

2017

Resolution Plan Public Filing



JPMORGAN CHASE & CO.

Introduction	1
Resolution Planning and Why JPMorgan Chase Is Resolvable	3
– Our Resolution Plan Shows We Can Be Orderly Resolved	5
– Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy	17
– Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World	31
FAQs	63
JPMorgan Chase Enhancements to Resolvability	80
Overview of JPMorgan Chase	86
Other Required Financial Information Disclosures in the Public Filing	137
Glossary	153

Defined terms are capitalized and may be found in the Glossary beginning on page 153.

JPMorgan Chase & Co. is pleased to present our 2017 Resolution Plan Public Filing. The firm filed its annual confidential resolution plan with the Federal Reserve and the FDIC, collectively referred to as the Agencies, on June 27, 2017. That plan is our road map for how our core businesses and operations would continue to operate, or be wound down in an orderly manner, in a resolution event without jeopardizing the economy or global financial markets, or requiring any extraordinary government assistance or taxpayer support. This Public Filing is a high-level overview of that detailed, confidential plan.

We last filed a resolution submission in October 2016. That submission was more limited in scope than our other resolution plans and focused primarily on addressing feedback received from the Agencies in April 2016 on our 2015 Resolution Plan. In December 2016, the Agencies provided our firm with joint feedback that our October 2016 resolution submission adequately remediated the deficiencies they had identified.

Since submitting our last full resolution plan in 2015, we have made a significant number of key enhancements to the firm's resolvability. Specifically, we have:

- increased the certainty and timeliness that our Key Operating Entities in resolution would receive incremental liquidity and capital in a resolution event;
- established an intermediate holding company with no third-party debt, and executed a secured Support Agreement for the benefit of our Material Legal Entities;
- prepositioned financial resources at the legal entity level or centrally at the intermediate holding company to meet the resolution capital and liquidity needs of our Key Operating Entities;
- developed Governance Playbooks for each Material Legal Entity;
- provided meaningful flexibility and optionality for separability in resolution by developing Divestiture Playbooks and data rooms for identified Objects of Sale;
- simplified the ownership, funding and guarantee structure for JPMS plc, a U.K. banking subsidiary;
- streamlined and simplified our legal entity structure, created new legal entity rationalization criteria and applied the criteria across all entities;
- incorporated an active unwind strategy for our derivative and trading positions in our Preferred Strategy, and separately analyzed the effects of a passive unwind;
- developed numerous crisis management and operational playbooks;
- developed a Bankruptcy Playbook and drafted emergency motions and filing papers;

- enhanced our operational capabilities to ensure we can produce and access key information on-demand in a crisis; and
- simplified our booking models and enhanced governance.

We have had constructive dialogue with the Agencies about our efforts to make meaningful resolvability improvements across our firm and have undertaken to not only meet, but exceed, the requirements set out by the Agencies. In developing and delivering this plan, we believe that:

- our 2017 Resolution Plan responds fully to all feedback received to date from the Agencies and addresses aggregate resolution planning requirements published by the Agencies;
- our 2017 Resolution Plan meets the high standards established by our firm for addressing our resolvability;
- we are well positioned financially, with over \$380 billion in loss absorbing resources and \$524 billion of high quality liquid assets, to withstand a variety of extreme loss scenarios;
- we have appropriate triggers, governance and reporting capabilities in place, coupled with the operational capabilities necessary to execute our Preferred Strategy if ever needed; and
- our resolution-based assumptions and options are appropriately conservative and are meaningfully supported through robust governance, review and challenge.

Taken together, we believe that these elements evidence that our 2017 Resolution Plan is credible.

This Public Filing provides an expanded overview of:

- our resolution planning;
- how JPMorgan Chase is resolvable;
- frequently asked questions about resolution;
- key enhancements we have made to JPMorgan Chase's resolvability;
- key facts and information about JPMorgan Chase; and
- other financial information disclosures required for resolution public filings.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Resolution Planning and Why JPMorgan Chase Is Resolvable

TABLE OF CONTENTS

Our Resolution Plan Shows We Can Be Orderly Resolved.....	5
Systemically important financial institutions like our firm can be orderly resolved.....	5
We are strong enough to withstand a market crisis.	5
Planning is critical to prepare for an orderly resolution.	7
An effective resolution plan is one that both a firm and its regulators believe can be successfully executed in a crisis.....	8
We have developed an effective resolution plan.....	9
Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy	17
Single Point of Entry is the optimal approach for resolving large financial institutions in an orderly manner in bankruptcy.	17
Our Single Point of Entry strategy would avoid the need to place any of the firm's subsidiaries into bankruptcy, limiting the destabilizing effects of a possible failure.....	19
We conduct extensive financial modeling to confirm that our firm has enough financial resources to successfully execute our Single Point of Entry strategy.	25
A simpler and smaller firm would emerge from Single Point of Entry.....	27
Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World	31
We have enough capital to carry out our strategy.....	32
We have enough liquidity to carry out our strategy.	36
Our directors and managers know when and how to implement our plan.....	39
Our strategy will resist legal challenge.....	41
Our operations will continue uninterrupted in a crisis.....	46
We have simplified our structure to support our strategy.	52
We have optionality in how our firm could be broken up in resolution.....	55
We have mitigated challenges to resolution posed by our derivatives portfolio and prime brokerage activities.....	57
We cooperate and coordinate with key stakeholders around the world so that they understand and support our resolution plan.....	61

Our Resolution Plan Shows We Can Be Orderly Resolved

Defined terms are capitalized and may be found in the Glossary beginning on page 153.

Our firm serves a vital role in the United States and global financial system. As such, we recognize that we have a responsibility to continually strengthen and safeguard our firm. This sense of responsibility is embedded in our firm, and shapes our day-to-day operations, as well as our strategic planning for the future. It is why we were prepared during the 2008 financial crisis to maintain a healthy and vibrant firm, and serve as a source of strength to the market. And it is why, since the financial crisis, we have proactively sought to further strengthen our firm. We have made meaningful changes over the last decade to enable JPMorgan Chase not only to weather future financial crises, but also to serve as a steadfast, uninterrupted source of support for our clients and a defense against market panic. We want to take this opportunity to describe our progress so that our clients and communities can be even more confident in us, in good times and bad.

Nearly a decade ago, the U.S. market experienced the worst economic and financial crisis since the Great Depression. This crisis laid bare a number of significant weaknesses in the U.S. and global financial systems, including the risk that certain financial firms are so large and interconnected that their failure could threaten the U.S. and global economy, and that the U.S. government would feel compelled to step in and provide taxpayer funds to support them. Solving these weaknesses required changes both to firms and the structure of the financial system more broadly. At the level of the financial system, there needed to be, for example, an effective resolution regime that was designed so that financial institutions may fail in an orderly manner. At the firm level, the solution was three-fold:

- sufficient financial resiliency to minimize the risk of failure in the first place;
- a resolution legal strategy to orderly resolve the firm under Chapter 11 of the U.S. Bankruptcy Code; and
- extensive advance preparation and planning coupled with robust capabilities necessary to facilitate an orderly resolution.

In this section of this Public Filing, we:

- outline our resolution plan and why we believe it is credible;

- describe how we have honed our resolution strategy so that it will shield the U.S. financial system and economy from harm and U.S. taxpayers from losses in the highly unlikely event of our failure; and
- discuss how our resolution plan has been bolstered over the last six years to address evolving requirements and self-identified enhancements.

We believe that our resolution plan should be found credible by the FDIC and the Federal Reserve, together referred to as the Agencies, and that it has mitigated resolvability risk for JPMorgan Chase.

Systemically important financial institutions like our firm can be orderly resolved.

A systemically important financial institution can be orderly resolved when, even if it fails, its operating subsidiaries can be stabilized and, if necessary, wound down in an orderly way:

- without interrupting the critical services and operations that are essential to the continued stability and health of the U.S. financial system and economy, such as deposit-taking and payment services; and
- without extraordinary government assistance or any taxpayer support.

We therefore believe large financial institutions should be resolvable in an orderly manner. Our resolution plan shows how this can be achieved for JPMorgan Chase.

We are strong enough to withstand a market crisis.

The first step to ensuring resolvability is to minimize the risk of a systemically important financial institution failing. Over the last decade, we have completed many initiatives that have substantially strengthened our firm's financial resilience and further reduced the possibility that our firm would fail in a financial crisis. One of our most significant areas of focus to enhance resilience was the accumulation of extensive loss absorbing resources.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Shows We Can Be Orderly Resolved

As depicted in Figure 1 and Figure 2, since 2007 we have nearly doubled our pre-crisis Tangible Common Equity, or TCE, levels, added to our cash position and reduced our reliance on short-term liabilities, even as our balance sheet has grown.

Maintaining sufficient funding and liquidity in a crisis is core to our ability to successfully execute our resolution plan. One important way that financial institutions measure funding and liquidity is High Quality Liquid Assets, or HQLA, which includes U.S. Treasuries, sovereign debt, central bank reserves and other resources that can readily be converted to cash. HQLA may fluctuate from period to period primarily due to normal flows from client activity. As shown in Figure 2, we have amassed an estimated \$524 billion of HQLA, which would more than cover peak short-term cash outflows in financial stress, and additional stable sources of liquidity, which would reduce liquidity risk over a one-year horizon.

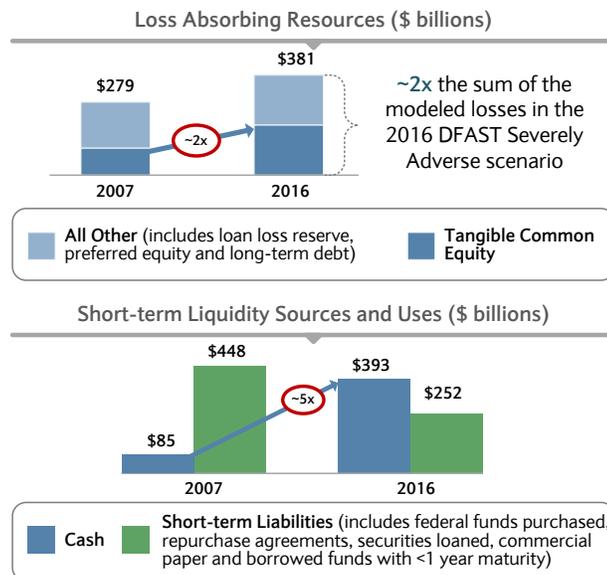
In addition to HQLA, as of December 31, 2016, we had approximately \$262 billion of unencumbered marketable securities—meaning securities that we could quickly sell—such as equity securities and fixed income debt securities, available to raise additional liquidity if required.

Our multiple layers of liquidity and capital resources and reduced reliance on short-term liabilities have dramatically enhanced our resiliency in the face of potential financial stress. In the unlikely event that we were to suffer a potential resolution event, our deep capital and liquidity resources will make it easier to successfully execute our resolution plan.

We have developed and regularly update a robust recovery plan—which is different from and in addition to a resolution plan—that establishes the actions that we would take to stabilize our operations, capital and liquidity positions and avoid failure if we were to encounter, or find ourselves likely to encounter, serious financial distress short of insolvency or other failure. In connection with our recovery planning, we have provided the Federal Reserve and other regulators with comprehensive information and analyses about the firm and its capabilities and available alternatives to raise liquidity and capital in severe market conditions.

In addition, we regularly engage in extensive capital and liquidity stress testing and planning, including both internal stress tests that we choose to do ourselves and required stress tests, such as the Federal Reserve's Comprehensive Capital Analysis and Review, commonly referred to as CCAR, and Dodd-Frank Act Stress Test, commonly referred to as DFAST. We have also made substantial investments in automated reporting of our CCAR and DFAST results. These and the hundreds of other initiatives we have undertaken significantly reduce the chance that we could fail in a crisis scenario.

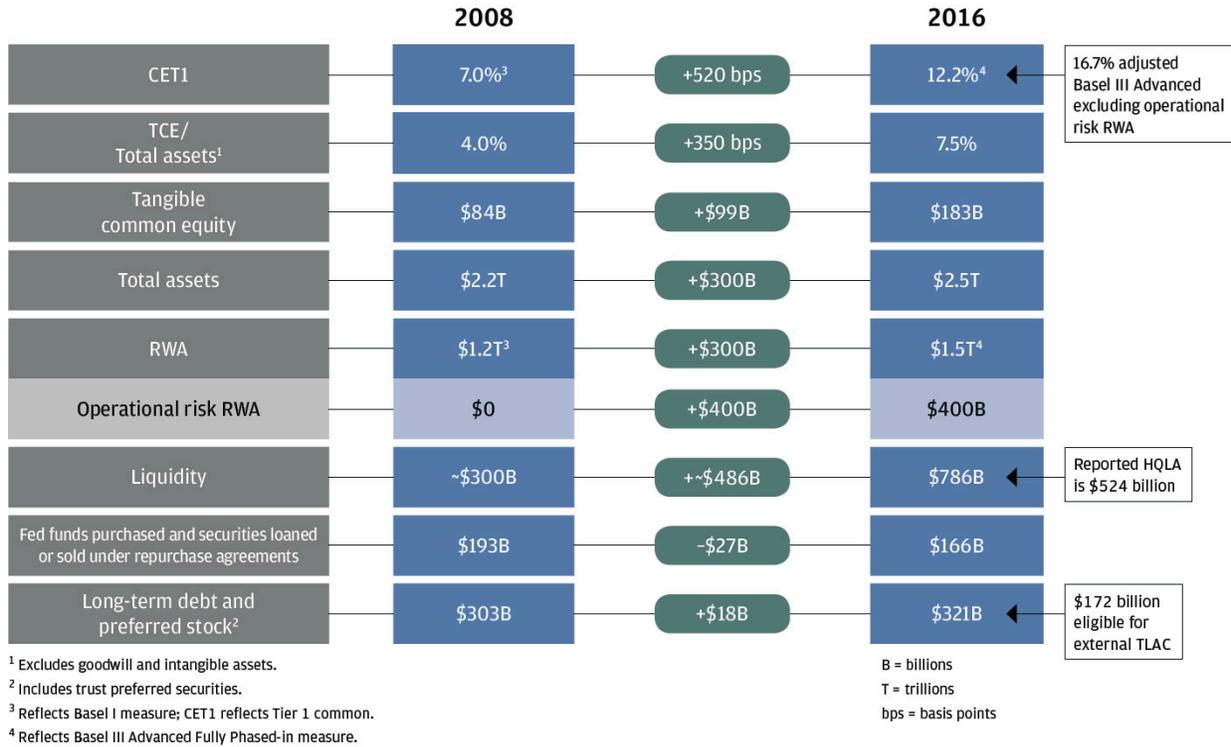
Figure 1. Increasing Our Capital and Liquidity Resources



Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Shows We Can Be Orderly Resolved

Figure 2. Our Fortress Balance Sheet (as at December 31)



CET1 = Common equity Tier 1 ratio. CET1 ratios reflect the capital rule the firm was subject to at each reporting period
TCE = Tangible common equity
RWA = Risk-weighted assets
HQLA = High quality liquid assets predominantly includes cash on deposit at central banks and unencumbered U.S. agency mortgage-backed securities, U.S. Treasuries and sovereign bonds
Liquidity = HQLA plus unencumbered marketable securities and trapped liquidity not included in HQLA
TLAC = Total loss absorbing capacity

Planning is critical to prepare for an orderly resolution.

If all the many defenses against failure that a firm has put in place since the financial crisis are not enough to save a firm, the challenge shifts from avoiding failure to keeping that failure from causing financial contagion, contraction of credit and other harms to the U.S. financial system and economy. Thus, the second element of ensuring a firm can be effectively unwound is for large, systemically important financial institutions to engage in extensive advance preparation and planning, which is generally referred to as resolution planning. The goal of resolution planning is to ensure that, if necessary, systemically important financial institutions would be able to fail in an orderly manner—in other words, to be effectively resolved.

Resolution planning centers on the creation of a resolution plan, also referred to as a “living will.” Under section 165(d) of the Dodd-Frank Act, JPMorgan Chase is required to periodically submit to the Agencies a plan for its rapid and orderly resolution under the U.S. Bankruptcy Code in the event of material financial distress or failure.

The key elements that a resolution plan is required to include are:

- a resolution strategy for how the firm can be resolved in bankruptcy without government support in a way that would not create risk to the U.S. financial system as a whole;

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Shows We Can Be Orderly Resolved

- financial analysis of the firm's capital and liquidity resources and financial needs during implementation of the resolution strategy;
- information about key aspects of the firm, its interconnections with the financial system and its Key Operating Entities, businesses and systemic functions needed to establish and support the resolution strategy;
- assessments of the resolvability of the firm and identification of possible barriers to the firm's resolvability; and
- realistic, workable solutions to any barriers to successfully executing the resolution strategy or to the firm's overall resolvability.

Successfully addressing these key elements results in a resolution plan that is feasible, practical and has been operationalized, meaning it can be executed in a crisis.

An effective resolution plan is one that both a firm and its regulators believe can be successfully executed in a crisis.

The Agencies each review the resolution plans to determine their credibility, meaning whether the Agencies believe a plan would facilitate an orderly resolution of a firm under the U.S. Bankruptcy Code.

The resolution planning process has been an iterative one. The Agencies have issued a variety of public and confidential guidance over the course of the last six years. This guidance has evolved over time as resolution planning concepts and frameworks have developed, and areas of weakness and ways to strengthen plans have been identified. Thus, an effective resolution plan must be responsive to the Agencies' guidance and the firm's own resolvability expectations. In particular:

- In December 2012, the Federal Reserve issued a supervisory letter about the supervision of large financial institutions, SR 12-17 "Consolidated Supervision Framework for Large Financial Institutions."
- In 2013, the Agencies jointly issued guidance on the resolution plan executive summary, narrative and potential obstacles.
- In January 2014, the Federal Reserve issued the supervisory letter SR 14-1 "Heightened Supervisory Expectations for Recovery and Resolution Preparedness for Certain Large Bank Holding Companies – Supplemental Guidance on Consolidated Supervision Framework for Large Financial Institutions," also referred to as SR Letter 14-1, which clarifies heightened supervisory expectations for recovery and resolution preparedness for the U.S. G-SIBs.
- In August 2014, the Agencies identified shortcomings common to all of the 2013 resolution plans submitted by financial institutions that filed initial resolution plans in July and October 2012, including JPMorgan Chase, as well as Bank of America, Bank of New York Mellon, Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, Morgan Stanley, State Street, and UBS. The 2015 resolution plans were expected to demonstrate significant progress to address these shortcomings, particularly given that the FDIC, but not the Federal Reserve, deemed the resolution plans not credible. The 2015 resolution plans were also expected to address new assumptions and requirements identified by the Agencies in their feedback on the 2013 resolution plans.
- In April 2016, the Agencies jointly determined that five of the 2015 resolution plans submitted by the eight U.S. G-SIBs, including our plan, were not credible. The Agencies publicly released individual letters, each referred to as an April 2016 Feedback Letter. To firms with a plan deemed to be not credible, including JPMorgan Chase, the letter identified firm-specific deficiencies—weaknesses in a resolution plan that could undermine the feasibility of the plan and had to be remedied by October 1, 2016. The letter also identified Shortcomings—weaknesses or gaps that were not Deficiencies but which raised questions as to the feasibility or operationalization of the resolution plan, and had to be remedied in the 2017 Resolution Plan. The Agencies identified four Deficiencies and two Shortcomings in our 2015 Resolution Plan.
- At the same time as the April 2016 Feedback Letters, the Agencies issued stand-alone guidance on common points that they expected all of the eight U.S. G-SIBs to address in their 2017 resolution

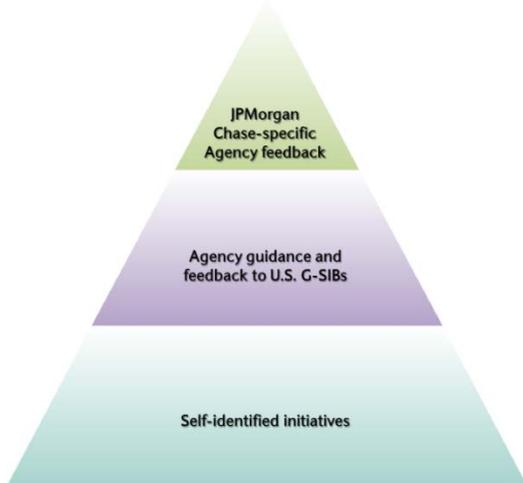
plans, referred to as the 2017 Guidance. The 2017 Guidance is organized around key vulnerabilities that apply across all U.S. G-SIB resolution plans.

- In December 2016, the Agencies determined that our submission to the Agencies on October 1, 2016, also referred to as the 2016 Submission, adequately remedied the Deficiencies identified in our April 2016 Feedback Letter.
- In May 2017, the Agencies released on their websites certain resolution plan FAQs that were provided to the eight U.S. G-SIBs in 2016, and that include the Agencies' jointly developed answers to common questions asked by different U.S. G-SIBs regarding the 2017 Guidance.

These letters and publications are available at the Agencies' websites.

We believe that, while an effective resolution plan must be responsive to feedback and guidance provided by the Agencies, it cannot be merely reactive. Each firm knows itself the best and, as such, has a responsibility to look beyond the words of the resolution planning rules and the instructions of the Agencies to understand and address its unique resolvability issues, as illustrated in Figure 3.

Figure 3. JPMorgan Chase's Approach to Resolution Planning



We have developed an effective resolution plan.

Since submitting our initial resolution plan in 2012, we have built upon the extensive efforts taken during each previous year to further improve our firm's resolvability, strengthen our financial defenses, enhance our preparedness and improve our resolution plan's operational executability. Our most senior executives and an extensive team of subject matter experts have focused on implementing many enhancements to the core elements of our resolution plan and, more importantly, to how we conduct our day-to-day business.

As a result of our proactive approach to resolution planning, in our 2016 Submission, we:

- remediated the Deficiencies in our April 2016 Feedback Letter from the Agencies (which were required to be remediated by October 1, 2016);
- completed all actions to address one of our two Shortcomings, substantially addressed the remaining Shortcoming and satisfied the requirements of the 2017 Guidance whenever possible, a full nine months ahead of the required completion date of July 1, 2017; and
- executed various self-identified improvements to our resolution plan and our firm's resolvability.

Our 2016 Public Filing (available [here](#)) lays out in detail the various actions we took before October 1, 2016 to accomplish these results.

