**"), which can be based on existing SLAs between MSEs and their MOE customers. The Firm analyzed the types of impacts under Federal Reserve Supervision and Regulation Letter 14-8, Consolidated Recovery Planning for Certain Large Domestic Bank Holding Companies ("**SR Letter 14-8**") and performed legal

²⁰ For example, the Resolution Strategy includes the complete wind down of MSBNA's FX positions prior to the consummation of the WM sale.

risk assessments to demonstrate the sales can be executed contemporaneously with no disruption to execution of the ISG Solvent Wind Down. No Material Entities are reliant on sale proceeds as a source of funding to satisfy RCEN or RLEN under the Resolution Strategy.

The Firm drew on its institutional knowledge and governance processes from past involvement, as buyer, seller and advisor, in comparable transactions to produce a marketing and sale playbook, separability strategy and business valuations and, to facilitate buyer due diligence, sale package materials, carve-out financial statements and virtual data rooms, all of which are included in the 2017 Plan.

4. Resolvable Morgan Stanley

The Firm has in place the rational legal entity structure, robust capabilities and effective processes required to implement its Resolution Strategy. Since submitting the 2015 Plan, the Firm has taken numerous actions to further modify its entity structure, enhance its capabilities and improve its processes across its Three Pillars of Resolution Planning. The Firm has assessed the risks to resolvability outlined in the Agency Guidance, as well as other risks identified by the Firm, and has developed or maintained capabilities to address these risks across the Three Pillars. The following sections provide a detailed overview of the Firm's capabilities across each of the Three Pillars, including how risks to resolvability were identified, assessed and mitigated. The sections are organized according to the Firm's capabilities, which directly address vulnerabilities identified by the Agency Guidance, including applicable shortcomings.

4.1 Strategic and Legal Framework

4.1.1 Governance Mechanisms

Prior to the submission of its 2015 Plan, the Firm had already completed extensive Governance Mechanisms-related actions. Among other things, the Firm had pioneered the use of a Support Agreement, which in the 2015 Plan included capital- and liquidity-based triggers to (i) mark the onset of the Runway Period and (ii) recapitalize MS Parent's Material Entities at a time when MS Parent would still have sufficient resources for the Material Entities to execute the Resolution Strategy. The Material Entities obtained security interests in MS Parent's inter-company receivables under the 2015 Support Agreement. Moreover, to ensure that MS Parent and the Material Entities undertook resolution-related actions in a timely manner, the Firm developed triggers for the escalation of information and resolution-related decisions to the MS Parent Board and developed a Governance Playbook that set out resolution-related considerations and potential actions for the Boards of MS Parent and its Material Entities.

In the 2016 Feedback, the Agencies identified certain shortcomings in the 2015 Plan with respect to Governance Mechanisms. Regarding the Firm's trigger framework, the Agencies found that the 2015 Plan did not include triggers directly connecting the provision of support needed to execute the Firm's preferred strategy with its decision to file for bankruptcy. Regarding the Firm's Support Agreement, the Agencies identified a shortcoming regarding the limited analysis of the range of potential legal challenges that could adversely affect the Firm's approach to providing support and instructed the Firm to further develop its legal analysis of potential challenges to the provision of support and to identify mitigants that the Firm considered most effective.

The Firm has undertaken extensive enhancements to its trigger and escalation framework and Support Agreement to address the shortcomings identified by the Agencies. The Firm's Governance Mechanisms are designed to facilitate timely execution of required Board actions, including authorizing MS Parent to provide financial resources to Material Entities in a manner that is resilient to potential creditor challenges. The Firm's many Governance Mechanisms improvements and capabilities include the following:

- Enhancements to its trigger and escalation framework and Governance Playbooks to facilitate timely decision making and action execution to implement the Resolution Strategy, such as by:
 - Directly connecting the provision of capital and liquidity support from MS Parent to the Material Entities with the decision to file for bankruptcy so that the MS Parent Board would consider filing for bankruptcy at an appropriate time to execute the Resolution Strategy; and
 - Aligning the terminology of the Support Agreement to the nomenclature used in the Agency Guidance.
- Enhancements to its Support Agreement Framework and legal challenge analyses to maintain downstreaming of financial resources from MS Parent to Material Entities, as necessary, in a manner resilient to potential challenges by creditors of MS Parent, including by:
 - Expanding the collateral package securing MS Parent's obligations under the 2017 Support Agreement to include substantially all the Contributable Assets of MS Parent;
 - Perfecting the security interest in MS Parent's Contributable Assets;
 - Expanding its legal analysis of potential challenges;
 - Implementing a Financial Resource Positioning Framework;
 - Disclosing the existence of the Support Agreement Framework in public filings; and
 - Where appropriate, embedding these improvements into BAU practices and procedures to contribute to the Firm's ongoing resolvability.

The Firm's Governance Mechanisms have been further enhanced by the actions that the Firm has taken to address any obstacles associated with emergency motions proposed to be filed in the Bankruptcy Court upon commencement of MS Parent's Chapter 11 proceedings, including:

- Creation of a Bankruptcy Playbook, which outlines the process for preparing for MS Parent's bankruptcy filing and addresses key issues that will arise in the days and weeks preceding and immediately following the bankruptcy filing, and enhancements to its bankruptcy motions; and
- Enhancements to the steps to be taken to mitigate cross default rights of QFC counterparties²¹ in a manner resilient to legal challenges, including preparation of an emergency motion seeking the relief from the Bankruptcy Court necessary to meet the requirements of the ISDA Protocol, as well as related declarations in support of this motion.

These actions are discussed in greater detail in Section 4.3.5 *Legal Obstacles Associated with Emergency Motions.*

Triggers and Escalation

The Firm's trigger and escalation framework is designed to guide the timely execution of the Resolution Strategy. In the 2017 Plan, the Firm has enhanced existing triggers and developed new triggers to further inform the timely execution of an MS Parent bankruptcy filing and related pre-filing actions, including directly connecting the provision of capital and liquidity support from MS Parent to the Material Entities with the decision to file for MS Parent bankruptcy. These triggers are based on capital and

²¹ The Agencies have identified the ability of counterparties to certain QFCs to terminate those contracts based on a cross-default to a parent or other affiliate of a U.S. global systemically important banking organization ("U.S. G-SIB") becoming subject to insolvency proceedings, even when the direct party is performing on the contracts, as a material impediment to the orderly resolution of a U.S. G-SIB.

liquidity metrics, including RCEN and RLEN, and reflect changes to the Firm's capital and liquidity positions that then-existing or anticipated market conditions may precipitate. The triggers delineate the transitions from BAU to the Stress Period to the Runway Period to the Stabilization Period (i.e., the first portion of the Resolution Period), and the occurrence of a trigger requires the Firm to take clearly identified actions and initiate related communications.

Exhibit 4.1-1 depicts the sequence of triggers in the context of the continuum between BAU and the Resolution Period. The occurrence of a Support Trigger, upon which MS Parent will provide capital and liquidity support to the Material Entities, now activates the Bankruptcy Governance Trigger, which will initiate the process for consideration and approval of an MS Parent bankruptcy filing. This enhanced trigger and escalation framework has been documented in capital and liquidity policies, as appropriate, to confirm related roles and responsibilities. These triggers are described in greater detail in Section 3.1 *Overview*.



Exhibit 4.1-1: Trigger and Escalation Framework through the Continuum

The trigger and escalation framework is flexible enough to function under a wide range of failure scenarios. In any conceivable stress scenario, the Firm's trigger and escalation framework would be activated well in advance of the time at which the Firm's solvency could be in doubt. The Firm's expectation is supported through sensitivity analyses performed by the Firm that confirm that the trigger and escalation framework allows sufficient time to prepare for resolution even in scenarios that are different or more severe than the primary scenario.

The Firm's trigger and escalation framework is designed to successfully facilitate the execution of the Resolution Strategy and is grounded in three principles:

- Management Information Systems ("MIS") capabilities: Triggers should be linked to metrics that are frequently monitored in BAU and can be incorporated into existing capital and liquidity policies and frameworks;
- Timing of actions: Triggers should:
 - Enable the Firm to take or begin taking certain actions when bankruptcy is sufficiently remote;
 - Allow sufficient time to prepare for resolution; and
 - Enable the downstreaming of remaining MS Parent resources in advance of a bankruptcy filing.

• Flexibility: Triggers should detect stress in a wide variety of failure scenarios, as supported through sensitivity analysis.

The Firm has also enhanced existing triggers and developed new triggers to inform the timely provision of any MS Parent support necessary to maintain capital and liquidity levels at Material Entities in excess of applicable constraints. Such Material Entity capital and liquidity constraint triggers (e.g., those which are based on regulatory capital minimums), as appropriate, have been included within applicable capital and liquidity policies.

Support Agreement Framework and Legal Challenge Analysis

The Firm has made several enhancements to the Support Agreement Framework to increase the resiliency of MS Parent support to Material Entities from potential creditor challenges. The Firm has based these changes, in part, on a further-developed legal analysis of potential challenges. These Support Agreement Framework enhancements, the implementation of a Financial Resource Positioning Framework and evaluation of an intermediate holding company concept were informed by a detailed legal analysis of potential challenges that was further developed since submission of the 2015 Plan. The Firm performed this enhanced legal analysis with the extensive input of external bankruptcy counsel. Based on this analysis, the Support Agreement Framework, the Financial Resource Positioning Framework and other associated mitigants, the Firm believes that MS Parent support to Material Entities in a time of Material Financial Distress is resilient to potential challenges, including claims of (i) intentional fraudulent transfer, (ii) constructive fraudulent transfer, (iii) preferential transfer, (iv) breach of fiduciary duties and (v) breach of indenture covenant.

Governance Playbooks

The Firm has developed MS Parent and Material Entity Governance Playbooks to identify actions the Firm is expected to take during periods of stress and resolution as well as confirm that the Firm currently has the capabilities to support such actions. These playbooks are complemented by additional playbooks that are described in subsequent sections, including (i) the Bankruptcy Playbook, (ii) the Runway Period Funding Playbook, (iii) the Financial Stress Communications Playbook and (iv) the Employee Retention Playbook.

The Governance Playbooks for MS Parent and each Material Entity demonstrate that the Firm has properly analyzed the Governance Mechanisms from the perspective that each respective Board is expected to have when facing an imminent period of Material Financial Distress. The Governance Playbooks set out resolution-related considerations for MS Parent and each Material Entity, including the strategic decisions and actions expected to be made by the Boards and the consistency of such decisions with the Directors' fiduciary duties.

The Governance Playbooks serve as a framework for the decision-making process the Boards may go through in a resolution scenario. However, actual decisions would be made in light of the facts and circumstances existing at the time, after due consideration by the Boards and based on: (i) the information before the Boards, (ii) their obligations under the 2017 Support Agreement and (iii) the exercise of their fiduciary duties. If MS Parent or the Material Entities were to experience Material Financial Distress, the relevant directors would likely consult with external counsel in order to take actions consistent with the exercise of their fiduciary duties.

As part of its continuous efforts to improve its governance mechanisms and in response to the 2017 Guidance, conflicts of interest has been an area of focus for the 2017 Plan. The Firm has conducted a conflicts of interest analysis, confirmed that there is currently no overlap in membership between the MS Parent Board and any Material Entity Board and identified all instances where an individual currently serves on the Board of two or more Material Entities. The Firm has conducted this conflicts of interest analysis despite the fact that conflicts are unlikely to arise between Material Entities or between a Material Entity and MS Parent.

The 2017 Support Agreement substantially reduces the potential for conflicts of interest between MS Parent and the Material Entities. The 2017 Support Agreement has been executed in BAU, when the interests of MS Parent and the Material Entities are aligned. As such, during the Runway Period, even if the interests of MS Parent and the Material Entities with respect to the downstreaming of financial resources might otherwise conflict, MS Parent would have a contractual obligation to contribute financial resources to the Material Entities. Conflicts between Material Entities are substantially eliminated by the Firm's SPOE Resolution Strategy, as all Material Entities will benefit from the Resolution Strategy's implementation and all will remain solvent and continue to honor both inter-company and third-party obligations.

However, while the likelihood of conflicts is remote, the Firm has a conflict of interest identification and director resignation process to mitigate conflicts in the unlikely event that they arise and that is agnostic to any particular scenario or strategy.

The Firm has also briefed the Boards of MS Parent and the Material Entities on, among other things, the Resolution Strategy, Support Agreement Framework, Governance Playbooks and Financial Resource Positioning Framework and made enhancements and clarifications to the Governance Playbooks based on those discussions.²²

The Firm has also prepared additional playbooks in order to further enhance its governance mechanisms, which are briefly described below.

4.1.1.1 Financial Stress Communications Playbook

The Financial Stress Communications Playbook is grounded in the principle that the Firm's BAU processes should be crisis-ready, adaptable to the particular facts and circumstances at the time and able to be executed in a wide range of scenarios in a timely manner.

4.1.1.2 Employee Retention Playbook

The Employee Retention Playbook sets forth the key actions and activities the Firm would take to retain personnel critical to the execution of the Resolution Strategy, including the related governance bodies and decision-making processes.

4.1.2 Legal Entity Rationalization

In conducting its global business operations, the Firm utilizes a network of legal entities to service its institutional, corporate and retail clients from around the world. While the Firm's legal entity structure is

²² The Firm conducted 39 briefings with Material Entity Boards since the October 2016 Status Report submission.

driven by its regulatory, client, business, financial and other needs, the Firm recognizes the importance of maintaining a rational and resolvable legal entity structure in which legal entities are aligned with, and support the operations of, the Firm's Core Business Lines. A rational legal entity structure supports resolvability because the role that each legal entity serves for the Firm is clear, the risks associated with such legal entity can be measured and the Firm can identify and provide financial resources to those legal entities that are vital to the execution of the Firm's Resolution Strategy.

Prior to the submission of its 2015 Plan, the Firm had already completed substantial actions to rationalize its legal entity structure. These actions included (i) developing an LER framework with specific criteria that improved the resolvability of the Firm; (ii) reducing the number of consolidated legal entities by 32% between the fourth quarter of 2007 and the second quarter of 2015; (iii) maintaining compliance with the Agencies' prior guidance on clean holding companies by stopping the issuance by MS Parent of debt with an original maturity of less than one year, limiting MS Parent's derivatives with external counterparties and adopting a policy to prohibit guarantees of MS Parent's obligations by its subsidiaries; (iv) implementing an annual review of inter-company unsecured funding paths; (v) enhancing the existing legal entity management processes to include resolvability considerations; and (vi) confirming that the equity ownership structure of Firm entities does not materially impact the Firm's resolvability.

The Firm's 2016 Feedback did not identify any LER-related shortcomings. While the completed efforts of business line simplification, legal entity population reduction and ownership line restructurings support the Firm's current status of having a rational and resolvable legal entity structure, the Firm has also made several key enhancements in support of the maintenance of such a rational and resolvable structure over time, including:

- Enhancing its LER Criteria, which provide actionable standards and related requirements for how the Firm should govern its legal entity structure and underlying legal entities;
- Developing an assessment framework against the LER Criteria, which provides a defined methodology by which to assess the Firm's adherence to the LER Criteria;
- Executing the LER Criteria assessment of the Firm's entire legal entity structure and applicable legal entities,²³ which identified additional actions required to support the Firm's adherence to the LER Criteria; and
- Formalizing additional oversight responsibilities under the Global Legal Entity Oversight & Governance Committee, including the LER Criteria and related assessments.

The Firm has made continued efforts and enhancements related to LER, reflecting its commitment to maintaining its rational and resolvable legal entity structure as its business strategy and external operating environments evolve through its continued efforts and enhancements related to LER. These include:

- Simplification of its Core Business Lines and reductions in the legal entity population to support the alignment of legal entities to those simplified Core Business Lines;
- Streamlining equity ownership chains within the legal entity structure;

²³ Certain criteria apply only to legal entity structure, not legal entities, and/or may not be applicable to certain legal entity types (e.g., IDI-related criteria).

- The development and implementation of an enhanced LER governance process under the oversight of the Global Legal Entity Oversight & Governance Committee; and
- Maintaining and integrating into BAU processes LER Criteria that require a rational and resolvable legal entity structure to facilitate the Resolution Strategy.

Simplification of the Firm's Core Business Lines and Reductions in the Legal Entity Population

Prior to and following the 2008-2009 financial crisis, the Firm has engaged in the ongoing simplification of its business model, focusing on the Core Business Lines of ISG, WM and IM. With this goal in mind, the Firm executed a series of divestitures to exit businesses whose activities were outside the scope of the Core Business Lines, including:

- The sale of the Physical Commodities business in November 2015;
- The sale of the Global Oil Merchanting business, TransMontaigne, in July 2014;
- The sale of portions of the international Private Wealth Management business from 2013 to 2014;
- The sale of the mortgage servicing platform, Saxon, in April 2012;
- The sale of the UK wealth management business, Quilter, in April 2012;
- The sales of two proprietary hedge funds, FrontPoint in March 2011 and Process Driven Trading in February 2013;
- The sale of the Van Kampen retail asset management business in June 2010;
- The sale of the remaining stake in MSCI in May 2009; and
- The spinoff of Discover credit cards in June 2007.

In line with the simplification of its business model, the Firm continues to reduce the number of legal entities within its structure by eliminating legal entities that do not conduct activities and operations in support of the Core Business Lines. As of March 31, 2017, the Firm had reduced its number of consolidated legal entities by 36% since December 31, 2007. The Firm has identified additional consolidated legal entities that it plans to close by year-end 2018 and has incorporated quantitative screens to identify potential dormant and redundant legal entity candidates into its annual legal entity closure pipeline process.

Streamlining Ownership Chains

The Firm continues to pursue opportunities to reduce the complexity of its legal entity structure. Recent efforts include remediating complexity within the UK Group, which includes MSIP, MSIM Ltd., MSUKG and MSUKL. Earlier this year, to support the protection of operations that would be critical in a resolution scenario, the Firm completed the process of establishing its MSE network, including the transfer of shared services, assets and personnel to designated MSEs.²⁴

Enhanced LER Governance and Integration into BAU Processes

The Global Legal Entity Oversight & Governance Committee is responsible for the oversight of all legal entity structural changes (including the creation, repurposing, restructuring and closure of any consolidated legal entity), review and approval of the LER Criteria and periodic assessments of

²⁴ For more detail on the Firm's efforts to maintain continuity of shared and outsourced services, see Section 4.3.4 Shared and Outsourced Services

adherence to the LER Criteria. The standards related to these responsibilities are set forth in the Global Legal Entity Governance and Structure Policy.

The LER Criteria distill the Three Pillars of business alignment, resiliency and resolvability, and tracking and monitoring capabilities into specific standards that capture a broad range of considerations for managing the Firm's legal entity structure and reflect all applicable requirements set out in the 2017 Guidance, while taking into account the Firm's governance foundation. Annual review of the LER Criteria ensures that the LER Criteria are revised on a timely basis to reflect substantial changes to the Firm's business model or to the external operating environment. The Firm's LER Criteria contain sufficient detail to promote actionability. Exhibit 4.1-2 provides a high level summary of the current list of the Firm's LER Criteria.

Exhibit 4.1-2: List of the Firm's LER Criteria (Approved as of April 28, 2017)

CRITERION		SUMMARY DESCRIPTION		
Governance				
0	Governance Foundation	The Firm should have strong governance in place to support the maintenance of a rational and resolvable legal entity structure.		
Pilla	ar 1: Business Alignment			
1.1	Alignment to Core Business Lines	The Firm's legal entities should be aligned with the Firm's Core Business Lines, with clear purposes and usages that support these business lines.		
1.2	Redundant or Dormant Entities	The Firm's legal entity structure should consist of minimal redundant or dormant entities.		
1.3	Protection of Bank IDIs	The Firm's IDIs should be adequately protected from risks arising from the activities of any non-IDI subsidiaries of the Firm.		
Pilla	ar 2: Resiliency and Resolvability			
2.1	Material Entities	Material Entities should be readily identifiable.		
2.2	Recapitalization and Liquidity Support	The Firm's legal entity structure should facilitate recapitalization and liquidity support of Material Entities.		
2.3	Continuity of Critical Business Operations	The Firm's legal entity structure should facilitate the continuity of critical business operations.		
2.4	Facilitation of Divestitures	The Firm's legal entity structure should facilitate the divestiture of discrete sale candidates.		
2.5	Facilitation of Wind down and Transfer Strategies	The Firm's legal entity structure should facilitate the wind down and transfer strategies for discrete operations.		
2.6	Mitigation of Creditor Challenges	The Firm should have a legal entity structure with the flexibility to mitigate creditor challenges, with adherence to clean holding company requirements.		
Pilla	ar 3: Tracking and Monitoring Capabilities			
3.1	Legal Entity Risk Ratings	The Firm should have the capability to determine risk ratings on an entity basis and to assign the appropriate level of risk oversight and governance for each entity.		
3.2	Legal Entity Risk Monitoring and Management	The Firm should have the capability to monitor and manage market, credit and liquidity risk on a legal entity basis for both external and inter-affiliate exposures.		
3.3	Monitoring and Management of Derivative Booking Practices	The Firm should have the capability to monitor and manage impacts from derivative booking practices.		
3.4	Inter-affiliate Transfer Pricing	The Firm should have the capability to monitor and manage the transfer pricing of revenues and expenses on a legal entity basis.		

The Firm has procedures for assessing on an ongoing basis whether its structure is consistent with the LER Criteria. The maintenance of the LER governance process and the appropriate implementation of all of its underlying components results in the upkeep of a rational and resolvable legal entity structure and supports the Firm's resolvability objectives.

Together, these enhancements to the Firm's LER capabilities underscore how the Firm is and will remain structured to facilitate implementation of the Resolution Strategy.

4.1.3 Separability

The Firm is well positioned to execute on the WM and IM sales due to its experience as a leading M&A advisory firm and as a party to investment management and retail brokerage M&A transactions, including the Firm's entry into a joint venture by purchasing a controlling stake in Smith Barney in 2009 and its subsequent purchase of the minority stake to own WM in its entirety, as well as the sale of its Retail Asset Management business to Invesco Ltd. in 2010.²⁵ The extensive M&A experience housed in the Firm has contributed to the success of these divestiture efforts, and the Firm expects to leverage this experience in any future divestitures, including in a resolution scenario.

In particular, divestiture efforts would be supported by Firm Strategy and Execution ("**FSE**"), a function dedicated to Firm M&A activities, and the Firm's Investment Banking Division ("**IBD**"), which is a consistent market leader in M&A advisory services. The Firm's planning to facilitate the separation of its WM and IM businesses in a resolution scenario draws upon this extensive experience and, as described further below, the Firm's deep understanding of sale processes has resulted in the identification and enhancement of certain preparatory steps that could accelerate timing of a sale process.

Prior to the submission of its 2015 Plan, the Firm had already completed substantial Separability-related actions. These actions included the adoption of a structure with separate broker-dealer entities to support ISG and WM and separate investment advisor entities to support IM. They also included improvements to the separability of its legal entity structure to support its business sale strategies and the resiliency of inter-affiliate relationships to support its wind down strategies.

The Firm's 2016 Feedback did not include any Separability-related shortcomings from the Agencies. Nonetheless, in addition to continuing to improve on the actions described above and in addressing the 2017 Guidance, the Firm has made extensive enhancements to its Separability capabilities, which are designed to facilitate the timely divestiture of WM and IM while providing for meaningful optionality under different market conditions. In making these enhancements, the Firm has built upon the accomplishments of other RREP Projects. The Firm's Separability enhancements include:

- Detailed identification of each sale package;
- The development of an enhanced Marketing and Sale Playbook, which provides an overview of the process to be executed upon an actual sale of potential sale candidates;
- Preparation of buyer due diligence materials
- Carve-out financial statements for each of WM and IM;

²⁵ This transaction was executed during a period of Firm and market-wide distress, which may be similar to the conditions that could exist in a resolution scenario.

- Enhanced sale package valuations based on a refined valuation methodology that takes into account a variety of severely stressed operating conditions;
- Enhanced analysis based on SR Letter 14-8, to assess the impact of executing the WM and IM sales from business, operational and financial perspectives and from the perspective of the impacts of the sales on Critical Functions;
- Legal risk assessments; and
- Creation of virtual data rooms populated with sales package information with processes to collect and refresh information and analyses.

The following sections provide additional details on the Firm's Separability enhancements.

Sale Structures

The WM and IM sale packages are consistent with the Firm's LER approach to maintaining a rational and resolvable legal entity structure in which legal entities are aligned with, and support the operations of, the Firm's Core Business Lines. The Firm has developed LER Criteria to support separability of the Firm's identified sale candidates.

Marketing and Sale Playbook and Other Preparatory Actions

Marketing and Sale Playbook

The Firm also developed an enhanced Marketing and Sale Playbook, which describes the marketing and sale process that the Firm would expect to execute in a resolution scenario. In identifying the expected sale process steps, FSE, the division responsible for leading divestitures within the Firm, drew on the Firm's past divestiture experience, including existing marketing, governance and communications protocols. The Marketing and Sale Playbook is documented by FSE and describes the (i) Preparation; (ii) Marketing, Diligence and Negotiation; and (iii) Closing and Post-Closing Phases. The playbook also identifies the potential buyer universe and describes valuation analyses and expected sale proceeds.

Sale Package Buyer Due Diligence Materials

The Firm developed sale package buyer due diligence materials, which involved defining the in-scope business and functional capabilities for each sale candidate and establishing an approach for separating potential sale candidates from the Firm. The exact nature of the sales is expected to be contingent, in many respects, on buyer type. The sale package materials have therefore been largely prepared based on the expected buyer type, but the separability analysis maintains flexibility to accommodate a wide range of strategic and financial buyers The WM and IM buyer due diligence materials provide an overview of each business, including the related separability considerations, to support buyer due diligence.