We did not stop our work at the bounds of regulatory guidance. Since filing our 2016 Submission, we have taken actions to complete our efforts to address the other Shortcoming in the April 2016 Feedback Letter and the remaining 2017 Guidance requirements. We have also completed self-identified commitments that we made in our 2016 Submission and self-identified and executed further improvements to our firm's resiliency and resolvability.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Shows We Can Be Orderly Resolved

Figure 4 summarizes our progress in our 2016 Submission and 2017 Resolution Plan to remediate and address the Deficiencies and Shortcomings, respectively, in the April 2016 Feedback Letter and to satisfy the requirements of the 2017 Guidance. See the FAQs for a summary of: (1) the Deficiencies and Shortcomings identified in the April 2016 Feedback Letter and key vulnerabilities identified in the 2017 Guidance; (2) what was required of us by October 1, 2016 versus July 1, 2017; and (3) how we addressed the Deficiencies, Shortcomings and key vulnerabilities.

We believe that our 2017 Resolution Plan fully addresses all of the resolution planning guidance we have received from the Agencies, and, in many instances, surpasses these requirements. As a result, our firm believes that our 2017 Resolution Plan would facilitate the orderly resolution of JPMorgan Chase under the U.S. Bankruptcy Code without the need for any extraordinary government action or support, without reliance on taxpayer funds and without adverse risk to U.S. financial stability.

Figure 4. Overview of Our Recent Progress

Key Vulnerabilities Identified in 2017 Guidance	2016 Submission	2017 Resolution Plan
CAPITAL		
Resolution Capital Adequacy and Positioning (RCAP)	●	✓+
Resolution Capital Execution Need (RCEN)	●	✓+
LIQUIDITY		
Resolution Liquidity Adequacy and Positioning (RLAP)	✓	✓+
Resolution Liquidity Execution Need (RLEN)	✓	✓+
GOVERNANCE MECHANISMS		
Playbooks and Triggers	✓	✓+
Pre-bankruptcy Parent Support	✓	✓+
OPERATIONAL		
Payment, Clearing and Settlement Activities	✓	✓+
Managing, Identifying and Valuing Collateral	✓	✓+
Management Information Systems (MIS)	✓	✓+
Shared and Outsourced Services	●	✓+
Legal Obstacles Associated with Emergency Motions	●	✓+
LEGAL ENTITY RATIONALIZATION AND SEPARABILITY		
Legal Entity Rationalization Criteria (LER Criteria)	✓	✓+
Separability	✓	✓+
DERIVATIVES AND TRADING ACTIVITIES		
Capabilities	●	✓+
Stabilization	✓	✓+
Passive Wind-Down Analysis	—	✓
Active Wind-Down Analysis	✓	✓+
Residual Derivatives Portfolio	●	✓
LEGEND		
●	Completed actions that substantially addressed Shortcoming or vulnerability.	
✓	Fully addressed Shortcoming or vulnerability.	
✓+	Fully addressed Shortcoming or vulnerability, and self-identified and executed further resolvability enhancements.	
—	Did not address vulnerability.	
□	Identified as a Deficiency in the 2016 Letter. Pursuant to the December 2016 Letter, all Deficiencies were deemed by the Agencies to have been adequately remediated.	
□	Identified as a Shortcoming in our April 2016 Feedback Letter.	

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Shows We Can Be Orderly Resolved

Our resolution plan is supported by a comprehensive Crisis Management Framework and experienced crisis management team.

To support the development, maintenance and continuous refinement of an effective resolution plan in which our clients, counterparties, regulators and the market can be confident, we have established a comprehensive Crisis Management Framework informed by our experience throughout the financial crisis and other events. As shown in Figure 5, our Crisis Management Framework is designed around what we view as the three pillars of our resolution plan:

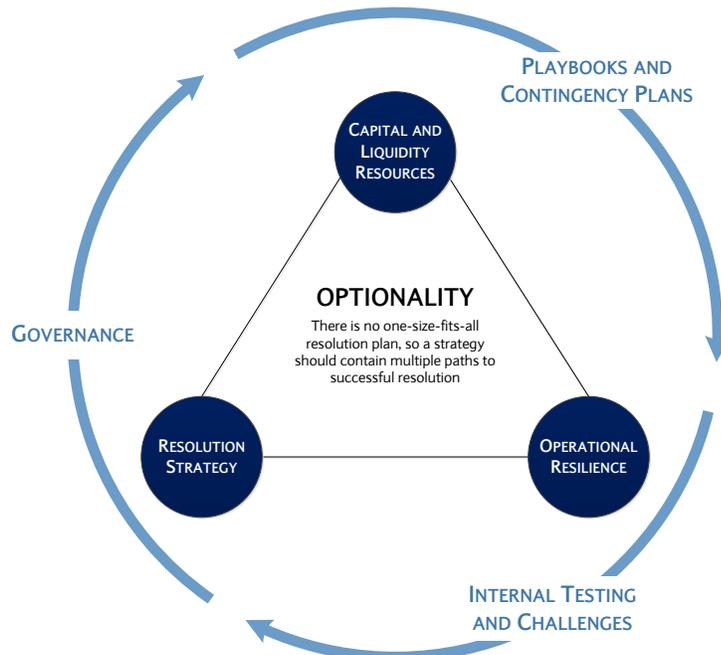
- **our capital and liquidity resources**—the financial resources necessary to successfully execute the resolution strategy;
- **our resolution strategy**—the legal steps that we would take to orderly resolve the firm under Chapter 11 of the U.S. Bankruptcy Code; and
- **our operational resilience**—our ability to continue operations uninterrupted during resolution and the capabilities to successfully execute the resolution strategy.

Our Crisis Management Framework provides meaningful optionality with respect to each of these three pillars. We believe optionality in resolution planning is critical.

Our Crisis Management Framework also includes:

- **governance**—robust governance mechanisms that govern the firm’s transition from Business as Usual to recovery and then resolution, and help to ensure that our resolution plan can be executed in a timely manner under a wide variety of scenarios;
- **playbooks and contingency plans**—a wide array of playbooks that provide a comprehensive and practical roadmap to implementing our resolution plan, and contingency plans for maintenance of funding, services and other resources during a resolution event; and
- **internal testing and challenges**—extensive internal testing and challenges to confirm the sufficiency of our resources and our ability to execute our resolution plan as designed.

Figure 5. Our Crisis Management Framework



This Crisis Management Framework has enabled us to dig deep into each facet of our resolution plan in order to account for a variety of contingencies, so that the plan will work in real-world conditions and we are prepared to implement the plan as designed.

In addition to our Crisis Management Framework, we have a deep and experienced management team with crisis credentials, many of whom were engaged in addressing the actual challenges faced by JPMorgan Chase during the 2008 financial crisis.

We are prepared and have sufficient capabilities to successfully implement our resolution plan.

We believe that our ability to successfully execute our resolution plan depends on being prepared and having sufficient capabilities on the following fronts:

- legal issues and governance;
- financial resources;
- operational capabilities; and
- management information systems.

Figure 6 summarizes the core enhancements that we have completed in these four categories over the last six years. While we have completed hundreds of other resolvability improvements to our firm, these are, in our view, the most significant and form the foundation of our resolution plan today.

Figure 6. Key Elements of JPMorgan Chase's Resolution Plan

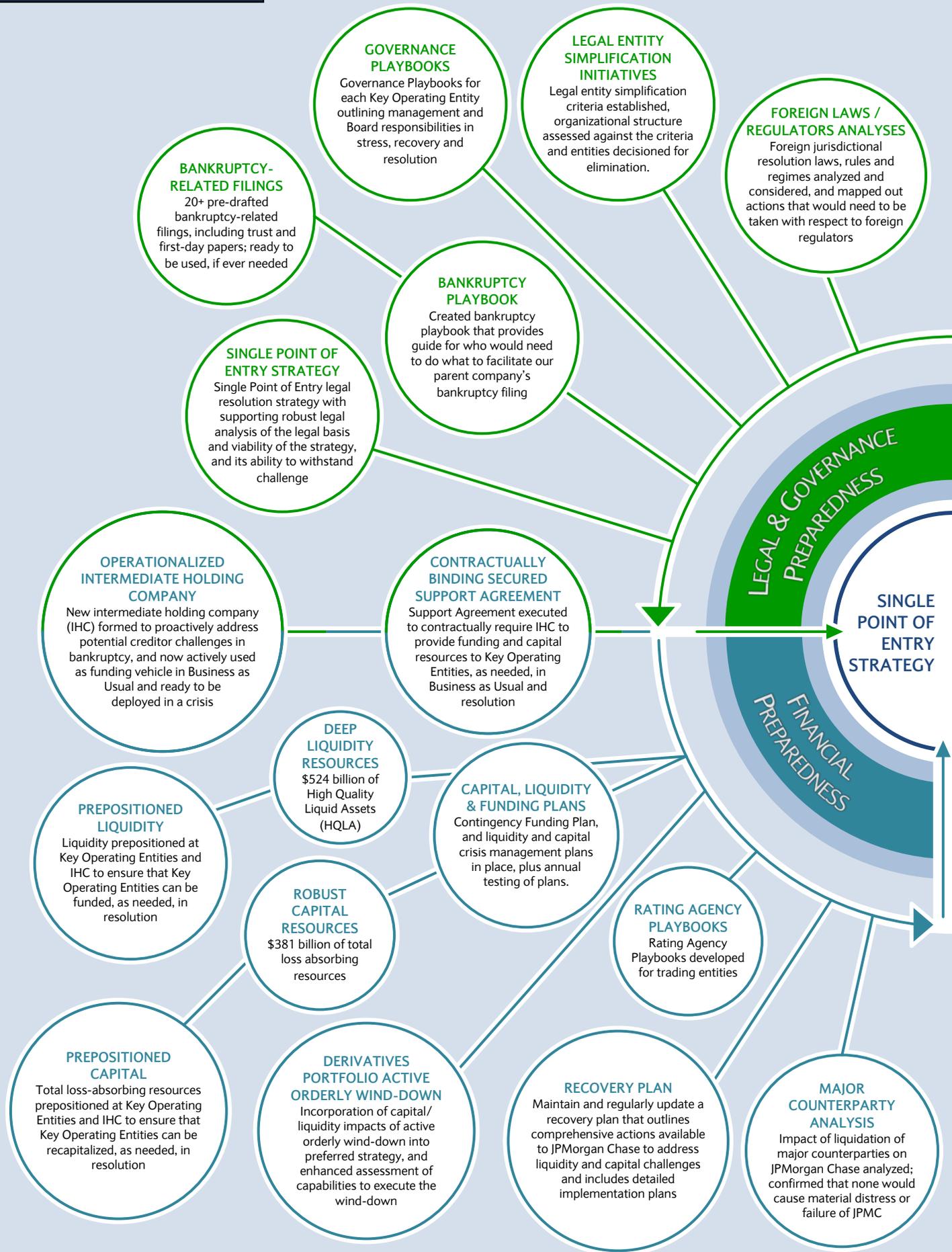
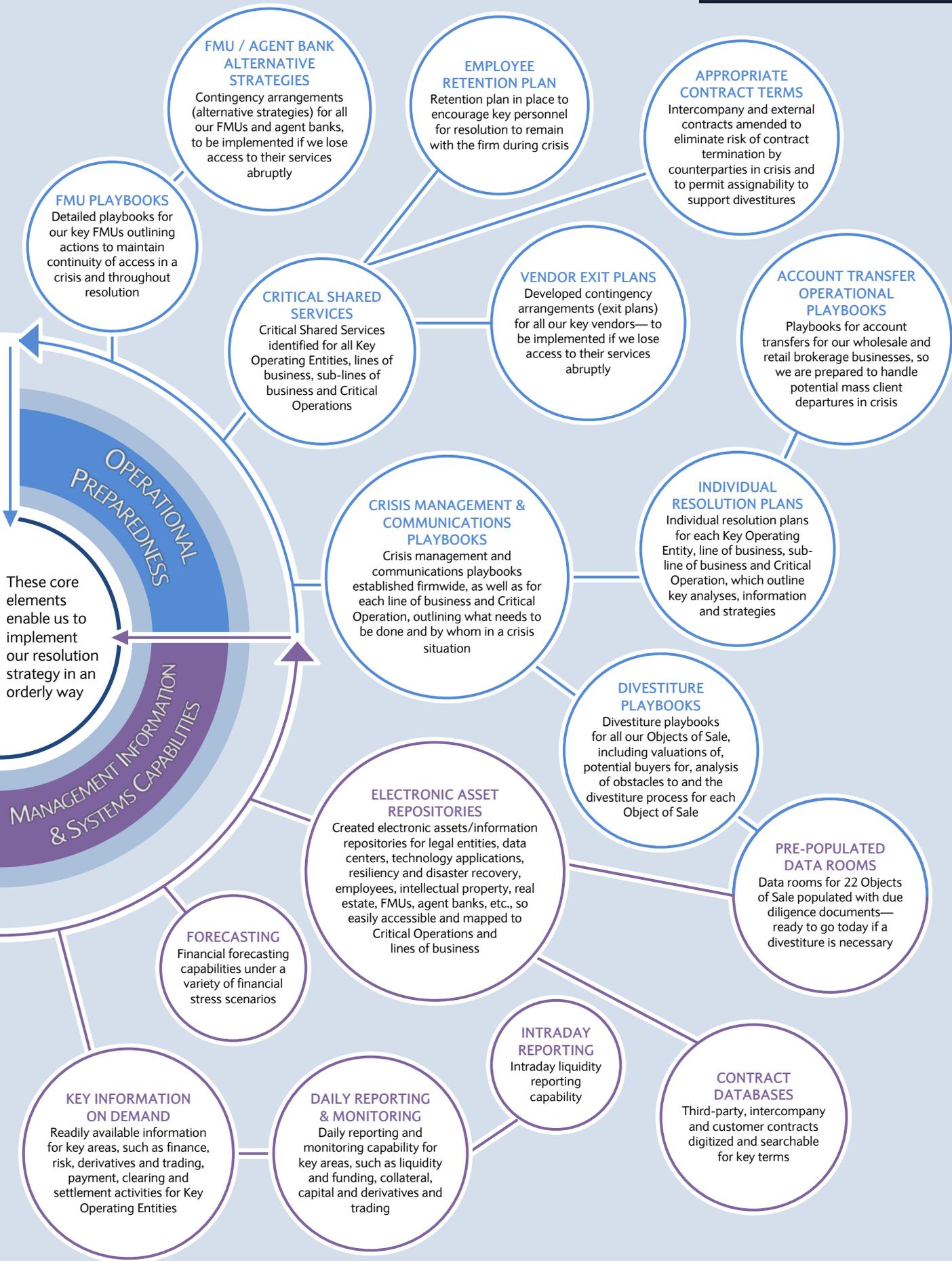


Figure 6. Key Elements of JPMorgan Chase's Resolution Plan



Our resolution plan preserves significant flexibility in connection with our resolution strategy, financial resources and operational capabilities.

With respect to our capital and liquidity resources, we maintain flexibility by:

- **Allocating the firm's financial resources based on the projected needs of our Key Operating Entities.** We have for each of our Key Operating Entities, estimated the capital and liquidity that it would need in a resolution scenario, and decided to maintain an appropriate balance of projected resolution liquidity and capital resources at all Key Operating Entities. We have maintained at an intermediate holding company—JPMorgan Chase Holdings LLC or IHC—a central buffer of extra financial resources that can be distributed to Key Operating Entities to accommodate a range of resolution scenarios and conditions. In an actual resolution scenario, this buffer ensures that we will be able to provide that entity with additional financial resources, if needed. We believe that we have appropriately balanced the certainty associated with prepositioning capital and liquidity resources at Key Operating Entities with the flexibility provided by holding a central buffer of financial resources at IHC. Going forward, we will periodically reevaluate the level of prepositioning at our Key Operating Entities versus the level of resources held centrally at IHC, and adjust as appropriate.

Within our resolution strategy, we maintain flexibility by:

- **Improving the divestiture-readiness of all of our businesses—whether or not divestiture of a business is specifically called for under our modeled resolution strategy.** We have completed many initiatives since 2015 that further support our divestiture-readiness for *all* of our key businesses. We have identified 22 components of our business, referred to as Objects of Sale, as attractive sale, spin-off or IPO candidates, with any remaining Objects of Sale slated to orderly wind down. We have conducted an extensive analysis of the available buyers for each such component, based on which we developed tangible, comprehensive roadmaps to divest each component. We have also created and

prepopulated comprehensive electronic data rooms for each component to allow buyers to immediately conduct due diligence. Moreover, we have identified the personnel, technology and other resources that would need to directly or indirectly be included in the sale of a component so that a third-party buyer would have the capability to continue the relevant business component without disruption. Transition services agreements could be established for entities that would be divested under our strategy to ensure the continued provision of services. By preemptively preparing data rooms, determining the necessary data room reports and conducting the analysis of our personnel, technology and resources during business-as-usual conditions, we have significantly strengthened our operational readiness to carry out a sale of any of our Objects of Sale, whether or not it is called for in a resolution strategy.

- **Maintaining three actionable exit strategies for the firm from resolution.** We have identified, and maintained detailed analysis of, three exit options for our firm from resolution: one or more public offerings of the shares of NewCo, the holding company for IHC and JPMCB post-bankruptcy, and the distribution of proceeds from the stock offerings to the parent company's bankruptcy estate; the distribution of NewCo shares to the parent company's creditors; and further divestitures of Objects of Sale. Moreover, we are operationally prepared to execute each of these exit options. In this way, we have made substantial progress in ensuring that our resolution strategy is flexible enough to accommodate a range of conditions that may exist at the point when the firm is preparing to exit from operating under resolution proceedings.

Within our operations, we maintain flexibility by:

- **Maintaining extensive operational capabilities that enable us to respond flexibly to a wide range of resolution scenarios and conditions.** Over the last six years, we have built up robust operational capabilities that are designed to support the uninterrupted provision of Critical Shared Services, including Critical Operations, throughout a resolution scenario and facilitate the execution of all actions contemplated in our resolution plan. We have invested heavily in data and information, governance,

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Shows We Can Be Orderly Resolved

legal, communications and other capabilities. Our various capabilities enhancements improve the ability of our Boards and management to effectively respond to a wide range of potential stress events and conditions, thus significantly increasing the likelihood that our Single Point of Entry strategy will be implemented successfully.

- **Maintaining alternative strategies, contingency actions or exit plans for key service providers.**

We have established an exit plan or alternative strategy for each of our key vendors, including transitioning to an affiliated service provider or to an alternative third-party service provider. We have also developed alternative strategies for all of the financial market utilities, also referred to as FMUs, and agent banks that we use worldwide to process payments and to clear and settle transactions. FMUs are 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.

Resolution planning is embedded into our day-to-day operations and strategic planning.

A resolution plan is only effective if the key elements that support it are embedded in a firm's day-to-day operations, and an awareness of resolution plan goals and principles underpins a firm's daily operations and strategic planning. As such, on top of implementing numerous enhancements to many of the core elements of our resolution plan, we have over the years made significant changes to how we conduct our day-to-day operations and strategic planning in business-as-usual conditions to enhance the firm's overall resolvability and the efficacy of our resolution plan. These changes are discussed throughout the sections that follow. Some key examples of how we have embedded resolution plan goals and principles into our business-as-usual operations are as follows:

- our resolution liquidity and capital frameworks are embedded in our business-as-usual capital and liquidity processes, procedures and reporting so that we have the capability to produce these analyses and estimates on a periodic and, if necessary, daily basis in a crisis;

- our LER Criteria are embedded in policies, procedures and governance so that legal entity structure, complexity and resolvability are considered in business-as-usual decision-making, including when considering new products or internal reorganizations of existing operations;
- our master vendor contract template, all of our existing key vendor contracts and all of our material agent bank contracts have been amended to include resolution friendly termination and assignment provisions, and we have instituted formal controls so that all new contracts must include these resolution friendly provisions; and
- our pre-funded IHC that we established to make capital and liquidity contributions to Key Operating Entities in resolution also provides ongoing support to Key Operating Entities in business-as-usual.

While we believe that JPMorgan Chase is currently highly resolvable and can be satisfactorily resolved under a number of different resolution scenarios and conditions, we are nevertheless continually focused on initiatives to further enhance our resolvability and the optionality available. Our ongoing business simplification initiatives include:

- merging and eliminating legal entities;
- adhering to our LER Criteria and framework;
- automating or enhancing the efficiency of various management reporting systems and processes; and
- simplifying interaffiliate financial and operational interconnections.

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

Over the last six years, we have assessed the feasibility and benefits of a number of possible strategies for resolving our firm in an orderly manner. As a result of these assessments, we have determined that the best strategy for resolving our firm under the U.S. Bankruptcy Code, what we call our Preferred Strategy, is a Single Point of Entry resolution strategy. Our Single Point of Entry strategy is designed to ensure that:

- every one of our Key Operating Entities has sufficient capital and liquidity resources to continue operating as a healthy, but smaller, going concern outside of insolvency proceedings;
- only our parent company (JPMorgan Chase & Co. or JPMC) enters bankruptcy proceedings;
- our Critical Operations continue uninterrupted;
- the shareholders and private creditors of our parent company absorb the losses of the firm;
- our derivatives and trading activities can be wound down in an orderly manner that does not negatively impact the markets;
- we have a variety of options for divesting portions of the firm, which should enable the firm to shrink in an orderly manner under a wide variety of market conditions;
- the portion of our firm that remains after successfully executing our Single Point of Entry strategy is substantially smaller and less complex; and
- no government assistance or taxpayer support is needed to successfully carry out the strategy.

The core concept behind our Single Point of Entry strategy is that it is better to have JPMorgan Chase fail by using its resources to save our Key Operating Entities than it would be to retain resources at the parent company and allow Key Operating Entities to separately fail. This is because, as a systemically important financial institution, we have a responsibility to make sure that our Key Operating Entities can continue to provide the Critical Operations that the economy and general public rely on, in good times and bad. Since the financial crisis, we have built up multiple layers of liquidity and capital

resources and reduced our reliance on short-term liabilities in order to strengthen our firm's resilience in the face of future financial crises. As discussed in greater detail below, these same resources will enable us to meet the capital and liquidity needs of our Key Operating Entities during resolution and will make it easier to successfully execute our Single Point of Entry strategy.

In the subsections that follow, we first provide a general overview of Single Point of Entry as a standard type of resolution strategy for large financial institutions, and then focus in on the JPMorgan Chase Single Point of Entry. We then:

- provide a high-level, step-by-step explanation of our Single Point of Entry strategy;
- discuss how we demonstrate through extensive financial modeling that we have sufficient capital and liquidity resources to successfully implement the strategy; and
- describe what the firm would look like after using the strategy.

Single Point of Entry is the optimal approach for resolving large financial institutions in an orderly manner in bankruptcy.

Single Point of Entry has been widely adopted as the preferred resolution strategy of many of America's largest financial institutions. In fact, our primary U.S. and U.K. regulators have publicly embraced this strategy as the preferred resolution strategy for a large, systemically important financial institution. As suggested by its name, this resolution strategy is designed so that only a single entity within the financial institution—the parent company—enters into bankruptcy proceedings, rather than multiple operating entities entering into separate, and potentially competing, resolution proceedings.

At a high level, Single Point of Entry consists of three elements:

- the parent company of the financial institution enters bankruptcy proceedings under Chapter 11 of the U.S. Bankruptcy Code;

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

- both before and after the parent company enters into bankruptcy proceedings, Key Operating Entities of the financial institution have access to sufficient capital and liquidity support to continue running, albeit as smaller entities, and providing services to customers; and
- all of the Key Operating Entities continue operating outside of the parent company's bankruptcy long enough for each to be divested in an orderly manner that does not destabilize the markets; for example, by being wound down in an orderly fashion, sold to another firm, spun off as a stand-alone firm or taken public through an IPO.

The general rationale for Single Point of Entry is that it is better to recapitalize, reorganize or orderly wind down the Key Operating Entities of a financial institution outside of bankruptcy proceedings than it is to simply let all of its operations fail and close its doors. As we saw first-hand in the financial crisis, the abrupt shutdown of a large financial institution can send shockwaves through global markets, disrupt the provision of critical financial functions (such as payment, clearing and settlement services) and harm other financial institutions and the economy. In contrast, if the Key Operating Entities at a financial institution in distress are recapitalized and reorganized or orderly wound down, the critical financial functions and services the firm provides are able to continue functioning each and every day, as necessary. This approach also preserves as much as possible of the going-concern value of the firm and imposes any losses on its shareholders and private creditors rather than on U.S. taxpayers. For these reasons, we, like many of our peers, maintain a Single Point of Entry strategy that, in our case, is designed to recapitalize and reorganize the most important parts of JPMorgan Chase. Some of these parts can then be unwound in an orderly manner or divested via a sale to a third party, IPO or spin-off.

The Single Point of Entry strategy involves a bankruptcy filing by our parent company at a time when we have sufficient financial resources on hand—so much so that we are able to keep all of our Key Operating Entities adequately funded and capitalized throughout the Resolution Period, which begins immediately after our parent company's bankruptcy filing and extends through the completion of our Preferred Strategy. In this situation, the notion of our parent company filing for bankruptcy protection may seem counterintuitive. In this scenario,

however, our parent company needs to file for bankruptcy because virtually all available resources firmwide would be provided to support the Key Operating Entities to ensure they remain open rather than the parent company. The committed use of that liquidity to support the firm's Critical Operations leaves our parent company without ready access to sufficient liquidity over the immediate term thereby requiring a restructuring of its debts.

We would expect that, in a resolution scenario, the firm would rapidly deploy its liquid assets to meet outflows. At the same time, the size and scope of firm's business would decrease and entities across the firm would correspondingly shrink in response to market circumstances. As the amount of liquid assets at the firm decrease and the demands from customers, creditors and other stakeholders increase, the firm will approach the point at which Key Operating Entities would be at risk of lacking sufficient liquid assets to meet their obligations as they come due.

Rather than wait for that point when resources are exhausted and Key Operating Entities are failing, our Single Point of Entry strategy is designed so that our parent company will prioritize the continued viability of these entities and file for bankruptcy early enough that firmwide liquidity would still be sufficient to support them through their stabilization and the parent company's bankruptcy.

As discussed in greater detail below, we have established various mechanisms to: (1) help us measure our available resolution resources against projected resolution needs; and (2) ensure that our parent company downstreams nearly all of its financial resources (except for certain excluded assets) to IHC before the resolution resources fall below the projected resolution needs buffer. We have detailed firmwide frameworks for projecting capital and liquidity needs in resolution and triggers indicating when the firm is approaching various stages of stress, recovery or resolution, including, most importantly, the Point of Non-Viability, which is the point at which sufficient financial resources remain at the Key Operating Entities and IHC to carry out the Single Point of Entry strategy. We also executed a secured Support Agreement that contractually obligates our parent company to downstream resources to IHC at the Point of

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

Non-Viability, and obligates IHC to use those resources to support the operational subsidiaries through their stabilization and the parent company’s bankruptcy. These and other measures help to ensure that we time our parent company’s bankruptcy filing appropriately to preserve the continued viability of our Key Operating Entities, which would be meaningfully smaller at the end of the resolution scenario.

Our Single Point of Entry strategy would avoid the need to place any of the firm’s subsidiaries into bankruptcy, limiting the destabilizing effects of a possible failure.

This section describes our Single Point of Entry strategy, including: the businesses, operations and entities covered by the strategy; the six stages of stress/recovery and resolution; the main implementation steps of the strategy; and key assumptions underlying the strategy.

Businesses, Operations and Entities in Our Resolution Plan

As required by the Agencies’ resolution planning rules, our resolution plan focuses on a particular subset of businesses, operations and entities and branches of our firm, owing to their importance to the healthy functioning of the firm or the financial stability of the United States.

For resolution planning purposes, we have designated 27 key business lines—including associated operations, services, functions and support—that upon failure would result in a material loss of the firm’s revenue, profit or franchise value. These 27 business lines include: (1) our four principal operating business segments and Corporate, each of which is referred to as a line of business; and (2) the 22 sub-segments of these five lines of business, each of which is referred to as a sub-line of business, that report into the principal business segments. Figure 7 describes our lines of business and sub-lines of business.

The Agencies have identified certain of our operations, including associated services, functions and support, the failure or discontinuance of which could pose a significant threat to the financial stability of the United States. These operations are referred to as Critical Operations.

For resolution planning purposes, we have designated 30 entities and non-U.S. branches as Material Legal Entities, or MLEs, because they are significant to the activities of our lines of business, sub-lines of business or Critical Operations. Our Material Legal Entities include our Key Operating Entities, together with our parent company and IHC.

Figure 7. Our Lines of Business and Sub-Lines of Business

Consumer & Community Banking	Corporate & Investment Bank	Commercial Banking	Asset & Wealth Management	Corporate
<ul style="list-style-type: none"> ▪ Consumer/Business Banking ▪ Mortgage Production ▪ Mortgage Servicing ▪ Real Estate Portfolios ▪ Auto & Student Lending ▪ Commerce Solutions ▪ Credit Card 	<ul style="list-style-type: none"> ▪ Fixed Income ▪ Equities ▪ Global Clearing ▪ Prime Brokerage & Equity Financing ▪ Custody & Fund Services ▪ Treasury Services ▪ Global Investment Banking ▪ Global Lending 	<ul style="list-style-type: none"> ▪ Middle Market ▪ Commercial Term Lending ▪ Corporate Client Banking ▪ Real Estate Banking 	<ul style="list-style-type: none"> ▪ Asset Management ▪ Wealth Management 	<ul style="list-style-type: none"> ▪ Treasury and CIO

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

We divide our Material Legal Entities into two ownership chains: (1) the JPMCB Bank Chain; and (2) IHC and its MLE subsidiaries.

The JPMCB Bank Chain includes:

- our main bank (JPMorgan Chase Bank, N.A. or JPMCB), a U.S. national banking association with branches in 23 states and abroad;
- six material foreign branches of JPMCB located in Hong Kong, London, the Philippines, Singapore, Sydney and Tokyo;
- three merchant processing entities, also referred to collectively as the Paymentech Entities, that accept, process and settle payment transactions for merchants; and
- eight other MLE subsidiaries, including two U.K. banks (J.P. Morgan International Bank Limited, or JPMIB, and J.P. Morgan Securities plc, or JPMS plc).

The second chain of Material Legal Entities includes:

- IHC;
- our credit card-issuing bank (Chase Bank USA, N.A. or CUSA)—a national banking association—and its

MLE subsidiaries, together referred to as the CUSA Bank Chain;

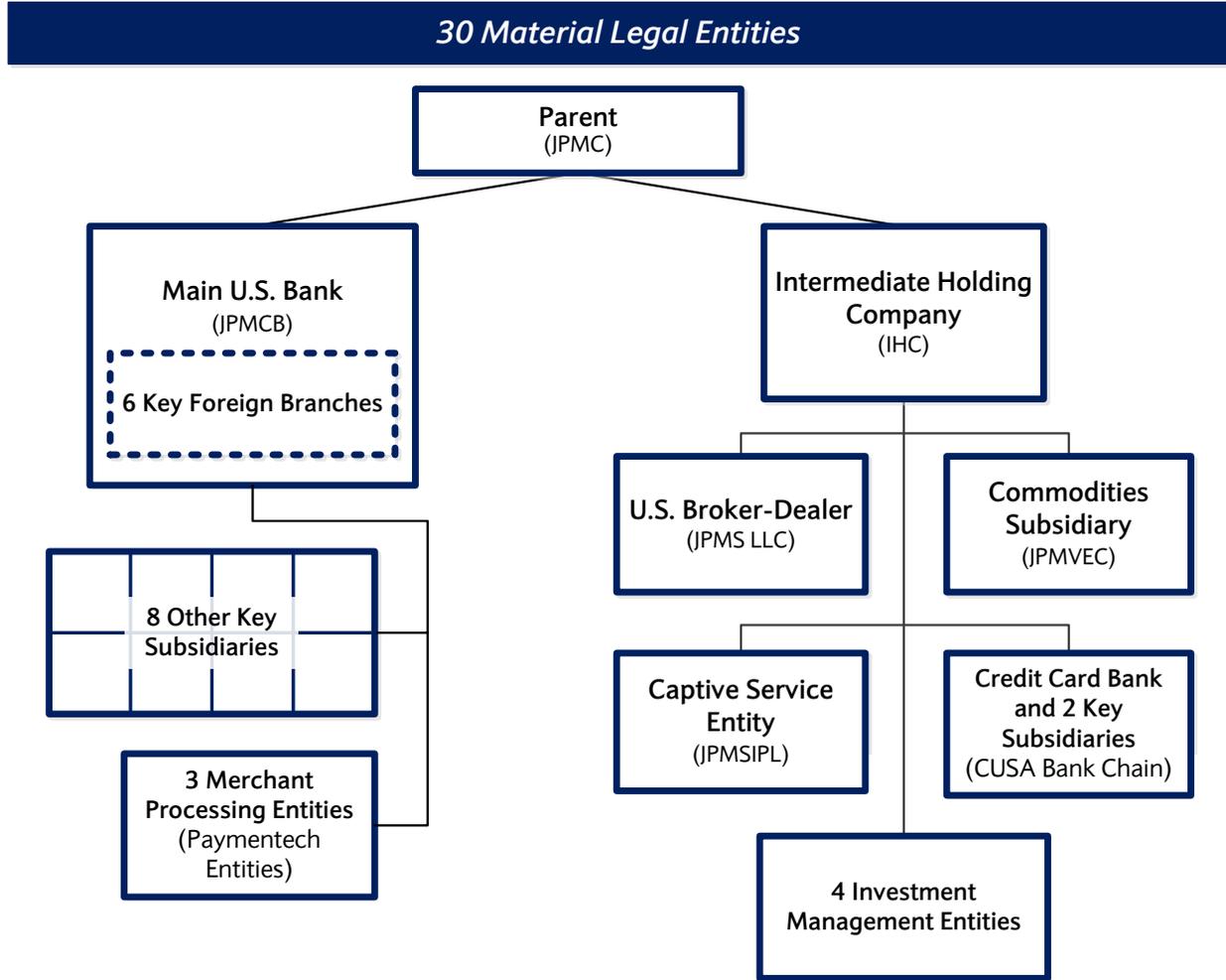
- our primary U.S. registered broker-dealer (J.P. Morgan Securities LLC or JPMS LLC), which is the firm's U.S. investment banking entity;
- our four investment management entities out of which our Asset Management sub-line of business is operated;
- our commodities subsidiary (J.P. Morgan Ventures Energy Corporation or JPMVEC), which provides commodities risk management solutions to clients in the form of financial derivatives transactions, and, to a lesser and decreasing extent, physical commodities transactions; and
- a captive service provider (J.P. Morgan Services India Private Limited or JPMSIPL), which is located in India, and provides data and transaction processing, IT support, call center and research support services to the firm, and not to third parties.

Our Key Operating Entities operate nationally as well as through overseas branches and subsidiaries, representative offices and subsidiary foreign banks. The organizational structure of our Key Operating Entities is set out in Figure 8.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

Figure 8. Entities in Our Resolution Plan



Six Stages of Stress/Recovery and Resolution

Our Single Point of Entry strategy is organized across six stages of stress/recovery and resolution: Business as Usual; Stress Period; Recovery Period; Filing Preparation Period; Resolution Weekend; and Post-Resolution Event Period. We have established qualitative and quantitative Stage Triggers that link the financial condition of the firm to the transition from Business as Usual all the way to resolution, so that our parent company timely files for bankruptcy and executes related pre-bankruptcy filing actions. A high-level summary of the six stages of stress/recovery and resolution is set out below.

Business as Usual. Our firm is considered to be operating normally and none of the triggers associated with recovery or resolution plan actions have occurred.

Stress Period. Our firm experiences a stress event and senior management begin to monitor and evaluate the situation in order to determine how to address the impact of the stress event and whether the firm’s recovery plan should be implemented.

Recovery Period. Our recovery plan is formally activated, and senior management implement actions contemplated in the recovery plan, as consistent with their fiduciary duties and other obligations.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

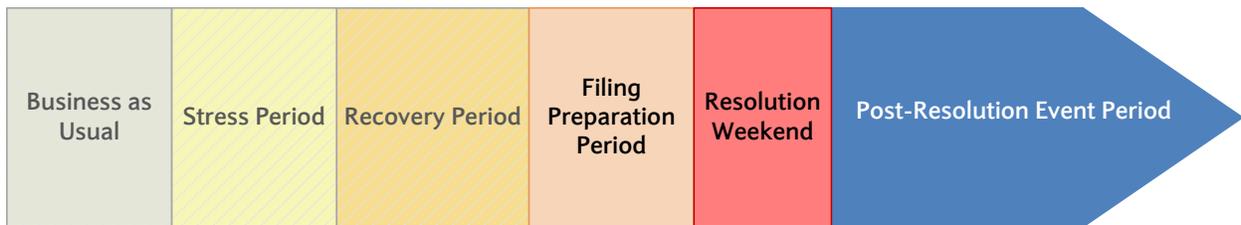
Filing Preparation Period. Our firm experiences meaningful liquidity outflows or deterioration in capital, resulting in a rapid decline in JPMorgan Chase’s trading value and a downgrade by all three major rating agencies to one notch below investment grade.

Resolution Weekend. Our parent company finalizes preparations for, and the parent company Board votes on whether to authorize, the parent company’s bankruptcy filing under Chapter 11 of the U.S. Bankruptcy Code. Resolution Weekend is a period expected to last approximately two days that begins upon the occurrence of a Point of Non-Viability and lasts until our parent company files for bankruptcy.

Post-Resolution Event Period. Our parent company proceeds through bankruptcy under Chapter 11 of the U.S. Bankruptcy Code, and the remainder of our firm is resolved under the Single Point of Entry strategy. The Post-Resolution Event Period starts when our parent company enters bankruptcy proceedings and lasts until those proceedings are concluded. The Post-Resolution Event Period includes a Stabilization Period that begins immediately after our parent company files for bankruptcy and extends until each designated Key Operating Entity reestablishes market confidence.

The key stages for implementing our resolution plan are the Filing Preparation Period, Resolution Weekend and the Post-Resolution Event Period, as described in Figure 9.

Figure 9. Key Stages of Stress/Recovery and Resolution



Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

Key Assumptions for Single Point of Entry Strategy

The Agencies have, by rule and through their supervisory process, prescribed a number of assumptions for resolution plans. All of our assumptions are consistent with or more severe than those required by the Agencies. Some of the most significant assumptions underlying our Single Point of Entry strategy are summarized in the chart that follows.

Key Assumptions Include:

- No recovery actions or steps are taken during the Filing Preparation Period to reduce the size or interconnectedness of JPMorgan Chase's operations or to mitigate the risk of its failure
- Legal frameworks in effect as of the resolution plan's submission date
- Third-party counterparties to Qualified Financial Contracts exercise early termination rights when advantageous to them, and are not subject to any ISDA or other protocols limiting these rights
- Designated Key Operating Entities maintain access to FMUs by ensuring heightened operational and intraday liquidity and collateral requirements are met at the onset of stress
- Orderly active wind-down strategy for derivatives and trading portfolio included in Post-Resolution Event Period for 18 months
- Preferred Single Point of Entry strategy is not dependent upon the liquidity and capital benefits of any divestiture of an Object of Sale

Main Implementation Steps

Under our Single Point of Entry strategy, in the highly unlikely event that our firm experiences losses severe enough to position it at the Point of Non-Viability, we would take the following steps to file for bankruptcy proceedings for our parent company while also ensuring that all of our Key Operating Entities remain open, funded, capitalized and operating outside of insolvency proceedings.

We have entered into a secured Support Agreement pursuant to which IHC and our main bank, JPMCB, are contractually bound to provide capital and/or liquidity support to certain Key Operating Entities in resolution. IHC is free of third-party debt and stands ready to make these capital and liquidity contributions from its central buffer of assets, which will be distributed to the Key Operating Entities consistent with the Support Agreement.

During the Filing Preparation Period, we will:

- form a new debt-free holding company, NewCo, and a private trust, the Trust, which will be maintained for the sole benefit of our parent company's bankruptcy estate;
- appoint the initial directors and officers of NewCo and an independent trustee to control the Trust; and
- contribute NewCo to the Trust.

The exact timing of these actions during the Filing Preparation Period will be determined at the time based on the relevant circumstances.

Upon the occurrence of a Point of Non-Viability, Resolution Weekend begins and:

- the Board of our parent company would convene a special meeting to vote on whether the parent company will file for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code;
- pursuant to the Support Agreement, our parent company would contribute to IHC nearly all of its remaining assets, other than the stock of JPMCB, the interests of IHC and certain other excluded assets (generally limited to liquid assets needed for bankruptcy expenses);
- each Key Operating Entity will begin, pursuant to the Support Agreement, to calculate, monitor and report on its capital and liquidity needs to see if it is projected to require any resources besides those capital and liquidity resources already prepositioned at the entities to successfully execute the resolution strategy; based on this information, IHC would determine whether additional capital and/or liquidity support is needed; and

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

- IHC and, in certain instances, JPMCB, would provide capital and liquidity support to Key Operating Entities as and when needed to support their continued operation or orderly resolution.

Contemporaneously with the filing of its bankruptcy petition, our parent company would file an emergency motion—the Emergency Transfer Motion—seeking, on 48 hours’ notice, authorization and approval from the U.S. court with jurisdiction over the parent company’s bankruptcy proceedings (referred to as the bankruptcy court):

- to transfer the ownership interests of IHC to NewCo (which would be owned by the Trust) and then transfer the stock of JPMCB to IHC; and
- to obtain the benefit of the stay on cross-defaults and early termination rights under the ISDA Protocol (a multilateral contractual agreement that provides for contractual recognition of statutory stays under special resolution regimes and contractual limitations on early termination rights due to cross-defaults under ISDA Master Agreements):
 - for NewCo to assume certain liabilities of the parent company, including its Guarantee Obligations relating to certain of its subsidiaries’ Qualified Financial Contracts; or
 - as alternative relief, to elevate the priority of the parent company’s Guarantee Obligations relating to its subsidiaries’ Qualified Financial Contracts to the status of administrative expense claims in the bankruptcy case, senior in priority to pre-petition general unsecured claims; and
 - for the bankruptcy court to approve one of these two forms of relief by the later of 48 hours or 5:00 p.m. on the first business day after our parent company files for bankruptcy.

Our approach to compliance with the ISDA Protocol is to satisfy the conditions for the parent company to transfer its Key Operating Entities to NewCo (via the transfer of IHC to NewCo and JPMCB to IHC), and for NewCo to assume certain liabilities of the parent company, including its Guarantee Obligations relating to certain of its subsidiaries’ Qualified Financial Contracts. As discussed in greater detail below, we have analyzed the legal issues associated with our approach to complying

with the ISDA Protocol, and have concluded that the strategy is supported by a sound business justification, has ample legal precedent, and addresses the requirements of due process. However, as discussed above, we have modeled our Hypothetical Resolution Scenario on the assumption that counterparties are not restricted from closing out Qualified Financial Contracts due to the ISDA Protocol. We therefore would be able to execute our Preferred Strategy under this scenario notwithstanding such closeouts.

Promptly after our parent company files for bankruptcy and upon the bankruptcy court’s approval of the Emergency Transfer Motion, all of our Key Operating Entities would be transferred to NewCo as its indirect subsidiaries via the transfer of IHC to NewCo and then JPMCB to IHC, and would continue as going concerns, thereby minimizing the negative impact of the parent company’s bankruptcy on our customers, counterparties, other financial institutions and the global economy, and maximizing the value of the bankruptcy estate for the benefit of the parent company’s creditors. All of our 5,200 branches and 18,000 ATMs would be open for business as usual.

Following the transfer of our operating subsidiaries to NewCo and the Trust, the Credit Card, Commerce Solutions and Asset & Wealth Management Objects of Sale will be prepared for divestiture. Based on an expert analysis conducted by CIB Advisory, the Credit Card and Commerce Solutions Objects of Sale have been designated as candidates for sale to a third party, IPO or spin-off, while the Asset & Wealth Management Object of Sale has been designated as a candidate only for sale to a third party. For Credit Card and Commerce Solutions, while a dual-track process (sale and IPO/spin-off) is possible, it has been assumed that a sale to a third party will be employed. Options and considerations for pursuing a sale, IPO or spin-off are discussed in detail in Divestiture Playbooks prepared for the Objects of Sale.

The capital and liquidity support provided to CUSA pursuant to the Support Agreement would enable all credit cards to be used without interruption throughout Resolution Weekend. CUSA would open for business on Monday morning following Resolution Weekend and continue as a solvent going concern outside of insolvency proceedings throughout the Resolution Period and until divested as part of the Credit Card Object of Sale.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

JPMS LLC would be recapitalized and remain an indirect wholly owned subsidiary of IHC, but would be reduced in size due to client-initiated outflows. We have prepared a robust analysis of JPMS LLC's and JPMS plc's ability to rapidly process prime brokerage asset transfers. These entities are able to reduce their size down to a rump portfolio of trading asset, derivatives and residual cash. They would no longer be systemically important.

JPMSIPL is fully funded by fees from its affiliated clients—primarily JPMCB—which will continue to pay JPMSIPL during Resolution. JPMSIPL also has reserve cash and liquid assets to cover approximately six months of expenses. Thus, JPMSIPL would not need to enter resolution proceedings of its own. JPMSIPL would continue to provide services to, and receive payment from, the recapitalized JPMCB Bank Chain and other affiliates. The level of services provided by JPMSIPL, however, would be consistent with the reduced needs of the firm. As a result, JPMSIPL would be expected to shrink over time during the Post-Resolution Event Period as a result of the execution of the Single Point of Entry strategy.

JPMVEC's derivative and trading positions would be unwound in conjunction with the firm's active orderly wind-down of its derivatives and trading portfolio, leaving it with a small residual position.