The Firm has built upon existing elements of the resolution plan, including Operational Mapping, employee retention and contract remediation, to identify key front- and back-office dependencies and develop a strategy to maintain service continuity and retain transaction value. Specifically, the Firm identified (i) dedicated personnel, vendor services, technology, facilities and related contracts likely to be transferred to buyers on day 1 and (ii) shared services and resources likely to be provided through TSAs between the buyers and operationally and financially resilient MSEs with existing SLAs between such MSEs and other Material Entities serving as a basis for TSA discussions with prospective buyers.

Carve-Out Financial Statements

Carve-out financial statements have been prepared to serve as a basis for valuing WM and IM. The carve-out financials were prepared by WM and IM Finance, the divisions responsible for producing the related business and Material Entity financials in BAU. The carve-out financial statements inform the Firm's assumptions about the likely proceeds of such sale(s), including the valuation analyses within the Marketing and Sale Playbook, and are included in the WM and IM virtual data rooms.

Separability Impact Assessment and Legal Risk Assessment

The Firm has performed an impact assessment, consistent with SR Letter 14-8 and the Agency Guidance requesting a legal risk assessment, of potential risks that may present themselves in the context of the execution of the WM and IM sales. WM, IM, related support and control functions, Corporate Treasury, FSE and IBD, among others, collaborated to identify potential risks to execution of the WM and IM sales and develop strategies to mitigate the risk across the business, operational, financial and legal dimensions and with respect to potential impacts on Critical Functions.

The Firm's SR Letter 14-8 impact assessment analysis and legal risk assessment demonstrate that the sales can be executed in a timely manner, contemporaneously and result in no disruption to execution of the ISG Solvent Wind Down. The Support Agreement Framework, in combination with the Firm's resolution financial analysis, demonstrate that WM and IM Material Entities will be provided with their estimated RCEN and RLEN to maintain solvency and continue to perform on obligations to customers and counterparties as they come due during the Resolution Period. With respect to the remaining MOEs that will be part of the ISG Solvent Wind Down and the MSEs that will continue providing critical services during the Resolution Period, none of these Material Entities would be reliant on WM or IM sale proceeds as a source of funding to satisfy their estimated RCEN and RLEN, and none of these Material Entities are dependent on WM and IM for the execution of the Resolution Strategy. In addition, the sales should not impede the continuity of Critical Functions with associated operational continuity maintained through sale and transition of requisite services to the buyers. Finally, the Firm's Critical Contracts²⁶ are structured to facilitate the sales and the Firm expects any Board or regulatory approvals necessary to affect the sales would be obtained in a timely manner.

Virtual Data Rooms

Virtual data rooms for both WM and IM have been created to facilitate buyer due diligence in a stress scenario. These data rooms will act as a dependable source to find relevant information necessary to evaluate and bid on each business. The Firm established a process for refreshing each data room at least annually, which covers financial, operational and organizational data. Capabilities are also in place to allow for a refresh upon reaching a Calculation Trigger or Distress Trigger. The data rooms can easily be converted to an external buyer facing data room in the event of transfer within 24 to 48 hours. In addition to establishing a data room, the Firm defined data room governance roles, responsibilities and, where applicable, internal controls, which are necessary to collect, validate and store artifacts.

²⁶ Critical contracts are written contracts, other than QFCs, that relate to the receipt of inter-affiliate and third-party services, products or resources that would be necessary for the business of a Material Entity to function during an orderly resolution and are not promptly substitutable without a material adverse effect on the Material Entity's operation during resolution.

4.2 Financial Adequacy

To support its financial resiliency and resolvability, the Firm maintains sufficient financial resources and a suite of capital and liquidity-related capabilities. Within BAU and stress scenarios, the Firm's financial resources allow for absorption of a significant amount of capital losses or liquidity outflows without material impact to the business operations of the Firm, and its capabilities allow for the proper monitoring and management of associated risks. In the event of the Firm's failure, these enhancements increase the likelihood that the Firm's Material Entities will remain adequately capitalized and have sufficient liquidity throughout the Resolution Period, resulting in an orderly resolution with minimal impact to global financial markets.

As a foundation, the Firm maintains substantial reserves of financial resources, which are sufficient to cover upfront market shock losses, losses during the Runway Period and RCEN, as well as durable sources of funding, with the following as of December 31, 2016:

- Loss absorbing capacity that is compliant with final total loss absorbing capacity ("TLAC") rules at MS Parent of \$185 billion, consisting of \$59 billion in Common Equity Tier 1 Capital, \$7 billion in preferred shares and \$119 billion of long-term debt;
- Firm-consolidated global liquidity reserves ("GLR") of \$202 billion, representing a 71% increase from levels held as of November 30, 2007; and
- No unsecured debt issuances by MS Parent with original maturities of less than one year.

To supplement these financial resources, and in accordance with the 2017 Guidance, the Firm's capabilities cover the areas of Resolution Capital Adequacy and Positioning ("**RCAP**") and RCEN as related to Capital and RLAP and RLEN as related to Liquidity. The Firm's RCAP capabilities inform the Firm's determination of the appropriate positioning of the ILAC between MS Parent and each of the Material Entities and the Firm's RLEN capabilities inform the Firm's determination of the appropriate positioning of the Material Entities.

Exhibit 4.2-1 describes how the Firm defines RCAP, RCEN, RLAP and RLEN, as well as briefly summarizing some of the Firm's other financial adequacy enhancements.

		ind the	ent Files kruptcy RLE	RLEN and RCEN	
	BAU Liquidity Management (Including Stress Testing using CFP suite – RLAP)	Runway Period (< 30 Days)	Stabilization Period (> 30 days)	Resolution Period	
		<	Resolution Financial Mo	del	
Resolution Liquidity Requirement	 RLAP: New 30-day liquidity stress test that incorporates: Contingencies inclusive of ring-fencing considerations Ring-fenced MOL Part of CFP liquidity stress testing framework 		RLEN: Liquidity require Resolution Strategy, co Peak funding require Ring-fenced MOL	5	
Resolution Capital Requirement	RCAP: Amount of loss absorbing capacity as defined by TLAC rules, sufficient to cover: • Upfront Trigger Losses • Runway Period Losses • RCEN		Resolution Strategy, co Capital to absorb cu	I for each Material Entity to execute the insisting of: mulative losses in resolution ell-capitalized" in resolution	
Other Enhancements	 Enhanced MOL methodology for material entities resulted in higher liquidity requirements Enhanced cash management practices to consider legal entity-specific requirements Inter-affiliate SLAs and other frictions management 		Enhanced MOL met Support Agreement		

Exhibit 4.2-1: Financial Adequacy Definitions and Enhancements

Prior to the 2017 Plan submission, the Firm enhanced its capabilities as related to Capital and Liquidity, which currently consist of:

- Capital:
 - RCAP Adequacy: Significant levels of external TLAC, which currently exceed total TLAC and long-term debt requirements, with full compliance as to all final TLAC rule requirements by January 1, 2019;
 - RCEN: Enhanced methodology to estimate the capital requirements of each Material Entity in resolution, including capital to absorb cumulative losses while remaining well capitalized;
- Liquidity:
 - RLAP Adequacy:
 - Development and incorporation into the Firm's liquidity stress testing framework of a new 30-day liquidity stress test with ring-fencing impacts;
 - Maintenance of GLR in excess of liquidity needs under all scenarios within the liquidity stress testing framework;
 - RLEN: Enhanced methodology to estimate the liquidity requirements of each Material Entity in resolution, including peak funding requirements through the Resolution Period and ringfenced MOL, with impacts from both external and inter-affiliate exposures;
 - MOL: Enhanced methodology to estimate the liquidity required to support the daily activities of each Material Entity;

- Cash Management at the Legal Entity Level: Enhanced cash management process resulting in increased transparency and active management of cash flows at the MS Parent and MOE (rather than consolidated) level and a reduction of deposits held at MS Parent;
- Inter-Affiliate Frictions: Identification, assessment and mitigation of inter-affiliate frictions that could give rise to liquidity risk for the Firm;
- Positioning of Financial Resources:
 - RCAP Positioning and RLAP Positioning: Development and implementation of a
 positioning framework for liquidity (RLAP) and ILAC (RCAP) to determine the appropriate
 positioning of both ILAC and liquidity between MS Parent and each of the Material Entities,
 resulting in positioning of a significant amount of liquidity and ILAC directly at the Material
 Entities.
- Estimating Resolution Execution Needs:
 - Enhancement of Resolution Financial Model with which the Firm produces estimates of RCEN and RLEN for each of its Material Entities, including:
 - Incorporation of hedging and related cost analysis;
 - Incorporation of the Stabilization Period;
 - Enhanced analysis of the residual derivatives portfolio;
 - Reduction in overall exposure at the end of the wind down period;
 - Completion of model review and validation;
 - Ability to estimate RLEN and RCEN on a daily basis, subject to ongoing testing and enhancements; and
 - Development of Passive Wind Down analysis; and
- Downstreaming of Financial Resources Prior to an MS Parent Bankruptcy Filing:
 - Runway Period Funding Playbook: Establishment of a playbook that outlines the steps and mechanisms required to downstream any additional financial resources necessary to the Material Entities, prior to the bankruptcy filing of MS Parent.

The following sections discuss the capabilities within Liquidity, Capital, and the positioning and downstreaming of these financial resources in further detail.

4.2.1 Liquidity

Prior to the submission of the 2015 Plan, the Firm had already taken substantial actions with respect to the Liquidity items identified in the Agency Guidance. Among other things, the Firm had (i) developed its Resolution Financial Model for determining the amount and location of liquidity and capital required to execute its Resolution Strategy, which relied on liquidity and capital metrics similar to the RLEN and RCEN estimates required by the Agency Guidance; (ii) developed robust methodologies to model liquidity outflows over multiple time horizons across a range of scenarios; and (iii) entered into the 2015 Support Agreement, which utilized the predecessor to the Resolution Financial Model, the Resolution CFP, to facilitate the provision of sufficient capital and liquidity resources to its Material Entities to execute the Resolution Strategy.

In 2016, the Agencies identified certain shortcomings with respect to the Firm's 2015 Plan regarding the Liquidity vulnerability. In particular, the Agencies noted that the Firm's liquidity funding model did not take into account certain inter-affiliate exposures and frictions, exposing the Firm to potential ring-fencing risks, and that the Firm relied on certain deposits to facilitate the support of its MOEs notwithstanding that those deposits might not be easily withdrawn by MS Parent in a time of Material Financial Distress. The Agencies instructed the Firm to include in its 2017 Plan an enhanced resolution liquidity model that measured the standalone liquidity position of each Material Entity and met certain other conditions.

As part of enhancing its capabilities, the Firm has identified and assessed risks to resolvability, including Agency-identified shortcomings. These potential risks have been mitigated through the enhancement of existing capabilities and development of new capabilities, including, most significantly, significant enhancements to its RLAP and RLEN modeling capabilities, improvements to its MOL methodology, the implementation of the enhanced cash management structure, which considers legal entity-specific requirements and the creation of the Financial Resource Positioning Framework.

Under severe stress conditions (including a resolution scenario), the Firm may experience additional frictions related to inter-affiliate funding, including ring-fencing of its Material Entities. As a result, to properly assess the standalone liquidity needs of its Material Entities, the Firm considers a ring-fencing scenario for both RLAP and RLEN requirements. The Firm defines ring-fencing as a global, concurrent regulatory event impacting all of the Firm's legal entities, wherein both domestic and international exposures are not expected to persist subsequent to contractual maturities, with the exception of inter-affiliate secured funding transactions that satisfy certain conditions. In applying this scenario, the Firm has incorporated additional inter-affiliate considerations within its RLAP and RLEN requirements.

4.2.1.1 RLAP: Adequacy

To assess the standalone net liquidity position of its legal entities, the Firm has developed an RLAP adequacy model, which demonstrates that Material Entities maintain liquidity in excess of net outflows and also satisfy their respective MOL requirements, and incorporated this model within the CFP, which is its internal liquidity stress testing framework. The RLAP model measures the stand-alone net liquidity position of MS Parent and all Material Entities under a 30-day idiosyncratic scenario and covers the following four components:

- Base Contingencies, which include external and inter-affiliate liquidity outflow contingencies based on the Firm's existing CFP;
- Contingencies with Adjusted Severity, which include external and inter-affiliate liquidity outflow contingencies that have had their underlying assumptions modified to align with the increased severity of underlying conditions set forth in the RLAP scenario;
- Ring-fencing Contingencies, which include inter-affiliate contingencies that are used to take into account the potential impact of the ring-fencing scenario, as defined by the Firm; and
- Ring-fenced MOL, which consists of an MOL required under the ring-fencing scenario (e.g., no intra-day sharing of resources across legal entities and MS Parent), using the Firm's enhanced MOL methodology.

In modeling impacts from contingencies within the RLAP model, inter-affiliate exposures are treated in the same manner as third-party exposures.

The development and incorporation of the RLAP model supports the Firm's ability to estimate standalone liquidity requirements for its Material Entities and confirms RLAP adequacy. On the basis of the RLAP model, the Firm has positioned an appropriate amount of liquidity at its Material Entities as determined by its Financial Resource Positioning Framework, which balances the certainty of positioning resources at the Material Entities with the flexibility maintained by holding resources at MS Parent. Refer to Section 4.2.3 *Financial Resource Positioning Framework* for additional details.

4.2.1.2 RLEN

The Firm has also developed a Resolution Financial Model that accounts for inter-affiliate frictions and forecasts Material Entity RLEN (as well as RCEN) at a sufficient level of granularity to determine whether a Support Trigger has occurred. Upon the occurrence of the Support Trigger, MS Parent would be obligated to downstream resources to Material Entities in amounts sufficient, in combination with resources already pre-positioned at the Material Entities, to satisfy the Material Entities' resolution execution needs. In accordance with the 2017 Guidance, RLEN represents the amount of liquidity required by each Material Entity to stabilize the entity subsequent to the failure of the Firm and to allow the entity to operate post-filing to execute the Firm's Resolution Strategy. The Resolution Financial Model also provides decision makers and key stakeholders with the information necessary to execute the Resolution Strategy, demonstrate continued Material Entity solvency and monitor Resolution Strategy progression to the end of the Resolution Period.

For each Material Entity, the Firm defines RLEN to consist of the following two components:

- Peak funding requirement, which consists of the peak cumulative daily liquidity outflows during the Resolution Period; and
- Ring-fenced MOL, which consists of an MOL, exclusive of operating expenses (because operating expenses are accounted for separately in the RLEN model), required under the ring-fencing scenario using the Firm's enhanced MOL methodology.

The Firm utilizes its Resolution Financial Model to estimate the financial resources required for each Material Entity within the Runway Period and the Resolution Period, including estimates of RLEN. The day on which a Material Entity experiences its peak RLEN requirement during the Resolution Period is unique to that entity, and will be determined by its activities, positions and whether it is wound down or sold. In addition, as RLEN captures only those liquidity needs during the Resolution Period, RLEN estimates do not include any impacts from liquidity outflows experienced during the Runway Period. The following sections summarize the Firm's methodology for the two components of RLEN.

Peak Funding Requirement

For each Material Entity, the peak funding requirement should cover the length of time that the Firm expects it would take to stabilize that entity as well as the remainder of the Resolution Period following the Stabilization Period. The Firm expects its Stabilization Period to commence with an MS Parent bankruptcy filing and last for six weeks, in line with the length of time that the Firm expects it would transfer its Prime Brokerage clients' assets to alternative providers. However, depending on the nature

of its underlying activities and resulting exposures, a Material Entity may experience its peak funding requirement during or subsequent to the Stabilization Period.

4.2.1.3 Minimum Operating Liquidity (MOL)

The Firm has also enhanced its MOL methodology, which calculates the intra-day liquidity needs of each MOE to support the MOE's daily operations under a variety of scenarios. The MOL methodology is based on four components:

- Intra-day liquidity requirements, consisting of intra-day cash and intra-day non-cash collateral requirements so that the Firm can run its daily operations;
- Working capital, consisting of end of day cash usage;
- Operating expenses, consisting of select compensation and non-compensation expenses; and
- Inter-affiliate funding frictions, including incremental intra-day or end of day cash needs for MOEs that result from a disruption in the flow of funds between entities.

For each Material Entity, the Firm calculates three distinct scenarios of MOL that are tailored to and included as part of the Firm's CFP, RLAP and RLEN estimates, respectively. Each scenario of MOL consists of assumptions on the underlying scenario and a methodical approach to estimating the components of MOL. For the CFP, no ring-fencing scenario is assumed, so that liquidity is allowed to move freely between legal entities. Within the MOL estimates utilized for RLAP and RLEN, a ring-fencing scenario impacting all of the Firm's legal entities is applied, such that liquidity cannot be shared across legal entities. The enhanced MOL methodology allows for additional transparency into the liquidity needs of the Firm's legal entities, which is further supported by the implementation of the enhanced cash management process for the Firm' s MOEs, which is described in greater detail in the following section.

The enhanced MOL methodology allows for additional transparency into the liquidity needs of the Firm's legal entities, which is further supported by the implementation of cash management at the legal entity level for MOEs, as described in the following section.

4.2.1.4 Enhanced Cash Management Process: Cash Management at the Legal Entity-Level Funding

The Firm implemented an enhanced funding structure by which MOEs' cash is managed at the legal entity level, rather than on a consolidated Firmwide basis. This enhanced cash management process consists of three key components:

- Active cash management at the MS Parent and MOE level to (i) minimize the MOE's credit usage at agent banks, (ii) maintain non-zero intra-day cash balances at the MOE level and (iii) support the funding of the MOEs' liquidity outflows with its own cash, to the extent possible;
- Enhanced cash monitoring capabilities, including proprietary capabilities supporting the realtime and historical monitoring and management of intra-day cash balances and payments by MOE and by currency; and
Increased positioning of cash deposits at MOEs (rather than at MS Parent), supporting the MOEs' ability to meet early cash requirements with their own deposits, rather than depending on resources from MS Parent, and mitigating the risk that MS Parent deposits placed at agent banks may become unavailable in a hypothetical stress scenario, thereby addressing the shortcoming identified by the Agencies with respect to reliance on certain deposits.

These enhancements reduce the Firm's reliance on netting benefits across MOEs by decreasing dependencies that any given MOE has on credit usage at agent banks and on funding flows from affiliates, including deposits from MS Parent, thereby alleviating inter-affiliate funding frictions and reducing the volume of inter-affiliate liquidity transfer that could be subject to potential legal challenges. In addition, this enhanced funding structure facilitates the Firm's ability to monitor the sources and uses of cash for any given MOE, providing a more comprehensive data set with which to estimate the MOL and peak funding needs of any given MOE and to conduct other liquidity-related analyses.

4.2.1.5 Inter-Affiliate Exposures and Frictions

To identify and mitigate inter-affiliate frictions, the Firm first conducted an extensive review of potential inter-affiliate funding frictions across the exposure categories of inter-affiliate secured funding, Prime Brokerage, derivatives, unfunded commitments and unsecured funding. The Firm mitigates these inter-affiliate funding frictions by holding incremental reserves against liquidity contingencies, contractual agreements, extension of term arrangements and adjustments to booking models.

The Firm has incorporated impacts from applicable inter-affiliate exposures within its liquidity stress test framework, including RLAP, and its Resolution Financial Model, which estimates RLEN and RCEN of each Material Entity and is described in the following section.

4.2.1.6 Resolution Financial Model

The Firm utilizes its Resolution Financial Model to estimate the RLEN and RCEN that are required for each Material Entity in resolution. The Resolution Financial Model sources underlying data related to the positions, balance sheet and income statements of the Firm's Material Entities to estimate all required resources necessary for the successful wind down of ISG and the support of WM and IM until their points of sale. The model provides daily P&L estimates with associated capital requirements for each Material Entity over the Resolution Period and quantifies the size and composition of the residual portfolio at the end of the Resolution Period.

Outputs from the model are integrated into the Firm's governance mechanisms, as they inform the timing of the occurrence of a Support Trigger and the onset of the Support Completion Period. To support proper oversight of the Resolution Financial Model, the Firm's independent model validation group, Model Risk Management, reviews and validates all underlying modules within the Resolution Financial Model in accordance with Federal Reserve Supervision and Regulation Letter 11-7, Guidance on Model Risk Management.

The Firm has built an automated capability to facilitate a daily run of the RLEN and RCEN estimates for the ISG Material Entities. This automation is subject to ongoing testing and enhancement, including the need for some manual inputs, but does allow the Firm to provide a daily run if necessary. Daily or

weekly RLEN capabilities exist for other entities; however, automation is not required to project the necessary components subject to the most material movements.

All model results are subject to the Resolution Planning Review and Challenge Framework.

4.2.2 Capital

The Firm had already completed Capital-related actions prior to submission of its 2015 Plan. Among other things, the Firm had (i) improved its overall capital position, from \$42.8 billion of Common Equity Tier 1 capital on June 30, 2012 to \$58.7 billion of Common Equity Tier 1 capital as of June 30, 2015, and maintained a level of TLAC-eligible unsecured debt that is in excess of the minimum TLAC requirement into 2022 based on the final rule;²⁷ and (ii) developed an approach to estimating the liquidity and capital required to execute the Resolution Strategy that is generally consistent with the 2017 Guidance on RLEN and RCEN.

The Firm's 2016 Feedback did not include any Capital-related shortcomings. Nonetheless, the Firm undertook a number of additional enhancements in connection with the 2017 Guidance on Capital, in addition to continuing to improve on the actions described above, including the following:

- Maintaining a significant amount of external TLAC in conformity with the final TLAC rule requirements, in accordance with RCAP adequacy;
- Applying the Resolution Financial Model to estimate the capital needs of the Material Entities in resolution in accordance with RCEN;
- Developing a multi-factor quantitative and qualitative Financial Resource Positioning Framework to determine the appropriate level of liquidity and loss absorbing capacity to be held at each Material Entity and at MS Parent; and
- Monitoring the ILAC positioned at its Material Entities and placing incremental ILAC in the Material Entities, pursuant to this Financial Resource Positioning Framework.

In addition, as identified in the October 2016 Status Report, the Firm reviewed the characteristics of inter-company debt between all entities in the chain between MS Parent and each Material Entity in order to mitigate potential creditor challenges to ILAC and amended the terminology associated with capital execution needs in the 2017 Support Agreement and 2017 Plan.

4.2.2.1 Resolution Capital Adequacy and Positioning (RCAP): Adequacy

The Firm has sufficient financial resources to satisfy the RCAP requirements, as it currently maintains a significant amount of external TLAC. As of December 31, 2016, the Firm held \$185 billion of external TLAC, of which \$119 billion was long-term debt. These resources would enable the Firm to recapitalize its Material Entities to adequate levels and thereby enable the Material Entities to maintain operations in the Resolution Period.

In December 2016, the FRB published final TLAC rules that set out requirements for the external TLAC and long-term debt ratios of global systemically important banks, with compliance mandated by January

²⁷ The Firm estimates its pro forma external TLAC based on the Firm's current assessment of the Final Rule published in the Federal Register on January 24, 2017.

1, 2019. The Firm estimates that, as of December 31, 2016, its external TLAC and long-term debt ratios were already well in excess of the levels required by the final TLAC rules.

In preparation for the January 1, 2019 compliance deadline, the Firm has completed a number of enhancements that support its adherence to the final TLAC rules, including:

- Converting MS Parent debt financing to TLAC-eligible instruments by retiring certain non-TLACeligible MS Parent debt and ceasing to issue (i) short-term debt, (ii) structured notes and (iii) plain vanilla notes governed by non-U.S. law with maturity dates after December 31, 2018;
- Filing a new senior debt indenture to support the conformance of any debt issuances after January 1, 2019 with the final TLAC rule requirements;²⁸
- Forming an alternative structured notes issuance entity, MS Finance, which issues structured notes and provides funding to the Firm's legal entities through MS Parent; and
- Ongoing enhancement of the Firm's governance and workflow tools related to monitoring compliance with the final TLAC rules, including global training and education sessions related to the final TLAC rules and its impact on business practices.

The levels of external TLAC already held by the Firm, in conjunction with the completed and ongoing enhancements for full compliance with the final TLAC rules by 2019, will enable the Firm to address any capital-related vulnerability relating to RCAP adequacy. Pursuant to its Financial Resource Positioning Framework, the Firm also positions an appropriate amount of loss absorbing capacity at its Material Entities. The Financial Resource Positioning Framework balances the certainty of positioning resources at the Material Entities with the flexibility maintained by holding resources at MS Parent. Refer to Section 4.2.3 *Financial Resource Positioning Framework* for additional details.

4.2.2.2 Resolution Capital Execution Needs (RCEN)

In estimating the RCEN requirements for each Material Entity, the Firm uses the following two components:

- Capital required to absorb the Material Entity's cumulative losses following an MS Parent bankruptcy filing; and
- Capital required for the Material Entity to remain "well-capitalized" during the Resolution Period, with the definition of "well-capitalized" varying from jurisdiction to jurisdiction.

This approach to estimating RCEN aligns with the 2017 Guidance as it provides that recapitalized Material Entities would have sufficient capital to meet estimated additional capital needs throughout the Resolution Period and to meet or exceed all applicable regulatory capital requirements for "well-capitalized" status.

The Firm utilizes its Resolution Financial Model to estimate the financial resources required for each Material Entity within the Runway Period and the Resolution Period, including estimates of RCEN for the Resolution Period. The day on which a Material Entity experiences its peak RCEN requirement during the Resolution Period is unique to that entity, and will be determined by its activities, positions and

²⁸ The new senior debt indenture also eliminates certain limitations on the transfer of MS Parent assets to affiliates.

whether it is wound down or sold. The following sections provide overviews of the Firm's methodology for the two components of RCEN.