Our four investment management entities, three merchant processing entities and JPMIB, will be prepared for divestiture as part of the Asset & Wealth Management and Commerce Solutions Objects of Sale.

During the Post-Resolution Event Period, IHC and JPMCB would continue to provide capital and/or liquidity support to the other Key Operating Entities transferred to NewCo and the Trust pursuant to the terms of the Support Agreement until our Single Point of Entry strategy has been completed.

Creditors and shareholders of our parent company will realize value from its assets in accordance with the order of priority under the U.S. Bankruptcy Code.

Our Single Point of Entry strategy minimizes the systemic consequences of JPMorgan Chase's failure, minimizes the legal and operational challenges associated with resolution, including those related to global regulatory cooperation, and preserves maximum franchise and

enterprise value for our stakeholders. The strategy further enhances our ability to reduce our firm's size and systemic importance through the divestiture of Objects of Sale, and is not dependent upon the liquidity or capital benefits of any divestiture of an Object of Sale. Additionally, prepositioned liquidity and capital resources, coupled with the centralized buffer at IHC, support the orderly unwind of certain key wholesale businesses and operating entities, avoiding the need for additional insolvencies at the operating subsidiary level or regulatory intervention.

We conduct extensive financial modeling to confirm that our firm has enough financial resources to successfully execute our Single Point of Entry strategy.

Our resolution plan, as we have described it so far, is fundamentally qualitative; it includes our resolution strategy, our capabilities to support the successful execution of the strategy, and our remedies for any obstacles to the execution of the strategy or our overall resolvability. This is because the plan is intended to work across a range of failure scenarios and different market conditions, not just under one set of specific financial circumstances. To confirm that our resolution plan can be successfully implemented under varying conditions, we rigorously analyze our plan through extensive financial modeling.

This financial modeling tests our resolution plan in an overall environment that is consistent with the DFAST Severely Adverse economic scenario, which we used in our Federal Reserve stress tests, and under a set of assumptions, including a Hypothetical Loss Scenario, which assumes additional losses to the firm. We refer to the financial modeling of the execution of our plan under these conditions and the Hypothetical Loss Scenario and other assumptions as the Hypothetical Resolution Scenario.

Our Hypothetical Resolution Scenario demonstrates that our firm will:

- have sufficient financial resources prepositioned at each Key Operating Entity or held at IHC's central buffer to meet all of those entities' capital and liquidity needs during resolution;

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

- recapitalize and sustain target capital levels throughout the Resolution Period; and
- be significantly reduced in size and scope at the conclusion of our strategy.

As part of our financial modeling, we produced cash flow and pro forma financial statements on a daily basis through each Key Operating Entity's Stabilization Period, resulting in daily analyses for up to 90 days. We produced quarterly financial statements for each Key Operating Entity for the remainder of the Resolution Period after the Stabilization Period. Our pro forma financial statements evidence that our Key Operating Entities are able to maintain target capital levels throughout the Resolution Period.

Hypothetical Loss Scenario

We are required by the Agencies to design a Hypothetical Loss Scenario identifying assumed idiosyncratic loss events—meaning loss events that impact only JPMorgan Chase—that would result in capital and liquidity impairments so severe that our parent company would have to file for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code. Our Single Point of Entry strategy describes our Preferred Strategy to address the Hypothetical Loss Scenario.

Under our Hypothetical Loss Scenario, we assume that JPMorgan Chase, in the aggregate, suffers extraordinary and severe capital losses and liquidity outflows during the Filing Preparation Period. The liquidity outflows would result from modeled customer and counterparty behaviors and actions in an overall environment consistent with the DFAST Severely Adverse economic scenario. We also assume that material losses occur at each of JPMC, JPMCB (including its London branch), JPMS plc and JPMS LLC and that these losses do not materially impair other Key Operating Entities. The Hypothetical Loss Scenario would eventually lead to the occurrence of a Point of Non-Viability, which would end the Filing Preparation Period and signal the beginning of Resolution Weekend.

It is important to note that the Hypothetical Loss Scenario can be designed in multiple ways with different losses and outflows or at different legal entities. Different assumptions could result in alternative strategic choices and actions. We have carefully designed our Single Point

of Entry strategy to include significant optionality and flexibility to account for variations in an actual loss scenario, including by maintaining the central buffer at IHC. Moreover, in the unlikely event that the Preferred Strategy is not implemented, the resolution plan provides actionable alternative resolution strategies evidencing optionality to resolve the firm's business lines, Key Operating Entities and other assets without systemic disruption and without losses to taxpayers.

Key Assumptions for Hypothetical Resolution Scenario and Financial Modeling

All of our assumptions underlying the Hypothetical Resolution Scenario and our financial modeling are consistent with or more severe than those required by the Agencies. The key assumptions used in our Hypothetical Resolution Scenario and financial modeling (set out below) are in addition to those significant assumptions underlying our Single Point of Entry strategy.

Key Assumptions Include:

- 13 calendar day Filing Preparation Period
- Limited borrowing from non-U.S. central banks where permitted
- Downgrade of the firm by all three major ratings agencies to one notch below investment grade at the end of the Filing Preparation Period
- No private sector capital or unsecured liquidity
- No extraordinary government support
- No Discount Window borrowings by any entity
- Able to raise liquidity privately in resolution through the sale and financing of securities. Before the Point of Non-Viability, only sales or financing of HQLA permitted
- Foreign jurisdictions take actions to preserve liquidity in their jurisdictions
- No debtor-in-possession financing is available to our parent company

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

Results of Financial Modeling of Our Resolution Plan

We maintain sufficient external and internal loss absorbing resources to successfully execute the Single Point of Entry strategy, including in a DFAST Severely Adverse economic environment, without causing any systemic impact on U.S. financial markets. Specifically, our modeling results illustrate that:

- all of our Key Operating Entities would be able to, throughout the Resolution Period:
 - meet all of their funding obligations when due;
 - achieve and sustain target capital levels;
 - continue to conduct all of the firm's key businesses, Critical Operations and key services, on an uninterrupted basis; and
 - avoid the need for any extraordinary government support; and
- the size of the consolidated JPMorgan Chase balance sheet would be substantially reduced after executing the Single Point of Entry strategy.

Our Single Point of Entry strategy contemplates the divestiture of three Objects of Sale—Credit Card, Commerce Solutions and Asset & Wealth Management—so that the post-resolution firm would be significantly smaller and less complex than JPMorgan Chase. The capital and liquidity benefits which would accrue from such divestitures are not, however, necessary for the successful execution of our strategy. We incorporated these divestitures into the Hypothetical Resolution Scenario to illustrate the options we have to reduce our firm's size and market impact, but have structured our liquidity and capital frameworks such that these divestitures would not be necessary to meet net funding outflows at any point during the Resolution Period or to sustain or re-attain target capital levels at the impacted Key Operating Entities.

A simpler and smaller firm would emerge from Single Point of Entry.

As a result of the Single Point of Entry strategy and the expected divestment of the Credit Card, Asset & Wealth Management and Commerce Solutions Objects of Sale, the post-resolution firm as a whole will be significantly smaller and engaged in a narrower scope of business upon the conclusion of our resolution. Specifically, what would emerge from the resolution of JPMorgan Chase would resemble a large, regional bank group engaged almost exclusively in traditional retail and commercial banking activities. The resulting post-resolution firm would encompass:

- **Most of the entities in the JPMCB Bank Chain.** However, the assets of JPMCB and its material foreign branches are estimated to be reduced in a substantially weakened economic environment by approximately 40% post-resolution. A JPMCB U.K. bank subsidiary, JPMIB, would be divested as part of the Asset & Wealth Management Object of Sale.
- **Significantly reduced broker-dealer activities.** JPMS LLC would be recapitalized and remain open, funded and operating, however, it is expected to be significantly reduced in size and customers would have substantially transferred to third-party providers. None of the Key Operating Entities engaged in broker-dealer activities (i.e., JPMS LLC, J.P. Morgan Securities Japan Co., Ltd. or JPMS plc) would be systemically important post-resolution. The assets of each of these Key Operating Entities are, on average, estimated to be reduced in a substantially weakened economic environment by over 80% post resolution.
- **The other Key Operating Entities that are not divested through Objects of Sale.** These other entities are mainly internal service providers and thus sufficiently self-sustaining. Although they would have smaller operations, these other entities would be able to continue in the ordinary course of business and would not need to be placed into resolution proceedings.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

Although only three Objects of Sale are assumed to be sold in the modeled Single Point of Entry strategy, the Key Operating Entities would be fully prepared to divest as many additional Objects of Sale as necessary, particularly if there is a decision to further reduce the size and systemic footprint of the firm before it exits from bankruptcy.

The Trust could pursue any of the following options with respect to NewCo:

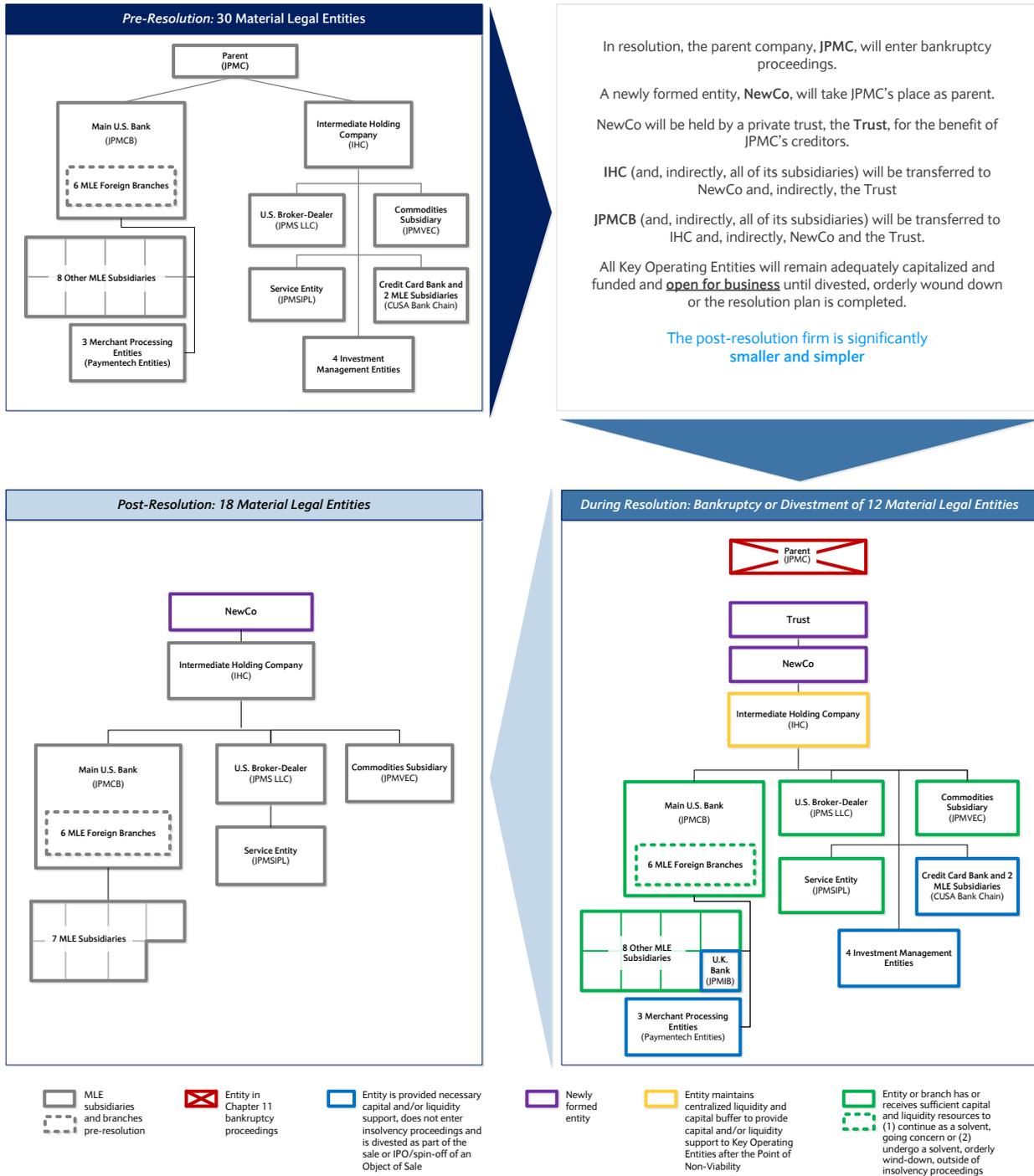
- **IPO.** The Trust could undertake one or more underwritten public offerings of its shares of NewCo. Proceeds of the stock offering would be distributed to the parent company's bankruptcy estate and ultimately to the parent company's creditors.
- **Distribution of Shares in Kind.** The Trust could distribute stock of NewCo to the parent company's creditors and, after these distributions, dissolve.
- **Further Divestitures of the Objects of Sale.** The Trust could arrange for further divestitures of identified Objects of Sale.

Figure 10 and Figure 11 compare and contrast JPMorgan Chase before the execution of our resolution strategy with the post-resolution firm, and demonstrate that the Single Point of Entry strategy results in a materially smaller and simpler firm.

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Figure 10. Structure Before and After Resolution



In resolution, the parent company, JPMC, will enter bankruptcy proceedings.

A newly formed entity, NewCo, will take JPMC's place as parent. NewCo will be held by a private trust, the Trust, for the benefit of JPMC's creditors.

IHC (and, indirectly, all of its subsidiaries) will be transferred to NewCo and, indirectly, the Trust

JPMCB (and, indirectly, all of its subsidiaries) will be transferred to IHC and, indirectly, NewCo and the Trust.

All Key Operating Entities will remain adequately capitalized and funded and open for business until divested, orderly wound down or the resolution plan is completed.

The post-resolution firm is significantly smaller and simpler

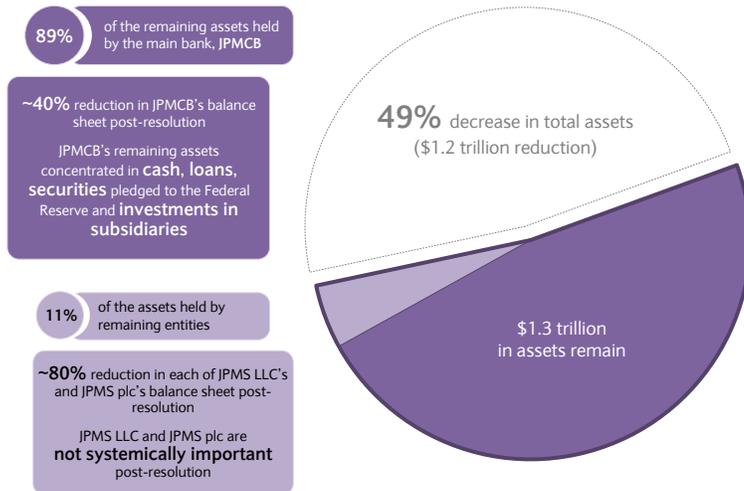
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Our Single Point of Entry Resolution Strategy Facilitates Orderly Failure Without Government Assistance, Taxpayer Support or Harm to the U.S. Economy

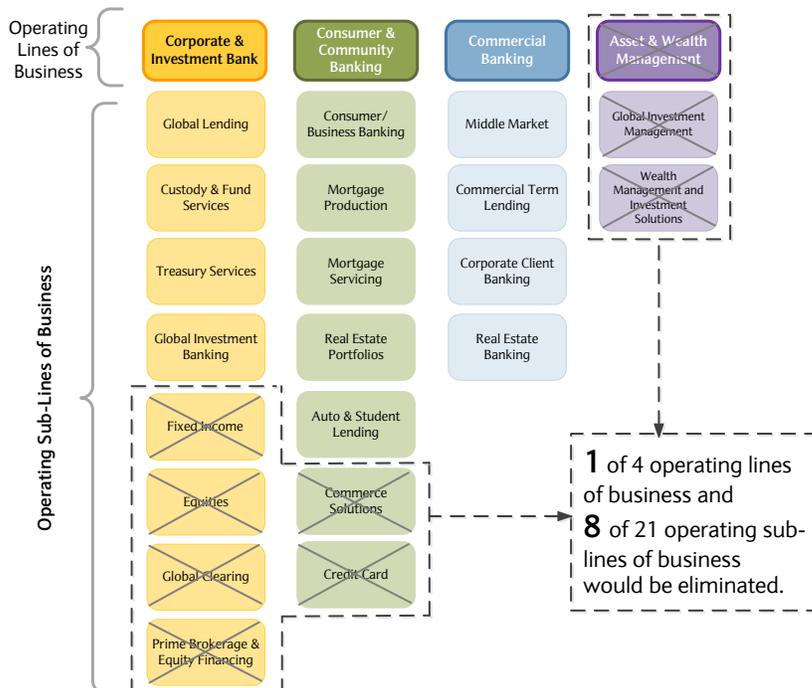
Figure 11. Business Before and After Resolution

THE POST-RESOLUTION FIRM AS MODELED¹ WOULD RESEMBLE A REGIONAL BANK GROUP WITH . . .

A SMALLER AND LESS COMPLEX BALANCE SHEET



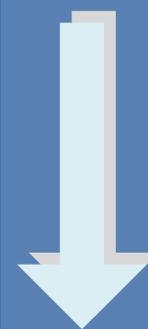
A FOCUS ON TRADITIONAL RETAIL AND COMMERCIAL BANKING



¹ Based on the divestiture of only three Objects of Sale and the wind-down of broker-dealer activities

A SMALLER DERIVATIVES PORTFOLIO

The firm's derivatives and trading positions will undergo an orderly wind-down, effectively to a rump portfolio of trading assets, derivatives and residual cash.



96% decrease in notional

REDUCED FOREIGN ASSETS

The firm will emerge from resolution as a largely domestic, consumer-oriented institution.



72% decrease in total assets in foreign subsidiaries and branches; approximately 50% of remaining assets in cash and highly liquid securities

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

An effective resolution plan is not one-size-fits-all and is not designed in a vacuum. It must be tailored to the structure and business activities of a firm and take into account the real-world challenges that the firm would be likely to face when in material financial distress and attempting to resolve itself in an orderly manner. We have conducted a multiyear analysis of our firm and the challenges that we could face in a potential resolution of our firm, and based on self-assessments and feedback from our regulators, have honed our resolution plan so that it fully addresses each of those challenges.

We believe that an effective resolution plan has eight key elements, which can be categorized according to our three pillars of resolution planning:

I. Capital and Liquidity Resources

- **Capital**—Capital is the ability of a firm to absorb losses, and so Key Operating Entities within a firm must maintain or receive sufficient capital resources to support the uninterrupted operations of the firm as it is resolved.
- **Liquidity and Funding**—Liquidity is designed to provide the funding that enables the firm to pay bills when due, and so Key Operating Entities within the firm must maintain or receive sufficient liquidity resources—typically cash or assets that can be quickly sold—to support the uninterrupted operations of the firm as it is resolved and businesses are divested.

II. Resolution Strategy

- **Governance Mechanisms**—Directors and management of a firm must know how and when to respond effectively to the firm's financial distress, including when to implement the firm's resolution strategy. Governance mechanisms are internal triggers that require information to be escalated to directors and senior management so that they can make timely and informed decisions.
- **Defense against Legal Challenge**—A provision of liquidity or capital support to subsidiaries before a parent company's bankruptcy filing could come under legal challenge in state or bankruptcy court. Thus, a firm must thoroughly analyze potential legal challenges to any planned provision of support under

its resolution strategy, and implement defenses to these challenges.

- **Legal Entity Structure**—The Material Legal Entities in a firm must be organized in a rational way that supports an orderly resolution, which includes having practical options for breaking up and shrinking the firm in a resolution scenario.
- **Cross-border Cooperation and Coordination**—Because large, systemically important financial institutions operate across the globe, a resolution plan must address the risk that foreign regulators or third parties could take actions in ways that could negatively affect the firm's ability to successfully execute its resolution strategy.

III. Operational Resilience

- **Operational Capabilities**—A firm must have the operational capabilities—meaning experienced personnel and sufficient technology, capacity and other capabilities—to deal with the surge in activity that would come in a time of crisis, as well as divestiture of portions of the firm, so that its key operations can continue uninterrupted as the firm is resolved.
- **Derivatives and Trading Activities**—Although derivatives and trading activities help both customers and firms to manage risk, a financial institution with a sizeable derivatives and trading portfolio will encounter additional operational challenges if it is in financial distress. As a result, a resolution plan must address the risks raised by a large portfolio of derivatives and trading activities.

As discussed in the subsections that follow, over the last six years, we have completed many initiatives, both regulator- and self-identified, in each of these eight areas to ensure that our resolution plan would work in a real-world crisis situation.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

Figure 12 summarizes a selection of our most important resolvability initiatives, which have prepared us to execute our resolution plan.

Figure 12. Key Reasons We Are Prepared to Execute Our Resolution Plan



We have enough capital to carry out our strategy.

Capital is one of the core indicators of the health of a financial institution like JPMorgan Chase. As a technical matter, capital is equal to the difference between a firm's assets and its liabilities. It is useful, however, to think of capital instead as a measure of a firm's potential to absorb losses. A firm's capital can be reduced or written down to account for or absorb a decline in value of the firm's assets or an increase in liabilities. Regulators require that financial institutions maintain or exceed certain levels of capital, and counterparties are often unwilling to transact with financial institutions that have insufficient capital. Without sufficient capital to absorb losses, a firm could find itself insolvent, which occurs if liabilities exceed assets. In this way, capital forms the financial foundation of a financial institution, and is critical to a financial institution's safety and soundness.

For these reasons, the successful execution of our Single Point of Entry strategy depends upon our ability to maintain adequate capital levels at all of our Key Operating Entities throughout resolution. Certain of our entities, such as our U.S. banks, JPMCB and CUSA, are subject to prudential capital requirements, and so our strategy is designed so that they meet or exceed all regulatory capital requirements for "well-capitalized" status under U.S. regulations throughout resolution. Key entities that are not subject to regulatory capital requirements, such as certain of our investment management entities, must maintain capital levels typically required to obtain investment-grade credit rating or, if the entity is not rated, an equivalent level of financial soundness. During financial stress, our Key Operating Entities may incur certain types of losses which could impair their capital and thus erode their financial foundation. We have designed our strategy so that, in those instances, we are able to restore the entities' capital base.

This section describes the steps we have taken so that, during a resolution event, our firm would have sufficient capital resources to successfully execute our Single Point of Entry strategy and, more specifically, to recapitalize any Key Operating Entities that experience capital shortfalls. This section also discusses how we are able to regularly monitor capital needs and resources at our Key Operating Entities in

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

business-as-usual conditions and in times of financial stress, identify any projected capital shortfalls and promptly deploy capital resources to address those shortfalls.

Key Elements of Our Capital Preparedness

- Developed Resolution Capital Adequacy and Positioning (RCAP) and Resolution Capital Execution Need (RCEN) frameworks
- Prepositioned projected resolution capital resources for all Key Operating Entities
- Developed firmwide and entity-level capital monitoring triggers
- Enhanced firmwide and entity-level capital policies
- Integrated our capital management framework in our day-to-day processes, procedures and reporting

We have developed capabilities and financial frameworks to estimate the capital each of our Key Operating Entities would need in resolution, and have conservatively placed capital resources at all of our Key Operating Entities to meet these estimated needs.

We have developed capabilities and financial frameworks, which enable us to calculate the total loss absorbing resources of our firm. Total loss absorbing resources refer to certain equity and long-term debt of our firm that can absorb losses in a resolution scenario. The Agencies refer to this kind of framework as Resolution Capital Adequacy and Positioning, or RCAP.

We have also developed a second financial framework, which projects the capital resources that would be needed at each of our Key Operating Entities to implement our Single Point of Entry strategy, based on facts unfolding in the actual stress scenario being experienced. The Agencies refer to this kind of framework as Resolution Capital Execution Need, or RCEN.

During the Stress Period, once a calculation event has occurred, capital resources and capital needs are regularly projected for each Key Operating Entity to anticipate possible capital shortfalls and determine each Key Operating Entity's incremental capital resource needs. Because a resolution scenario could arise under a variety of conditions, we designed our RCEN methodology to protect against potential uncertainty by:

- defining capital resources and capital needs for those of our Key Operating Entities that are either rated by credit rating agencies or subject to regulatory capital requirements as the higher of the well-capitalized regulatory level or the estimated minimum to maintain an investment-grade rating;
- defining financial soundness for those of our unregulated Key Operating Entities;
- conservatively estimating that Key Operating Entities are recapitalized to target capital levels; and
- incorporating a significant buffer on top of loss estimates for the period following the bankruptcy of our parent company to protect against uncertainty.

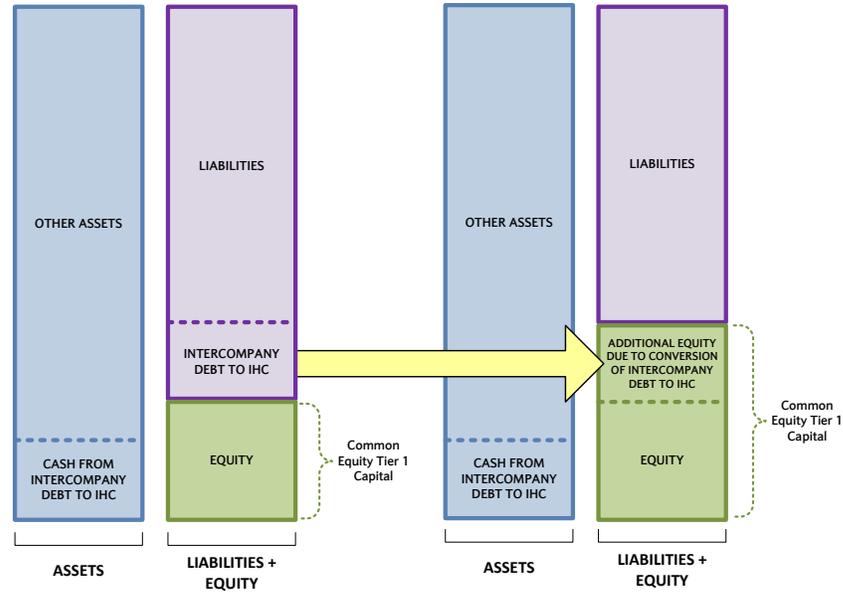
As a result of implementing these two capital frameworks, we have for each of our Key Operating Entities, estimated the capital it would need in a resolution scenario and have decided to maintain an appropriate balance of projected resolution capital resources at all Key Operating Entities. When we maintain resolution resources—capital or liquidity—at one of our entities, we call that prepositioning. We have also built and are maintaining at IHC a central buffer of extra financial resources that can be distributed to Key Operating Entities in a resolution scenario in the event that the prepositioning of capital resources turns out to be insufficient and a subsidiary suffers an unexpected capital shortfall. Going forward, we will periodically reevaluate the level of prepositioning at Key Operating Entities versus the level of resources held centrally at IHC, and adjust as appropriate. Figure 13 illustrates how capital resources located at IHC could be deployed in resolution.

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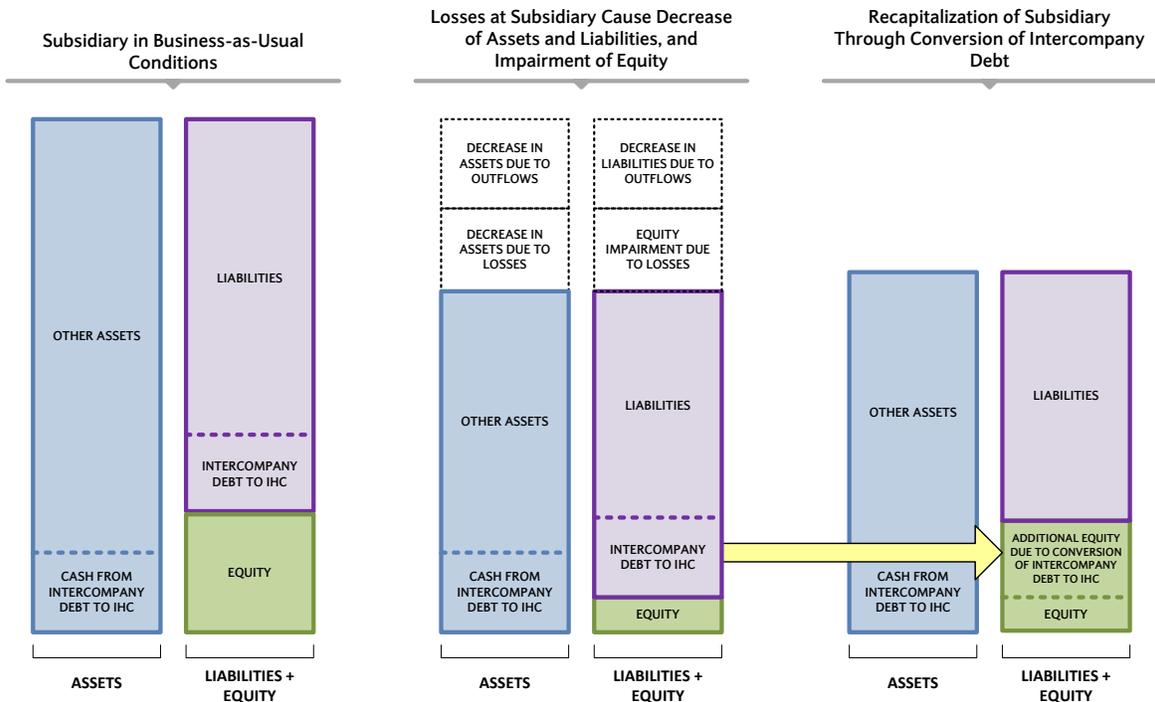
Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

Figure 13. How Capital Resources Could Be Deployed In Resolution

ILLUSTRATIVE INCREASE IN CAPITAL OF SUBSIDIARY THROUGH CONVERSION OF INTERCOMPANY DEBT TO IHC



ILLUSTRATIVE EXAMPLE OF RECAPITALIZATION IN A RESOLUTION SCENARIO



Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We have completed calculations of how much capital should be positioned (including prepositioned capital resources at each Key Operating Entity), and capital resources and capital needs for our parent company and all other Key Operating Entities, establishing that:

- our firm has total loss absorbing resources in excess of its consolidated resolution capital needs requirement; and
- each of our Key Operating Entities has prepositioned capital resources in excess of their individual resolution capital needs requirement.

We have established capital triggers so that actions key to our strategy are taken at the appropriate times based on our financial condition.

To successfully implement our Single Point of Entry strategy, the recapitalization of our Key Operating Entities and our parent company's bankruptcy filing must occur while our available capital and liquidity resources are sufficient to support our Key Operating Entities' needs in resolution. Furthermore, other key actions under the strategy must be taken at the appropriate times and in the appropriate order to mitigate financial, operational, legal and regulatory vulnerabilities. As such, we have developed a full complement of capital monitoring triggers that incorporate capital resources and capital needs projections for the firm on a consolidated basis, as well as for each Key Operating Entity. These capital monitoring triggers link the capital position of JPMorgan Chase on a consolidated basis and individual Key Operating Entities to specific escalation and recovery- and resolution-related actions in Business as Usual, the Stress Period and the Recovery Period, as well as throughout resolution. We also have incorporated our capital monitoring triggers, together with a corresponding set of liquidity triggers, into our Support Agreement and Governance Playbooks to assure that the actions contemplated by our Single Point of Entry strategy are executed in a timely manner.

We have updated our firmwide capital policy and established capital policies at Key Operating Entities to codify our capital frameworks, prepositioning and triggers.

We have updated our firmwide capital management policy to incorporate our capital monitoring triggers, as well as our positioning of resolution capital and resolution capital needs framework and requirements. We have also made updates to the policy to improve alignment of firmwide capital management and liquidity management. In addition, we have developed capital management policies for each of our Key Operating Entities, and established a policy requiring all those entities to maintain prepositioned capital resources in excess of their anticipated resolution capital needs.

Our capital management framework is integrated into our day-to-day processes, procedures and reporting.

We have embedded the calculation of capital ratios, resolution capital positioning and needs and prepositioning of capital resources into our business-as-usual monitoring and reporting processes by implementing:

- a process for ongoing and regular calculation of firm- and entity-level capital ratios and the monitoring of those ratios against the capital monitoring triggers in the capital management policies for the firm and our Key Operating Entities;
- a process for ongoing and regular calculation and independent review of resolution capital positioning and needs at the firm- and entity-level, including the amount of prepositioned capital resources at each Key Operating Entity and the monitoring of the prepositioned amounts against the capital need; and
- additional enhancements to capital management policies of individual Key Operating Entities and inclusion of IHC in the firm's capital management policy.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We believe that our resolution capital positioning and needs frameworks, capital monitoring triggers and capital management policies, and their integration into our business-as-usual monitoring and reporting processes, collectively help to ensure that we would have enough capital to successfully execute our Single Point of Entry strategy in a wide spectrum of potential loss scenarios.

We have enough liquidity to carry out our strategy.

Like capital, liquidity is a key indicator of a financial institution's health and plays a critical role in resolution. Liquidity is a measure of how easy it is to convert assets into cash. Liquid assets are those that can be converted into cash relatively quickly and easily—such as sovereign debt, government securities and corporate debt securities—whereas illiquid assets are those that cannot be easily sold or exchanged for cash—such as shares of private companies or certain types of financial contracts. Insolvency can occur when an entity's liquidity is insufficient to meet obligations when they come due.

The successful execution of our Single Point of Entry strategy depends upon each of our Key Operating Entities maintaining enough liquidity to meet its funding needs and remain solvent throughout resolution. During financial stress, our Key Operating Entities are likely to suffer severe liquidity outflows due to things like increased deposit withdrawals, potential derivative collateral requirements, draws on loan commitments, heightened membership requirements from FMUs and counterparty and other stakeholder demands. We need to be able to ensure our Key Operating Entities always have sufficient liquidity or that liquidity is readily available at IHC so that they can continue to meet their obligations when due, successfully satisfy any heightened financial requirements placed on them by counterparties and operate in the ordinary course.

This section describes steps we have taken so that, during a resolution event, our firm would have sufficient liquidity resources to successfully execute our Single Point of Entry strategy and, more specifically, to adequately fund any Key Operating Entities that experience any unexpected liquidity shortfalls. This section also discusses how we are able to regularly monitor liquidity needs and resources at our Key Operating Entities in business-as-usual conditions and in

times of financial stress, identify any projected liquidity shortfalls and promptly deploy liquidity resources to address those shortfalls.

Key Elements of Our Liquidity Preparedness

- Comprehensive liquidity framework for all Key Operating Entities
- Developed Resolution Liquidity Adequacy and Positioning (RLAP) and Resolution Liquidity Execution Need (RLEN) frameworks
- Prepositioning of liquidity resources at Key Operating Entities, including the buffer at IHC
- Liquidity triggers and policies for all Key Operating Entities
- Simplified intercompany funding flows

We have financial capabilities and frameworks to estimate the liquidity each of our Key Operating Entities would need in resolution, and have conservatively placed liquidity resources at all of our Key Operating Entities to meet these estimated needs.

We have developed capabilities and two financial frameworks for calculating liquidity resources and needs. The Agencies refer to these kinds of frameworks as Resolution Liquidity Adequacy and Positioning, or RLAP, and Resolution Liquidity Execution Need, or RLEN. RLAP is a framework for estimating and maintaining sufficient liquidity at, or readily available to, designated Key Operating Entities in resolution. Importantly, RLAP is used to decide how we position liquidity resources within our firm at specific entities during Business as Usual in anticipation of liquidity needs during a future, Hypothetical Resolution Scenario. In contrast, RLEN is designed to produce projections of the actual needs of our Key Operating Entities after our parent company has filed for bankruptcy. More specifically, the calculation of resolution liquidity needs estimates the total liquidity needed, as calculated, to satisfy a Key Operating Entity's peak funding needs and minimum operating liquidity needed throughout a full implementation of our Single Point of Entry strategy, taking into account intercompany

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

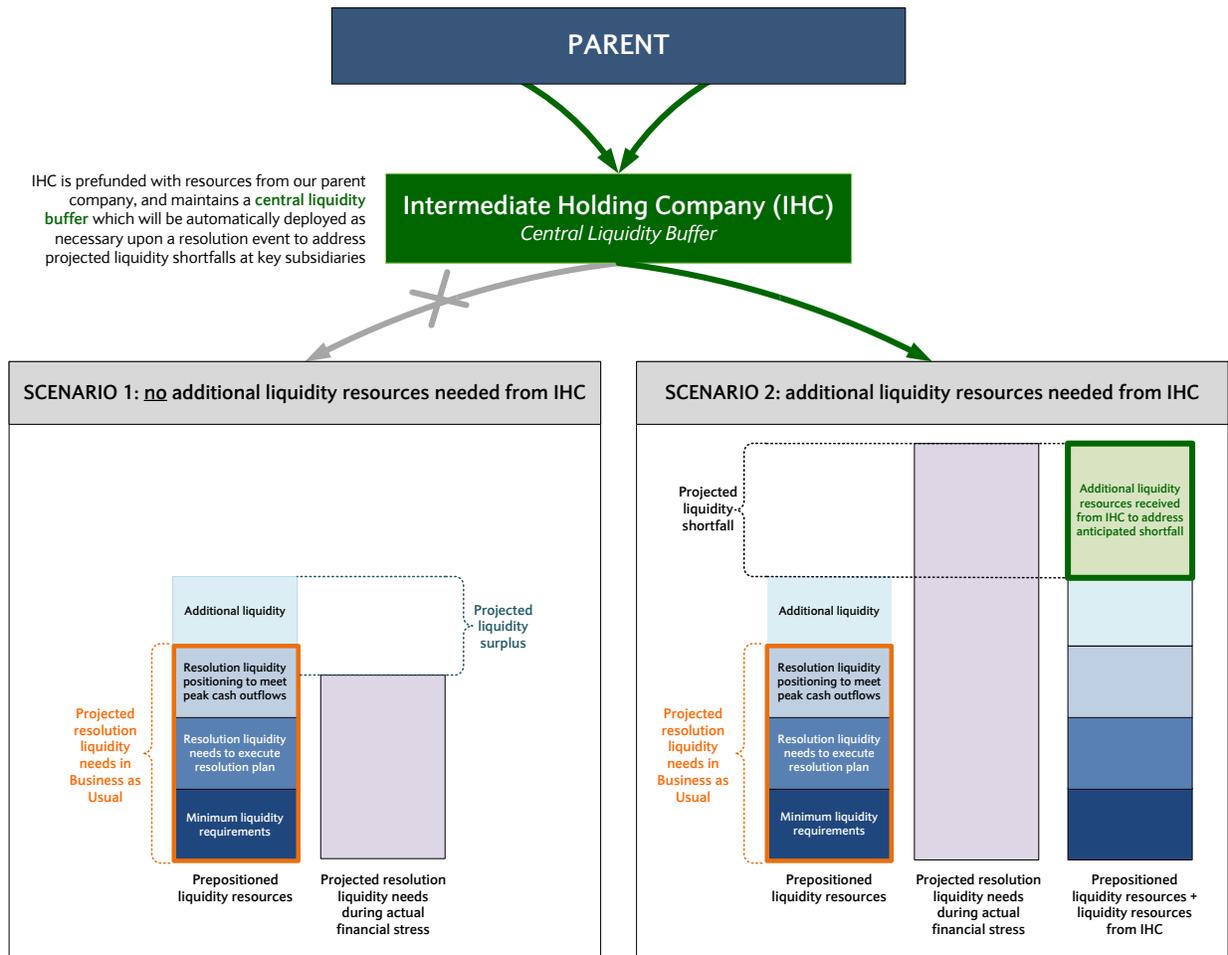
funding frictions, which are things, like taxes, that could reduce or otherwise affect the amount or ability of funds to move among entities within the firm. In other words, this is the liquidity each of our Key Operating Entities needs in order to continue uninterrupted operation throughout our Single Point of Entry strategy, including, if applicable, to implement an orderly wind-down consistent with the resolution plan. Each of these two frameworks is discussed in greater detail below.

As a result of implementing these two liquidity frameworks, and in consideration of conservative assumptions such as ring-fencing, which is used to refer to the possibility that a foreign regulator requires one of our overseas operating entities to not make any of its excess funds available to affiliates, we have:

- significantly strengthened the consolidated liquidity position of the firm; and
- conservatively placed liquidity resources at each Key Operating Entity and IHC, which we believe are sufficient to fund each Key Operating Entity's needs in resolution with excess resources to cover potential uncertainties at either the Key Operating Entity or at a parent company.

Going forward, we will periodically reevaluate the level of prepositioning at Key Operating Entities versus the level of resources held centrally at IHC, and adjust appropriately. Figure 14 illustrates how liquidity resources located at IHC could be deployed in resolution.

Figure 14. How Liquidity Resources Could Be Deployed In Resolution



Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

Resolution Liquidity Positioning—RLAP

The baseline for our enhanced framework for resolution liquidity positioning is our JPM Liquidity Stress Framework, which is designed to measure liquidity risk to ensure that our firm has sufficient liquidity resources to meet minimum operating liquidity and peak cash outflows. The JPM Liquidity Stress Framework assumes that a severe stress event results in our firm's issuer credit ratings being downgraded by all three major rating agencies to one notch below investment grade on the first day of stress. This leads to a severe liquidity crisis owing to a loss of wholesale and retail funding, additional collateral margin postings, customer and counterparty outflows, a rapid decline in the trading value of our debt and other market factors. The JPM Liquidity Stress Framework also assumes that the firm would suffer severe deposit attrition, draws on unfunded lending commitments, experiences significant derivative outflows, and would be unable to refinance maturing wholesale funding obligations, except for secured funding or lending transactions backed by high-quality assets.

The JPM Liquidity Stress Framework includes a Restricted Liquidity Framework to take into account possible funding frictions, which assesses jurisdictional, operational, counterparty and tax frictions. The Restricted Liquidity Framework is used to identify liquidity that could potentially be trapped within various of our legal entities. We have created an enhanced Restricted Liquidity Framework to assess liquidity transfer restrictions at the entity level (including between branches).

Our resolution liquidity positioning framework measures peak net funding outflows for each Key Operating Entity on a stand-alone basis, and details daily cash flows throughout the Stress Period, as well as a product-level breakout of third-party and intercompany flows. Intercompany transactions are treated similarly to third-party transactions, with no fungibility of surplus liquidity across Key Operating Entities (including branch-to-branch). The resolution liquidity positioning framework provides an estimate of the amount of liquid resources that would need to be prepositioned at each Key Operating Entity and IHC to effectively meet the anticipated cumulative net peak funding outflows (inclusive of restricted liquidity). The resolution liquidity positioning framework estimate reflects a conservative view of available sources of liquidity.

Resolution Liquidity Needs—RLEN

Our framework for resolution liquidity needs uses the JPM Liquidity Stress Framework as the base, subject to certain additional, resolution-specific modifications.

The estimates used in the framework for resolution liquidity needs reflect the minimum liquidity required at each Key Operating Entity to execute our Single Point of Entry strategy throughout the Resolution Period, and so the framework informs the timing of when our parent company should file for bankruptcy. The minimum liquidity required at each Key Operating Entity is calculated as the sum of:

- the minimum operating liquidity required for the Key Operating Entity to operate without disruption throughout the Resolution Period; and
- the Key Operating Entity's projected peak cumulative net funding outflows during the Resolution Period.

Our framework for resolution liquidity needs identifies the peak cumulative net funding needed to stabilize each Key Operating Entity after our parent company files for bankruptcy. To be conservative, we do not assume access to unsecured funding markets in our framework for resolution liquidity needs.

As a result of our resolution liquidity framework, we are able to provide daily cash flow forecasts (consistent with the enhanced framework) through the end of the Stabilization Period.

The enhanced Restricted Liquidity Framework used in our framework for resolution liquidity positioning is also used in the framework for resolution liquidity needs. The framework primarily applies to intercompany unsecured and secured transactions, commitments and derivatives, including transactions between Key Operating Entities and other entities, and all significant transactions. We implemented an additional third-party friction analysis to capture other funding frictions and size the required buffer at IHC to cover these amounts for each Key Operating Entity.

We have automated both of our resolution liquidity frameworks to ensure that we have daily reporting and analysis capabilities in resolution.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We have established liquidity triggers so that key actions in our strategy are taken at appropriate points in time based on financial condition.

The successful implementation of our Single Point of Entry strategy depends on certain actions being taken while our firm has sufficient capital and liquidity resources to support resolution needs. In particular, our parent company would need to file for bankruptcy while sufficient capital and liquidity resources remain to execute our Single Point of Entry strategy. As such, along with developing capital monitoring triggers, we have also established a full complement of corresponding liquidity triggers that incorporate projections of resolution liquidity positioning and needs for the firm on a consolidated basis, as well as for each Key Operating Entity. These liquidity triggers link the liquidity position of JPMorgan Chase and specific operating entities to specific escalation and recovery- and resolution-related actions in Business as Usual, as well as throughout a resolution scenario. As we have with our capital monitoring triggers, we have incorporated these liquidity triggers, into our Support Agreement and Governance Playbooks to help assure that the actions contemplated by our Single Point of Entry strategy are executed in a timely manner.

In addition to establishing liquidity triggers based on our frameworks for resolution liquidity positioning and needs, we have also modified our formal Recovery Plan Activation Trigger so that recovery actions begin earlier than they would have under previous recovery plans, in order to increase the likelihood that we never get to a resolution event.

We have substantially reduced intercompany funding frictions.