Capital Required to Absorb Cumulative Losses

The capital impacts that a Material Entity will accumulate during the Resolution Period depend on its underlying activities and resulting exposures, and fall largely within the following categories:

- Cash assets, including marked-to-market impacts on existing positions and haircuts on sales of cash assets;
- Derivatives, including marked-to-market impacts, costs of winding down both external and interaffiliate derivatives exposures and hedging costs, including re-hedging costs due to the occurrence of automatic termination events for derivatives positions;
- Write-downs, including write-downs to investment in subsidiaries and receivables from non-Material Entities;
- Operating expenses, including compensation and non-compensation expenses; and
- Client fees, based on projected client activities and assets.

For ISG MOEs, which wind down over the Resolution Period, capital impacts from cash assets, derivatives and write-downs will be the main drivers of RCEN. For WM and IM Material Entities, which are sold during the Resolution Period, capital impacts from operating expenses and client fees will be the main drivers of RCEN.

Resolution Capital Minimum

For each Material Entity, the Firm determined the entity's Resolution capital minimum through a fourstep approach, in which the Firm:

- Confirmed the regulatory minimum level for the entity by evaluating the regulatory regime to which the entity is subject;
- Evaluated the sensitivity of various stakeholders to changes in capital levels for the entity by assessing the nature of the entity's stakeholders, the sensitivity of each stakeholder category to reduced capital levels and any available mitigants to stakeholder concerns over reduced capital levels;
- Determined the proposed resolution capital minimum, which considered existing regulatory minimums, buffers, internally developed trigger levels and capital levels held in BAU; and
- Benchmarked against other capital minimums, such as cross-entity comparisons or peer capitalization level comparisons, as applicable.

For the stakeholder sensitivity analysis, the Firm evaluated considerations across the following categories of stakeholders: (i) regulators, (ii) rating agencies, (iii) FMUs, exchanges and CCPs, (iv) vendors, (v) Prime Brokerage clients, (vi) QFC counterparties, (vii) counterparties taking on novated portfolios and (viii) depositors. For each Material Entity, the relevant categories of stakeholders were identified for the entity and the considerations of the relevant stakeholders were considered when determining the proposed resolution capital minimum. Depending on the methodology for calculation,

the resolution capital minimum for Material Entities may fluctuate over the Resolution Period, based on movements of underlying assets, risk-weighted assets or other calculation metrics.

Recapitalization of Material Entities

Prior to an MS Parent bankruptcy filing, MS Parent will contribute incremental capital, as necessary, to the Material Entities using two approaches: (i) a cash equity contribution or (ii) a non-cash capital contribution, which may take the form of forgiveness of existing loans to, or other receivables from, the Material Entity. The Firm considers the following instruments as part of ILAC that can be converted into subordinated debt and equity to recapitalize the Material Entities under the Firm's 2017 Support Agreement:

- Equity;
- Inter-company debt and payables; and
- Secured funding inter-company trades with MS Parent.

The form in which MS Parent recapitalizes a Material Entity during the Runway Period will depend on the various constraints facing the Material Entity, including the amount of ILAC positioned at the entity that has not yet been converted to equity or subordinated debt, any GAAP equity or subordinated debt requirements and whether the entity has sufficient liquidity to meet its RLEN requirements. To recapitalize a Material Entity, MS Parent can (i) convert the available ILAC positioned at the entity to equity or subordinated debt, as required, (ii) convert subordinated debt to equity, as required and/or (iii) contribute capital to satisfy any equity or subordinated debt requirements. These recapitalizations allow each Material Entity to meet its RCEN requirements during the Resolution Period.²⁹

With all of the elements that support the determination of sufficient financial resources for the Firm in place, the following section describes the positioning aspect of RCAP and RLAP, which positions the appropriate amount of the Firm's financial resources among MS Parent and its Material Entities.

4.2.3 Financial Resource Positioning Framework

The Firm has developed and implemented a Financial Resource Positioning Framework to determine the amount of liquidity and loss absorbing capacity to hold at MS Parent and each of its Material Entities in BAU, which addresses the positioning aspects within RCAP and RLAP. The Financial Resource Positioning Framework balances the reduction in frictions associated with holding resources directly at the Material Entities with the flexibility provided by holding resources at MS Parent available to meet unanticipated requirements at the Material Entities. By pre-positioning substantial financial resources at the Material Entities, the Firm also reduces the amount of support that MS Parent would need to provide to the Material Entities in a resolution scenario. This pre-positioning pursuant to the Financial Resource Positioning Framework mitigates the risk posed by possible legal challenges to the successful implementation of the Resolution Strategy.

The Financial Resource Positioning Framework consists of three key components to support the determination of the appropriate levels of financial resources at MS Parent and each Material Entity:

²⁹ Although these infusions will satisfy the Material Entity's capital requirements, additional cash infusions in the form of subordinated debt may be necessary to fully satisfy RLEN requirements.

- **MOE Positioning Framework**, in which the appropriate amounts of liquidity and ILAC to be positioned at each MOE are determined through an assessment across all MOEs of quantitative factors within the following three categories: (1) Downstreaming Frictions, (2) Complexity and (3) Interconnectedness;
- **MSE Positioning Framework**, in which, at a minimum, sufficient working capital to cover the length of the Stabilization Period (i.e., the peak cumulative, consecutive two-month working capital need observed over the trailing 12-month period) is positioned at each MSE; and
- **MS Parent Resolution Minimum Liquidity**, for which a minimum amount of liquidity is held at MS Parent to support the flexibility required to meet unanticipated outflows or losses of its subsidiaries.

The Firm initiated the positioning of liquidity and ILAC at its MOEs, in accordance with the MOE Positioning Framework, in April 2017 and initiated the positioning of working capital needs at its MSEs, in accordance with the MSE Positioning Framework, in June 2017. Application of the Financial Resource Positioning Framework has resulted in the pre-positioning of a substantial portion of Firmwide liquid assets at the Material Entities. The following sections describe each of the three components within the Financial Resource Positioning Framework in further detail.

MOE Positioning Framework

For each MOE, the MOE Positioning Framework estimates the appropriate amount of liquidity and ILAC to position at the entity and then considers any interactions between the two types of financial resources to determine the amount of financial resources to position at the MOE.

As a starting point, for each MOE, the Firm defines the range of positioning to consist of (i) the minimum amount of resources to be held at the entity as its resolution execution need, e.g., RLEN for liquidity and RCEN for ILAC, and (ii) the maximum amount of resources to be held at the entity as 90% of the applicable resolution adequacy amount, e.g., RLAP for liquidity and an adjusted RCAP amount appropriate for entity positioning for ILAC. For ILAC positioning, the maximum amount considered for positioning at an MOE is the sum of the MOE's RCEN requirements and any capital losses that would be incurred during the Runway Period.

To determine the appropriate amount within this range for each entity, the Firm then conducts an assessment of the entity relative to its characteristics as related to the three qualitative categories of Downstreaming Frictions, Complexity and Interconnectedness, which are included for the following reasons:

- Downstreaming Frictions: An MOE could experience some impediments to downstreaming financial resources during severe stress. Any MOE with higher potential for downstream frictions should hold a higher percentage of their resolution adequacy requirements, relative to those MOEs with lower potential;
- Complexity: An MOE could experience large, unanticipated liquidity outflows or capital losses due to the complexity of its business activities. Any MOE with more complex operations should hold a higher percentage of its resolution adequacy requirements than MOEs with less complex operations; and

 Interconnectedness: The distress or failure of an MOE that is highly interconnected with either internal or external entities is more likely to have knock-on effects on the rest of the Firm or the global financial system. Any highly interconnected MOE should hold a higher percentage of its resolution adequacy requirements than less interconnected MOEs.

MSE Positioning Framework

For each MSE, the Firm positions the peak cumulative, consecutive two-month working capital need observed over the trailing 12-month period for the entity.

MS Parent Resolution Minimum Liquidity

To maintain flexibility and support the Firm's financial resiliency to meet unanticipated liquidity outflows or capital losses, the Firm maintains an MS Parent Resolution Minimum Liquidity reserve, consisting of the following four components:

- Liquidity held on behalf of the MOEs, which, for each MOE, is defined as the higher of (i) RLAP minus pre-positioned liquidity at the entity and (ii) RCAP minus pre-positioned ILAC at the entity;
- Liquidity held on behalf of the MSEs, which, for each MSE, is defined as the higher of (i) RLEN plus liquidity needs during the Runway Period minus pre-positioned liquidity at the entity and (ii) RCAP minus pre-positioned ILAC at the entity;
- Liquidity held to cover MS Parent's liquidity outflows under an RLAP scenario; and
- Liquidity held to cover bankruptcy proceeding costs for MS Parent.

4.2.4 Runway Period Funding Playbook

The Firm developed the Runway Period Funding Playbook to document all of the steps that would be required to downstream both liquidity and capital resources to its Material Entities in a timely manner. This playbook sets forth the processes, roles and responsibilities, systems and reporting and governance related to the Firm's liquidity and capital management across a range of financial conditions, including the key areas of:

- Identifying the quantity, location and form of the Firm's liquidity reserves;
- Quantifying capital levels at each Material Entity, inclusive of loss absorbing capacity;
- Estimating the resolution execution needs of RLEN and RCEN;
- Determining the required amounts and form of financial resource infusions;
- Infusing liquidity into the Material Entities, as required; and
- Infusing cash and non-cash capital into the Material Entities, as required.

The Runway Period Funding Playbook facilitates the Firm's ability to downstream the financial resources in a timely manner prior to an MS Parent bankruptcy filing, such that the Material Entities can successfully execute the Resolution Strategy.

4.2.5 Derivatives and Trading Activities

As part of its global business, the Firm engages in a variety of derivatives and trading activities to facilitate client transactions as well as inter-affiliate transactions for purposes of internal risk management. Derivatives and trading activities are key elements to the execution of the Firm's business, particularly for its ISG Core Business Line, but pose additional considerations in resolution as related to the wind down of existing positions and the transfer of Prime Brokerage client assets to other providers. To address these additional resolvability considerations, the Firm maintains the appropriate capabilities and conducts the relevant analyses related to its derivatives and trading activities to support the orderly wind down of such activities in resolution.

The Firm had already completed Derivatives and Trading Activities-related actions prior to the submission of its 2015 Plan, including, among other things:

- Developing the Resolution CFP financial model, now referred to as the Resolution Financial Model, to model the financial impact of actively winding down the Firm's derivatives and trading business;
- Revising select booking practices to decrease financial interconnectedness within ISG;
- Adhering to the ISDA Protocol;
- Undertaking an ongoing project to analyze and remediate a wide range of QFCs that have the potential to disrupt a rapid and orderly resolution;
- Developing the Customer Asset Transfer Playbook to confirm the Firm's ability to transfer Prime Brokerage customer assets to alternate providers while the Firm is in Material Financial Distress;
- Projecting the residual sales and trading portfolio that would remain for each Material Entity following an Active Wind Down during the Resolution Period, with the previously developed capability to provide a level of detail that is consistent with the Agency Guidance;
- Reexamining all risk management hubs and associated material inter-affiliate derivative configurations and implementing the required capabilities and governance framework to support controls over its external and inter-affiliate derivatives booking practices; and
- Creating communications playbooks for key stakeholders, including clients, regulators, top FMUs and agent banks and rating agencies, to cover a range of recovery and resolution scenarios.

In 2016, the Agencies identified a two-part shortcoming with respect to the Firm's Derivatives and Trading Activities capabilities. First, the Agencies noted that the Firm did not estimate the costs or risks associated with hedging its derivatives exposures. Second, the Agencies noted that the 2015 Plan did not provide a sufficient level of detail on the residual derivatives portfolio. The 2016 Feedback stated that the 2017 Plan should estimate hedging costs associated with actively winding down its trading portfolio and provide more detail regarding the residual portfolio, including its size, composition, complexity and potential counterparties.

In response to the first part of the shortcoming identified by the Agencies, the Firm had not estimated costs of hedging because it did not assume any hedging. The Firm has modified its assumptions

regarding the use of hedges in connection with its Active Wind Down analysis, specifically by analyzing the types of risks within its derivative portfolio that can be hedged and developing an approach to hedging using only exchange-traded and centrally cleared instruments, and by estimating the costs associated with hedging exposures, including incremental margin posting requirements and impacts from basis risks.³⁰ In response to the second part of the shortcoming, and the Firm has provided in the 2017 Plan incremental information on the non-systemic residual derivatives portfolio remaining after the Active Wind Down during the Resolution Period. Together, these enhancements address the shortcoming identified by the Agencies with regard to Derivatives and Trading Activities.

In addition to actions taken to correct the shortcoming identified by the Agencies in the 2016 Feedback, the Firm has also undertaken a number of other enhancements to its Derivatives and Trading Activities capabilities in order to address the 2017 Guidance and the Firm's self-identified areas for improvement, as described in further detail in the following sections.

4.2.5.1 Active Wind Down Analysis

The ISG Solvent Wind Down is the Firm's preferred strategy, and includes an Active Wind Down of its derivatives and trading activities. The objective of the ISG Solvent Wind Down is a rapid and orderly wind down of the five ISG MOEs: MSCO, MSIP, MSMS, MSCS, MSCG and, to the extent necessary, MSBNA's ISG positions³¹ in a manner that maximizes value, minimizes cost and is least disruptive to the broader financial system and real economy. The ISG MOEs would pursue the following approach to execute the ISG Solvent Wind Down:

- Activate management and oversight structure;
- Execute hedging as necessary and practicable to balance risk resulting from counterparty contract terminations, market movements, wind downs or otherwise;
- Strategically divide the portfolio into valuation segments corresponding to the manner in which the portfolio would be priced, marketed and wound down;
- Execute the exit strategy that minimizes costs, maximizes value and protects market stability;
- Communicate with management, clients, counterparties and other key stakeholders as the wind down progresses; and
- Dynamically hedge the portfolio in resolution to flatten both potential gains and losses (subject to restrictions on listed and cleared hedging instruments.

The Solvent Wind Down analysis demonstrates, consistent with the Firm's resolution objectives, that the ISG MOEs':

- Sales and trading portfolio is sufficiently liquid to convert non-cash assets into cash at a rate faster than the rate of net liquidity outflows without breaching any capital constraints or transmitting liquidity risk into the market;
- Operational capacity and infrastructure is sufficient to quickly transfer Prime Brokerage assets and client clearing positions to alternate providers; and

³⁰ The Firm notes that the 2015 Plan relied on conservative assumptions regarding its ability to enter into hedging trades in an Active Wind Down. The Firm's Resolution Strategy remains feasible even in the absence of any hedging, regardless of whether the Firm uses an active or Passive Wind Down strategy.
³¹ For example, the Resolution Strategy includes the complete wind down of MSBNA's FX positions prior to the WM sale.

• Investment banking and capital markets activities can be readily absorbed by peer institutions without any undue impact on existing clients or the market due to the competitive landscape.

The Firm analyzed in detail an Active Wind Down of its ISG MOE positions over the Resolution Period. The Firm's historical experience in similar stress situations (e.g., 2008) indicates that many clients and counterparties would likely offer pricing concessions to the Firm to exit their positions (e.g., via novation to third parties) prior to the stated maturities of such positions. For conservatism, however, the Firm has assumed its ISG MOEs would have to incur exit costs for the positions selected for active exit during the Resolution Period.

Based on its analysis, associated Resolution Financial Model outputs and conservative assumptions, the Firm demonstrates it has the financial capacity to exit substantially all of its ISG MOE positons within the Resolution Period and that, based on facts and circumstances of an actual event, it could increase or decrease the speed at which it chooses to exit positions while still maintaining compliance with applicable ISG MOE regulatory capital minimums, holding sufficient liquidity to continue to perform on obligations as they come due and meeting heightened requirements for maintaining access to its top FMUs and Agent Banks that are necessary for the execution of the ISG Solvent Wind Down.

4.2.5.2 Hedging

The Resolution Financial Model incorporates costs associated with hedging, in both the ISG Solvent Wind Down and Passive Wind Down analyses. The Firm has also forecasted potential losses due to basis risk that may be sustained from the Firm's inability to hedge certain types of risk using only listed and centrally cleared products in the ISG Solvent Wind Down and Passive Wind Down analyses. For each risk factor, listed and centrally cleared hedging instruments and associated volumes were identified, taking into account potential limitations on exchange and CCP access. Hedging costs were priced using BU-provided stressed bid-offer spreads, and the analysis incorporated incremental initial margin that would likely have to be provided to CCPs.

4.2.5.3 Residual Derivatives Portfolio

The Firm has analyzed the systemic risk profile of its residual portfolio in the ISG Solvent Wind Down and Passive Wind Down, including its size, composition, complexity and counterparties, and determined the residual portfolio to be of a non-systemic nature in each. This determination was made by analyzing the market share of the residual portfolio notional in comparison to the starting point market share of the Firm's and peers' notionals, total number of trades in the residual portfolio and potential future exposure of the residual portfolio. Rates, Credit and Municipal derivatives were the only product areas with a residual portfolio in the ISG Solvent Wind Down. Based on iterative analysis of the composition of the Firm's remaining residual portfolio by the Firm's business units and Corporate Treasury, the Firm has reduced the size of its estimated residual portfolio significantly, as compared with the analysis prepared for the 2015 Plan.

4.2.5.4 Passive Wind Down Analysis

While the Firm's preferred ISG Solvent Wind Down strategy is premised on an Active Wind Down, the Firm has also analyzed a Passive Wind Down of its derivatives and trading book in accordance with the Agency Guidance. The Firm's Passive Wind Down is the same as the ISG Solvent Wind Down in most

respects except for the Passive Wind Down's (i) prohibition on active derivatives novations, (ii) limited sale of certain cash inventory at a rate consistent with the derivative wind down, (iii) forecasted operating expenses for the duration and specific circumstances of the Passive Wind Down and (iv) resultant longer wind down horizon. Hedging and associated costs remain relevant in the Passive Wind Down but portfolio segmentation, selection of exit strategies and estimation of exit costs become irrelevant given the prohibition on novations.

4.2.5.5 Booking Model Controls

The Firm transacts in equity, fixed income, foreign exchange and commodity-related listed and OTC derivatives (both cleared and bilateral) products, on both an external and inter-affiliate basis. Given the backdrop of greater counterparty risk and potentially lower market liquidity in comparison with similar listed products, products traded OTC present potentially greater resolvability risk to the Firm. The Firm mitigates such risks through its well-developed booking practices for OTC derivatives, where it utilizes four guiding principles and defined sets of rationales for (i) the usage of legal entities for derivatives transactions and (ii) the transfer of associated market risk through inter-affiliate transactions. The guiding principles focus on the minimization of complexity and the maximization of risk management efficiency, while simultaneously recognizing regulatory and legal requirements for the Firm and its clients.

4.2.5.6 Derivatives Governance and Risk Management

In addition to the booking practices and transfer capabilities described above, the Firm utilizes a multipronged approach to monitor and manage the derivatives-related risks for the Firm and its legal entities:

- Firm and legal entity governance and oversight;
- Pre-trade framework and controls;
- Trader mandate library and exception management; and
- Legal entity risk management and reporting.

As a foundational item, the Firm maintains strong governance over the Firm and legal entity-specific risks, as implemented through the oversight processes conducted by the legal entity Boards, Asset and Liability Committees, Risk Committees and Legal Entity Oversight & Governance Committees at the Firmwide, regional, segment and legal entity-specific levels. To support the proper controls over specific derivatives transactions, the Firm utilizes a pre-trade framework consisting of controls related to the Firm's processes to review and approve new products, to review and approve new trader mandates and to open new client accounts. As trader mandates define the products that a given set of traders can book to each legal entity, based on a combination of the traders' business area and their region, these mandates also serve as an important post-trade control to monitor whether derivatives transactions are booked onto the proper legal entities, to identify any new exceptions and to support the escalation of existing exceptions, if applicable. Finally, the Firm maintains risk limit frameworks, reporting and modeling capabilities across the three risk stripes of market, credit and liquidity risk, which support the identification, assessment, monitoring, escalation and limitation of such risks for both the Firm and individual legal entities.

The Firm trades and makes markets globally in listed futures, OTC swaps, forwards, options and other derivatives referencing, among other things, interest rates, currencies, investment grade and non-investment grade corporate credits, loans, bonds, U.S. and other sovereign securities, emerging market bonds and loans, credit indices, asset-backed security indices, property indices, mortgage-related and other asset-backed securities and real estate loan products. The Firm uses these instruments for market-making, foreign currency exposure management and asset and liability management.

The Firm manages its market-making positions by employing a variety of risk mitigation strategies. These strategies include diversification of risk exposures and hedging. Hedging activities consist of the purchase or sale of positions in related securities and financial instruments, including a variety of derivative products (e.g., futures, forwards, swaps and options). The Firm manages the market risk associated with its market-making activities on a Firmwide basis, on a worldwide trading division level and on an individual product basis. The Firm manages and monitors its market risk exposures in such a way as to maintain a portfolio that the Firm believes is well diversified in the aggregate with respect to market risk factors and that reflects the Firm's aggregate risk tolerance as established by the Firm's senior management and overseen by the MS Parent Board and the Board Risk Committee.

In connection with its derivative activities, the Firm generally enters into master netting agreements and collateral agreements with its counterparties. These agreements provide the Firm with the right, in the event of a default by the counterparty, to net counterparty's rights and obligations under the agreement and to liquidate and set off collateral against any net amount owed by the counterparty. The Firm enters into credit derivatives, principally through credit default swaps, under which it receives or provides protection against the risk of default on a set of debt obligations issued by a specified reference entity or entities. A majority of the Firm's counterparties for these derivatives are banks, broker-dealers and insurance and other financial institutions. The Firm manages its exposure to credit derivative contracts through a variety of risk mitigation strategies, which include managing the credit and correlation risk across single-name, non-tranched indices and baskets, tranched indices and baskets and cash positions.

4.2.5.7 Transfer Capabilities

As a complement to its derivatives capabilities, the Firm maintains the operational capacity and related strategy to facilitate the orderly transfer of Prime Brokerage accounts to peer prime brokers. Subsequent to an MS Parent bankruptcy filing, the Firm expects that its Prime Brokerage clients would request rapid transfers of their balances to other prime brokers. As an initial step to analyzing whether the Firm has the operational capacity to satisfy these rapid transfer requests, the Firm developed migration rate assumptions within the Resolution Period, based on its historical experience during the 2008 financial crisis, the severity of the contemplated resolution scenario and the number of existing clients with multiple prime broker relationships.

As part of the Firm's assessment of its ability to support the transfer of Prime Brokerage customer assets at the rates contemplated above, it engaged in several exercises, including developing descriptions of BAU processes to effectuate customer asset transfers, conducting a tabletop discussion to understand and determine requirements and necessary changes to BAU processes to support the activity in resolution, documenting resource and communications plans and, as a result of the assessment, identifying certain enhancements to more effectively transfer customer assets in resolution.

Through these exercises, the Firm determined that it has the operational capacity to address the assumed migration rates by largely leveraging BAU processes, however, if migration rates occurred at a rate higher than anticipated and planned for within the Plan, it may need to increase or reallocate its resources to support the migrations. Therefore, to transfer these assets effectively in a timely manner and alleviate the potential resource burdens that may pose an obstacle to the Firm's ability to execute its Resolution Strategy, the Firm put in place enhancements to increase the overall automation and efficiency with which it can transfer Prime Brokerage customer accounts.

4.2.5.8 Communications Strategies

Consistency and clarity of communications would be important to the execution of the Resolution Strategy, particularly with respect to the Firm's Derivatives and Trading Activities. The Financial Stress Communications Playbook and Rating Agency Playbook set forth the Firm's plans to communicate with key stakeholders in stressed market conditions and a resolution scenario.

Communications Strategy

Fundamental to the Firm's ability to manage itself during a period of financial stress is its ability to communicate with its key internal and external stakeholders, including clients, employees and regulators, in a timely and globally coordinated manner. As financial stress events may vary in terms of severity and speed, it is important that the Firm have a well-developed, well-understood communications protocol and clear assignment of responsibilities that can be promptly activated to allow the Firm to achieve its strategic objective of having its key stakeholders take (or refrain from taking) certain actions.

The Firm's global communications strategy is described in the Financial Stress Communications Playbook and is grounded in the principle that the Firm's BAU processes should be "crisis-ready," adaptable to the particular facts and circumstances at the time and able to be executed in a wide range of scenarios in a timely manner.

Central to the global communications strategy is BRM Command, a communications protocol first developed in response to the 2008 financial crisis, which provides globally coordinated communications and governs the Firm's preparedness, organization, escalation and response to events that could potentially affect the Firm's financial position. BRM Command is designed to ensure control over information inflows and outflows, identify and vet potential risks in the current environment, generate customized dashboard reporting of relevant metrics and implement action plans to respond to macro/market and Firm-specific events, including any related counterparty issues.

The Firm's global communications strategy has been successfully implemented in numerous stress events since 2008 (including crises relating to the U.S. debt ceiling, Greece's potential debt default and exit from the Eurozone and the UK's exit from the Eurozone), demonstrating the credibility of the strategy.

Rating Agency Playbook

The Rating Agency Playbook seeks to facilitate the stabilization of the Firm's Trading Entities³² during a Resolution Period and describes the key steps the Firm would take to maintain ratings at as high a level as possible in stressed market conditions.

The Resolution Strategy is not reliant, however, on the maintenance, reestablishment or establishment of investment grade ratings for the Trading Entities. The Resolution Financial Model demonstrates that the Trading Entities have the financial capacity to support the execution of the Resolution Strategy without an investment grade (or any) rating. The Resolution Strategy, which includes a sale of WM and IM and a Solvent Wind Down of ISG, ultimately results in the Firm's discontinuance of all business activities. Given that the Resolution Strategy does not contemplate the Trading Entities continuing as going concerns, investment grade ratings for such entities after the failure of MS Parent are of minimal benefit.