In connection with improving our framework for resolution liquidity positioning to better take into account potential frictions, we also simplified material intercompany funding relationships and financial interconnectedness, thereby mitigating the potential risk of frictions. We completed actions to minimize potential intercompany funding frictions, for example by significantly simplifying material intercompany funding relationships and interconnectedness. Specifically, we:

- streamlined cross-border flows among U.S. and U.K. entities, including a U.K. banking subsidiary, JPMS plc;
- reduced the number of intermediate entities through which certain intercompany funding travels, and thereby reduced total intercompany funding flows and the likelihood of frictions under stress; and
- eliminated a significant amount of overnight intercompany funding arrangements and extended the maturity of a meaningful amount of intercompany funding.

We believe that both of our resolution liquidity frameworks, liquidity triggers, liquidity policies and actions to simplify liquidity throughout our firm collectively help to ensure that we would have enough funding and liquidity to successfully execute our Single Point of Entry strategy in a wide spectrum of potential loss scenarios.

Our directors and managers know when and how to implement our plan.

The success of any resolution plan hinges on the right decision makers meeting at the right times to make key decisions about how a firm will respond to its deteriorating financial condition. Without appropriate monitoring and reporting systems and governance mechanisms to recognize, escalate and appropriately address warning signs, a firm not only loses its opportunity to diagnose and remedy its financial distress, but also its ability to prepare for an orderly resolution. One of the harshest and most important lessons of the financial crisis is that time is of the essence during a crisis situation; firms need to be able to respond quickly and decisively to mitigate the risk and potential knock-on effects of their failure.

Key Elements of Our Resolution Governance

- Governance playbooks, which include our comprehensive firmwide trigger framework
- Capital and liquidity risk playbooks
- Crisis management playbooks
- Firmwide crisis management strategy
- Updated strategic principles

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We maintain Governance Playbooks that provide our Boards and management with a governance framework and tool for decision-making in a possible resolution event.

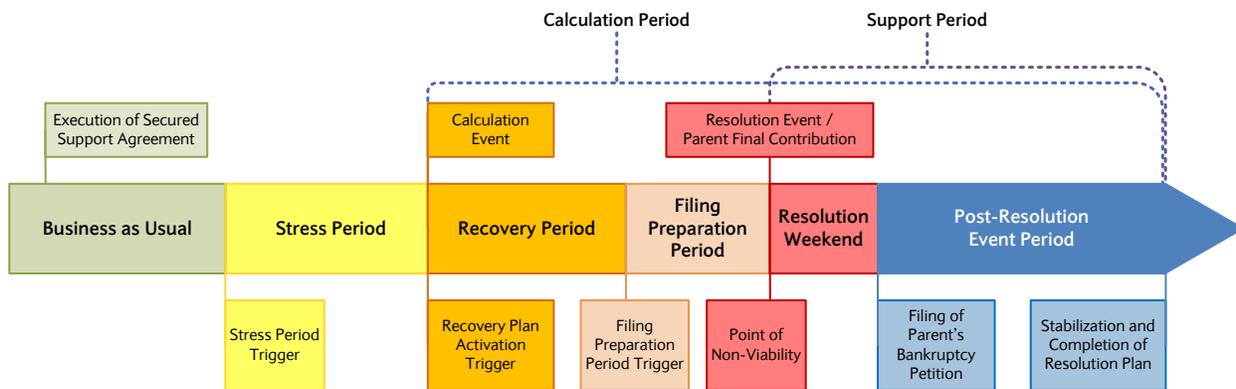
Our managers and directors worldwide are prepared to recognize and respond to any financial distress that our firm may encounter, including by implementing our resolution strategy, because one of the key components of our resolution plan is a series of actionable guides for our senior management and directors, which are referred to as Governance Playbooks.

Our Governance Playbooks describe the major decisions that the directors of our Key Operating Entities would need to make and actions that directors, together with senior management, would need to take to execute our resolution strategy. The Governance Playbooks also incorporate clearly defined capital and liquidity triggers—referred to as Stage Triggers—that define critical points all the way from Business as Usual through increasing levels of financial distress and, ultimately, the decision of whether our firm should file for bankruptcy. For each of these critical points, the Governance Playbook describes the specific actions that would need to be taken or decisions that would need to be made, the relevant decision makers and any information that must be provided in connection with these actions or decisions.

Our Stage Triggers define the points at which our firm would transition from one stage of stress/recovery and resolution to the next and the point at which our parent company would formally activate our recovery plan, along with the specific decision points and actions required at and within each of those junctures. The Stage Triggers also tie the financial condition of the firm to the provision of capital and liquidity support to our Key Operating Entities before our parent company files for bankruptcy and during our parent company's bankruptcy proceedings. For example, during Business as Usual, we would provide capital and liquidity support to our operating entities pursuant to business-as-usual capital and liquidity policies, and once we activate our recovery plan, we would provide capital and liquidity support to operating entities pursuant to the recovery plan.

We have also developed a separate set of capital and liquidity triggers, referred to as Support Triggers, which are designed to ensure the timely recapitalization of and provision of liquidity support to Key Operating Entities starting at the Point of Non-Viability in order to support the success of our Single Point of Entry strategy. The connection between the Stage Triggers and the Support Triggers and the related support are formalized through the Support Agreement. Figure 15 shows the different stages of stress/recovery and resolution and the designated Stage Triggers, along with certain key actions based on the functioning of the Support Agreement.

Figure 15. Stress/Recovery and Resolution Stage Triggers – When We Move from Stage to Stage



Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

Certain of our Stage Triggers take into account the liquidity and capital needs of our firm on an aggregate basis. This enables the firm to maintain sufficient capital and liquidity resources to meet its projected capital and liquidity needs under the Single Point of Entry strategy (i.e., resolution capital and liquidity needs). We have also designed stand-alone triggers for certain Key Operating Entities that are capital-and liquidity-related. These entity-level triggers are calibrated to synchronize the escalation of information and execution of entity-specific recovery and resolution actions to the financial condition of that operating entity on a stand-alone basis (and not our firm as a whole).

We have embedded the Stage Triggers in the customized Governance Playbooks that we have developed for each of our Key Operating Entities. For each Stage Trigger, we have detailed the decisions that would have to be made and the necessary actions, as well as the associated responsible parties for each. As reflected throughout the Governance Playbooks, Board actions and decisions associated with each trigger will be based on recommendations from senior management and supported by an appropriate analysis and information about the circumstances.

We have expanded and strengthened our overall governance and Crisis Management Framework to facilitate an integrated approach to recovery and resolution planning.

In conjunction with the development of our Governance Playbooks, we have built up and advanced our governance and Crisis Management Framework in four important ways:

- We have developed, and tested, capital and liquidity risk playbooks for Business as Usual and the Stress Period, as well as for our recovery and resolution plans.
- We have established crisis management playbooks for each of our Key Operating Entities, lines of business and Critical Operations.
- We have updated our crisis management strategy to formally integrate recovery and resolution preparedness into our strategic planning.

- We have formally integrated resolution readiness and preparedness into our firmwide strategic principles.

We believe that resolution planning must be integrated into the day-to-day operations and decision-making of our firm in order to provide us with a meaningful defense against future financial crises. These four improvements to our governance and Crisis Management Framework are examples of the way we do just that, by helping to tie together our recovery and resolution planning efforts, and integrate both into our business-as-usual operations.

We believe that, as a result of our Governance Playbooks, capital liquidity risk playbooks, crisis management playbooks, crisis management strategy and updated firmwide strategic principles, our management and directors firmwide understand our resolution plan and are fully prepared to implement our Single Point of Entry strategy in the event of the firm's financial distress.

Our strategy will resist legal challenge.

We recognize that a potential failure of JPMorgan Chase would give rise to a number of competing interests, some of which would not be aligned with certain elements of our Single Point of Entry strategy. Specifically, creditors may seek to legally challenge the provision of liquidity and/or capital support to Key Operating Entities contemplated in our strategy. These legal challenges risk delaying or even impeding implementation of key elements of our strategy. Moreover, certain of our counterparties may find it in their self-interest to exercise early termination rights triggered by the failure of our parent company to close out their financial contracts with other entities in the firm, also referred to as cross-default rights. The exercise of cross-default rights with respect to financial contracts would reduce the liquidity resources available to execute our resolution strategy.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We have carefully analyzed the risks posed by these competing interests, and completed actions so that: (1) creditor challenges to capital and liquidity support contemplated under our resolution plan should be without merit; and (2) we would be able to qualify for a stay on cross-default rights and avoid counterparties closing out their financial contracts with our operating subsidiaries based on our parent company's bankruptcy.

Defenses Against Potential Legal Challenges to Our Strategy Include:

- Comprehensive analysis of potential legal challenges to pre-bankruptcy financial support to Key Operating Entities, and their mitigants
- Prefunded IHC to address unanticipated capital and funding needs in resolution
- A secured Support Agreement to ensure resources will be promptly and directly provided to the appropriate entities in resolution
- Bankruptcy Playbook that identifies necessary preparations for our parent company's bankruptcy filing under our resolution strategy, including how to satisfy conditions of the ISDA Protocol's stay on cross-default rights
- Drafts of legal documents that would be necessary in the event our parent company files for bankruptcy

We have conducted a detailed legal analysis of potential creditor and fiduciary challenges to the capital and liquidity support contemplated under our Single Point of Entry strategy and their mitigants.

Our resolution plan contemplates the provision of capital and/or liquidity support to various Key Operating Entities both before and after our parent company's failure. The provision of liquidity or capital by a parent company to its subsidiaries before the parent company's bankruptcy

filing might, however, be challenged in court. To ensure that this capital and liquidity support is provided as contemplated, we have prepared a legal analysis of potential state and bankruptcy law challenges to the planned provision of capital and liquidity support, and their mitigants. To avoid potential impediments to our resolution strategy based on Single Point of Entry, we implemented the two mitigants to potential challenges to the planned support that we considered the most effective:

- creation of a pre-funded holding company with no third-party debt—IHC; and
- execution of a secured Support Agreement.

These two mitigants are discussed in greater detail below.

We have established and prefunded IHC to hold a central buffer of capital and funding resources for resolution.

We established IHC as a new, wholly owned subsidiary of our parent company with no third-party creditors, and transferred assets from our parent company to it. IHC now holds almost all of our parent company's formerly direct subsidiaries (with the exception of JPMCB), as well as intercompany indebtedness owing to our parent company and most of our parent company's other assets. Our parent company will also generally transfer the net proceeds of future securities issuances to IHC. The liquid assets held by IHC form a central buffer that can be used to provide additional capital and/or liquidity support to our Key Operating Entities if the prepositioned resources of any are insufficient to meet its needs in a resolution scenario. Going forward, we will periodically reevaluate the level of resources held centrally at IHC versus the level of prepositioning at Key Operating Entities, and adjust as appropriate.

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Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

Figure 16. Current Status of IHC

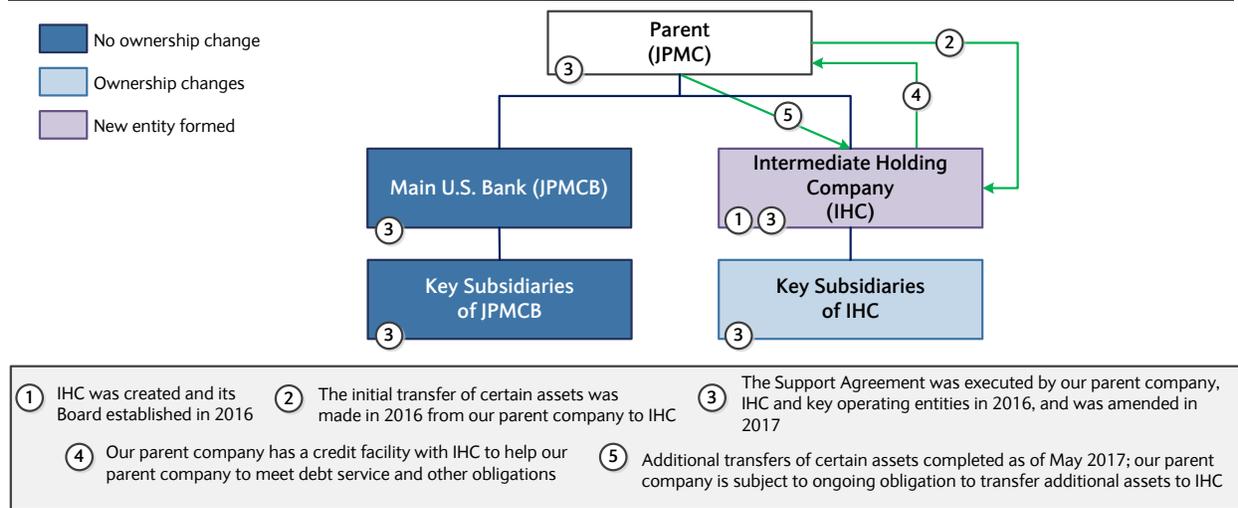


Figure 16 summarizes the establishment, prefunding and ongoing build-up of resources of IHC. IHC addresses the risk of potential legal challenges to planned capital and liquidity support in the following ways:

- **Increases the Likelihood that Our Financial Resources Can Be Successfully Deployed to Operating Entities in Resolution.** Under our Single Point of Entry strategy, following our parent company's bankruptcy filing, IHC (as well as JPMCB) would be transferred to a newly created firm outside of the bankruptcy estate which would be owned by a trust for the benefit of our parent company's creditors. This would allow IHC to continue providing support as needed throughout our parent company's resolution, preserving value for the benefit of our parent company's creditors.
- **Minimizes or Eliminates Number of Credible Legal Challenges to Support.** IHC is required to remain free of third-party debt under its charter. As a result, there would be few, if any, credible legal challenges to IHC's contributions of capital and/or liquidity support to Key Operating Entities because at the relevant time there should be no third-party creditors of IHC who could assert standing to challenge those contributions.

We have executed a Support Agreement that contractually obligates us to provide liquidity and capital support to our operating entities.

We have also executed a Support Agreement to aid in the value maintenance and orderly resolution of JPMorgan Chase. The purpose of the Support Agreement is two-fold: (1) to effect the initial and regular transfer of assets from our parent company to IHC (described above); and (2) to ensure that IHC (and JPMCB, to the extent applicable), provides liquidity and capital support to Key Operating Entities, particularly during a resolution scenario. We completed the initial transfer of parent company assets by year-end 2016.

Under the Support Agreement, in ordinary conditions, IHC and JPMCB provide liquidity and capital support to our Key Operating Entities in accordance with our business-as-usual capital and liquidity policies, with IHC assuming the responsibility previously held by our parent company. In the unlikely event that our parent company reaches a point of severe distress at which an imminent bankruptcy filing is expected:

- our parent company will be contractually obligated to make a final contribution to IHC of its remaining assets (with the exception of a holdback and certain excluded assets), referred to as the Parent Final Contribution; and

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

- IHC will be contractually obligated to provide the necessary support to any Key Operating Entity (including JPMCB and its subsidiaries, to the extent of their unmet needs) whose prepositioned resources are insufficient to meet its modeled near-term need for capital and liquidity in resolution. Support can be provided to a Key Operating Entity on multiple occasions as its near-term needs evolve over time. IHC's obligations are secured, and breach of the Support Agreement would give rise to a secured claim based on an agreed-upon damages provision, which would at a minimum be equal to, and could potentially be in excess of, the secured obligations; as such, breaching the Support Agreement would be detrimental to IHC.

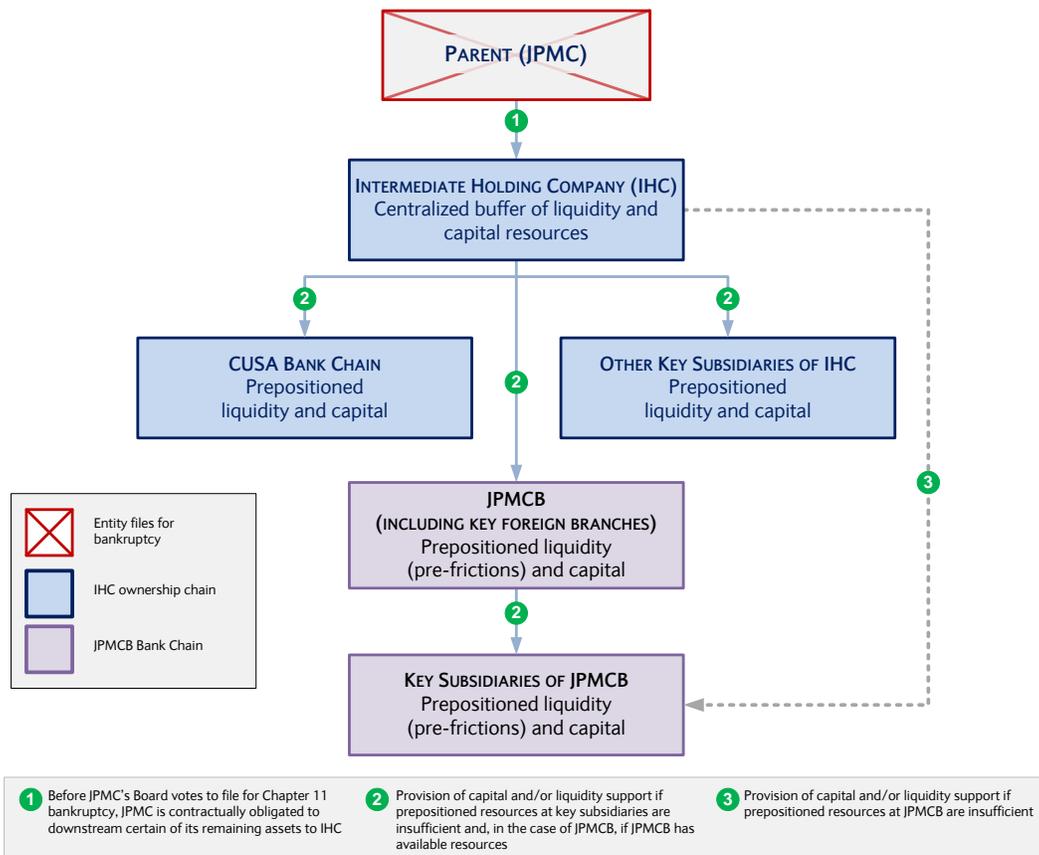
support. IHC is obligated to support all Key Operating Entities (including JPMCB and its subsidiaries, to the extent of their unmet needs). Both the Parent Final Contribution and IHC's obligation to provide support to Key Operating Entities are secured by liens on the assets available to be used for these purposes.

IHC will also provide our parent company with a revolving line of credit at all times before the point at which JPMC's bankruptcy filing is imminent. Among other things, this means that our parent company will have adequate resources to service its outstanding debt and make other distributions if the timing of dividends from JPMCB and IHC should for some reason not match the timing of these obligations.

JPMCB is obligated to support its direct and indirect subsidiaries in the first instance, but only to the extent that it is able to do so without itself requiring additional

Figure 17 describes how the Support Agreement will function at the beginning of the Point of Non-Viability.

Figure 17. Flows Under the Support Agreement



Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We have concluded that, based upon our establishment of IHC, the execution of the Support Agreement and the current solvent condition of the firm, potential creditor challenges should be without merit.

Taken together, we believe the establishment of the prefunded IHC, the execution of a Support Agreement and the current solvent condition of the firm form a defense of the capital and liquidity support contemplated under our resolution plan.

We created IHC and entered into the Support Agreement in 2016 when our firm was clearly solvent. Moreover, we took these actions to preserve the going-concern value of our Key Operating Entities even in the case of material distress, which benefits all relevant constituencies, including creditors. For these reasons, the types of potential creditor challenges that the Agencies identified in their guidance should be rendered without merit and not hinder the implementation of our Preferred Strategy.

We have addressed potential legal issues associated with the ISDA Protocol's stay on cross-default rights.

Our Key Operating Entities that engage in derivatives and trading activities are party to the 2015 ISDA Universal Resolution Stay Protocol, commonly referred to as the ISDA Protocol, which is part of a series of initiatives promoted by U.S. and foreign regulators and the financial sector to contractually limit early termination rights with respect to certain common financial transactions that are Qualified Financial Contracts. Examples of Qualified Financial Contracts include agreements for derivatives, securities lending transactions and repurchase, or repo, transactions.

Because our parent company is the guarantor or credit support provider of certain of our operating companies' Qualified Financial Contracts, our operating subsidiaries' counterparties will have the contractual right to terminate the Qualified Financial Contracts based on our parent company filing for bankruptcy, unless the terms of the ISDA Protocol are met. We are prepared to satisfy these ISDA Protocol terms if our parent company fails so that our operating subsidiaries' counterparties will not be able to close out Qualified Financial Contracts based on our parent filing for bankruptcy, so long as our operating subsidiaries continue to perform under their agreements.

There are a number of potential legal issues associated with the satisfaction of the conditions of the ISDA Protocol. To address these potential legal issues, we produced detailed drafts of the bankruptcy documents that we would need in order to have a bankruptcy court take the necessary actions to satisfy the conditions under the ISDA Protocol to stay the exercise of cross-default rights if our parent company filed for bankruptcy.

In particular, we have prepared a proposed draft Emergency Transfer Motion and order, which could be filed immediately after our parent company files for bankruptcy and, if granted, would be used to transfer the interests of IHC to NewCo and the stock of JPMCB to IHC, and have NewCo assume the obligations of our parent company under the guarantees or other credit enhancements relating to the Qualified Financial Contracts. Our draft Emergency Transfer Motion and the Bankruptcy Playbook contain various arguments in support of the relief requested, including, among other things:

- the legal basis upon which NewCo would remain obligated for our parent's credit enhancements consistent with the ISDA Protocol;
- the ability of the bankruptcy court to retain jurisdiction, issue injunctions and take other actions to prevent third-party interference with the execution of Recapitalization Without Receivership; and
- the public policy reasons for the bankruptcy court to approve the relief sought.

Aside from these arguments, the Emergency Transfer Motion and the Bankruptcy Playbook also explicitly address potential due process arguments that may be raised by objecting creditors based upon the timing of the requested relief.

In addition, we have developed a detailed Bankruptcy Playbook, which includes guides to the actions that our parent company should take in each of the six stages of stress/recovery and resolution, and for our compliance with the conditions of the ISDA Protocol's stay on cross-default rights. This ISDA Protocol guide sets forth, among other things, the steps by which we will seek the support of key domestic and foreign authorities for the Emergency Transfer Motion, and potential alternative strategies for satisfying the ISDA Protocol requirements

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

in the event that the Emergency Transfer Motion is not granted. Further, the Bankruptcy Playbook includes a guide to finalizing the draft motions and other bankruptcy documents that we have already prepared and that would be filed at the outset of the bankruptcy case. This document completion guide is designed to assist our teams and counsel in rapidly and efficiently gathering and updating the information necessary to complete these key bankruptcy papers.