Nevertheless, as part of the Resolution Strategy, the Firm would seek to maintain ratings at as high a level as possible. The Rating Agency Playbook includes tailored materials for each Trading Entity that would be distributed to the rating agencies following an MS Parent bankruptcy filing and a detailed communications strategy, and explains the manner in which the Firm would interact with rating agencies in pursuit of this objective. The rating agencies of relevance to the Firm include Moody's, S&P, Fitch Ratings, DBRS, Inc. and Rating and Investment Information, Inc.

Corporate Treasury's Rating Agency Coverage has primary responsibility for communications with rating agencies in normal and stressed market conditions, including resolution.³³ In BAU, the Firm maintains consistent dialogue with each rating agency on Firm- and industry-specific topics. The Rating Agency Playbook focuses on rating agency communications, including the reporting and information that would be provided to rating agencies following MS Parent's bankruptcy. Such reporting and information would seek to demonstrate the Trading Entities' continued solvency and maintenance of capital and liquidity levels (i) above regulatory minimum levels / any other constraining minimum levels (e.g., MOL), (ii) sufficient to satisfy applicable FMU heightened requirements and (iii) sufficient to satisfy obligations to customers, counterparties and affiliates as they come due, all consistent with rating agency criteria that would indicate an investment grade status. The Resolution Strategy is not, however, reliant on maintenance, reestablishment or establishment of investment grade ratings for the Firm's Trading Entities.

4.3 Operational Continuity and Capabilities

The Firm has undertaken substantial efforts to upgrade its Operational Continuity and Capabilities so that the Material Entities would have access to the critical personnel, systems, applications, facilities, vendors and other nonfinancial resources needed to execute the Resolution Strategy and the ability to produce the data and information and perform the processes necessary to execute the Resolution Strategy.

³² The Firm has defined Trading Entities for the scope of the Rating Agency Playbook to include all of its MOEs except MSPBNA, MSIM Inc. and MSIM Ltd. which is consistent with Agency Guidance to include "each Material Entity that conducts more than de minimis derivatives activities."

³³ Rating agency communications are handled by the Global Treasurer and Head of Treasury Capital Markets.

The Firm had completed significant Operational Continuity-related actions prior to submission of its 2015 Plan. The Firm established a formal process and supporting systems to enable it to objectively analyze and formally assess the sufficiency of existing practices required to (i) support the capabilities required to manage the Firm through a range of stress events, including resolution, (ii) identify critical operational or technology data gaps in the Firm's ability to execute the Resolution Strategy and (iii) determine, assign and monitor related enhancement efforts. To maintain continuity of access to shared services, the Firm designated MSEs that compose the Firm's global service entity network and executed or updated SLAs between Material Entities as of June 2015, implementing inter-affiliate transfer pricing arrangements and inter-affiliate agreements for the ongoing use of intellectual property, where applicable. To maintain continuity of access to FMUs, the 2015 Plan included five FMU and Agent Bank Access Playbooks, which analyzed how to preserve connectivity to select FMUs and accounted for the contingency that one or more FMU memberships could be suspended or terminated. In order to prevent the cross default of subsidiary QFCs guaranteed by MS Parent, the Firm also drafted a Guarantee Administrative Priority Motion that would seek Bankruptcy Court authorization to elevate guarantees of subsidiary QFCs to administrative expense status, consistent with the requirements of the ISDA Protocol. Finally, the Firm committed itself to and advanced the Gladiator Program, which represented a major restructuring to protect shared services in a network of shared service entities.

The Firm's 2016 Feedback did not include any Operational Continuity-related shortcomings from the Agencies. Nonetheless, the Firm has continued to improve on the actions commenced prior to the submission of the 2015 Plan. The below sections describe the Firm's Operational capabilities and strategy for maintaining operational continuity and map to each of the areas identified under the Operational vulnerability in the 2017 Guidance.

4.3.1 Payment, Clearing and Settlement Activities

The Firm utilizes FMUs for the clearing and settlement of cash and securities transactions with, or on behalf of, institutional and retail clients. The Firm utilizes agent banks for custody and PCS services and for access to markets where its entities are not self-clearing members. A loss of access to top FMUs or agent banks could impact the Firm's ability to conduct PCS activities and could impede the successful execution of the Resolution Strategy.

To address this risk, the Firm has developed an approach to maintain continuity of PCS activities in a manner that would support an orderly resolution. The key components of the Firm's approach include:

- An enhanced methodology to identify the Firm's top FMUs and agent banks;
- An FMU and agent bank access strategy that describes how the Firm would maintain access to its current network of FMUs, leveraging contingency arrangements where appropriate;
- A detailed bottom-up analysis of financial resources that each MOE may need during the Runway Period and Resolution Period to meet potential financial requirements imposed by PCS providers;
- A governance and communications protocol that supports the Firm's FMU and agent bank access strategy and is integrated with the broader BRM Command protocol ("FMU Command");

- A Playbook for each top PCS provider that outlines how the Firm would maintain access to the provider in a manner that would support an orderly resolution; and
- Enhanced PCS reporting capabilities in order to (i) meet the reporting and tracking demands likely to be present in a crisis scenario and (ii) enable the Firm to identify its critical PCS providers.

The Firm is embedding these activities into regular business practices, particularly through the adoption of FMU Command and annual review and refresh of the FMU and Agent Bank Access Playbooks, thereby enhancing the Firm's overall preparedness and readiness to respond to crisis situations and contribute to the ongoing resolvability of the Firm.

4.3.1.1 FMU and Agent Bank Access Strategy

FMUs and agent banks have the discretion to increase, modify or supplement their BAU requirements in response to Firm financial stress, which would place additional demands on Firm resources. The Firm's FMU and agent bank access strategy is to maintain access to its PCS providers by meeting financial, operational and communications and reporting requirements that may be imposed by such providers to minimize their exposure to Firm entities.

4.3.1.2 FMU and Agent Bank Access Playbooks

The Firm has FMU and Agent Bank Access Playbooks for each of its top FMU and agent bank relationships. The playbooks include an assessment of potential heightened requirements that could be imposed and describe the Firm's capacity and approach to respond. The playbooks include analysis of direct and indirect access relationships to each PCS provider, potential contingency options and projections of potential incremental liquidity needs. In addition, activity-based runbooks have been developed for each of the top FMUs and agent banks, outlining the detailed operational steps, timelines, resources and systems required to maintain access to PCS providers.

4.3.1.3 Financial Capacity to Meet Heightened FMU Requirements

The Firm has dedicated considerable effort to analyzing and projecting potential heightened financial requirements from FMUs in resolution. The FMU and Agent Bank Access Playbooks include the Firm's projections of liquidity needed to meet financial requirements during the Runway Period and the Resolution Period. These projections are integrated into the Firm's Resolution Financial Model and RLEN projections for MOEs. The Resolution Financial Model demonstrates that MOEs would have access to sufficient financial resources to meet projected needs and maintain continuity of PCS activities in support of the Resolution Strategy.

4.3.1.4 Communications and Reporting

FMU Command is the Firm's global protocol for maintaining communication with FMUs and agent banks in times of stress. The FMU Command team is comprised of senior Operations managers responsible for the Firm's PCS activities in BAU. The members of FMU Command would coordinate closely with other Firm functions including BRM Command to identify, assess, escalate and mitigate potential risks, and would coordinate communications and reporting to PCS providers. FMU Command is actively engaged with the Firm's FMU and agent bank access strategy in BAU through ownership of the FMU

and Agent Bank Access Playbooks, providing input to the top FMU and agent bank designation process and participating in periodic table-top exercises to test the effectiveness of the strategy and playbooks.

4.3.1.5 Operational and Contractual Capacity

The Firm has the operational capacity and data and systems capabilities necessary to execute the Firm's FMU and agent bank access strategy. The Firm's Operational Continuity Plan provides for continued retention of resources needed to maintain PCS activities. In addition, the Firm has the ability and capacity to (i) track PCS transaction volumes and values for each PCS provider at the Material Entity level and by customer and counterparty, (ii) track exposures to PCS providers at the Material Entity level, (iii) track any usage or extension of lines of credit in relation to PCS activities and (iv) provide certain ad hoc reporting as may be required by PCS providers during periods of stress. Finally, the Firm has evaluated the Critical Contracts that govern internal and external relationships with PCS providers and has remediated certain provisions where possible to support the maintenance of access in resolution.

4.3.2 Managing, Identifying and Valuing Collateral

Role of Collateral Management at the Firm

Collateral management is used by the Firm to manage the counterparty credit risk associated with its sales and trading and retail activities. Margin and collateral transactions are executed with CCPs, clearing agencies, exchanges, banks, securities firms and other financial counterparties, including affiliates. During a period of stress, collateral management activity may increase as counterparties call for additional collateral and the value of certain types of collateral becomes more volatile. The Firm's Resolution Financial Model, however, demonstrates that sufficient liquidity would be maintained under severely adverse conditions, such that any potential disturbances in the regular flow of collateral management activity would not impair the Firm's dealings with its counterparties in a substantial way. The Firm's financial resources combined with its robust collateral management practices, as described further below, would enable the Firm to properly value, manage, return and source collateral as necessary without resorting to collateral fire sales or otherwise transmitting liquidity stress to counterparties.

Collateral Management Capabilities and Processes

The Firm has assessed its ability to produce necessary collateral management-related information contained in both Federal Reserve Supervision and Regulation Letter 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 ("**SR** Letter 14-1"), and the 2017 Guidance through the AREA process.

The Firm has robust capabilities in place to manage, identify and value collateral received from and posted to external parties and affiliates on a Material Entity basis, including:

 Defined processes and procedures to identify and review, on at least a quarterly basis, legal and operational differences and potential challenges in managing collateral within specific jurisdictions, agreement types, counterparty types, collateral forms or other distinguishing characteristics;

- A collateral management policy that outlines how the Firm as a whole approaches collateral and serves as a single source for governance and underlying divisional collateral management policies for each Core Business Line;
- Systems and reporting capabilities to efficiently identify the location of, and legal rights to, all
 pieces of collateral pledged to, pledged by, or held in custody by any Material Entity, including
 (i) the legal entity and geographic jurisdiction where counterparty collateral is held by end of
 day, (ii) CUSIP and asset class information on collateral pledged to CCPs and (iii) collateral
 pledged and received across branches;
- Standards in place to document all netting and rehypothecation arrangements as well as produce risk measurements for cross-entity and cross-contract netting;
- Monitoring of counterparty credit risk exposure between affiliates and tracking and management of collateral requirements as part of the Firm's strategy for optimizing collateral allocations;
- A process for identifying, capturing, tracking and reporting key terms, such as triggers or cross defaults, that may be impacted by a change in market conditions as well as other key collateralrelated terms that may not be impacted in an adverse economic environment. The Firm has defined procedures in place to review, on a quarterly basis, ISDA/Credit Support Annex ("CSA") agreements for triggers that may be breached as a result of changes in market conditions; and
- Forecast changes in collateral requirements and cash and non-cash collateral flows under a variety of stress scenarios on at least a quarterly basis as part of its liquidity stress testing.

Collectively, these practices and capabilities serve as the framework and strategic plan for continuing collateral management processes in a resolution scenario. The Firm has also embedded these activities into regular business practice, thereby enhancing the Firm's overall preparedness and readiness to respond to crisis situations and contributing to the ongoing resolvability of the Firm.

Each business has an appropriately designed collateral management process, supported by the Operations function in coordination with Bank Resource Management,³⁴ Credit Risk and front-office business units.

Enhancements to Resolvability

Reflecting the Firm's commitment to sound and effective resolution planning, the Firm has enhanced its capabilities related to managing, identifying and valuing collateral. The Firm identified additional opportunities to enhance practices and reporting capabilities and implemented project governance mechanisms to monitor the timely completion of identified enhancements, where and as needed.

The Firm has embedded several key collateral management enhancements into regular business practices, including:

- Implementing updated, global collateral management policies;
- Incorporating expanded collateral-related assumptions into the Firm's regular liquidity stress testing, including enhancing the Firm's existing cash flow framework to incorporate all inter-

³⁴ Bank Resource Management is a division responsible for, among other things, various activities related to secured funding and collateral management, whereas BRM Command is a communications protocol enacted in times of stress and overseen by the division of Bank Resource Management.

affiliate contingencies with material liquidity flows and developing a new stress testing scenario which consists of assumptions for ring-fencing of all inter-affiliate flows;

- Increasing the frequency and efficiency of conducting periodic reviews of key terms and triggers; and
- Designing and implementing a reporting and analytic platform (called the QFC Resolution Analytics Platform, or "RAP") that combines the structured contract data points with exposure data, counterparty data, legal entity data and other key data points to deliver more insightful information.

4.3.3 Management Information Systems

Operational readiness is a foundational component of the Firm's resolution planning objectives. Accordingly, the Firm has prioritized improving its MIS reporting capabilities to readily produce data to support the Firm's oversight and decision-making committees and enable general monitoring of the financial health, risks and operations of the Firm.

In BAU, the Firm generates and distributes MIS reports on a regular basis for use by senior and other management to monitor the activities of the Firm. The Firm's **Key MIS** include (i) data and information reporting capabilities described in SR Letter 14-1 under *Management Information Systems* and (ii) financial and risk data that would be required to execute the Firm's Resolution Strategy, including MIS that produce information that would be provided to decision-making authorities following the occurrence of key triggers throughout the stress continuum. Much of this information is already in use in BAU and so would not be unfamiliar to its recipients in a crisis.

The Firm has carefully considered the requirements for continued provision of Key MIS in periods of financial stress and has taken measures to mitigate or otherwise overcome any potential challenges related to MIS in resolution. The Firm's approach to confirming its MIS capabilities and the ability to maintain such capabilities in resolution includes:

- Conducting AREA annually, or more frequently as needed, to evaluate and demonstrate MIS capabilities; and
- Incorporating Key MIS considerations into the Firm's resolution planning activities, including by having:
 - Identified Key MIS and associating reporting responsibilities with financial stress communications and escalation to governance bodies.
 - Positioned technology resources, including those supporting Key MIS, on MSEs insulated from business risk;
 - Established an Operational Continuity Plan to, among other things, maintain access to, and operate, Key MIS during resolution;
 - Calculated adequate financial resources to maintain infrastructure necessary to provide Key MIS; and
 - Identified required critical personnel to support Key MIS.

The Firm has used AREA to (i) verify that it has the Key MIS capabilities to readily produce data on a legal entity basis with controls to ensure data integrity and reliability, as described in SR Letter 14-1 and (ii) evaluate its ability to produce the data, reporting and analysis needed to implement the Resolution Strategy in a timely manner and at the appropriate level of detail, including contractual, financial, risk and operational information. The AREA process also resulted in identifying opportunities to enhance existing Key MIS, including improved reporting around inter-affiliate transactions such as guarantees, cross-holdings, financial commitments and other transactions between entities; improved information reporting and analytics regarding QFCs and other Critical Contracts; and established infrastructure and supporting technology to manage its network of MSEs. Further, the Firm has developed data and information capabilities, including associated reporting, to support its trigger and escalation framework in order to monitor the Firm's financial and risk positions throughout the stress continuum. Reporting extends to multiple business units and support and control functions at the Firm, including Risk, Treasury, Bank Resource Management and others, and has been aligned to the financial and stress communication strategy established to support the Firm's trigger and escalation framework. Finally, the Firm's series of operational continuity playbooks incorporate considerations relevant to maintaining Key MIS in resolution and lay out an approach to maintaining continuity of the services and resources required, among other things, to produce Key MIS throughout the stress continuum, including resolution.

4.3.4 Shared and Outsourced Services

The successful implementation of the Resolution Strategy requires continuity of shared and outsourced services to the MOEs notwithstanding MS Parent's entry into resolution proceedings. Accordingly, the Firm has developed a strategy to maintain service continuity in a range of scenarios and conditions. As part of this Shared and Outsourced Services strategy, the Firm completed the Gladiator Program ("Gladiator"), a multi-year effort focused on enhancing the operational continuity of Critical Shared Services. The core component of Gladiator was a substantial legal entity restructuring of the Firm's Support and Control divisions so that these divisions and their related assets were removed from the control of individual MOEs and placed under the control of Material Service Entities (MSEs). Under this service delivery model:

- Support individuals are employed by MSEs;
- Systems, applications and infrastructure are under the direct control of MSEs;
- IP is either legally owned by MSEs, or MSEs have a perpetual, fully paid up license to IP;
- Vendors providing support services contract with MSEs; and
- Facilities are under the direct control of MSEs (whether owned or leased), including data centers.

To facilitate the provision of services during resolution, the Firm has taken additional measures to (i) contractually require MSEs to take actions consistent with the Firm's strategy and (ii) make the MSEs financially resilient, including:

• **Operational Mapping:** The process through which the Firm understands its interconnectedness across people, facilities, systems, applications, infrastructure and support service vendors. The process is underpinned by the Firm's Service Taxonomy, which is the

common language for describing services across the Firm since 2015. The Service Taxonomy is linked to the Process Taxonomy, the Firm's method of describing its functions since 2012. Operational Mapping is supported by SWORD (Strategic Warehouse of Operational Relationship Data), the Firm's strategic technology platform for managing service relationship data;

- **MSE and Service Principles:** MSEs conform to a set of MSE principles (also embedded in the Firm's Legal Entity Rationalization Criteria) that limit their ability to take risk, keep them independent from risks that occur in the Firm's operating subsidiaries (e.g., MOEs) and set Firmwide standards to serve customers without preferential treatment. Additionally, the Firm has aligned cost allocations and transfer pricing for services to the service taxonomy and service company strategy;
- SLA Framework: Services provided by MSEs are documented in legally binding arm's length service level agreements (SLAs). These documents obligate the MSEs to provide services to their customers in both BAU and resolution and prevent the MSEs from terminating services in the event of a resolution. The schedule of services in these documents references SWORD and the service taxonomy and aligns to the cost of and payment for services;
- MSE Financial Resiliency: The MSEs are well capitalized and hold significant financial
 reserves (which align with the Agencies' working capital guidance) to make the service
 companies further resilient to variations in the resolution scenario or unplanned operational
 challenges. All pre-positioned working capital is a reserve maintained in BAU and resolution as
 the effective liquidity minimum for each MSE and not as a resource that will be expended. In
 addition, the Firm has adopted an MSE financial model that provides for how the MSEs will wind
 down over time as the resolution strategy progresses; and
- Governance Framework: The Firm has enhanced its governance framework for services by including MSE governance bodies that are separate from MOE governance bodies in order to mitigate any potential conflicts of interest. Furthermore, the Firm's supplier management and outsourcing governance programs have been expanded to also govern the relationship between the MSEs and their customers, in recognition of the need to treat MSEs for governance purposes much like third parties. In addition, the Firm has established a Firmwide Shared Services (FSS) Command that is activated upon the Calculation Trigger as part of the Firm's crisis management framework. FSS Command provides operational coordination and communication between MSEs and MOEs in stress and resolution.

4.3.4.1 Service Company Strategy (MSE Network)

Through the significant efforts of its Gladiator program, the Firm has adopted a service company model as its BAU service delivery model. Adopting this model required fundamental structural changes to the way the Firm delivers support services globally, impacting over 15,000 full-time employees, billions of dollars in related support assets and thousands of vendor relationships, among other changes. Under the model, the Firm's support divisions, including all critical services, are under the control of resolution resilient MSEs, which provide support services to the Firm's other subsidiaries. The service company model promotes the preservation of operational continuity by precluding situations in which one affiliate that legally owns or controls the support resources (i.e., employees, facilities, IP,

systems/applications/infrastructure, or support vendors) required by the others becomes insolvent and ceases to make those resources available to its affiliates.

The MSEs adhere to a set of principles that limit their ability to take risk and which insulate them from risks that the Firm's operating subsidiaries face. The MSEs are subject to a governance structure that prohibits them from giving preferential treatment to any of their operating subsidiary customers. In addition, the MSEs are well capitalized and hold significant financial resources, in compliance with the Agencies' working capital guidance.

The Firm has migrated its shared services into this network of MSEs. Phase 1 of this program focused on the migration of the U.S. Technology organization into the regional U.S. MSE and was completed on March 1, 2016. Phase 2 of the program focused on transferring the remaining global shared services to their respective regional services entities. In the U.S., Phase 2 was completed on March 1, 2017. In APAC, Japan and EMEA, Phase 2 was completed on April 1, 2017.

Before the MSE network was established, more than 40 entities spread across numerous jurisdictions, were responsible for the provision of services to the Firm. Exhibit 4.3-1 provides a geographical representation of the service provision prior to the development of the MSE network.



Exhibit 4.3-1: Service Provision Structure Prior to MSE Network

As a result of the MSE network, services are now provided by four key services hubs and auxiliary companies. Exhibit 4.3-2 provides a geographical overview of the MSE network.

Exhibit 4.3-2: Overview of Global MSE Network



With the completion of this program, entities within the network are now operationally independent, including through the maintenance of their own bank accounts for the payment of employee salaries, vendors and other direct expenses. They also have direct control of the employees and assets that provide shared services to multiple Material Entities.

The Firm recognizes that under its SPOE Resolution Strategy, subsidiaries cannot be assumed to take discretionary actions (e.g., continuing to provide services that are not documented or provided pursuant to an arm's-length arrangement) after MS Parent has filed for bankruptcy. Therefore, while the structural protections described above form a strong initial basis for operational continuity, the Firm has taken additional measures to ensure that MSEs continue to provide services in resolution, as discussed in the following sections.

4.3.4.2 Operational Mapping

Operational mapping provides a detailed inventory of the non-financial resources (e.g., services, applications, vendors) required by the Firm's Critical Operations, Core Business Lines and Material Entities, including which of those resources is critical in resolution. The process yields information on both a legal entity and organizational basis, and also differentiates between items that are critical and not critical under the Firm's Resolution Strategy. It is underpinned by the Firm's Service Taxonomy, a common language for describing services across the Firm.

In every year since 2015, the Firm has made improvements to its Operational Mapping exercise, resulting in a 2017 process that yielded a level of granular insight that has been leveraged for purposes beyond resolution planning. For example, Operational Mapping data is used by Finance to drive cost

allocations in the language of the service taxonomy, which aligns the contractual description of services with the payments for those services. The Firm has also developed the Strategic Warehouse of Operational Relationship Data (SWORD) to both store the results of the operational mapping process and keep the operational mapping information up to date on an ongoing basis. The information in SWORD is also incorporated by reference into the Firm's SLA framework, which contractually obligates entities to continue to perform the documented services in resolution.

Operational mapping information is now considered Firm-level metadata consumed by, among others, risk management and vendor management. The 2017 iteration of the Operational Mapping exercise was completed in three phases, spanning a five-month period in which 595 questionnaires were completed across 154 organizations.

4.3.4.3 Service Principles

The Firm has re-organized its cost allocation methods globally and modified its transfer pricing procedures to align with the MSE Network service delivery model and the service taxonomy. The Firm has created the capability to represent support service costs in the language of the service taxonomy, enabling more specific service level pricing. A fully loaded cost model for services has also been adopted, in which service cost includes an appropriate allocation of the shared overheads (e.g., space) involved in the provisioning of services. The Firm also created the capability to issue electronic invoices from MSEs to their customers (e.g., MOEs) in the language of the service taxonomy. These invoices are aligned to the services governed by the SLA framework. In addition, the Firm enhanced the drivers available in the cost allocations process, so that allocated variable costs are better aligned to their underlying fixed costs and established cost allocations principles and policies to articulate a control framework for ongoing changes to cost drivers and transfer pricing arrangements.

4.3.4.4 Service Level Agreement Framework

To promote resolvability, the Firm has transformed the way affiliates contract for support services from each other. While the other enhancements have improved the Firm's capabilities to deliver services in resolution, the SLA framework provides the legal basis for and documentation of these capabilities. It serves to obligate MSEs to exercise their capabilities to promote a safe and sound resolution. This framework is a two-tier contractual structure and provides for consistent arm's-length relationships between service entities and their customers. The first tier is an agreement among the service entities that formalizes the MSE network and assures that the service entities will provide each other with mutual support. The agreements in the second tier are entered into between MSEs and their customers and contain terms governing specific services. The Firm would expect to use these second-tier agreements as the basis for TSAs with a potential buyer of the Firm's objects of sale (i.e., WM or IM). The SLAs are stored in a new searchable repository created by the Firm, the Inter-affiliate Agreement Repository ("IAR"). The IAR is also searchable via SCORE.

4.3.4.5 Vendor Contract Review

In the course of its Gladiator Program and Contract Remediation Project (CRP), the Firm took the following actions with respect to Critical Contracts:

- Reviewed terms to confirm that they are resolution-friendly (e.g., no cross defaults or change of control provisions) and remediated as necessary;
- Evaluated replacement periods of critical vendor contracts with termination-at-will provisions, validated the sufficiency of the contractual termination period and remediated as necessary;
- Enhanced the vendor contract expiration monitoring process in accordance with the Firm RRP Non-QFC Policy;³⁵ and
- Conducted legal analysis to establish that, in the event of a signatory insolvency proceeding under U.S. law, the Bankruptcy Code or FDIA, as applicable, provides significant protection against termination.

The CRP is a multi-year effort to enhance all of the Firm's Critical Contracts. With respect to third-party services, the CRP (i) identifies Critical Contracts; (ii) confirms that such Critical Contracts are designed to facilitate continuity of services covered under the contracts in resolution; and (iii) establishes controls to identify future Critical Contracts while providing that such contracts must comply with the same standards. In addition, the Firm is seeking to amend certain critical vendor contracts in a manner that is designed to provide additional comfort that such vendors will continue to provide services in the unlikely event that a Firm contracting entity, service recipient or other Firm entity were to enter into a resolution proceeding or if vendor consent is required to extend the term of a Critical Contract that would otherwise expire during resolution.

The Firm has maintained the accessibility of all Critical Contracts through a search layer provided by SCORE.

4.3.4.6 MSE Financial Model

The Firm's MSE Financial Model is a component of the Resolution Financial Model. In consideration of the Agencies' working capital guidance, the Firm has pre-positioned liquidity at each MSE equal to the MSEs' peak expenses for two consecutive months, which exceeds the six-week length of the Stabilization Period. These amounts will be treated as the MSEs' effective liquidity minimums, and are assumed not to be used in either BAU or resolution. In addition, as part of the Resolution Financial Model, the Firm models the financial capacity of each MSE to continue to provide services of essential importance to Resolution Strategy execution, including critical shared services throughout the Resolution Period. The model projects the financial position of each MSE on a daily basis throughout the period, demonstrating its ability to remain a solvent going concern with sufficient liquidity to continue to function without impinging on the liquidity minimums described above. If the model shows that additional resources are required by the MSEs in resolution, this additional requirement informs the Firm's resource support strategy.

4.3.4.7 Governance Framework

To address concerns regarding potential conflicts of interest and preferential treatment, the Firm developed a governance framework for MSEs that includes bodies that are separate and distinct from the MOE governance bodies. Among these bodies is the Firmwide Shared Services (FSS) Command,

³⁵ The Firm RRP Non-QFC Policy governs Critical Contracts that are not QFCs and includes the process to verify that Critical Contracts contain resolutionfriendly terms.

which would provide operational coordination and communication between the service companies and operating companies in a resolution event and can be activated as part of the Firm's trigger and escalation framework.

4.3.4.8 Operational Continuity Playbooks

The Firm has developed five operational continuity playbooks to describe plans and specific actions taken in support of shared and outsourced services. These playbooks, which are included as part of the 2017 Plan, are described in Exhibit 4.3-3.

Exhibit 4.3-3: Operational Continuity Playbooks

PLAYBOOK	PURPOSE
Employee Retention Playbook	Provides plans for HR and business management to identify and retain personnel considered critical for the execution of the Resolution Strategy.
Inter-Affiliate Services Continuity Playbook	Details steps that will be taken to reconfirm resolution-criticality of inter-affiliate services in an actual resolution event and how these services will be managed and maintained during the Resolution Period.
Facilities and Fixed Assets Continuity Playbook	Describes the Firm's plan to maintain operations at critical offices and data centers globally to support retained personnel throughout the Resolution Period.
Technology Continuity Playbook	Details arrangements and continuity plans relating to global technology systems and infrastructure in support of the Firm's Resolution Strategy.
Vendor Continuity Playbook	Explains structural and contractual changes made by the Firm for ongoing procurement of vendor-based services and the operational steps required to maintain continuity of vendor services in resolution.

Each playbook details the Firm's plan for maintaining operational continuity in a resolution scenario and includes (i) a description of the assessment the Firm performed to identify critical services or personnel, (ii) the actions the Firm will take in a resolution scenario to maintain continuity of resolution-critical services as well as critical personnel and (iii) the Firm's contingency strategies in the unlikely event of the loss of access to critical services or personnel.

4.3.5 Legal Obstacles Associated with Emergency Motions

4.3.5.1 Bankruptcy Playbook Summary

The Firm has developed a Bankruptcy Playbook that outlines the process for preparing for MS Parent's bankruptcy filing and addresses key issues that will arise in the days and weeks preceding and immediately following the bankruptcy filing. The Bankruptcy Playbook ties key MS Parent actions to the triggers, timeframes and escalation processes described in the MS Parent Governance Playbook and addresses the Legal Obstacles Associated with Emergency Motions vulnerability from the 2017 Guidance, including:

• An ISDA Protocol Playbook that analyzes issues associated with the implementation of the stay on cross default rights described in Section 2 of the ISDA Protocol and provides an actionable guide to supplement the related motions and memoranda with a day-to-day description of the steps that would be taken in the periods before entering and upon commencement of the bankruptcy proceeding;

- A refreshed and enhanced Guarantee Administrative Priority Motion to, consistent with the requirements of the ISDA Protocol and related memorandum, (i) elevate guarantees of subsidiary QFCs to administrative expense status as preferred relief or (ii) transfer certain of MS Parent assets and guarantee obligations of subsidiary QFCs to a NewCo owned by a trust for the sole benefit of MS Parent's bankruptcy estate as alternative relief; and
- An actionable document completion guide, including other forms of the key motions and other documents necessary to be filed with the Bankruptcy Court to implement the Resolution Strategy.

Key MS Parent actions and related items within the Bankruptcy Playbook include:

- Provision of financial support to the Material Entities prior to filing for Chapter 11;
- Oversight of the execution of business sales;
- An enhanced Guarantee Administrative Priority Motion to obtain Bankruptcy Court approval to elevate guarantees of subsidiary QFCs to administrative expense status, consistent with the requirements of the ISDA Protocol and related memorandum;
- Other emergency and routine First Day Motions, including indications of requisite information and the sources of such information;
- Subsidiary terminations of QFCs with MS Parent, including close-out processes and resultant financial impacts;
- Establishment of and interaction with the Creditors' Committee;
- Execution of resolution operating agreements and other interactions with Material Entities;
- Payments to critical vendors;
- Implementation of a claims allowance process;
- Issuance of a disclosure statement and plan of reorganization; and
- Description of the resulting organization upon completion of the resolution process.

The Bankruptcy Playbook demonstrates that:

- MS Parent, because of its pre-drafted forms and advance planning, is able to prepare and commence the Chapter 11 Proceedings quickly and in an orderly manner;
- MS Parent's commencement of a voluntary case under Chapter 11 does not result in any payment defaults to the customers and counterparties of the Critical Functions (i.e., MS Parent is a clean holding company);
- MS Parent financial resources will be made available to the Material Entities to meet their needs in resolution in a way that preserves the value of the Material Entities and minimizes the risk of potential creditor challenges to such support;
- The Firm can be resolved in an orderly manner without any reliance on U.S. or foreign government financial support;

- Governance mechanisms exist to facilitate timely decision making and action execution by MS Parent; and
- Forms of the key motions and other documents necessary to be filed with the Bankruptcy Court to implement the Resolution Strategy are identified.

The ISDA Protocol Playbook and Guarantee Administrative Priority Motion address, among other things:

- The role of the Bankruptcy Court in granting the emergency motion and legal issues likely to be raised at any hearing;
- Supporting legal precedent and the type of evidentiary support the Firm would anticipate presenting to the Bankruptcy Court;
- Impediments to the approval of relevant bankruptcy court motions and how they will be addressed;
- Steps to secure support by domestic and foreign authorities and actions taken to mitigate the impact if such support is not timely obtained; and
- Sample draft motions and documents in addition to the Guarantee Administrative Priority Motion.

4.3.5.2 QFC Remediation Project

The termination of QFCs by MOE counterparties based on the exercise of cross default rights following MS Parent's bankruptcy filing poses a risk to the successful implementation of the ISG Solvent Wind Down strategy. To mitigate this risk, the Firm established the QFC Remediation Project in 2015. The QFC Remediation Project has been a multi-year, cross-functional effort and achieved the following:

- Identified and digitized the complete QFC population, resulting in the digitization of tens of thousands of QFCs;
- Extracted key terms from the QFCs, including potential resolution-impacting provisions;
- Established an analytics tool that evaluates termination risks using digitized QFC data and key data points such as exposure, product, counterparty and legal entity and has the capability to query and run aggregate statistics for certain QFC provisions;
- Completed adherence of 17 Morgan Stanley legal entities to the ISDA Protocol, representing more than 99% of the Firm's derivatives and secured financing transaction exposures; and
- Remediated QFCs via counterparty protocol adherence or bilaterally in jurisdictions with finalized rules, e.g., Germany, the UK and Japan.

The Firm has now completed the preparatory steps for complying with the still-pending U.S. resolution stay rules to address termination risks. Once such rules are final, the Firm will remediate the QFCs not yet amended through 2015 Universal Protocol adherence.

5. Recovery and Resolution Planning Governance

5.1 RRP Governance

The Firm has established a robust resolution planning and governance framework designed to ensure that all aspects of resolution planning, including development, review, approval and maintenance of the Plan, receive appropriate attention from both senior management and the MS Parent Board. The governance framework builds on established roles and responsibilities and committee charters, and incorporates enhancements specifically designed to address resolution planning. As a result, resolution plan development, review, approval and maintenance activities at the Firm are fully integrated into its corporate governance structure.

From a day-to-day perspective, the resolution planning process is overseen by the Firm's Executive Sponsors and the Co-Chairs of the RRP Steering Committee (the Chief Legal Officer and the Chief Financial Officer) and is managed by Firm RRP. Resolution planning has become a highly integrated, BAU process at the Firm, with defined components owned directly by applicable business units and support and control functions, which fosters the integration of resolvability themes directly into BAU processes, Firm culture and strategic decisions.

The 2017 Plan was formally approved by the Executive Sponsors, the RRP Steering Committee, the RRP Review Committee and the MS Parent Board Risk Committee, and such approvals are reflected in their respective minutes. Similar RRP governance processes exist at certain other entities, such as the U.S. banks and the UK MOEs.

5.2 Resolution Plan Review and Challenge Framework

The Resolution Plan content undergoes several rounds of vetting and challenges throughout the development process. The Firm established a Resolution Plan Review and Challenge Framework to expand the breadth and depth of the content reviews throughout the planning cycle by facilitating appropriate challenge opportunities. The framework builds on existing RRP governance and independent reviews in order to facilitate a thorough review and approval process. In preparation for the 2017 Plan, the Review and Challenge Framework was enhanced and formalized to ensure that Senior Management and subject matter experts were engaged throughout the planning cycle.

The Review and Challenge Framework enables the Firm to continue improving its capabilities supporting resolvability, facilitates consistency across the Firm in its resolution planning efforts and further integrates resolution planning into the Firm's BAU activities. This framework provides thorough governance during the development of the Resolution Plan and relevant capabilities, and for senior management's active engagement throughout the planning cycle.

6. Recovery and Resolution Enhancement Program

The prior sections describe the actions the Firm has undertaken to continue to enhance its resolvability and to address the 2017 Guidance. To help ensure appropriate focus and consistency in these enhancement efforts, the Firm established RREP. RREP is a set of projects that enable change in the Firm's practices, processes and structure to enhance its capabilities to support resiliency and resolvability and embed them into BAU practices and procedures.

Oversight of the RREP portfolio and associated remediation efforts was provided by the Firm's RRP Committee, the Firm's FHC Governance Committee, the Enterprise Risk Oversight Committee, the RRP Steering Committee and multiple divisional-level governance bodies with responsibility for overseeing individual projects. The MS Parent Board was apprised of the status and delivery on the RREP portfolio through regular reporting from FHC Governance and periodic updates from Firm RRP.

The Firm has completed all of these initiatives. A summary of the RREP Projects and the key enhancements made are summarized below.

Program Portfolio Overview

As of July 2017, the RREP portfolio has been closed. The projects that comprised the RREP portfolio are described below. Nine of these projects were completed in June 2017, fulfilling the project plans outlined in prior submissions, and one project was completed in June 2015.

The ten completed RREP Projects are:

- **RRP Capabilities**: Established processes to identify a comprehensive list of capabilities required to manage the Firm through a range of stress events, including resolution. Identified critical operational or technology and data gaps in the Firm's ability to execute on the Firm's Resolution Strategy through the AREA process and determined, assigned and monitored related enhancement efforts.
- Contract Remediation: Set Firm policy for the creation, contents, retention and reporting of Non-QFC Critical Contracts necessary for a Material Entity to effectuate the Firm's Resolution Strategy. Supervised the process for creating or amending existing Critical Contracts to comply with policy and established controls designed to ensure that future Critical Contracts comply with such policy.
- Customer Asset Transfer: Implemented enhancements to improve the efficiency of the asset transfer process for Prime Brokerage, client clearing and retail brokerage customer assets.³⁶ Set forth the Firm process to transfer such customer assets following MS Parent's Chapter 11 filing.
- RRP Financial Modeling: Developed a financial forecasting model, the Resolution Financial Model, to estimate the capital (RCEN) and liquidity (RLEN) resources needed by each of the Firm's Material Entities to execute the Resolution Strategy.

³⁶ The Firm's Resolution Strategy for WM is a sale; if, however, the Firm were unable to effectuate such sale, retail brokerage accounts would be transferred pursuant to the Customer Asset Transfer strategy.

- **FMU and Agent Bank Access**: Prepared playbooks that include details of the Firm's strategy to maintain access to the FMUs and agent banks necessary to execute the Firm's Resolution Strategy, including an assessment of heightened requirements that may be imposed during a period of stress. Described liquidity and operational implications in the event of loss of access and associated netting efficiencies and any internal enhancements to be made to better maintain continued access, if applicable.
- Gladiator Program: Transformed the identification, retention and continuity of access to the critical shared services and resources that are necessary to support the Firm following MS Parent's Chapter 11 filing. Given the depth and breadth of the Gladiator Program, three distinct projects were defined for management and progress reporting.
 - Operational Mapping: Established processes and tools to identify critical services and resources required to support the Firm's Resolution Strategy, including a mapping to the entities that control such resources.
 - Shared Services Migration: Established the continuity of shared services and resources that are necessary to support the Firm's Resolution Strategy through migration of shared support services globally from operating entities into MSEs.
 - Shared Services Infrastructure: Developed the Firm's infrastructure to provide for continuity of shared services. The effort is comprised of the design and implementation of SWORD and SCORE, and financial infrastructure to support MSEs.
- Governance and Communications: Enhanced governance mechanisms and communications
 protocols across the continuum from BAU through resolution, including, as applicable, the
 development and enhancement of Governance, Bankruptcy, Rating Agency and Financial
 Stress Communications Playbooks as well as the Firm's enhanced trigger and escalation
 framework and Support Agreement Framework to facilitate MS Parent financial support to
 Material Entities in a manner resilient to potential creditor challenges.
- Legal Entity Structure: Determined and applied criteria for a rational legal entity structure that balances resolvability, resiliency, safety and soundness and business optimization.
- QFC Remediation: Completed the preparatory steps for complying with pending U.S. resolution stay rules to address risks associated with counterparty termination rights arising out of cross default provisions in QFCs. Once such rules are final, the Firm will remediate the QFCs with external counterparties not yet amended through 2015 Universal Protocol adherence. Addressed resolution stay requirements under non-U.S. Special Resolution Regimes (SRRs) in jurisdictions such as Germany, the UK and Japan. Implemented a QFC digitization solution and successfully processed tens of thousands of QFCs and 99% of the Firm's ISG QFC exposures by notional value. Implemented an analytic platform that combines structured contract data with exposure data, counterparty data, legal entity data and other key data points. Established groundwork to meet QFC recordkeeping requirements.
- **Holding Company Structure**: Created and maintained a top-tier holding company structure that supports resolvability. (Project completed and closed in June 2015.)

Each of these projects represents a set of remediation and enhancement efforts aligned to the Agencies' 2014 Feedback, 2016 Feedback and 2017 Guidance. The Firm is also in the process of

implementing a number of additional enhancements to these projects. The implementation of these additional enhancements after July 1, 2017 will not affect the Firm's resolvability in any meaningful sense.

With the completion of the RREP Projects, the Firm has been and will continue to be committed to the integration of resolution capabilities into BAU practices. Since filing its 2015 Plan and October 2016 Status Report, the Firm has made significant, demonstrable progress in embedding its resolution capabilities and Title I Plan development into BAU practices through (i) identifying BAU ownership and (ii) enhancing or developing:

- Policies and procedures;
- Assessments and processes;
- Stress testing and positioning frameworks;
- Models and databases; and
- Governance mechanisms and communications protocols.

7. Conclusion

The Firm's 2017 Plan articulates a Resolution Strategy detailing how the Firm would be resolved under a range of scenarios and how potential vulnerabilities that might otherwise hinder or prevent a rapid, orderly and value-maximizing resolution would be addressed and overcome. This Resolution Strategy is supported by extensive resolution planning efforts that have been refined and enhanced over a period of years. Moreover, the Firm has put in place a number of practices to help manage its resolvability over time and address risks that may emerge on account of changes in business practices, financial profile or organizational structure.

The Firm believes that its 2017 Plan presents a feasible and credible strategy that demonstrates that the Firm can be resolved without adverse effects on financial stability in the U.S. or on the broader global economy. Based upon the strength of its capital and liquidity positions and the resiliency and credibility of the Resolution Strategy under a wide range of scenarios, the Firm believes that none of the U.S. government, the FDIC's Deposit Insurance Fund nor any foreign governments or taxpayers would incur losses as a result of its failure. The 2017 Plan provides greater detail on all of the actions completed by the Firm to address Agency Guidance and other enhancements to resolvability capabilities. With these actions, the Firm believes that it has the capabilities required to execute its Resolution Strategy.

8. Forward Looking Statements

Certain statements contained herein may constitute "forward-looking statements" within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements, which reflect management's beliefs and expectations, are subject to risks and uncertainties that may cause actual results to differ materially. For a discussion of the risks and uncertainties that may affect the Firm's future results, see "Forward-Looking Statements" immediately preceding Part I, Item 1, "Business—Competition" and "Business—Supervision and Regulation" in Part I, Item 1, "Risk Factors" in Part I, Item 1A of the Firm's Annual Report on Form 10-K for the year ended December 31, 2016 and "Liquidity and Capital Resources—Regulatory Requirements" and "Regulatory Developments" of the Firm's Quarterly Report on Form 10-Q for the period ended March 31, 2017.

9. Appendix A: Description of Core Business Lines

The Firm is a global financial services firm that maintains significant market positions in each of its Core Business Lines: ISG, WM and IM. The designation of the Firm's Core Business Lines serves as an important first step to the development of the Firm's Resolution Strategy and the supporting processes to wind down, transfer or sell those business operations. As per the Final Rule, the Firm considers its Core Business Lines of ISG, WM and IM to be "those business lines, including associated services, functions and support, that in the Firm's view, upon failure, would result in material loss of revenue, profit or franchise value". These business lines represent those identified to be engaged in Critical Functions, to be highly marketable and/or to be strategically important to the Firm.

ISG

The Firm's ISG Core Business Line provides financial advisory and capital-raising services, as well as assistance accessing capital markets and taking or hedging risk, to a diverse group of corporate and other institutional clients globally. ISG's business activities include providing advice on M&A, restructurings, real estate and project finance, corporate lending, investment activities, and providing sales, trading, financing and market-making activities in equity and fixed income securities and related products, including FX and commodities, both as principal and as agent. ISG operates primarily through six MOEs: MSCO, MSIP, MSMS, MSCG, MSCS and MSBNA.

ISG operates through three divisions:

- The Institutional Equity Division, which acts as agent and principal (including as a marketmaker) in executing transactions globally in cash equity, equity related products, equity derivatives and equity-linked or related products, as well as offering a full suite of Prime Brokerage services;
- The Fixed Income and Commodities Division, which trades and makes markets in fixed income securities and related products (including commodities products); is a primary dealer, distributor or market marker in various government securities; acts as an intermediary between borrowers and lenders of short-term funds; provides funding for inventory positions; originates and distributes loans; and provides warehouse lending; and
- The Investment Banking Division (including Global Capital Markets), which offers financial advisory and capital raising services to corporations, organizations and governments globally, including through capital raising services, financial advisory services and corporate lending.

Additionally, Bank Resource Management is responsible for the Firm's securities financing transactions (including securities sold under agreements to repurchase ("**repurchase agreements**") and securities lending), hedging multiple valuation adjustments associated with fixed income and commodities derivatives and optimizing resources associated with the Firm's cleared activity and collateral management globally.

WM

The Firm's WM Core Business Line provides investment solutions designed to accommodate the investment objectives, risk tolerance and liquidity needs of individual investors and small-to-medium-

sized businesses and institutions. WM operates through a network of more than 15,700 global representatives in approximately 600 locations as of December 31, 2016. WM operates primarily through the MOEs MSBNA, MSPBNA and MSSB, and the MSEs MSSBF and MSSBFA.

WM provides clients with an extensive array of financial solutions, including the following services:

- Brokerage and investment advisory services tracking various types of investments;
- Fixed income principal trading, which primarily facilitates clients' trading or investments in such securities;
- Education savings programs, financial and wealth planning services, annuity and other insurance products;
- Cash management services, including deposits, debit cards, electronic bill payments and check writing (including some services offered through unaffiliated third parties);
- Securities-based lending, mortgage loans and home equity lines of credit;
- Access to trust and fiduciary services, cash management and commercial credit solutions for small- and medium- sized businesses in the U.S.;
- Individual and corporate retirement solutions, including individual retirement accounts and 401(k) plans; and
- Stock plan services to corporate executives and businesses.

WM also operates through the Firm's two U.S. national bank subsidiaries, which offer select banking and cash management services to WM customers, including FDIC-insured deposits and Portfolio Loan Accounts, mortgages and tailored lending solutions. As of December 31, 2016, in aggregate, WM's banking entities MSBNA and MSPBNA held approximately \$109.0 billion and \$45.7 billion, respectively, in Bank Deposit Program deposits.

IM

The Firm's IM Core Business Line provides a broad suite of investment management solutions to a diverse client base that includes governments, institutions, corporations, pension plans and individuals worldwide. IM had 1,224 investment professionals around the world, with approximately \$417.4 billion in AUM as of December 31, 2016. IM provides investment and advisory services predominantly through MSIM Inc. and MSIM Ltd., along with other affiliates.

IM's investment strategies span the risk/return spectrum across investment styles and asset classes, including active fundamental equity, global fixed income, global liquidity/money market mutual funds, solutions and multi-asset alternatives, merchant banking, and real estate. IM delivers its strategies as an advisor through a number of investment vehicles, including U.S. registered investment companies, Luxembourg-based "sociétés d'investissement à capital variable", separately managed accounts and private investment funds.

Core Business Line Financial Information

The following exhibits summarize the revenues and income for each of the Core Business Lines in the first quarter of 2017:
Income Statements

Exhibit 9-1: ISG Income Statement from March 31, 2017 Form 10-Q

	Three Mor Marc	 inded		
\$ in millions	2017	2016	% Change	
Revenues				
Investment banking	\$ 1,417	\$ 990	43%	
Trading	3,012	1,891	59%	
Investments	66	32	106%	
Commissions and fees	620	655	(5)%	
Asset management, distribution and administration fees	91	73	25%	
Other	173	4	N/M	
Total non-interest revenues	5,379	3,645	48%	
Interest income	1,124	1,053	7%	
Interest expense	1,351	984	37%	
Net interest	(227)	69	N/M	
Net revenues	5,152	3,714	39%	
Compensation and benefits	1,870	1,382	35%	
Non-compensation expenses	1,552	1,424	9%	
Total non-interest expenses	3,422	2,806	22%	
Income from continuing operations before income taxes	1,730	908	91%	
Provision for income taxes	459	275	67%	
Income from continuing operations	1,271	633	101%	
Income (loss) from discontinued operations, net of income taxes	(22)	(3)	N/M	
Net income	1,249	630	98%	
Net income applicable to noncontrolling interests	35	39	(10)%	
Net income applicable to Morgan Stanley	\$ 1,214	\$ 591	105%	

N/M-Not Meaningful

Exhibit 9-2: Wealth Management Income Statement from March 31, 2017 Form 10-Q

	Three			
\$ in millions	2017		2016 ¹	% Change
Revenues				
Investment banking	\$	145	\$ 121	20%
Trading		238	194	23%
Investments		1	(2)	150%
Commissions and fees		140	412	7%
Asset management, distribution and administration fees	2,	84	2,054	6%
Other		56	58	(3)%
Total non-interest revenues	3,)64	2,837	8%
Interest income	1,)79	914	18%
Interest expense		85	83	2%
Net interest		994	831	20%
Net revenues	4,)58	3,668	11%
Compensation and benefits	2	317	2,088	11%
Non-compensation expenses		768	794	(3)%
Total non-interest expenses	3,)85	2,882	7%
Income from continuing operations before income taxes		973	786	24%
Provision for income taxes		326	293	11%
Net income applicable to Morgan Stanley	\$	647	\$ 493	31%

1. Effective July 1, 2016, the Institutional Securities and Wealth Management business segments entered into an agreement, whereby Institutional Securities assumed management of Wealth Management's fixed income client-driven trading activities and employees. Institutional Securities now pays fees to Wealth Management based on distribution activity (collectively, the "Fixed Income Integration"). Prior periods have not been recast for this new intersegment agreement due to immateriality.

Exhibit 9-3: Investment Management Income Statement from March 31, 2017 Form 10-Q

	Three Mont March		
\$ in millions	2017	2016	% Change
Revenues			
Investment banking	\$ —	\$1	(100)%
Trading	(11)	(10)	(10)%
Investments	98	(64)	N/M
Commissions and fees	—	3	(100)%
Asset management, distribution and administration fees	517	526	(2)%
Other	4	22	(82)%
Total non-interest revenues	608	478	27%
Interest income	1	1	_
Interest expense	—	2	(100)%
Net interest	1	(1)	200%
Net revenues	609	477	28%
Compensation and benefits	279	213	31%
Non-compensation expenses	227	220	3%
Total non-interest expenses	506	433	17%
Income from continuing operations before income taxes	103	44	134%
Provision for income taxes	30	10	200%
Net income	73	34	115%
Net income (loss) applicable to noncontrolling interests	6	(16)	138%
Net income applicable to Morgan Stanley	\$67	\$ 50	34%

N/M-Not Meaningful

10. Appendix B: Description of Material Entities

The bulk of the Firm's activities are conducted through its Material Entities.