We believe that our thorough analysis of potential legal issues in connection with our resolution plan, prefunded IHC, secured Support Agreement, ISDA Protocol guide in our Bankruptcy Playbook and draft bankruptcy documents have further enhanced our ability to be ready to commence bankruptcy proceedings and to satisfy the conditions of the ISDA Protocol stay on cross-default rights and to thereby avoid counterparties closing out their Qualified Financial Contracts with our operating subsidiaries based on our parent company's bankruptcy.

Our operations will continue uninterrupted in a crisis.

Our firm's operations and interconnections with affiliates and third parties are supported by structures and features (legal and otherwise) all intentionally designed to ensure their continuity and minimize the effects of failure should we ever need to use our resolution plan. Additionally, we have completed a number of initiatives to: (1) support our continued access to payment, clearing and settlement activities during resolution; (2) enhance our collateral management, identification and valuation capabilities; (3) strengthen our management information systems capabilities to readily produce the data that would be needed for the resolution of the firm; (4) mitigate legal obstacles associated with key bankruptcy filings; and (5) determine whether the failure of a major counterparty might negatively impact our operations.

Key Elements of Our Operational Preparedness

- Resolution-resilient framework for provision of interaffiliate shared services
- Resolution friendly termination and assignment provisions in all key vendor and material agent bank contracts
- Comprehensive strategies and sufficient resources to maintain or replace access to payment, clearing and settlement systems
- Robust collateral management, identification and valuation capabilities
- Sophisticated management information systems that track financial resources and positions with high granularity, accuracy and reliability
- Comprehensive analysis of potential impact of counterparty liquidation

We have an actionable plan to ensure the continuity of key shared and outsourced services during resolution.

Over the last six years, we have developed, and continuously sought ways to further strengthen, plans to ensure the continuity of the services that our operations rely on, particularly those that support our Critical Operations.

In order to do this, we conducted and regularly update a comprehensive evaluation of our operations and the shared services, which are services provided by our entities to each other, and outsourced services, which are services provided by third-party vendors, on which our Key Operating Entities rely. Based on this evaluation, we have designated our Critical Operations and the essential, centrally managed shared services (e.g., intrafirm technology, legal, human resources) that support our Critical Operations, collectively as Critical Shared Services. Critical Shared Services comprise the vast majority of the important intrafirm elements necessary to maintain our operational continuity both on a day-to-day basis, as well as throughout resolution. As such, our initiatives to strengthen operational

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

resilience have focused on ensuring the continuity of our Critical Shared Services in resolution.

We have completed many internal initiatives to ensure that our affiliates will continue to receive and provide shared services during resolution.

We have structured the necessary Critical Shared Services, including shared technology, licenses and personnel relationships among our entities, such that, under our resolution strategy, each entity will be able to continue to provide and receive Critical Shared Services throughout resolution.

Concentration of Critical Shared Services in Certain Entities. We concentrate shared services necessary to provide the critical shared services within two portions of our firm: (1) JPMCB and its subsidiaries, which we refer to collectively as the JPMCB Bank Chain; and (2) JPMSIPL, a wholly owned service provider outside of the JPMCB Bank Chain that provides critical support services to the JPMCB Bank Chain and other affiliates. Because JPMCB owns most IP rights, technology assets and shared corporate services infrastructure of the firm, the recapitalization of and provision of liquidity to JPMCB under our resolution strategy facilitates the continuity of these Critical Shared Services. JPMSIPL has been structured to remain fully funded during the firm's financial distress and is therefore expected to continue operations without significant disruption in a resolution scenario. This concentration of Critical Shared Services in entities that comprise the surviving firm that emerges from our resolution strategy significantly reduces any possible disruption to the provision of Critical Shared Services and maintenance of Critical Operations.

Formal Framework for Provision of Intercompany Services in Resolution. Intercompany relationships within our firm are documented on formal arm's-length terms through various agreements, and payments for services under these agreements are made under a firmwide expense allocation process. As a result, there will be an established framework under which entities within our firm and former affiliates of the firm can continue to engage in intercompany transactions and receive and pay for intercompany services. Importantly, the agreements contain resolution friendly terms designed so that any entities that are wound down under our resolution strategy will continue to receive services

from their affiliates under existing service agreements, so long as those entities continue to pay for the services.

Retention Strategies for Key Employees to Implement Our Resolution Strategy. The success of our resolution strategy and our ability to continue operations and shared services on an uninterrupted basis throughout resolution relies in part upon the retention of key employees during an actual resolution event. To that end, we maintain and regularly update a list of key employees for resolution planning purposes. We have also established an employee retention framework that would be applied in a resolution scenario to encourage key employees to remain with the firm.

Our key vendor and material agent bank contracts are not terminable upon the bankruptcy of our parent company and would be assignable.

We analyzed all of the material outsourced services that support our Critical Operations and designated certain third-party agreements as critical to our firm as a whole or to specific lines of business. We then reviewed these designated critical third-party agreements to determine whether there are any that could be terminated by the provider solely because of our parent company's bankruptcy filing, *even if* the operating entity actually receiving the services continues to perform—and, most importantly, pay for services—under the agreement.

Based on this review, we determined to amend all of our existing vendor contracts for material outsourced services to include resolution friendly termination and assignability terms, regardless of whether the outsourced services could be substituted or not. The resolution friendly terms remove the provider's right to terminate based solely on our parent company's entry into bankruptcy proceedings, and the resolution friendly assignability terms permit us to assign the agreements to potential buyers in a divestiture.

We also updated our master vendor contract for third-party service providers to include resolution friendly termination and change-of-control clauses. We have instituted formal controls so that new contracts may not be executed unless the required resolution- and divestiture friendly language has been included.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We undertook similar identification, review and amendment efforts to our contractual arrangements with agent banks and subcustodians, which provide us payment, clearing and settlement services in various markets. We also updated our standard agent bank and subcustodian contract language to include resolution friendly termination and assignability provisions, and established formal procedures to require that this language is included in those agreements going forward. As of July 1, 2017, we had amended all of our material agent bank contracts and nearly all of our other agent bank contracts (regardless of materiality) to contain the new standard contract terms.

We proactively amended all of our material agent bank contracts and nearly all of our other agent bank contracts (regardless of materiality) outstanding as of July 1, 2017 to incorporate resolution friendly terms that are favorable to other institutions, because we believe that, in order to promote overall financial stability, we should extend to other banks the same types of resolution protections that we requested they apply to our firm.

Figure 18 describes our progress with respect to amending existing, and applying resolution friendly terms in, vendor and agent bank contracts.

Figure 18. Resolution-Readiness of Vendor and Agent Bank Contracts as of June 2017

Agreement Types	Resolution friendly Termination Terms	Resolution friendly Assignability Terms
Existing Agreements		
<input checked="" type="checkbox"/> Key third-party vendor contracts	100%	100%
<input checked="" type="checkbox"/> <input type="checkbox"/> Contracts that support Critical Operations	100%	100%
<input checked="" type="checkbox"/> <input type="checkbox"/> Contracts that support lines of business	100%	100%
<input checked="" type="checkbox"/> Key Agent Bank Contracts	100%	100%
New or Renewal Agreements		
<input checked="" type="checkbox"/> Third-party vendor contracts	100%	100%
<input checked="" type="checkbox"/> Agent Bank Contracts	100%	100%

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We have made significant strides to maintain payment, clearing and settlement activities during periods of financial distress.

Payment, clearing and settlement activities are some of the most critical services that financial institutions rely on and provide. Payment activities include the processing of wholesale and retail funds transfers, such as check clearing systems and credit and debit card networks. Clearing and settlement activities include transmission, reconciliation, confirmation and the actual transfer of ownership of stocks, bonds and other securities and the related payments, which reduce the risk that parties may default on their transactions. Together, these services facilitate the day-to-day, smooth functioning of the economy.

FMUs are multilateral systems that provide the infrastructure for conducting payment, clearing and settlement activities among financial institutions. Uninterrupted and dependable access to FMUs at all times is vitally important to a financial institution's ability to function on a day-to-day basis, and is especially critical during a firm's financial distress or resolution. Financial institutions and FMUs have competing incentives, however, in the event of a financial institution's financial distress. The financial institution wants to continue transacting through the FMU to minimize the effects of its financial distress on its customers, counterparties and the financial system as a whole. The FMU, however, wants assurances that the FMU participant will not default on its obligations or otherwise introduce risks that could weaken the financial condition of the FMU or other FMU participants. As a result, FMUs typically reserve the right to, among other things:

- terminate a financial institution's participation at the FMU under a broad range of circumstances, including the financial distress of the participating entity itself, or of the entity's parent or affiliate;
- impose additional financial requirements so that the participating entity, for example, has to partially or fully prefund its transactions; and/or
- impose additional reporting and information requirements.

We have made significant strides over the last six years to mitigate the obstacles to orderly resolution raised by these competing incentives and support our continued FMU access during a potential resolution scenario.

Specifically, we led a financial sector effort to analyze the discretion that key FMUs have under their rules to increase, modify or supplement their business-as-usual requirements in response to a financial institution's financial distress. Based on this analysis, we created numerous playbooks and documents that describe the nature of these key FMUs' heightened requirements and our capacity to respond to those requirements, and support our ability to maintain uninterrupted access to FMUs during financial stress and resolution. We also developed alternative strategies—backup methods for accessing payment, clearing and settlement services—for each of the FMUs and agent banks that we use worldwide. We maintain and regularly update payment, clearing and settlement details for our Key Operating Entities, lines of business, sub-lines of business and Critical Operations. Finally, we enhanced our communications with wholesale clients to provide them with transparency into the potential impacts from our implementation of contingency arrangements for payment, clearing and settlement activities during a resolution event.

We have robust capabilities to manage, identify and value collateral that we receive from and post to external parties and affiliates.

We receive collateral from and provide collateral to counterparties in connection with our payment, clearing, settlement and other activities. Our firmwide collateral policy sets out high-level principles governing collateral and applies to all of our collateral pools. The firmwide collateral policy contains guidelines on the type of collateral that is considered acceptable, including considerations on where the collateral is held and pledged.

We have established strong processes for managing, identifying and valuing collateral on a material entity-basis that satisfy, and in some cases exceed, the collateral capabilities requirements set out by the Federal Reserve in their public letter SR Letter 14-1. Specifically, we have the ability on a daily basis to:

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

- identify the legal entity and geographic distribution where counterparty collateral is held;
- document all netting and rehypothecation arrangements with affiliates and external legal parties;
- track and manage collateral requirements associated with counterparty credit risk exposures between affiliates, including foreign branches; and
- estimate the liquidity impact of collateral arrangements for the firm and certain Key Operating Entities under various stress scenarios.

During the ordinary course of business and on at least a quarterly basis, we also:

- review material ISDA and Credit Support Annex terms and provisions for ratings-based, client downgrade and other triggers that may be breached as a result of changes in market conditions, and call additional collateral from counterparties, as required; and
- identify legal and operational differences and potential challenges in managing collateral within specific jurisdictions, agreement types, counterparty types, collateral forms and other distinguishing characteristics.

To ensure that these collateral processes will remain effective in a crisis, we have conducted a comprehensive analysis of how we would manage collateral processes in resolution at each Key Operating Entity that either pledges or holds third-party collateral and the related valuation processes. Based on this analysis, we self-identified and executed many initiatives to further strengthen our collateral management capabilities and enhance their resilience during resolution. We are confident that these capabilities will enable us to more promptly and accurately address changing market conditions and demands from counterparties that would be likely to occur during a resolution scenario.

We have management information systems to readily produce data on a legal entity basis, and controls for data integrity and reliability.

Our ability to recognize when and understand why our firm experiences financial distress and to react to this distress in a prompt and appropriate manner hinges on our capability to produce accurate and reliable data on a timely basis at the right levels of our organization. Management information systems are the systems by which we produce, monitor and track critical data about our firm on a day-to-day basis and during a crisis. We take our management information systems capabilities very seriously and, as such, starting on day one of our resolution planning, dedicated resources to enhancing our management information systems capabilities.

Since our initial resolution plan in 2012, we have had in place and continue to refine robust management information systems to readily produce data at the level of our designated Key Operating Entities, including controls for data integrity and reliability. We have also conducted a detailed analysis of the specific types of financial, treasury, risk and other data that would be required to execute our resolution strategy and the frequency this information would need to be produced. In each resolution plan, we include a comprehensive list of information required to execute our resolution strategy. We believe that these management information system-related initiatives both satisfy the requirements of the SR Letter 14-1 and enable us to timely produce the data we need, and at the correct level of granularity, to successfully execute our resolution strategy.

We can withstand the liquidation of a major counterparty.

Effective resolution planning requires us to not only prepare for our potential financial distress and orderly resolution, but also to consider the effects of the potential failure of a major counterparty on us. To this end, we have analyzed the extent to which the liquidation of a major counterparty might negatively impact JPMorgan Chase's operations. We have reviewed our interdependencies, interconnections and relationships with each of the 20 counterparties with which we have the largest aggregate exposure (financial and operating), and have determined that the failure of no single counterparty would cause material distress or failure of JPMorgan Chase. As required by Agency guidance, our

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

analysis assumes that each counterparty defaults under circumstances where the overall market would be stressed but functioning, except for the defaulting counterparty. In making this determination, we also took the conservative approach of assuming that the default would occur quickly (i.e., over a matter of weeks, not months), which would give us less time to take defensive actions, and considering only the downside risks.

We believe that, as a result of these firmwide initiatives to strengthen the resilience of our operational capabilities, we will be able to maintain our shared and outsourced services and payment, clearing and settlement activities on an uninterrupted basis during resolution. Further, as a result of these initiatives, we are equipped with collateral and management information systems capabilities designed so that we will be able to respond quickly and effectively to our firm's financial distress and nimbly adjust our actions during an actual resolution scenario in response to our firm's financial condition.

Our top-tier holding company structure supports resolvability and complies with the clean holding company requirements.

Under the Agencies' "clean holding company requirements," our parent company is required to avoid entering into certain financial arrangements that could impede the orderly resolution of the firm. Specifically, our parent company is prohibited from:

- issuing any short-term debt (i.e., debt with an original maturity of less than one year) to third parties;
- entering into Qualified Financial Contracts with third parties; and
- having liabilities that are guaranteed by its subsidiaries or subject to contractual offset rights for its subsidiaries' creditors.

Figure 19 summarizes the many fundamental changes we have made to our parent company's activities to fulfill these three clean holding company requirements.

These changes to our parent company's activities enhance our firm's resiliency and reduce complexity and reliance on short-term funding, thus supporting our ability to orderly resolve the firm in a resolution scenario.

Figure 19. Parent Company Resolvability Enhancements

CHANGES TO PARENT COMPANY STRUCTURE AND ACTIVITIES	
<input checked="" type="checkbox"/>	1. No debt issued by parent company with an original maturity of less than one year
<input checked="" type="checkbox"/>	Fully decommissioned parent company's commercial paper program and sweep product
<input checked="" type="checkbox"/>	Parent company no longer issues third-party senior unsecured notes with an original maturity of less than one year, or third-party debt with investor put features
<input checked="" type="checkbox"/>	Amount of senior unsecured notes at parent company with an original maturity or put date of greater than one year, but with event- or market-driven maturities that could positively correlate with a JPMorgan Chase resolution event, not material
<input checked="" type="checkbox"/>	No plans for parent company to issue senior unsecured notes with an original maturity of less than one year
<input checked="" type="checkbox"/>	Third party senior unsecured notes with an original maturity of less than one year are now issued by a financial subsidiary
<input checked="" type="checkbox"/>	2. Limited derivatives counterparty exposure to third parties at parent company
<input checked="" type="checkbox"/>	Eliminated parent company's derivatives counterparty exposures to third parties; no plans for parent company to enter into third-party derivatives transactions
<input checked="" type="checkbox"/>	Parent company enters into transactions with its subsidiaries to hedge exposures related to its debt issuances
<input checked="" type="checkbox"/>	Parent company has a practice not to enter into new cross-defaults other than on terms consistent with the ISDA Protocols
<input checked="" type="checkbox"/>	3. Restriction on the issuance of upstream guarantees by Key Operating Entities on behalf of parent company
<input checked="" type="checkbox"/>	JPMorgan Chase enters into no guarantees on behalf of parent company by Key Operating Entities or any other affiliates
<input checked="" type="checkbox"/>	General policy discouraging issuance of parent company guarantees, which are normally only provided where essential to business

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We have simplified our structure to support our strategy.

To achieve our resolution goals, our legal entities cannot be organized in such a complex manner that our organizational structure itself would pose a major obstacle to rapid and orderly resolution. We appreciate the importance and necessity of simplifying or rationalizing our legal entity structure to support an orderly resolution. To do this, we have developed and honed detailed and actionable legal entity rationalization criteria, or LER Criteria, to guide our day-to-day decision-making with respect to our structure. We tested our existing legal entity structure against these LER Criteria, assessing whether each legal entity should be maintained or merged or eliminated. And as a result, we eliminated many legal entities from our structure, including entities large and small.

Our less-complex legal entity structure supports our resolution plan by reducing the overall number of entities that will require focus and resources at a time of failure. Simplifying interconnections between entities also simplifies and reduces the actions that would have to be taken to preserve critical services during resolution. Thus, we believe that our legal entity structure enhances our ability to effectively execute our resolution plan and greatly improves our resolvability under a variety of conditions and scenarios.

Initiatives to Make Our Legal Structure More Resolvable

- Identification of 29 criteria for simplifying or rationalizing our legal entity structure
- Assessed and adjusted our existing legal structure, and interconnections between legal entities, based on the criteria
- Integrated our criteria into our global day-to-day policies, procedures and governance
- Substantially simplified a U.K. banking subsidiary’s ownership chain and financial interconnections with affiliates

We have clear and actionable criteria to achieve and maintain a resolvable legal structure.

We maintain specific LER Criteria to promote the alignment of our legal entities and businesses in a way that promotes our resolvability and, more specifically, the successful implementation of our Single Point of Entry strategy. We approach legal entity rationalization through four perspectives—(1) organization and business model, (2) financial resources, (3) interconnectedness and (4) operational continuity—and have developed categories of LER Criteria for each. Figure 20 summarizes our LER Criteria categories.

Figure 20. LER Criteria – Our Areas of Focus

Areas of Legal Entity Rationalization	Organization and Business Model	Financial Resources	Interconnectedness	Operational Continuity
Categories of LER Criteria	Reduction of Legal Entities	Funding Structure	Financial Interconnectedness	Shared Services
	Clean Lines of Ownership	Clean Parent	Derivatives	
	Seperability	Prepositioning		

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

To ensure that our improved LER Criteria are more than just a list, and are applied and adhered to across JPMorgan Chase, we have:

- socialized our LER Criteria widely throughout our firm to the key stakeholders and control functions who are responsible for applying the criteria in their day-to-day operations;
- developed an explanation of how each of the LER criterion will support resolution planning, so that individuals responsible for applying the LER criterion understand why the criterion is required and how it supports resolution planning;
- designed our criteria to provide a clear framework for decision-making, including an objective basis for determining whether an existing or proposed legal entity structure is consistent with the LER Criteria;
- developed qualitative and quantitative metrics and processes to guide the application of our LER Criteria:
 - the metrics are used to determine whether an entity adheres to the LER Criteria; and
 - the procedures help the key stakeholders and control functions responsible for applying the LER Criteria to interpret the metrics and determine whether the criteria are met.

We have embedded and operationalized the enhanced LER Criteria in our business-as-usual decision-making process and created a governance process and framework to establish and monitor ongoing adherence to the LER Criteria. The governance framework provides for regular annual reviews and change-driven reviews.

The enhanced LER Criteria and the legal entity rationalization governance framework have been implemented through changes to the relevant policies and procedures and the related processes.

As part of the review governance process, we have developed an escalation procedure and evaluation process that is used in instances such as when an assessable entity does not meet certain LER Criteria and the issue needs to be escalated to determine what further actions are needed.

In addition, we specifically enhanced our LER Criteria to facilitate the recapitalization of our Key Operating Entities. The prepositioning category of LER Criteria requires our firm to maintain for Key Operating Entities predefined funding and recapitalization plans that are not impeded by the ownership structure. More broadly, several of the LER Criteria addressing financial resources are intended to facilitate the recapitalization of Key Operating Entities because they are designed to provide for a clean parent and funding structure.

We believe that, as a result of these actions, our LER Criteria are clear, actionable and promote the successful implementation of our resolution plan and, more specifically, our resolution strategy.

We have assessed all of our legal entities based on the LER Criteria, confirmed that our current structure is resolvable and identified opportunities for further structural enhancement.

We completed a full assessment of our existing legal entity structure against the LER Criteria. This assessment was conducted for all of our entities, including our Key Operating Entities. We set in motion certain structural, process and governance changes that will simplify our entities and enhance recapitalization. Specifically, we:

- plan to reduce, through mergers and other actions, our number of Key Operating Entities from 33 in the 2015 Resolution Plan to 25—we have a net reduction of three Key Operating Entities as of our 2017 Resolution Plan;
- applied the new LER Criteria to previous Key Operating Entity rationalization decisions and reaffirmed six of seven Key Operating Entity mergers or eliminations; the merger of one Key Operating Entity into JPMCB was, however, not consistent with the enhanced LER Criteria, and as a result, we decided to maintain that legal entity structure as-is; and
- applied the new LER Criteria to a U.K. banking subsidiary, JPMS plc, resulting in the elimination of six legal entities from JPMS plc's ownership structure.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We believe this assessment of our legal entity structure and resulting decisions to eliminate entities and simplify interconnections have simplified our legal entity structure.

We have embedded our LER Criteria into our day-to-day decision-making.

All new legal entities created and all proposed eliminations of legal entities after September 30, 2016 are assessed against the LER Criteria based on new procedures and escalation guidance.

We have, for example, merged two of our key U.S. broker-dealers and eliminated several companies that created an unnecessarily long ownership chain between a U.K. banking subsidiary, JPMS plc, and our main bank, JPMCB. These mergers are part of the broader, ongoing, multiyear effort to simplify our firm's legal structure and interconnections through consolidation of entities, divestitures and eliminations.

Our legal entity rationalization efforts have resulted in a simpler, more resolvable firm, as illustrated in Figure 21.

We believe our efforts to embed legal entity resolvability considerations in our day-to-day decision-making, together with the other legal entity rationalization actions described above, have made our firm more resolvable today than ever before.

We have substantially simplified a U.K. banking subsidiary's ownership chain and financial interconnections with affiliates.