The process to designate legal entities as "material" is an important starting point for the Firm's Resolution Plan, allowing those legal entities that are most significant to the Firm's Core Business Lines to be identified and corresponding resolution strategies for these legal entities to be developed. As per its regulatory definition from the Final Rule, a Material Entity is "a subsidiary or foreign office of the covered company that is significant to the activities of a critical operation or core business line."³⁷

At least annually, the Firm designates its Material Entities using a defined and repeatable process, which consists of quantitative screens, qualitative considerations, review and challenge and formal approval by the RRP Steering Committee. As summarized in Exhibit 2-1: List of Material Entities Included in the 2017 Plan, for its 2017 Plan, the Firm designated 27 of its entities as Material Entities, consisting of 10 MOEs and 17 MSEs. The Firm defines an MOE as a legal entity that offers products or services to clients or counterparties and earns a significant portion of any Core Business Lines' profits. The Firm defines an MSE as a legal entity that on the continuity of the Firm's Core Business Line activities, as executed by MOEs, but which is not an MOE itself. The Firm's MOEs and MSEs are described in this section. The Firm's interconnectedness is discussed in Appendix F: Interconnectedness.

ISG Entities

ISG operates its non-bank businesses primarily through the five MOEs as described below. It also operates banking businesses through one MOE, MSBNA.

Morgan Stanley & Co. LLC

MSCO operates as the Firm's primary institutional U.S. broker-dealer and as a futures commission merchant and acts as a swap dealer. MSCO engages in the provision of financial services to corporations, governments, financial institutions and institutional investors. Its businesses include securities underwriting and distribution; brokerage and investment advisory services; securities research; sales, trading, financing and market making in equity securities and related products and fixed income securities and related products including foreign exchange; equity, fixed income and commodity listed and OTC derivatives transactions; listed futures and options execution and clearing services; Prime Brokerage services; securities lending and borrowing; financial advisory services, including advice on mergers and acquisitions, restructurings, real estate and project finance; credit and other lending products; and cash management services. To conduct this business, MSCO maintains various regulatory registrations, including with the SEC as a broker-dealer, with the Municipal Securities Rulemaking Board as a municipal securities dealer, with the Federal Reserve Board as a primary dealer and with the CFTC as a futures commission merchant and provisionally as a swap dealer.

As of December 31, 2016, MSCO had assets of \$308.04 billion, liabilities of \$302.74 billion and equity of \$5.30 billion (all financials presented using U.S. GAAP).

³⁷ MS Parent is considered as the Firm's covered company and is not evaluated for Material Entity designation, but MS Parent's activities are nevertheless inscope for the Resolution Plan.

Morgan Stanley & Co. International plc

MSIP operates as the Firm's primary European broker-dealer and is a UK authorized financial services firm whose principal activity is the provision of financial services to corporations, governments and financial institutions. MSIP's services include capital raising; financial advisory services, including advice on mergers and acquisitions, restructurings, real estate and project finance; corporate lending; sales and trading, and financing and market making activities in equity and fixed income securities and related products, including foreign exchange and commodities. MSIP is authorized by the UK Prudential Regulatory Authority ("PRA") and regulated by the UK Financial Conduct Authority, the PRA and the National Futures Association, and is provisionally registered with the CFTC as a swap dealer.

MSIP operates branches in Paris,³⁸ Seoul, Amsterdam, Zurich, Warsaw, the Dubai International Financial Centre and the Qatar Financial Centre. MSIP's branches are authorized in the EU under the Markets in Financial Instruments Directive or by local regulators in each other jurisdiction.

As of December 31, 2016, MSIP had assets of \$241.54 billion, liabilities of \$225.80 billion and equity of \$15.75 billion. MSIP had \$4.27 billion net revenues and \$432 million net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

Morgan Stanley MUFG Securities Co., Ltd.

MSMS is the Firm's Japanese broker-dealer, operated as a securities joint venture with Mitsubishi UFJ Financial Group, Inc. ("**MUFG**"). The Firm has a 51% voting interest in MSMS (through Morgan Stanley Japan Holdings Co., Ltd., a Firm consolidated entity) and a 40% economic interest in the overall joint venture with MUFG, which includes MSMS and Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. MSMS focuses on trading fixed income and equity securities and provides sales and trading, capital markets and research services to corporations and institutional clients, with a focus on institutional clients transacting in Japanese products. MSMS is primarily regulated by the Japanese Financial Services Agency (among other regulators) and is provisionally registered with the CFTC as a swap dealer. MSMS has no branches or offices outside Japan.

As of December 31, 2016, MSMS had assets of \$58.02 billion, liabilities of \$56.58 billion and equity of \$1.44 billion. MSMS had \$964 million net revenues and \$295 million net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

Morgan Stanley Capital Services LLC

MSCS is the Firm's primary OTC derivatives dealer and also centrally manages the market risk associated with a substantial amount of the Firm's OTC derivatives businesses, including transactions cleared by central clearinghouses. Significant products traded include equity swaps; interest rate derivatives; credit derivatives and FX derivatives. MSCS also holds equities, bonds and listed derivatives as hedges to its OTC derivatives positions. MSCS is regulated by the CFTC and the National Futures Association and is provisionally registered with the CFTC as a swap dealer.

Morgan Stanley Capital Group Inc.

MSCG acts in transactions as a principal, engaging in sales and trading activities across the energy, metals and agricultural commodity sectors. MSCG trades in physical commodities and associated

³⁸ The Paris branch of MSIP closed in February, 2017.

derivative and futures products, and makes markets in spot, forward, swap and futures markets priced based on commodities. In cases in which MSCG is trading listed products (e.g., futures, listed options on futures and cleared swaps), these transactions are cleared through a central exchange, consistent with DCM and SEF requirements. MSCG is a CFTC registered swap dealer and margins its bilateral counterparties on over-the-counter activities consistent with the requirements of section 4s(e) of the Commodity Exchange Act.

Wealth Management Entities

WM operates its non-bank business primarily through one U.S. broker-dealer entity, MSSB. WM also operates banking businesses through one MOE, MSBNA, and, to a lesser extent, a second U.S. insured depository institution, MSPBNA.

Morgan Stanley Smith Barney LLC

MSSB is a U.S. registered broker-dealer that provides financial services to clients through a network of more than 15,700 financial advisors in approximately 600 locations across the U.S.. MSSB financial advisors serve retail and middle market investors with an emphasis on ultra-high net worth, high net worth and affluent investors. MSSB provides solutions designed to accommodate individual investment objectives, risk tolerance and liquidity needs, including such significant products as brokerage and investment advisory services, fixed income principal trading (primarily to facilitate clients' trading or investments in such securities) and education savings programs, financial and wealth planning services, annuity and other insurance products, as well as access to deposit, cash management, loan and credit services for individuals, small and medium-sized businesses in the U.S., retirement accounts, 401(k) plans and stock plan services. MSSB is registered with the SEC as a broker-dealer and as an investment adviser. As of September 5, 2014, MSSB deregistered as a futures commission merchant. However, it remains registered as an introducing broker with the CFTC and introduces futures business to MSCO.

As of December 31, 2016, MSSB had assets of \$30.14 billion, liabilities of \$18.21 billion and equity of \$11.93 billion (all financials presented using U.S. GAAP).

Morgan Stanley Bank, N.A

MSBNA is a U.S. insured depository institution that is headquartered in Salt Lake City, Utah and has representative offices in New York, New York. MSBNA's businesses are concentrated in institutional lending and securities-based lending for clients of its affiliated broker-dealers. Certain foreign exchange trading activities are also conducted by MSBNA. MSBNA is regulated by the Office of the Comptroller of the Currency, among other regulators, and is registered with the CFTC as a swap dealer.

As of December 31, 2016, MSBNA had assets of \$129.29 billion, liabilities of \$116.03 billion and equity of \$13.26 billion. MSBNA had \$3.88 billion net revenues and \$2.08 billion net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

Morgan Stanley Private Bank, N.A.

MSPBNA is a U.S. insured depository institution that is headquartered in Purchase, New York. MSPBNA is a federally chartered national association whose activities are subject to comprehensive regulation and examination by the OFCC. MSPBNA has access to low cost deposits swept from WM clients' brokerage accounts, eliminating the need for a physical branch network typical of its competitors. MSPBNA is regulated by the Office of the Comptroller of the Currency, among other regulators.

As of December 31, 2016, MSPBNA had assets of \$52.96 billion, liabilities of \$47.41 billion and equity of \$5.54 billion. MSPBNA had \$1.06 billion net revenues and \$446 million net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

Investment Management Entities

The IM business operates primarily through two Material Entities, MSIM Inc. and MSIM Ltd.

Morgan Stanley Investment Management, Inc.

MSIM Inc. is a Registered Investment Advisor in the U.S. for certain mutual funds and other institutional products and one of two Material Entities of the IM business. MSIM Inc. is also the investment subadviser to certain mutual funds, and to certain fund and institutional accounts advised by MSIM Ltd. MSIM Inc. is registered as an investment adviser with the SEC, as a commodity pool operator and commodity trading adviser with the CFTC, and with Canadian, Chinese, Indian and Korean securities regulators.

Morgan Stanley Investment Management Limited

MSIM Ltd. is a UK authorized financial services company that is the primary IM entity in Europe, the Middle East and Africa ("**EMEA**"). The only activities in which it engages are the provision of IM services to institutional and fund managed clients. MSIM Ltd. serves as the investment advisor to Active Fundament Equity, Global Fixed Income and Solutions & Multi-Asset ("**S&MA**") funds. AMSIM Ltd. is primarily regulated by the UK Financial Conduct Authority but is also registered with the SEC as an investment advisor and with a number of foreign securities regulators.

As of December 31, 2016, MSIM Ltd. had assets of \$662 million, liabilities of \$215 million and equity of \$447 million. MSIM Ltd. had \$863 million net revenues and \$111 million net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

Material Service Entities

Morgan Stanley Services Group Inc.

MSSG is the primary U.S. support services company. It is responsible for providing the preponderance of services to U.S. entities. It is responsible for the governance and supervision of the majority of services that flow into the U.S. from the Firm's affiliates, globally. MSSG was created through an extensive series of restructurings, personnel migrations and asset migrations pursuant to the Gladiator Program.

As of December 31, 2016, MSSG had assets of \$2.33 billion, liabilities of \$1.33 billion and equity of \$997 million. MSSG had \$2.39 billion net revenues and \$1.9 million net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

MSFL

MSFL's main function is the financing of fixed assets for North America. Aside from its role as an indirect owner and lessee of tangible real estate property to affiliates, MSFL does not conduct significant business activities. MSFL leases tangible personal property to other affiliates. MSFL is headquartered in New York and indirectly owns properties in the state of New York for the use of the Firm's operating businesses.

As of December 31, 2016, MSFL had assets of \$3.44 billion, liabilities of \$2.74 billion and equity of \$697 million. MSFL had \$125 million net revenues and \$70 million net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

MSUKG

MSUKG's primary service is to provide physical workspace to the Firm employees residing in the UK who support the Firm's UK entities including MSIP and MSIM Ltd. The provided physical workspace is all located in the UK and is leased (not owned) by MSUKG. MSUKG provides a full range of property services in support, including physical security to all of the Firm's UK entities.

As of December 31, 2016, MSUKG had assets of \$22.62 billion, liabilities of \$3.34 billion and equity of \$19.28 billion. MSUKG had \$254 million net revenues and \$644 million net income³⁹ for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

MSUKL

MSUKL acts as an employment company that is responsible for the payment of all remuneration and benefits due to the Firm employees residing in the UK who support the Firm's UK entities. As part of its provision of employment services, MSUKL is the contractual counterparty (the sponsoring employer) to the Firm's pension plan in the UK.

As of December 31, 2016, MSUKL had assets of \$778 million, liabilities of \$657 million and equity of \$122 million. MSUKL had \$1.12 billion net revenues and an \$11 million net loss for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

MSSBF

MSSBF's primary activities are to hold real estate leases for MSSB's branch offices and finance fixed assets for Wealth Management. Its activities are primarily conducted in the U.S.

As of December 31, 2016, MSSBF had assets of \$1.69 billion, liabilities of \$584 million and equity of \$1.11 billion. MSSBF had \$594 million net revenues and \$3 million net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

MSSBFA

MSSBFA engages in the administration of notes related to the recruiting and retention of MSSB financial advisors and certain financial advisor compensation programs. Its activities are primarily conducted in the U.S.

As of December 31, 2016, MSSBFA had assets of \$4.87 billion, liabilities of \$1.59 billion and equity of \$3.28 billion. MSSBFA had \$11 million net revenues and \$7 million net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

MSJG

MSJG provides information technology, administration and personnel-related services, including human resources, payroll, welfare, professional education and training, to Firm affiliates in Japan.

³⁹ Non-interest expense and equity in undistributed income (loss) of subsidiary(ies) of MSUKG resulted in a higher net income than revenue.

As of December 31, 2016, MSJG had assets of \$344 million and equity of \$-31 million.⁴⁰ MSJG had a \$4 million net loss for the year ending December 31, 2016.

MSSCC

MSSCC serves as Canada's shared service provider, delivering technology services globally. MSSCC center houses full-time employees (front- and back-office), support contingent workers, fixed assets and real estate leases.

MSHAL

MSHAL is a deployment center and is part of the Firm's location support strategy. MSHAL is a shared service provider and delivers Finance, Risk, Operations, Technology and Research services from Hungary to the Firm's offices globally.

As of December 31, 2016, MSHAL had assets of HUF⁴¹ 14.41 billion, liabilities of HUF 5.53 billion and equity of HUF 8.88 billion. MSHAL had HUF 37.83 billion net revenues and HUF 2.04 billion net income for the year ending December 31, 2016 (all financials presented using local GAAP).

MSASPL

MSASPL is a deployment center and is part of the Firm's location support strategy. MSASPL teams provide support services from India to various businesses within the ISG, WM and IM world across the Firm's offices globally.

MSMSSL

MSMSSL is China's primary shared service provider, delivering Technology and Firm operations services. These include maintaining access to critical applications and the underlying technology infrastructure. The Firm's China houses support full-time employees and contingent workers, fixed assets, contracts and real estate leases.

MSSH

MSSH acts as payroll processing entity for personnel in the Americas. MSSH wholly owns two MSE subsidiaries, MSSG and MSFL. MSSH processes and funds payroll for all North American employees.

As of December 31, 2016, MSSH had assets of \$4.53 billion, liabilities of \$2.86 billion and equity of \$1.67 billion. MSSH had \$(363) thousand net revenues and \$45.19 million net income⁴² for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

MSAL

MSAL is a licensed corporation under the Hong Kong Securities and Futures Ordinance. The principal activities of the company consist of investment banking, foreign exchange sales and trading, and introductory brokerage.

As of December 31, 2016, MSAL had assets of \$1.53 billion, liabilities of \$639 million and equity of \$887 million. MSAL had \$2.08 billion net revenues and \$543 million net income for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

⁴⁰ Negative equity is due to life to date cumulative losses on the entity.

⁴¹ Hungarian Forint.

⁴² Applicable income taxes and equity in undistributed income (loss) of subsidiary(ies) of MSSH resulted in a higher net income than revenue.

MSSIPL

MSSIPL is a deployment center and is part of the Firm's location support strategy. The entity provides support to Prime Brokerage, Fund Services, Operations & Global Workforce strategy and other operations activities, from India to the Firm offices across the globe.

MSHKL

MSHKL holds fixed assets for the benefit of the Firm's companies in Hong Kong. MSHKL acts as an investment holding company.

As of December 31, 2016, MSHKL had assets of \$1.57 billion, liabilities of \$177 million and equity of \$1.39 billion. MSHKL had \$792 thousand net revenues and \$549 million net income⁴³ for the year ending December 31, 2016 (all financials presented using U.S. GAAP).

MSES

MSES is primarily an employment services company for 1,878 front-office employees. It conducts business activities in the UK

As of December 31, 2016, MSES had assets of \$372 million and equity of \$40 million. MSES had \$24 million net income for the year ending December 31, 2016.

MSBAG

MSBAG is a fully licensed deposit taking credit institution (CRR bank), including MiFiD services. MSBAG has passported its MiFID license into other EEA jurisdictions: Austria, Belgium, Denmark, France, Great Britain, Ireland, Italy, Liechtenstein, Luxembourg, the Netherlands and Spain. MSBAG provides services primarily to clients in Germany and Austria. Offerings include mergers and acquisitions, corporate finance, equity and debt capital markets, and sales and trading activities.

As of December 31, 2016, MSBAG had assets of \$1.96 billion, liabilities of \$1.71 billion and equity of \$253 million. MSBAG had \$104 million net revenues and \$11 million net income for the year ending December 31, 2016 (all financials presented using U.S GAAP).

⁴³ Equity in undistributed income (loss) of subsidiary(ies) of MSHKL resulted in a higher net income than revenue.

11. Appendix C: Summary Financial Information

Exhibit 11-1 shows the Firm's Consolidated Statement of Financial Position from the March 31, 2017 Form 10-Q.

Exhibit 11-1: Consolidated Statement of Financial Position from March 31, 2017 Form 10-Q

	(U	naudited)		A .
	At March 31,		At	
			Dec	ember 31, 2016
\$ in millions, except share data		2017		2010
Assets Cash and due from banks	\$	22.081	¢	22,017
Interest bearing deposits with banks	φ	20,773	φ	22,017
Trading assets at fair value (\$172,203 and \$152,548 were pledged to various parties)		284,341		262,154
		,		,
Investment securities (includes \$61,166 and \$63,170 at fair value)		81,139		80,092
Securities purchased under agreements to resell (includes \$102 and \$302 at fair value)		104,823		101,955
Securities borrowed		111,803		125,236
Customer and other receivables		48,344		46,460
Loans:				
Held for investment (net of allowance of \$297 and \$274)		83,302		81,704
Held for sale		12,651		12,544
Goodwill		6,588		6,577
Intangible assets (net of accumulated amortization of \$2,498 and \$2,421)		2,644		2,721
Other assets		53,902		52,125
Total assets	\$	832,391	\$	814,949
Liabilities				
Deposits (includes \$94 and \$63 at fair value)	\$	152,109	\$	155,863
Short-term borrowings (includes \$714 and \$406 at fair value)	Ψ	1,122	Ψ	941
Trading liabilities at fair value		136,903		128,194
Securities sold under agreements to repurchase (includes \$732 and \$729 at fair value)		56,525		54,628
Securities loaned		18,934		15,844
				,
Other secured financings (includes \$4,802 and \$5,041 at fair value)		11,852		11,118
Customer and other payables		189,544		190,513
Other liabilities and accrued expenses		13,630		15,896
Long-term borrowings (includes \$40,627 and \$38,736 at fair value)		172,688		164,775
Total liabilities		753,307		737,772
Commitments and contingent liabilities (see Note 11) Equity				
Morgan Stanley shareholders' equity:				
Preferred stock		8,520		7,520
Common stock, \$0.01 par value:				
Shares authorized: 3,500,000,000; Shares issued: 2,038,893,979; Shares outstanding:				
1,851,942,590 and 1,852,481,601		20		20
Additional paid-in capital		22,880		23,271
Retained earnings		55,109		53,679
Employee stock trusts		3,037		2,851
Accumulated other comprehensive income (loss)		(2,450)		(2,643)
Common stock held in treasury at cost, \$0.01 par value (186,951,389 and 186,412,378 shares)		(6,155)		(5,797)
Common stock issued to employee stock trusts		(3,037)		(2,851)
Total Morgan Stanley shareholders' equity		77,924		76,050
Noncontrolling interests		1,160		1,127
				77,177
Total equity		79,084		11,111

The Federal Reserve Board establishes capital requirements for the Firm, including well-capitalized standards, and evaluates the Firm's compliance with such capital requirements. The Office of the Comptroller of the Currency establishes similar capital requirements and standards for the Firm's U.S. subsidiary banks.

The U.S. banking regulators have comprehensively revised their risk-based and leverage capital framework to implement many aspects of the Basel III capital standards established by the Basel Committee. The Firm and its U.S. subsidiary banks became subject to U.S. Basel III on January 1, 2014.

As an "Advanced Approaches" banking organization, the Firm is required to compute risk-based capital ratios under both the U.S. Basel III Standardized approach framework and U.S. Basel III Advanced approach framework. The U.S. Basel III Standardized Approach modifies certain U.S. Basel I-based methods for calculating RWAs and prescribes new standardized risk weights for certain types of assets and exposures. The Firm is required to calculate and hold capital against credit, market and operational RWAs. RWAs reflect both on- and off-balance sheet risk of the Firm. The Firm is subject to a "capital floor" such that these regulatory capital ratios currently reflect the lower of the ratios computed under each approach, taking into consideration applicable transitional provisions.

Exhibit 11-2 presents the Firm's capital measures under the U.S. Basel III Advanced Approach transitional rules and the minimum regulatory capital ratios, as of December 31, 2016. The Firm's Common Equity Tier 1 risk-based capital ratio was 15.9% (fully phased-in, using the U.S. Basel III Advanced Approach) and Tier 1 risk-based capital ratio was 17.9%. The "capital floor" is represented by the U.S. Basel III Advanced Approach.

	At December 31, 2016										
		Transitional			Pro Forma Fully Phased-In			ased-In			
\$ in millions	St	andardized			Advanced		Standardized		Advance		1
Risk-based capital											
Common Equity Tier 1 capital	\$	60,398		\$	60,398	\$	58,616		\$	58,616	i
Tier 1 capital		68,097			68,097		66,315			66,315	,
Total capital		78,917			78,642		77,155			76,881	
Total RWAs		340,191			358,141		351,101			369,709	,
Common Equity Tier 1 capital ratio		17.8	%		16.9%		16.7	%		15.9	%
Tier 1 capital ratio		20.0	%		19.0%		18.9	%		17.9	%
Total capital ratio		23.2	%		22.0%		22.0	%		20.8	%
Leverage-based capital											
Adjusted average assets ¹	\$	811,402			N/A	\$	810,288			N/A	
Tier 1 leverage ratio ²		8.4	%		N/A		8.2	%		N/A	

Exhibit 11-2: Morgan Stanley Capital Measures as of December 31, 2016

Funding Sources

The Firm manages its funding in a manner that reduces the risk of disruption to its operations. It purses a strategy of diversification of secured and unsecured funding sources (by product, investor and region) and attempts to ensure that the tenor of its liabilities equals or exceeds the expected holding period of the assets being financed. The Firm funds its balance sheet on a global basis through diverse sources, which may include equity capital, long-term borrowings, repurchase agreements, securities lending, deposits, letters of credit and lines of credit. The Firm has active financing programs for both standard and structured products targeting global investors and currencies.

Secured Financing

A substantial portion of the Firm's total assets consist of liquid marketable securities and short-term receivables arising principally from sales and trading activities in ISG. The liquid nature of these assets provides the Firm with flexibility in managing the composition and size of its balance sheet. The Firm's goal is to achieve an optimal mix of durable secured and unsecured financing. Secured financing investors principally focus on the quality of the eligible collateral posted. Accordingly, the Firm actively manages the secured financing book based on the quality of the assets being funded.

The Firm utilizes shorter-term secured financing only for highly liquid assets and have established longer tenor limits for less liquid asset classes, for which funding may be at risk in the event of a market disruption. The Firm defines highly liquid assets as government-issued or government-guaranteed securities with a high degree of fundability and less liquid assets as those that do not meet these criteria. At December 31, 2016 and December 31, 2015, the weighted average maturity of its secured financing of less liquid assets was greater than 120 days. To further minimize the refinancing risk of secured financing for less liquid assets, the Firm has established concentration limits to diversify its investor base and reduce the amount of monthly maturities for secured financing of less liquid assets. Furthermore, the Firm obtains term secured funding liabilities in excess of less liquid inventory as an additional risk mitigant to replace maturing trades in the event that secured financing markets, or its ability to access them, become limited. As a component of the Liquidity Risk Management Framework, the Firm holds a portion of its Global Liquidity Reserve against the potential disruption to its secured financing capabilities.

The Firm also maintains a pool of liquid and easily fundable securities, which provide a valuable future source of liquidity. With the implementation of liquidity standards, the Firm has also incorporated high-quality liquid asset classifications that are consistent with the U.S. Liquidity Coverage Ratio definitions into its encumbrance reporting, which further substantiates the demonstrated liquidity characteristics of the unencumbered asset pool and the Firm's ability to readily identify new funding sources for such assets.

Unsecured Financing

The Firm views long-term debt and deposits as stable sources of funding. Unencumbered securities and non-security assets are financed with a combination of long-term and short-term debt and deposits. The Firm's unsecured financings include structured borrowings, whose payments and redemption values are based on the performance of certain underlying assets, including equity, credit, foreign exchange, interest rates and commodities. When appropriate, the Firm may use derivative products to conduct asset and liability management and to make adjustments to its interest rate and structured borrowings risk profile.

Deposits

Available funding sources to the Firm's U.S. bank subsidiaries include Demand Deposit Accounts, Money Market Deposit Accounts, time deposits, Repurchase Agreements, federal funds purchased and Federal Home Loan Bank advances. The vast majority of deposits in the Firm's U.S. bank subsidiaries are sourced from retail brokerage accounts and are considered to have stable, low-cost funding characteristics. At December 31, 2016 and December 31, 2015, deposits were \$155,863 million and \$156,034 million, respectively.

Short-Term Borrowings

The Firm's unsecured short-term borrowings may primarily consist of structured notes, bank loans and bank notes with original maturities of 12 months or less. At December 31, 2016 and December 31, 2015, the Firm had approximately \$941 million and \$2,173 million, respectively, in short-term borrowings.

Long-Term Borrowings

The Firm believes that accessing debt investors through multiple distribution channels helps provide consistent access to the unsecured markets. In addition, the issuance of long-term borrowings allows the Firm to reduce reliance on short-term credit sensitive instruments. Long-term borrowings are generally managed to achieve staggered maturities, thereby mitigating refinancing risk, and to maximize investor diversification through sales to global institutional and retail clients across regions, currencies and product types. Availability and cost of financing to the Firm can vary depending on market conditions, the volume of certain trading and lending activities, the Firm's credit ratings and the overall availability of credit.

The Firm may engage in various transactions in the credit markets (including, for example, debt retirements) that it believes are in its investors' best interests.

Total	\$150,335	\$14,440	\$164,775
Thereafter	58,461	4,583	63,044
Due in 2021	15,658	1,521	17,179
Due in 2020	15,698	1,038	16,736
Due in 2019	21,389	1,008	22,397
Due in 2018	17,640	1,652	19,292
Due in 2017	\$21,489	\$4,638	\$26,127
\$ IN MILLIONS	PARENT COMPANY	SUBSIDIARIES	TOTAL

Exhibit 11-3: Long-term Borrowings by Maturity Profile

Subsequent to December 31, 2016 and through February 21, 2017, long-term borrowings increased by approximately \$7.1 billion, net of maturities. This amount includes the issuances of senior debt; \$7.0 billion on January 20, 2017 and \$3.0 billion on February 17, 2017.

Trust Preferred Securities

During 2016, Morgan Stanley Capital Trust III, Morgan Stanley Capital Trust IV, Morgan Stanley Capital Trust V and Morgan Stanley Capital Trust VIII redeemed all of their issued and outstanding Capital Securities pursuant to the optional redemption provisions provided in the respective governing documents. In the aggregate, \$2.8 billion was redeemed. The Firm concurrently redeemed the related underlying junior subordinated debentures.

12. Appendix D: Memberships in Material Payment, Clearing and Settlement Systems

Exhibit 12-1 contains a representative list of the Firm's top memberships in payment, clearing and settlement systems. For additional information on the Firm's payment, clearing and settlement activities, refer to Section 4.3.1 *Payment, Clearing and Settlement Activities.*

CENTRAL COUNTERPARTY CLEARING HOUSES (CCPS)	CENTRAL SECURITIES DEPOSITORIES (CSDS)	FX SETTLEMENT	AGENT BANKS
CME	BOJ	CLS	BNP Paribas
Eurex	ClearStream SA		BNY Mellon
FICC	DTC		BTMU
HKSCC(1)	Euroclear Bank		Citi
ICE Credit	Euroclear EUI (CREST)		HSBC
ICE Europe	Euroclear France		RBC
JSCC	JASDEC		
LCH Ltd.	HKSCC		
LCH SA	KSD		
NSCC			
OCC			

Exhibit 12-1: Morgan Stanley's Top FMUs

13. Appendix E: Foreign Operations

The Firm operates in both U.S. and non-U.S. markets. The Firm's non-U.S. business activities are principally conducted and managed through European and Asia-Pacific locations. As of December 31, 2016, the Firm had 55,311 employees worldwide.

The net revenues disclosed in Exhibit 13-1 reflect the regional view of the Firm's consolidated net revenues on a managed basis, based on the following methodology:

- Institutional Securities: advisory and equity underwriting client location; debt underwriting revenue recording location; sales and trading – trading desk location;
- Wealth Management: wealth management representatives operate in the Americas; and
- **Investment Management**: client location, except for Merchant Banking and Real Estate Investing businesses, which are based on asset location.

Exhibit 13-1: Net Revenues by Region from March 31, 2017 Form 10-Q (Mn)

Net Revenues by Region

	Three Mor Marc	nths Ended h 31,			
\$ in millions	 2017		2016		
Americas	\$ 7,088	\$	5,752		
EMEA	1,489		1,129		
Asia-Pacific	1,168		911		
Net revenues	\$ 9,745	\$	7,792		

The following are the Firm's non-U.S. MOEs and the products and services they offer:

- **MSIP**: MSIP is the Firm's primary European broker-dealer. MSIP provides services to corporations, governments and financial institutions including capital raising; financial advisory services, including advice on mergers and acquisitions; restructuring; real estate and project finance; corporate lending; sales and trading; financial and market making activities in equity and fixed income securities and related products, including foreign exchange and commodities; and investment activities. MSIP operates branches in Paris,⁴⁴ Seoul, Amsterdam, Zurich, Warsaw, the Dubai International Financial Centre and the Qatar Financial Centre.
- **MSIM Ltd**.: MSIM Ltd. is the primary IM entity in EMEA. As such, the only activities in which it engages are the provision of IM services to institutional and fund managed clients. MSIM Ltd. serves as the investment advisor to Active Fundament Equity, Global Fixed Income and Solutions & Multi-Asset funds.
- MSMS: MSMS is the Firm's Japanese broker-dealer and the most significant of the Firm's subsidiaries in Japan. MSMS has been operating its broker-dealer business for more than 30 years in Japan. All business transacted on the entity is within the Firm's ISG Core Business Line. MSMS provides sales and trading, capital markets and research services to corporations and institutional clients. Transactions involving Japan Government Bonds, either as the primary trade or as collateral on other positions, represent a significant proportion of MSMS's activities.

⁴⁴ The Paris branch of MSIP closed in February, 2017.

MSMS primarily serves institutional clients transacting in Japanese products. It also serves Japan-based clients trading offshore products. Transactions for offshore clients and for offshore products are largely executed through its offshore affiliates. MSMS also trades with other Firm affiliates, primarily for the purposes of hedging positions resulting from client trading. In particular, MSMS sources derivatives for hedging from MSCS and MSCG.

14. Appendix F: Interconnectedness

The Firm's legal entity structure facilitates a rapid and orderly resolution, including with respect to the sales of WM and IM and the wind down of ISG. Each Core Business Line operates largely on a distinct set of Material Entities,⁴⁵ and each Core Business Line has clean ownership structures supporting separability. The Firm has also established operationally and financially resilient MSEs, which are separate and distinct from its MOEs.

While some level of interconnectedness between Material Entities is inherent in a global business such as the Firm, a core goal of resolution planning is to ensure that such relationships are rational and would not impede the Firm's orderly resolution.

The Firm's Material Entities generally fall into four categories:

- **Core Business Line Subsidiaries**: Non-bank operating companies and dedicated service entities that transact with the Core Business Line's customers and counterparties and hold licenses or memberships to engage in certain activities:
 - ISG MOEs include MSCO, MSIP, MSMS, MSCS and MSCG.
 - WM MOEs include MSSB and dedicated WM MSEs MSSBF and MSSBFA.
 - IM MOEs include MSIM Inc. and MSIM Ltd.
- **Bank Subsidiaries**: Insured depository institutions that take deposits and provide loans and other banking products to their customers
 - WM MOEs include MSBNA and MSPBNA.
- Shared Service Entities: Dedicated service entities that provide corporate and support services to operating companies, such as technology, real estate and payroll services, and support all Core Business Lines and Critical Functions.
 - Includes the MSEs shared across Core Business Lines.
- Holding Companies: Raise debt and equity funding, and invest or loan proceeds to subsidiaries
 - MS Parent⁴⁶

There are broadly three types of relationships through which interconnections between Material Entities exist:

• **Funding Relationships**: Material Entities may have funding relationships with affiliates in which an entity raises funds and lends those funds to its affiliates. Examples include unsecured debt (e.g., long-term debt), equity funding and secured funding (e.g., repurchase agreements or securities lending).

⁴⁵ The primary exception is MSBNA, which offers both ISG and WM products and services. As an insured depository institution, MSBNA's interconnection with ISG is at arm's-length pursuant to regulatory requirements. These connections therefore would not impede the sale of MSBNA together with the WM business.

⁴⁶ MS Parent is technically the "Covered Company," not a Material Entity, as per the 165(d) Rule, but is fully in scope for the Firm's resolution planning exercises.

- Service Relationships: Material Entities may have service relationships with affiliates in which an entity obtains ownership or control of operational resources (e.g., personnel or real estate) and then uses those resources to support the activities of an affiliate. Examples include clearing and settlement, technology, facilities and payroll services.
- **Transactional Relationships**: Material Entities may have transactional relationships with affiliates in which (i) an entity faces a client and transfers its exposure to another entity for risk management (ii) an entity maintains direct access to an FMU or agent bank and then acts as principal to intermediate such access for an affiliate. Examples include securities and derivatives transactions and related FMU and agent bank access.

Material Entity interconnections are most prominent for (i) funding relationships in which MS Parent provides funding to Material Entities and (ii) service relationships in which MSEs provide support to other Material Entities.

A majority of the Firm's MSEs are Shared Service Entities that provide a variety of services to the Firm's MOEs across jurisdictions, as described in Exhibit 14-1.

URISDICTION	MATERIAL SERVICE ENTITY	PRINCIPAL SERVICE CATEGORIES	PRIMARY PROVIDERS TO WM MATERIAL ENTITIES
	MSSG	 Personnel Software Data centers Fixed assets 	All Material Entities
	MSFL	Owned real estateVendor contractsFixed assets	All U.S. Material Entities
	MSSH	• Payroll	All U.S. Material Entities
	MSSBF	 Software Fixed assets Real estate leases Vendor contracts 	All U.S. Material Entities
	MSSBFA	• Other (e.g. issuance of FA notes)	• MSSB
UK	MSUKL	 Owned real estate Software Payroll Vendor contracts 	All Material Entities
	MSUKG	Vendor contractsData centers	• MSIP
	MSES	Personnel	MSIP

Exhibit 14-1: Identification of Material Service Entities by Jurisdiction

JURISDICTIO	N MATERIAL SERVICE ENTITY	PRINCIPAL SERVICE CATEGORIES	PRIMARY PROVIDERS TO WM MATERIAL ENTITIES
Japan	MSJG	Data centersPayrollVendor contracts	• MSMS
Canada	MSSCC	Vendor contracts	All Material Entities
Hungary	MSHAL	Vendor Contracts	All Material Entities
India	MSASPL	Data centersPayrollVendor contracts	• MSIP
	MSSIPL	Vendor contracts	All Material Entities
China	MSMSSL	Vendor contracts	All Material Entities
Hong Kong	MSAL	Data centersPayrollVendor contracts	• MSIP
	MSHKL	Owned real estate	• MSIP
Germany	MSBAG	Other (e.g. clearing and settlement activities)	MSCO MSIP

Within each Core Business Line, additional interconnections may exist across all types of relationships. Within the Firm's ISG Core Business Line, for instance, MOEs have transactional relationships driven largely by differences between the legal entities that transact with clients and counterparties in local markets around the globe, on one hand, and the legal entities offering the products that such clients and counterparties require, on the other. Such financial interconnections between these entities are used to manage risk and satisfy regulatory requirements. The most common forms of financial interconnections among ISG MOEs are secured funding and derivatives relationships, as well as related FMU and agent bank access. Significant examples of each type of interconnection within ISG are provided in Exhibit 14-2. All of the ISG MOEs may receive these services. In addition to interconnections *within* the ISG Core Business Line described in this exhibit, other Firm entities—predominantly MS Parent—provide credit support with respect to some transactions of MOEs.

Exhibit 14-2: Intraconnections within ISG Core Business Line

RELATIONSHIP TYPE	DESCRIPTION		Y PROVIDERS TO WN
Secured Funding	MOEs use inter-affiliate secured funding transactions (e.g., repurchase agreements, securities lending) to finance their securities positions or borrow securities from affiliates that serve as regional market hubs for those activities	•	MSCO, MSIP, MSMS
Derivatives	MOEs use inter-affiliate OTC derivatives and FX transactions to, for example: (i) execute hedge transactions with market-making businesses operated by affiliates that offer the hedging product or (ii) enter into market-making transactions with the customers or counterparties of the MOE's affiliates.	•	MSIP, MSCS, MSCO, MSBNA, MSMS, MSCG

In addition to ISG interconnections, the Firm has identified interconnections within WM and IM MOEs. Significant examples of each type of interconnection within WM are provided in Exhibit 14-3.

Exhibit 14-3: Intraconnections within WM Core Business Line

RELATIONSHIP TYPE	DESCRIPTION	PRIMAR	RY PROVIDERS TO WM MATERIAL ENTITIES
Deposit Funding	MSBNA and MSPBNA funding is primarily through cash deposits of MSSB clients through the Bank Deposit Program (BDP), MSBNA provides WM with a mechanism to provide FDIC insurance protection to its clients' cash balances as well a a means to generate accretive returns to the Firm.	•	MSBNA, MSPBNA, MSSB
Lending	MSBNA and MSPBNA offer lending products for customers of its affiliate retail broker-dealer, MSSB.	•	MSBNA, MSPBNA, MSSB

Significant examples of each type of interconnection within IM are provided in Exhibit 14-4:

Exhibit 14-4: Intraconnections within IM Core Business Line

RELATIONSHIP TYPE	DESCRIPTION	PRIMARY PROVIDERS TO WM MATERIAL ENTITIES
Advisor	MSIM Inc. is the investment sub-advisor to certain mutual funds and fund and institutional accounts advised by MSIM Ltd.	

The Firm's top FMUs and agent banks are listed in Appendix D. The Firm's MOEs access these PCS providers either directly through their own memberships or indirectly through other affiliates with direct memberships. For ISG, indirect access to top FMUs in the U.S., EMEA and Japan markets is primarily provided by MSCO, MSIP and MSMS, respectively. For WM, MSSB primarily has its own direct memberships to the top FMUs that it utilizes.

The Legal Entity Structure, Gladiator Program and Contract Remediation RREP Projects and the Firm's Separability workstream, among other efforts, are focused on relationships involving interconnectedness and ensuring that remaining interconnections would not pose an obstacle to orderly resolution due to their immateriality, the terms of the associated contractual relationships and/or the presence of contingency plans.

In addition to the Firm's legal structure and its focus on removing potential obstacles to resolution that could result from interconnectivity within the ISG business, the Firm's SPOE strategy facilitates an orderly solvent wind down of ISG in a manner that minimizes such obstacles.

MS Parent guarantees the payment obligations of certain subsidiaries and certain subsidiaries guarantee the payment obligations of certain affiliates. Per the Firm's Parent Company Guarantee Policy, updated as of June 2017, MS Parent is the preferred issuer for all guarantees. The Parent Company Guarantee Policy outlines the guidelines to be followed by Corporate Treasury when issuing MS Parent guarantees. In situations where an MS Parent guarantee does not satisfy the applicable regional legal, regulatory and/or business requirements, a guarantee may be issued by an MS Parent subsidiary, subject to the Consolidated Subsidiary Guarantee Policy.

15. Appendix G: Material Supervisory Authorities

The Firm is subject to extensive regulation by U.S. federal and state regulatory agencies and securities exchanges and by regulators and exchanges in each of the major markets where the Firm conducts business. Moreover, in response to the 2007-2008 financial crisis, legislators and regulators, both in the U.S. and worldwide, have adopted, continue to propose or are in the process of implementing a wide range of reforms that have resulted or that may in the future result in major changes to the way the Firm is regulated and conducts its business. These reforms include the Dodd-Frank Act; risk-based capital, leverage and liquidity standards adopted or being developed by the Basel Committee on Banking Supervision, including Basel III, and the national implementation of those standards; capital planning and stress testing requirements; and new resolution regimes that are being developed in the U.S. and other jurisdictions. While certain portions of these reforms are effective, others are still subject to final rulemaking or transition periods.

Exhibit 15-1 identifies material supervisory authorities for the Firm's MOEs.

Exhibit 15-1: Supervisory Authorities

SUPERVISOR	JURISDICTION
Commodity Exchange, now a division of CME	U.S.
Commodity Futures Trading Commission	U.S.
Consumer Financial Protection Bureau	U.S.
Federal Deposit Insurance Corporation	U.S.
Federal Energy Regulatory Commission	U.S.
Federal Reserve Board	U.S.
Financial Industry Regulatory Authority, Inc.	U.S.
Municipal Securities Rule Board	U.S.
National Futures Association	U.S.
New York Mercantile Exchange, now a division of CME	U.S.
North American Securities Administrators Association	U.S.
Office of the Comptroller of the Currency	U.S.
Securities and Exchange Commission	U.S.
Prudential Regulation Authority	UK
Financial Conduct Authority	UK
Bank of Japan	Japan
Financial Services Agency	Japan
Japan Securities Dealers Association	Japan
Securities and Exchange Surveillance Commission	Japan

In addition to the regulators shown, MSIP's branches in France,⁴⁷ the Netherlands and Poland operate under the "passport" available to investment firms authorized in the EU under the Markets in Financial Instruments Directive. MSIP's other branches are authorized by local regulators in each jurisdiction.

⁴⁷ The Paris branch of MSIP closed in February, 2017.

16. Appendix H: Principal Officers

Exhibit 16-1 identifies the executive officers of MS Parent and their current titles.

Exhibit 16-1: Morgan Stanley Principal Officers

OFFICER	POSITION	
James P. Gorman	Chairman of the Board and Chief Executive Officer	
Eric F. Grossman	Executive Vice President and Chief Legal Officer	
Keishi Hotsuki	Executive Vice President and Chief Risk Officer	
Colm Kelleher	President	
Jonathan M. Pruzan	Executive Vice President and Chief Financial Officer	
Daniel A. Simkowitz	Head of Investment Management	
Jeffrey S. Brodsky	Executive Vice President and Chief Human Resources Officer	

17. Glossary

TERM	ACRONYM	DEFINITION
165(d) Rule		Federal Reserve System Regulation QQ, 12 CFR Part 243 and Federal Deposit Insurance Corporation Regulation 12 CFR Part 381
2014 Feedback		Feedback letter that the Firm received from the Agencies on August 5, 2014 regarding the Firm's 2013 Plan
2015 Plan		The Firm's 2015 Title I Resolution Plan
2015 Support Agreement		The Firm's 2015 Support and Subordination Agreement
2015 Universal Protocol		2015 ISDA Universal Resolution Stay Protocol
2016 Feedback		Feedback letter that the Firm received from the Agencies on April 14, 2016 regarding the Firm's 2015 Plan
2017 Guidance		Guidance for 2017 §165(d) Annual Resolution Plan Submissions by Domestic Covered Companies that Submitted Resolution Plans in July 2015
2017 Plan		The Firm's 2017 Title I Resolution Plan
2017 Support Agreement		The Firm's 2017 Amended and Restated Support and Subordination Agreement
Active Wind Down		The Firm's approach to wind down its sales and trading operations in an active manner. This approach is included in the Firm's Resolution Strategy as the preferred method of winding down the sales and trading operations
Agencies	FRB and FDIC	A collective term for the Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation
Agent Bank		A financial institution that allows the Firm to access payment, clearing and settlement infrastructure in markets in which the Firm does not maintain direct access
Annual Resolvability Enhancement Assessment	AREA	The Firm's process to assess, in an objective and formal manner, the sufficiency of existing practices that support robust recovery and resolution preparedness, relative to explicit regulatory rules, expectations and guidance. Through AREA, the Firm evaluates its ability to execute certain functions and produce the data, reporting and analysis (inclusive of contractual, financial, risk and operational information, at the appropriate level of detail) that would be required to execute the Resolution Strategy in a timely manner
Asia Pacific	APAC	
Asset and Liability Committee	ALCO	A type of governance body that is responsible for overseeing capital adequacy, funding requirements and liquidity risk management from various perspectives (e.g., the Firm, segment, region or entity)
Asset-Backed Security	ABS	
Assets Under Management	AUM	
Banks		A collective term for the Firm's bank legal entities, inclusive of (but not limited to) MSBNA and MSPBNA
Bank Deposit Program	BDP	Deposit program through which free credit balances in accounts of MSSB customers are automatically deposited into deposit accounts at MSBNA and MSPBNA
Bank Holding Company Act of 1956	BHC Act	Bank Holding Company Act of 1956, as amended
Bank of Japan	BOJ	
Bank Resource Management	BRM	A division within ISG that is responsible for the Firm's securities financing transactions (including repo and securities lending), hedging multiple valuation adjustments associated with Fixed Income derivatives, optimizing resources associated with the Firm's cleared activity (cash/listed/OTC and securities financing transactions) as well as optimizing collateral management globally

TERM	ACRONYM	DEFINITION
Bankruptcy Code		Title 11 of the U.S. Code, as amended
Bankruptcy Court		The U.S. Bankruptcy Court with jurisdiction over the Chapter 11 Proceedings
Bankruptcy Governance Trigger		A trigger occurring upon a Support Trigger that would require the process for consideration and approval of a bankruptcy filing to be initiated and escalated to the MS Parent Board
Basel		Refers to the Basel III agreement, which updates and strengthens the Basel Accords set by the Basel Committee on Bank Supervision and includes requirements related to the minimum amount of common equity and minimum liquidity ratio for banks and additional requirements for those banks deemed as "systemically important banks"
Billion	Bn	
BNP Paribas	BNP	
Board of Directors	Board	
Board of Governors of the Federal Reserve System	FRB	
Board Risk Committee	BRC	
BRM Command		Firm's command and control protocol that provides globally coordinated communications and governs the Firm's preparedness, organization, escalation and response to events that could potentially impact the Firm's financial position
Business Management		Refers to a division within the Firm that serves in one or more of the following capacities: - Business Administration - Program/Project Management - Strategy, Governance and Compliance
Business Unit	BU	Organization or group within the Firm that represents a specific front-office business function
Business-as-Usual	BAU	Normal operating environment
Calculation Trigger		A trigger that is meant to indicate that the Firm is potentially in distress but not yet in Material Financial Distress and occurs at a point in which (i) the Firm's Common Equity Tier 1 Capital Ratio falls below 7.0%, (ii) one or more Board Limits as defined in the Firm's Global Liquidity Risk Oversight Policy, occurs, and MS Parent fails to cure such occurrence(s) through the trigger remediation or excess processes defined within the Global Liquidity Risk Oversight Policy within the time period set forth in the Global Liquidity Risk Oversight Policy for curing such occurrence or (iii) Senior Management, the MS Parent Board or the Agencies determines that an event has occurred that creates a need for daily projections of Material Entity RCEN and RLEN
Capabilities		Ability of the Firm to produce critical information and perform critical activities in a timely manner under developing stress conditions
Capital Markets	СМ	
Central Counterparty	CCP	Facilitates the clearing and settlement of certain financial transactions by serving as the intermediary of credit risk between the buyer and seller of such transactions
Chief Executive Officer	CEO	
Chief Financial Officer	CFO	
Chief Legal Officer	CLO	
Chief Risk Officer	CRO	
Clearing and Settlement	C&S	One of the Firm's Critical Operations, as designated by the Agencies
Clearstream		Clearstream Banking S.A.

TERM	ACRONYM	DEFINITION
Committee on Uniform Securities Identification Procedures	CUSIP	
Commodity Futures Trading Commission	CFTC	
Common Equity Tier 1	CET1	
Contingency Funding Plan	CFP	The Firm's model for liquidity stress testing, which is used to prospectively assess the need for funds to meet obligations for the Firm's entities
Contingent Worker	CWR	Personnel, other than employees, who have been contracted by an entity, either directly with the person or through their vendor employer, to perform services for an entity, including, but not limited to outsourcing contracts, fixed-fee contracts and temporary workers
Contract Remediation Project	CRP	A project within the RREP that was established to review existing agreements and, where necessary, modify existing, or put in place new, agreements so that the Firm's Material Entities could continue to receive critical services, resources and financing from, and transact with, affiliates and third parties and can be sold or wound down in an orderly manner, including establishment of controls designed to ensure critical contracts comply with the Firm's Non-QFC policy
Contractually Binding Mechanism	СВМ	A support agreement or other legally binding contract that is designed to mitigate potential creditor challenges to the provision of capital and liquidity support by a top-tier or intermediate holding company to its subsidiaries during a time of financial distress
Contributable Assets		Certain assets of MS Parent that may be used to make capital contributions and provide liquidity to Material Entities pursuant to the Support Agreement
Core Business Line	CBL	Pursuant to the 165(d) Rule, Core Business Lines means those business lines of the Firm, including associated operations, services, functions and support, that, in the view of the Firm, upon failure would result in a material loss of revenue, profit, or franchise value. The Firm has defined its Core Business Lines as ISG, WM and IM
Credit Default Swap	CDS	Swap agreement in which the purchaser pays periodic payments to the seller to protect the purchaser from default of a reference bond. Upon a default or credit event of the reference bond, the buyer receives a payoff
Credit Support Annex	CSA	
Critical		Of essential importance to Resolution Strategy execution
Critical Contracts		All written contracts, other than QFCs that relate to the receipt of inter-affiliate and third- party services, products or resources that would be necessary for the business of a Material Entity to function during an orderly resolution and are not promptly substitutable without a material adverse effect on the Material Entity's operation during resolution
Critical Economic Function		Product/activity of the Firm for which a withdrawal or disorderly wind down could have a material impact on the UK economy or financial system. The PRA have defined these as Derivatives, Securities Financing Transactions and Securities Settlement for the Firm
Critical Functions		A collective term referring to the Firm's Critical Operations and Critical Economic Functions
Critical Operations		Pursuant to the 165(d) Rule, Critical Operations means those operations of the Firm, including associated services, functions and support, the failure or discontinuance of which, in the view of the Firm or as jointly directed by the Agencies, would pose a threat to the financial stability of the U.S. The Agencies have defined such Critical Operations for the Firm as Repo (bilateral and tri-party), Prime Brokerage, Clearing and Settlement of various cash, FX and derivatives products and Money Market Mutual Funds
Critical Personnel		Critical Personnel are employees who perform or support Resolution Critical Services
Critical Shared Services		Activities performed within the Firm or outsourced to third parties, the failure or discontinuance of which would lead to an inability to perform Critical Functions

TERM	ACRONYM	DEFINITION
Critical Vendor		A vendor that provides Resolution Services that would be necessary for the business of a Material Entity to function during an orderly resolution, and that is not promptly substitutable without a material adverse effect on the Material Entity's operation during resolution
Customer Asset Transfer	CAT	A project within the RREP to implement enhancements improving the efficiency of the asset transfer process for Prime Brokerage, Client Clearing and Retail Brokerage customer assets
Demand Deposit Account	DDA	Deposit account with a bank or other financial institution that allows the depositor to withdraw his or her funds from the account without warning or with less than seven days' notice
Deposit Insurance Fund	DIF	
Derivatives		One of the Firm's Critical Economic Functions, as designated by the PRA
Dodd-Frank Act		Dodd-Frank Wall Street Reform and Consumer Protection Act
Euro	EUR	
Euroclear Bank	Euroclear	
Euroclear France	Euroclear France	
Europe, Middle East and Africa	EMEA	
European Union	EU	
Executive Sponsors		Firm CLO and CFO
Federal Deposit Insurance Act	FDIA	
Federal Deposit Insurance Corporation	FDIC	
Federal Energy Regulatory Commission	FERC	
Federal Home Loan Bank	FHLB	
Federal Reserve		United States Federal Reserve System
Final Rule		Section 165(d) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (12 U.S.C. \S 5365(d))
Finance		Firm division that includes product, regulatory and infrastructure controllers as well as Corporate Treasury, Tax, Financial Planning and Analysis and Strategy, Operations and Technology groups
Financial Advisor	FA	
Financial Holding Company	FHC	
Financial Industry Regulatory Authority	FINRA	
Financial Market Utilities	FMU	Multilateral systems that provide the infrastructure for transferring, clearing and settling payments, securities and other financial transactions among financial institutions or between financial institutions and the system
Financial Supervisory Service	FSS	
Firm		A collective term for MS Parent with all of its subsidiaries on a consolidated basis

TERM	ACRONYM	DEFINITION
Firm Recovery and Resolution Planning Team	Firm RRP	The Firm's group that is responsible for managing the development of the Resolution Strategy, submission and maintenance of the Plan and related requirements and monitoring the progress of related remediation projects
Firm Strategy and Execution	FSE	
Fixed Income and Commodities	FIC	
FMU and Agent Bank Access Playbooks		Playbooks describing strategies to facilitate continued access to the Firm's top FMUs and agent banks during a period of financial stress
FMU Command		Governance and communication protocol to support the Firm's PCS access strategies
Foreign Exchange	FX	
Generally Accepted Accounting Principles	GAAP	
Gladiator Program		A project within the RREP to provide for the identification, retention and continuity of access to the critical shared services and resources that are necessary to support the Firm in resolution
Global Capital Markets	GCM	Division of the Firm that provides traditional market coverage and underwriting services focused on providing customized capital structure solutions to clients
Global Liquidity Reserve	GLR	The Firm's reserve for liquidity, which is comprised of highly liquid and diversified cash and cash equivalents and unencumbered securities
Global Resolution Planning Non-Qualified Financial Contract Policy	Non-QFC Policy	The Firm's policy that sets forth a framework for identifying, assessing and managing the risks associated with the potential inability of a Material Entity to receive the benefits provided under any Critical Contract as the Material Entity approaches, or is in, a resolution scenario
Global Systemically Important Bank	G-SIB	Financial institutions that have been deemed as systemically important to global financial markets by the Financial Stability Board
Global Workforce Strategy	GWS	Division of the Firm that provides strategy and project support to develop and execute on the Firm's off-shoring and outsourcing strategy
Governance and Communications	G&C	A project within the RREP to facilitate the timely execution of required board actions and provision of financial resources in a manner that is resilient to potential creditor challenges
Guarantee		An undertaking by MS Parent or a subsidiary for the benefit of counterparty to pay an underlying obligation in the event the subsidiary does not make such payment to the counterparty
Guarantee Administrative Priority Motion		Emergency elevation motion, with transfer as an alternative form of relief, that would be submitted to the bankruptcy court to elevate guarantees of subsidiary QFCs to administrative priority status, consistent with the requirements of the ISDA Protocol
High Net Worth	HNW	
Holdback		An identified amount of MS Parent's assets that are not part of Support Investments and are held by MS Parent to pay for expenses associated with its Chapter 11 Proceedings, not to exceed \$1 billion
Human Resources	HR	Division of the Firm that provides expertise and advice on human capital planning and organization design to help ensure the Firm has the appropriate resources needed to meet its goals
IM Sale Package		Refers to the in-scope business and functional capabilities of IM, including key business processes, personnel, systems, applications, vendors, facilities and intellectual property that would be included within the sales in a resolution scenario. The Material Entities included in the IM Sale Package are MSIM Inc. and MSIM Ltd.
Individual Retirement Account	IRA	
Information Technology	IT	

TERM	ACRONYM	DEFINITION
Initial Margin	IM	Amount of cash or securities that have to be deposited by an investor with a broker before a margin transaction can be executed
Institutional Securities Group	ISG	Segment of the Firm that provides institutional customers with a range of financial advisory and capital-raising services, assists them in accessing the capital markets and taking or hedging risk
Insured Depository Institution	IDI	
Intellectual Property	IP	
Inter-Affiliate Agreement Repository	IAR	Storage, search and reporting tool used for the Firm's non-QFC inter-affiliate agreements and other supporting documentation
Inter-Affiliate Task Orders	ΙΑΤΟ	Task orders entered into among the MSEs and between the MSEs and their MOE customers
Interest Rate	IR	
Interest Rate Derivatives	IRD	
Intermediate Holding Company	IHC	Entity that sits in the ownership chain between a top-tier parent entity and another subsidiary of the top-tier parent company
Internal Loss Absorbing Capacity	ILAC	For a given legal entity, the GAAP equity and subordinated debt of the entity, plus unsecured borrowings of the entity from MS Parent or direct affiliate holding companies that can be converted into subordinated debt or GAAP equity through the Firm's 2017 Support Agreement in resolution
International Swaps and Derivatives Association, Inc.	ISDA	
Investment Banking Division	IBD	Division of the Firm that offers financial advisory and capital-raising services to corporations, organizations and governments around the world. IBD manages and participates in public offerings and private placements of debt, equity and other securities worldwide
Investment Grade	IG	
Investment Management	IM	Division of the Firm that provides a comprehensive suite of investment management solutions to a diverse client base that includes governments, institutions, corporations, pension plans and individuals worldwide
ISDA Protocol		Part of a series of initiatives promoted by U.S. and foreign regulators and the financial industry to contractually limit early termination of QFCs and is a recognized method of compliance with the QFC Regulations imposing certain restrictions on the terms of QFCs of U.S. G- SIFIs and the U.S. operations of foreign G- SIFIs
ISDA Protocol Playbook		Part of the Bankruptcy Playbook which analyzes issues associated with the implementation of the stay on cross default rights described in Section 2 of the ISDA Protocol and provides an actionable guide to supplement the related motions and memoranda with a day-to-day description of the steps that would be taken in the periods before entering, and upon commencement of, MS Parent's bankruptcy proceeding
ISG MOEs		MOEs that are part of the ISG Solvent Wind Down, which include MSCO, MSIP, MSMS, MSCS and MSCG
ISG Solvent Wind Down		A sub-strategy of the Resolution Strategy that includes the recapitalization of the ISG MOEs as necessary to remain solvent and liquid as they are wound down outside of resolution proceedings
Joint Venture	JV	

TERM	ACRONYM	DEFINITION
Key MIS		Include (i) data and information reporting capabilities described in SR Letter 14-1 under Management Information Systems and (ii) financial and risk data that would be required to execute the Firm's Resolution Strategy, including MIS that produce information that would be provided to decision-making authorities following the occurrence of key triggers throughout the stress continuum
Legal entity	LE	
Legal Entity Rationalization	LER	Vulnerability in resolution related to a firm's legal entity structure that was identified within the 2017 Guidance
Legal Entity Rationalization Criteria	LER Criteria	The Firm's criteria for upholding a rationale and resolvable legal entity structure
Legal Entity Structure Project	LES	A project within the RREP to establish and implement a set of criteria for a rational and less complex legal entity structure that balances business optimization, resiliency and resolvability
LIBRA		Proprietary accounting software system that creates and maintains the positions, balances and journals for ISG
Liquidity Coverage Ratio	LCR	Under the Basel III agreement, an assessment to determine whether or not a bank has sufficient HQLA to survive a significant stress scenario lasting 30 calendar days
Liquidity Risk Limits	Limits	
Liquidity Stress Test	LST	
Listed Derivatives		Derivatives traded via an open exchange or market
Long Term Disability	LTD	
Management Information	MI	
Management Information System	MIS	
Market Risk	MR	
Markets in Financial Instruments Directives	MiFID	
Master Netting Agreement	MNA	
Material Entity	ME	Legal entity that is significant to the activities of a Core Business Line or Critical Function and may be a MOE or MSE
Material Financial Distress		Point in time at which t (i) the Firm has incurred, or is likely to incur, losses that will deplete all or substantially all of its capital, and there is no reasonable prospect for the Firm to avoid such depletion, (ii) the assets of the Firm are, or are likely to be, less than its obligations to creditors and others and (iii) the Firm is, or is likely to be, unable to pay its obligations (other than those subject to a bona fide dispute) in the normal course of business
Material Operating Entities	MOEs	Legal entity that offers products or services to clients or counterparties and earns a significant portion of any Core Business Line's profits
Material Service Entities	MSEs	Legal entity that owns or controls resources that are significant to the continuity of the activities of the Firm's Core Business Lines as executed by MOEs, and is not an MOE itself
Mergers and Acquisitions	M&A	
Million	Mn	
Minimum Operating Liquidity	MOL	The amount of liquidity that the Firm needs to run its daily operations

TERM	ACRONYM	DEFINITION
Mitsubishi UFJ Financial Group, Inc.	MUFG	Japan broker-dealer and Firm's joint venture partner since 2008 when the Firm entered into an alliance to provide integrated services across corporate and investment banking, retail banking and asset management
Model Risk Management	MRM	Division of the Firm that is responsible for independent risk control and review and validation of the pricing and risk measurement models used by the Firm for valuation models
Money Market Mutual Funds	MMMF	Mutual fund that invests in short-term debt securities. The Firm's provision of MMMFs has been designated by the Agencies as a Critical Operation
Morgan Stanley & Co. International PIc	MSIP	UK Broker-Dealer; Designated as a MOE
Morgan Stanley & Co. LLC	MSCO	U.S. Broker-Dealer; Designated as a MOE
Morgan Stanley Advantage Services Private Limited	MSASPL	India Workforce; Designated as a MSE
Morgan Stanley Asia Limited	MSAL	Hong Kong Broker-Dealer and Support Service Provider; Designated as a MSE
Morgan Stanley Bank Aktiengesellschaft	MSBAG	German Bank; Designated as a MSE
Morgan Stanley Bank, N.A.	MSBNA	U.S. National Bank; Designated as a MOE
Morgan Stanley Capital Group Inc.	MSCG, MSCGI	U.S. Commodities, Swaps Dealer; Designated as a MOE
Morgan Stanley Capital Services LLC	MSCS	U.S. Swaps Dealer; Designated as a MOE
Morgan Stanley Employment Services	MSES	UK Pay Company; Designated as a MSE
Morgan Stanley Hong Kong Ltd	MSHKL	Hong Kong Fixed Asset Holding Company; Designated as a MSE
Morgan Stanley Hungary Analytics Limited	MSHAL	Hungary T&D Center; Designated as a MSE
Morgan Stanley Investment Management Inc.	MSIM Inc.	U.S. Investment Advisory; Designated a MOE
Morgan Stanley Investment Management Limited	MSIM Ltd	UK Investment Advisory; Designated as a MOE
Morgan Stanley Japan Group Co., Ltd (MSJG)	MSJG	Japan Support Services Provider; Designated as a MSE
Morgan Stanley Japan Holdings Co., Ltd.	MSJH	Morgan Stanley Japan Holdings Co., Ltd.
Morgan Stanley Management Services (Shanghai) Limited (MSMSSL)	MSMSSL	China Workforce Center; Designated as a MSE
Morgan Stanley MUFG Securities Co., Ltd.	MSMS	Japan Broker-Dealer; Designated as a MOE
Morgan Stanley Private Bank, National Association	MSPBNA	U.S. National Bank; Designated as a MOE
Morgan Stanley Services Canada Corp	MSSCC	Montreal Technology Workforce Center; Designated as a MSE
Morgan Stanley Services Group	MSSG	U.S. Support Services Provider; Designated as a MSE
Morgan Stanley Services Holdings	MSSH	U.S. Payroll Company; Designated as a MSE

Morgan Stanley

TERM	ACRONYM	DEFINITION
Morgan Stanley Smith Barney FA Notes Holdings LLC	MSSBFA	U.S. FA Notes Financing Company; Designated as a MSE
Morgan Stanley Smith Barney Financing LLC	MSSBF	U.S. Real Estate and Procurement Company; Designated as a MSE
Morgan Stanley Smith Barney LLC	MSSB	U.S. Broker-Dealer, FCM; Designated as a MOE
Morgan Stanley Solutions India Private Limited	MSSIPL	India Workforce Center; Designated as a MSE
Morgan Stanley UK Group	MSUKG	UK Real Estate Company; Designated as a MSE
Morgan Stanley UK Limited	MSUKL	UK Support Services Provider; Designated as a MSE
MS Financing LLC	MSFL	U.S. Real Estate and Procurement Company; Designated as a MSE
MS Parent		The Firm's stand-alone parent holding company on an unconsolidated basis
MSE Network		Refers broadly to the Firm's MSEs, which provide resolution resilient services to MOEs
Multiple Point of Entry	MPOE	Resolution strategy in which more than one of a firm's legal entities files for bankruptcy while the remainder are sold or wound down
Municipal Securities Rulemaking Board	MSRB	
National Futures Association	NFA	
New York Mercantile Exchange	NYMEX	
North America	NA	
Office of the Comptroller of the Currency	OCC	
Operating Entities		Entities that conduct external facing businesses (i.e. Home Company of front office cost center)
Operational Continuity Plan		The collective set of actions taken by the Firm to maintain continuity of operational resources necessary to execute the Resolution Strategy as described in the Shared and Outsourced Services section and accompanying playbooks: Employee Retention, Facilities and Fixed Assets Continuity, Inter-Affiliate Services Continuity, Technology Continuity and Vendor Continuity
OTC derivatives		Derivatives that are not listed and are executed bilaterally between two parties
Over-The-Counter	OTC	
Passive Wind Down		The Firm's assessment of a scenario where all derivatives positions are disposed of by holding those positions to contractual maturity (or until the point at which resources are depleted), with the exception of a limited amount of client-initiated early terminations. This approach is not included as the preferred approach within the Firm's Resolution Strategy
Pay Company		The entity that maintains the legal employment relationship with an employee, responsible for the payment of all remuneration and benefits and typically organized geographically
Payment, Clearing and Settlement	PCS	
Pillar 1	P1	Basel minimum risk based capital requirements
Portfolio Loan Account	PLA	
Potential Future Exposure	PFE	

TERM	ACRONYM	DEFINITION
Primary Scenario		The scenario underpinning the Resolution Plan, which consists of the Trigger Event, Runway Period, Filing Data and Resolution Period
Prime Brokerage	PB	One of the Firm's Critical Operations, as designated by the FRB and FDIC
Private Wealth Management	PWM	
Profit and Loss	P&L	
Prudential Regulation Authority	PRA	A UK regulatory agency created as a part of the Bank of England by the Financial Services Act of 2012
QFC Remediation Project	QRP	A project within the RREP to manage effort to eliminate the ability of third-party and affiliate counterparties to terminate their QFCs upon the insolvency of a different legal entity than their direct Firm counterparty
Qualified Financial Contract	QFC	Contracts that, in many jurisdictions, have bankruptcy safe harbors that allow non- defaulting counterparties to exercise contractual termination rights, value terminated transactions and setoff collateral against outstanding obligations even if their counterparty has filed for bankruptcy. The predominant types of QFC-based Firm transactions are OTC derivatives, repos and stock lending
RAG		In program and project management terms, Red, Amber or Green are used as indicators of delivery status, issues and risk
	RAG	In LER Criteria, RAGs are used to provide an indication of whether or not the evidence described in the indicator description can be provided as well as an indication of whether or not strong governance exists;
		Within the Firm's Secured Funding Framework, collateral assets are classified within four categories of fundability (Super Green, Green, Amber and Red), based on investor demand and secured funding capacity metrics associated with the asset
Real Estate	RE	
Recovery and Resolution Enhancement Program	RREP	A set of projects established by the Firm to further enhance its resolvability capabilities
Recovery and Resolution Planning	RRP	
Recovery Plan		Firm recovery plan primarily intended to address SR 14-8
Registered Investment Advisor	RIA	
Regulatory Capital	Reg Cap	
REMEDI		Monthly Status Reporting application used to capture and report on the strategic programs and projects across the Firm. REMEDI facilitates the onboarding of programs into a portfolio, reporting on the program's status and the offboarding of a program from the portfolio
Repurchase Agreements	Repo	
Resolution Adequacy and Positioning	RLAP	A resolution planning vulnerability identified by the Agencies, which represents the ability to estimate and maintain sufficient available liquidity for Material Entities, while taking into account resolution considerations and inter-affiliate frictions, including ring-fencing
Resolution Analytics Platform	RAP	Analytics tool which is used to, among other things, analyze QFCs for resolution planning purposes
Resolution Capital Adequacy and Positioning	RCAP	
Resolution Capital Execution Need	RCEN	

TERM	ACRONYM	DEFINITION
Resolution Contingency Funding Plan	Resolution CFP	
Resolution Financial Model		The Firm's model that produces pro-forma balance sheets and other quantitative information as well as estimates of funding, liquidity and capital needs over the Runway Period, Stabilization Period and Resolution Period. In the 2015 Plan, this model was referred to as the Resolution CFP, or R-CFP
Resolution Liquidity Execution Need	RLEN	A resolution planning vulnerability identified by the Agencies, which represents the methodology for estimating the liquidity needed after the MS Parent's bankruptcy filing to stabilize the surviving Material Entities and to allow those entities to operate post-filing
Resolution Period		Period of time between MS Parent's bankruptcy filing and the completion of the Resolution Strategy
Resolution Plan	Plan	The Firm Resolution Plan, which is one and the same with the 165(d) Plan and accordingly addresses all applicable requirements
Resolution Strategy		The Firm's resolution strategy under which MS Parent files for bankruptcy and its Material Entitles are sold or wound down
Resolvability		A Firm is resolvable if it is feasible and credible that it can be resolved without excessive disruption to the financial system or interruption to the provision of Critical Functions
Risk Weighted Assets	RWAs	
Routine First Day Motions		Motions customarily filed on the first day of a Chapter 11 case seeking relief necessary to ensure a smooth transition into bankruptcy
RRP Capabilities		A project within the RREP to identify critical operational or technology gaps in the Firm's ability to execute the Resolution Strategy, assign remediation ownership and monitor remediation efforts
RRP Steering Committee		RRP governance committee that ensures sufficiency of planning process, makes key RRP strategy and policy decisions, develops consensus positions on external RRP-related issues and approves the plan and recommends it to the Operating Committee for approval
Runway Period		A resolution preparation interval, signifying Material Financial Distress, between the Distress Trigger and Bankruptcy Filing Date, not to exceed 30 days
Sale Strategies		Sub-strategies of the Resolution Strategy that includes the sale of WM, including the U.S. Banks, and IM
Secured Funding		Collateralized forms of lending such as repurchase agreements, securities lending transactions and financing total return swaps. Secured funding liabilities are managed centrally across the Firm by Bank Resource Management together with secured funding assets, such as reverse repurchase agreements and securities borrowing transactions
Securities and Exchange Commission	SEC	
Senior Management		Refers broadly to direct reports of the Chairman and CEO of the Firm
Service Level Agreement	SLA	A contract between a service provider and a service recipient that defines the service expected from the service provider and the pricing and/or any other consideration provided by the service recipient
Service Taxonomy		Describes the nature of services being provided between a service provider and receiver
Services		Describes the sum of one or more activities between a provider and a receiver, performed to support businesses
Shared Services		Services provided by a support function where the cost of the service is shared across multiple businesses and/or legal entities. Technology and Data, Operations, BRM, Finance, LCD, Risk Management, Administration (including Corporate Services, BCP, and HR) Internal Audit, and Research are all Shared Services

TERM	ACRONYM	DEFINITION
Shared Services Infrastructure	SSI	A project within the Gladiator Program that addresses the Firm's infrastructure needs to ensure continuity of shared services at the Firm. The effort is comprised of the SWORD development and implementation, Contracts Repository Ecosystem and Finance Infrastructure Enhancements
Single Point of Entry	SPOE	A resolution strategy that involves rapidly recapitalizing the material entities of a top-tier bank holding company prior to the top-tier bank holding company's failure and its commencement of Chapter 11 proceedings. The material entities would then either (i) be transferred to a newly created holding company owned by a trust for the sole and exclusive benefit of the bankrupt top-tier holding company's creditors or (ii) remain under the bankrupt top-tier holding company as debtor-in possession. The Resolution Strategy contemplates the latter
Solo Entity Funding		The Firm's enhanced cash management approach that facilitates the management of cash on an individual legal entity basis, rather than on a consolidated basis. This enhanced approach consists of (i) managing payment releases to maintain positive intra-day cash balances at the entity level; (ii) positioning deposits at the entity level, with remaining MS Parent deposits at agent banks to be invested in alternative liquidity options; and (iii) utilizing liquidity analytics and monitoring tools to support the monitoring and management of cash at the entity level
Solutions and Multi-Assets	S&MA	Platform within IM that includes the Multi-Asset Funds, Hedge Fund Solutions/Funds, Portfolio Solutions, Managed Futures and Applied and Fundamental Equity Advisor strategies
Solvent Wind Down	SWD	
Special Resolution Regime	SRR	Special powers given to national regulatory authorities to deal with and stabilize banks in financial difficulties
SR Letter 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
SR Letter 14-8		Consolidated Recovery Planning for Certain Large Domestic Bank Holding Companies
Stabilization Period		Refers to the first portion of the Resolution Period during which Prime Brokerage customers are requesting transfer of their assets to third-party providers and the Firm processes such transfers
Status Report		The Firm's status report submitted in October 2016 on its resolution planning activities developed in response to the 2016 Feedback and 2017 Guidance
Strategic Contract Repository Ecosystem	SCORE	Set of approved repositories for the storage of shared services contracts. Enhanced operational metadata is also captured for Critical Contracts to enable search capabilities across the repositories
Strategic Warehouse of Operational Relationship Data	SWORD	Repository used to manage and maintain the Firm's operational mapping data
Stress Period		The period commencing with an idiosyncratic stress event, during which the Firm is under material stress, but without any actual or perceived significant risk of failure. Calculation Trigger occurrence signals the start of a Stress Period
Support Agreement Framework		Comprised of (i) triggers to escalate information to the MS Parent Board, (ii) a Support Agreement to facilitate the injection of necessary financial resources into Material Entities and (iii) a Security Agreement to secure MS Parent's support obligations to the Material Entities, all designed to facilitate timely execution of required board actions and provision of financial resources in a manner that is resilient to potential MS Parent creditor challenges
Support and Control Function	SCF	Non-revenue generating organizations that facilitate the Firm's BU activities
Support Completion Period		Period of time after a Support Trigger and prior to an MS Parent bankruptcy filing during which MS Parent completes the downstreaming of RCEN and RLEN to Material Entities

TERM	ACRONYM	DEFINITION
Support Trigger		Point two days prior to the point at which MS Parent and Material Entity projected RCEN/RLEN converge with MS Parent and Material Entity projected resources. When it occurs, (i) MS Parent would make capital contributions and loans to all Material Entities requiring resources, (ii) any remaining inter-company debts of the Material Entities would be subordinated and extended (minimum three-year term; PIK interest) and (iii) MS Parent would be permitted to hold back an amount sufficient to meet its expected Chapter 11 expenses
Swap Execution Facility	SEF	
System		A functioning set of technology-related components that together provide a set of capabilities (e.g., applications, business EUC, utilities/tools and vendor products)
Tailored Lending	TL	
Technology		Division of the Firm that supports all of the Firm's Critical Functions through technical solutions designed and developed specifically for the business. Key activities include: system and application development, data and network security, infrastructure, system operations and disaster recovery. Formerly known as Technology and Data (T&D)
Three Pillars of Resolution Planning		Strategic and Legal Framework, Financial Adequacy and Operational Continuity and Capabilities
Tier 1		Firm Systems with a same day Recovery Time Objective
Total Loss Absorbing Capacity	TLAC	
Transfer Pricing	TP	Process by which the Firm determines the arm's length pricing related to inter-affiliate transactions
Transitional Services Agreement	TSA	Contract between two parties in a divestiture that provides essential services in a variety of functional areas for the business in transition following its legal separation from the seller
Treasury Capital Markets	TCM	
Trust Preferred Securities	TRUPS	
UK Financial Conduct Authority	FCA	
UK Group	UKG	The UK Group comprises Morgan Stanley International Limited (MSI) and all legal entities consolidated under it
Universal Protocol		2014 Protocol and 2015 Universal Protocol together
Valuation Adjustment	VA	
Vice President	VP	
Wealth Management	WM	Segment of the Firm that provides investment solutions designed to accommodate individual investment objectives, risk tolerance and liquidity needs
Weighted Average Maturity	WAM	