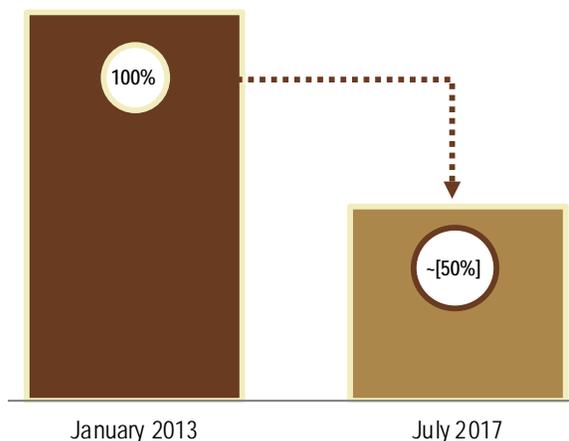
Many of the important actions and decisions described above to mitigate challenges and ensure that our resolution plan can work in the real world can be looked at from the perspective of a U.K. banking subsidiary, JPMS plc. We have substantially simplified JPMS plc's ownership chain, intercompany funding flows and interconnectivity with affiliates by completing the following actions:

- reducing financial interconnectedness between JPMS plc and its affiliates, particularly by reducing JPMS plc's financial reliance on any affiliate other than the JPMCB New York Branch;

- eliminating four intermediate holding and Edge Act companies between JPMS plc and JPMCB by June 2017;
- eliminating two additional U.K. entities from the JPMS plc ownership structure by June 2017;
- decreasing derivatives interconnectedness of JPMS plc with other JPMorgan Chase entities;
- obtained an independent credit rating of JPMS plc;
- terminating JPMCB's deed poll guarantee of JPMS plc obligations prospectively as of June 1, 2017, which allows for greater optionality during the recapitalization and resolution process, thereby enhancing JPMS plc's resolvability;
- continuing to simplify U.K. interconnectivity and, specifically for JPMS plc, reduced back-to-back derivative transactions; and
- establishing two direct routes to recapitalize JPMS plc: either from the lead bank, JPMCB or from IHC pursuant to our binding contractual arrangement, the Support Agreement.

We believe that these actions have significantly enhanced the ways to recapitalize JPMS plc, and therefore its resolvability.

Figure 21. Reduction in Operating Legal Entities



Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We have optionality in how our firm could be broken up in resolution.

For our resolution plan to truly be effective, we must be able to successfully execute it under a range of failure scenarios and different market conditions. This means developing a number of actionable options for breaking up our firm in resolution. We have designated components of our business as Objects of Sale, which are combinations of lines of business, sub-lines of business and assets that are the most attractive sale, spin-off or IPO candidates, irrespective of our current structure. The Objects of Sale represent a wide range of businesses and geographies and, as a result, provide us with additional optionality and flexibility in a recovery or resolution event. We have carefully analyzed our Objects of Sale, including potential obstacles to their divestiture, and completed many initiatives so that we are fully prepared to quickly divest each Object of Sale, even in a crisis.

Preparations to Strengthen Optionality and Divestiture Readiness

- 22 Objects of Sale
- Pre-identified potential acquirers
- Multiple divestiture approaches
- Framework for selecting the appropriate divestiture approach during an actual recovery or resolution event
- Divestiture Playbooks and prepopulated electronic data rooms
- Carve-out financial statements and other enhanced financial data
- Changes to our current legal structure and day-to-day operations

We have designated components of our business that can be sold or otherwise divested to shrink our firm in resolution.

We generally think of our businesses in terms of three levels of granularity. At the top are four operating lines of business—Asset & Wealth Management, Commercial Banking, Consumer & Community Banking and Corporate & Investment Bank—which, at the next level, break down into 22 sub-lines of business. The third level consists of portfolios and assets that extend across our businesses. We believe that this three-level approach to categorizing our businesses makes sense for purposes of managing our day-to-day operations, but recognize that it may not be the right fit for purposes of determining how to divide and divest our businesses in a crisis situation. For example, while we believe that all of our businesses are highly attractive, there may be fewer potential purchasers during a resolution scenario for an entire line of business than a sub-line of business or a combination of complementary portfolios and assets.

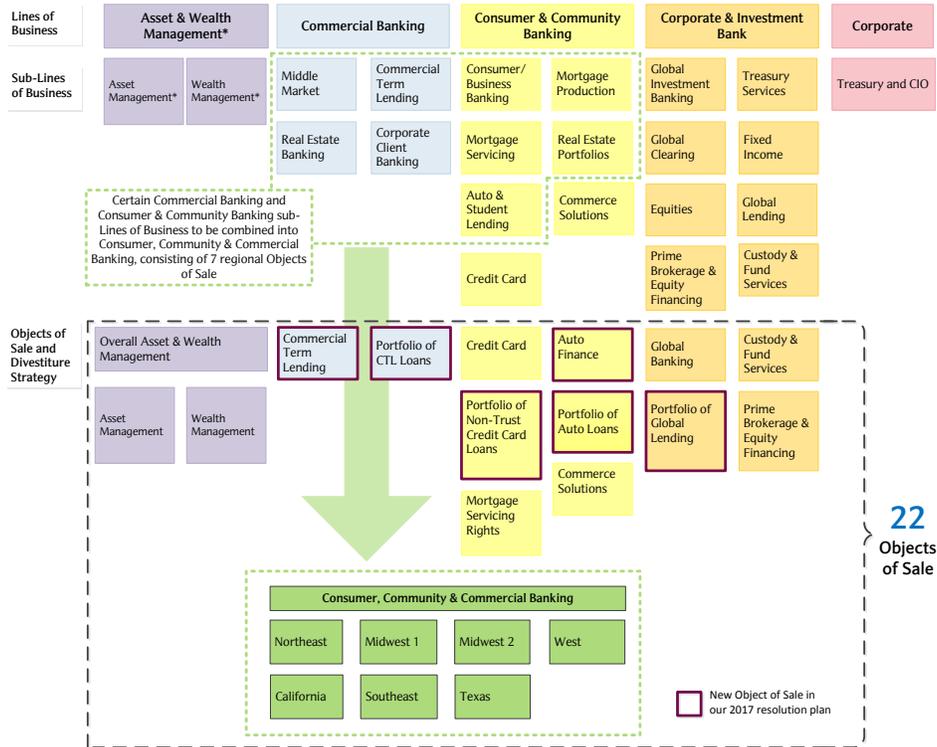
To ensure that our divestiture strategy preserves optionality and flexibility in resolution, we commissioned an expert analysis to objectively identify the best approach to breaking up these various lines of business, sub-lines of business and portfolios and assets in resolution into the most attractive sale, spin-off or IPO candidates, irrespective of our current structure. Based on this analysis and continued refinements, we have designated 22 components of our business as Objects of Sale, consisting of combinations of lines of business, sub-lines of business and assets.

The Objects of Sale relative to our existing lines of business and sub-lines of business are shown in Figure 22. The green boxes are a combination of Commercial Banking and Consumer & Community Banking businesses in the respective regions. Certain businesses, including the Fixed Income, Equities and Global Clearing businesses, which include our firm's derivatives book and certain Critical Operations, are not included in an Object of Sale, because they would be largely wound down. The Fixed Income, Equities and Global Clearing businesses would continue to operate as they are orderly wound down, so as to minimize the impact on clients and the market.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

Figure 22. Objects of Sale



* As of December 31, 2016, the Asset & Wealth Management line of business was referred to as Asset Management, the Asset Management sub-line of business was referred to as Global Investment Management and the Wealth Management sub-line of business was referred to as Wealth Management & Investment Solutions.

We have identified potential acquirers for, and multiple approaches to divest, these components of our business.

We further enhanced the optionality and flexibility of our divestment strategies by: identifying a large number of potential acquirers for each Object of Sale and considering multiple approaches to divesting the Objects of Sale, such as an IPO or sale.

We screened an expansive universe of potential acquirers based in the United States and internationally, including large international banks, foreign banks, regional banks, asset managers and card processors. The suitability of these potential acquirers was evaluated across multiple dimensions, including scale, strategic fit, business fit and regulatory considerations. We also constructed detailed case examples for a range of potential acquirers, which provide a specific rationale for the acquisition and include an analysis of potential synergies.

Many of our Objects of Sale are candidates for being acquired by a third-party buyer and some are candidates for IPO or spin-off. Where both a sale and an IPO or spin-off are feasible, a dual-track process would be employed, in which both options are pursued until a critical decision point. Considerations for pursuing a sale and/or an IPO or spin-off are discussed in detail in each of the Divestiture Playbooks. The potential for spin-off provides additional optionality when market conditions or other external factors are challenging.

We are prepared to quickly divest each one of these Objects of Sale.

In addition to improving optionality by identifying Objects of Sale and multiple potential acquirers and divestiture strategies for each, we have completed other initiatives to strengthen our divestiture readiness under a wide variety of scenarios.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

Framework for Determining Divestiture Approach.

We have developed a framework that would help us choose an approach to divestiture in a crisis, including during a recovery or resolution event. This framework takes into account the nature of the crisis and market conditions so that an Object of Sale would be divested in a way that is both timely and orderly and preserves the value of the business component being sold.

Divestiture Playbooks. We have leveraged the knowledge of internal business stakeholders and subject-matter experts to develop tailored Divestiture Playbooks that collectively provide a tangible, comprehensive roadmap to divest the Objects of Sale. The Divestiture Playbooks provide a detailed road map to divest each Object of Sale, including: (1) an overview and valuation of the Object of Sale under different market conditions, including an estimate of the capital and liquidity impact of the divestiture; (2) a detailed discussion of the Object of Sale's marketability; (3) potential obstacles to separation and mitigants that would be pursued in divestiture; and (4) realistic execution time frames and descriptions of required actions to execute the sale or IPO/spin-off of the Object of Sale.

Data Rooms. We have created and prepopulated electronic data rooms for each of the Objects of Sale, containing detailed financial and business information, together with documentation templates that would expedite divestitures. We plan to update the data rooms on an annual basis, and can also update them as necessary in anticipation of an IPO or sale. The information in these electronic data rooms will significantly accelerate typical divestiture timelines because it can be used in due diligence, marketing and underwriting in connection with a sale or IPO. Instead of having to wait days or even weeks while a data room is assembled, potential acquirers will be able to immediately begin due diligence on an Object of Sale, which is critical to executing a quick divestiture that preserves value.

Carve-out Financial Statements and Better Financial

Data. We maintain separate, carve-out financial statements for each of our Objects of Sale. The divestiture of our Objects of Sale that are candidates for IPO or spin-off will require the production of separate, stand-alone audited IPO carve-out financial statements. The preparation of audited IPO carve-out financial statements can be challenging and, most importantly,

time-consuming to produce. In order to mitigate that potential obstacle to a timely divestiture, we have prepared, or established triggers to prepare, audited IPO carve-out financial statements for our Objects of Sale that are candidates for IPO or spin-off. In addition, for the Consumer, Community Banking & Commercial Banking regional Objects of Sale, we have expanded the granularity of the financial information contained in the data rooms by region.

Structural and Business Changes. Based on an assessment of the legal entity structures for three of our sub-lines of business, we made changes to our current legal structure and day-to-day operations. More specifically, we moved legal entities in ownership chains and transferred certain clients and business activities to other entities or branches in order to make us more divestiture-ready.

As a result of these initiatives, if a recovery or resolution scenario occurs, we will be able to quickly and efficiently (1) determine the most appropriate Objects of Sale, (2) determine the best divestiture strategies for those Objects of Sale, given the specific conditions at the time and (3) efficiently execute those divestiture strategies. We believe that these initiatives, together with the other actions to improve divestiture readiness described above, support the successful execution of our resolution strategy under a wide range of failure scenarios and different market conditions and thereby enhance our flexibility and optionality in resolution.

We have mitigated challenges to resolution posed by our derivatives portfolio and prime brokerage activities.

Certain contractual terms contained in financial contracts, such as derivatives, can pose a material impediment to the orderly and rapid resolution of major financial institutions. These problematic contractual terms include:

- early termination rights, which give a party to a financial contract the right to terminate the agreement upon the insolvency, bankruptcy or resolution of:
 - its direct counterparty (called, direct default rights); or
 - the parent company or an affiliate of its direct counterparty, even when the direct counterparty

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

continues to perform on the contract (called, cross-default rights); and

- other rights, under which a party to a financial contract has the right to take actions based on the financial condition of the counterparty, or, in some cases, also the financial condition of the counterparty's parent or affiliate, such as the right to:
 - demand certain payments or deliveries under the contract ahead of the normal schedule;
 - demand more collateral/margin that must be provided; or
 - modify the obligations of a party under the contract.

The widespread exercise of these rights against an ailing financial institution—especially a major dealer firm, where these rights can impact tens of thousands of positions representing billions of dollars—can cause substantial operational challenges for the financial institution, as well as increase the risk of systemic market disruption and financial instability in the United States. We recognize that managing the risk of counterparties exercising these rights would be a significant element of any orderly resolution of our firm.

We have conducted detailed, comprehensive analyses of two ways that we could wind down our derivatives and trading portfolios:

- an orderly and active wind-down, where we would take actions to quickly wind down the bulk of the portfolio; and
- a passive run-off of our portfolio, where we would let the positions contractually mature and not renew them.

We have incorporated the orderly active wind-down into our resolution capital and liquidity frameworks to demonstrate that we would have the financial and operational resources to support the wind-down. We could also support a passive wind-down, however, our analysis has shown that an active wind-down is the better approach because it can be accomplished more quickly and at a lower cost. We have also analyzed the residual derivatives portfolio that would remain under the active wind-down scenario, including its composition and

duration, and concluded that neither residual portfolio would pose a systemic risk to financial stability.

We also maintain robust derivatives and trading capabilities to track and monitor risks associated with our derivatives trading, including on a legal entity basis. These and other capabilities help to ensure that we have the operational capacity to transfer prime brokerage accounts to other prime brokers in a timely and orderly fashion during financial stress. We have developed a series of Rating Agency Playbooks that define the procedures necessary to manage rating agency engagement in order to, where feasible, maintain, reestablish, or establish investment-grade issuer ratings of a trading entity following a severe stress event, including resolution of the firm. These playbooks and our passive and active wind-down analyses are described below.

Making Our Derivatives and Prime Brokerage Activities More Resolvable

- Resolution strategy designed to reduce early termination rights
- Adherence to ISDA Protocols and Jurisdictional Modular Protocol
- Comprehensive active wind-down analysis, and enhanced analysis of residual portfolio
- Comprehensive passive wind-down analysis
- Robust risk tracking and monitoring capabilities
- Operational capacity to transfer prime brokerage accounts
- Rating Agency Playbooks define the procedures necessary to manage the rating agency engagement process
- Numerous communications playbooks to govern communications with clients, regulators, FMUs and agent banks during resolution

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We have dramatically reduced the risk that our counterparties would exercise their early termination rights against us in a resolution scenario.

As an initial matter, our resolution strategy by design reduces the existence of early termination rights and, thus, reduces the risk of early termination closeouts of financial contracts, because, under the strategy only one entity—our parent company—enters bankruptcy proceedings. Under our resolution strategy, at the same time as it files for bankruptcy, our parent company would also file a motion to transfer all of the interests in IHC to NewCo and all of the common stock of JPMCB to IHC. (IHC would be owned by the Trust solely for the benefit of our parent company's creditors).

To mitigate the risk that our parent company's bankruptcy proceedings will trigger a cross-default under the firm's ISDA Master Agreements, we have:

- ceased all derivatives activities between our parent company and any non-affiliates, as of December 31, 2014;
 - because there are no common derivatives counterparties to both our parent company and JPMCB, there is no risk that our parent company's entry into bankruptcy proceedings would trigger the application of the Default Under Specified Transaction provision in JPMCB's ISDA Master Agreements as a direct result of the institution of those proceedings;
- committed to having our parent company enter into new derivatives primarily with our main bank, JPMCB;
- terminated a number of inactive master financial contracts that included cross-default rights; and
- adhered to the ISDA Protocols and related jurisdictional modules, in order to protect our Key Operating Entities from a closeout of their derivatives contracts and other Qualified Financial Contracts covered by these protocols following the bankruptcy of JPMC.

We believe that that these actions, taken together, have mitigated the risk that counterparty closeouts could occur

in volumes large enough to undermine our rapid and orderly resolution.

We are financially and operationally prepared to conduct an orderly active wind-down of our derivatives and trading portfolio.

We developed and analyzed a scenario in which our subsidiaries engaged in derivatives and trading activities pursue an active wind-down of these activities and exposures in order to estimate the financial and operational resources we would need to do so.

For purposes of these estimates, we assumed that we would actively wind down nearly all or 96% of significant derivatives activities and positions over a period of 18 months after our parent company enters bankruptcy proceedings. A small residual of harder-to-sell positions would remain, which we concluded would not be systemically important, and would be largely composed of longer-dated interest rate swaps and options.

We included the active unwind analysis in our resolution strategy and incorporated the estimated liquidity and capital impacts on specific entities into our resolution liquidity and capital frameworks. By doing so, we demonstrated that we have the financial resources to fully absorb the costs of an active wind-down in resolution.

We have also conducted a passive wind-down analysis, and are equally prepared to conduct an orderly passive unwind of our derivatives and trading portfolio through total run-off.

We have conducted a passive wind-down analysis of our derivatives portfolio to estimate the financial resources required to support a passive wind-down in the unlikely event that our trading entities are unable to maintain or reestablish investment-grade ratings after our parent company begins bankruptcy proceedings.

We believe that our passive wind-down analysis has enabled us to accurately estimate and prepare the financial resources required to support a passive unwind of our derivatives portfolio in a resolution scenario. Our passive and active wind-down analyses demonstrate that an active orderly wind-down of our derivatives and trading portfolio would be quicker and less costly than a passive wind-down due to operational and hedging costs.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

Regardless, we are operationally and financially equipped to conduct an orderly passive wind-down of our trading book through total run-off in a manner that would not pose systemic risk.

We can timely monitor the risks associated with our derivatives trading portfolio.

As of 2014, we had in place robust capabilities to track, monitor and manage market, credit and liquidity risk arising from our derivatives activities, including the distribution of these risks among and transfer of these risks between our entities. Since then, we have further refined these capabilities in response to both Agency guidance and as a result of executing self-identified initiatives. More specifically, among other initiatives, we have:

- enhanced our firmwide systems for tracking, documenting and managing derivatives to include more comprehensive detail at the business level;
- assessed our derivatives activities against the six LER Criteria relating to derivatives to determine whether our current derivatives activities can be adjusted to better support resolvability; and
- established new management oversight of derivatives activities to further strengthen monitoring and management of risks arising from derivatives.

We believe that these actions, together with the actions that we completed to enhance our derivatives and trading capabilities in previous resolution plans, will enable us to promptly and accurately address the changing market conditions and demands from counterparties that would be likely to occur during a resolution scenario, and to stabilize, wind down and/or novate our derivatives portfolio in an orderly manner.

We have the operational capacity to facilitate the orderly transfer of prime brokerage accounts to other prime brokers.

We have prepared a robust analysis of the ability of our primary U.S. broker-dealer, JPMS LLC, and U.K. banking subsidiary, JPMS plc, to rapidly process prime brokerage account asset transfers so that it will be able to shrink in an orderly manner, effectively to a rump portfolio of trading assets, derivatives, certain financing transactions

with longer-dated maturities and residual cash, and no longer be systemically important. Based on this analysis, we have developed Prime Brokerage and Retail Brokerage Account Transfer Playbooks that set out the specific steps by which we would timely and orderly transfer prime brokerage accounts to peer prime brokers. Our analysis and playbooks will enable our primary U.S. broker-dealer to, after our parent company files for bankruptcy, operate as usual in a reduced capacity, outside of our parent company's bankruptcy proceedings, and undergo a solvent wind-down, if needed.

We are confident that our primary U.S. broker-dealer will be able to transfer large numbers of prime brokerage accounts in the midst of market distress, because we've done it before. Our primary U.S. broker-dealer successfully executed transfers of significant customer portfolios by absorbing the futures business of Bear Stearns and a high inflow of market positions following the defaults of Lehman Brothers and MF Global. We executed these transfers in a matter of hours and days. Based on that experience, as well as on further enhancement to and analysis of our primary U.S. broker-dealer's capabilities, we are confident our primary U.S. broker-dealer has the physical and operational capacity to timely process the expected volume of customer outflows in a resolution scenario without causing any market disruption.

Based on our analysis, we believe that other broker-dealers would be able to timely and orderly absorb the expected aggregate customer outflows from our primary U.S. broker-dealer in a resolution event. Since the financial crisis, most of our prime-broker clients no longer rely on a single prime-broker and the prime broker market has become more competitive. By maintaining relationships with multiple prime brokers, also referred to as multiprime relationships, our clients have the ability to quickly transfer their positions from our primary U.S. broker-dealer to another prime broker. Moreover, the increase in competition in the prime-broker market means that there are more competitors available to absorb customer outflows, thereby minimizing the risk that bulk transfers of prime brokerage positions could disrupt the market.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

We have developed playbooks in order to be operationally ready in resolution.

The success of our orderly active wind-down strategy for our trading entities, including our main bank, JPMCB, primary U.S. broker-dealer, JPMS LLC, and U.K. banking subsidiary, JPMS plc, depends upon our ability to reestablish market confidence after our parent company files for bankruptcy so that our counterparties will continue to transact with our trading entities. A key element of reestablishing market confidence in our trading entities is maintaining or re-establishing investment grade ratings for those entities.

To this end, we have developed a series of Rating Agency Playbooks that define the procedures necessary to manage the rating agency engagement in order to, where feasible, maintain, reestablish, or establish investment-grade issuer ratings of a trading entity following a severe stress event, including resolution of the firm. At the Point of Non-Viability, it is expected that parent company's ratings would be downgraded to default levels. The rating agencies would likely exercise caution in upgrading ratings following a severe stress event. If our trading entities were to achieve stability and long-term viability, an investment-grade rating may be achieved but would not be anticipated within the first year. To confirm the efficacy of the Rating Agency Playbooks, we engaged in discussions with the ratings agencies regarding their ratings methodologies and potential ratings actions in a resolution context.

We have also developed numerous communication playbooks for our clients, regulators, key FMUs and clearing and settlement agent banks that further support the stabilization of our trading entities following our parent company's filing for bankruptcy. These playbooks provide a comprehensive and practical roadmap to maintaining the services on which our trading entities rely during financial distress and resolution.

We believe that our Rating Agency Playbooks, along with our other communication playbooks, have significantly improved our ability to communicate with key internal and external stakeholders regarding our resolution plan during Business as Usual and in the Stress Period. These playbooks will strengthen our ability to successfully execute our resolution strategy and, more specifically, to timely stabilize and restore market

confidence in our trading entities after our parent company files for bankruptcy.

We cooperate and coordinate with key stakeholders around the world so that they understand and support our resolution plan.

As a global financial institution, JPMorgan Chase conducts business through entities located throughout the world. Our operating companies located outside of the United States are subject to oversight and regulation by foreign regulators. To minimize the risk that foreign regulators might act in a manner that impedes the successful implementation of our resolution plan through ring-fencing or other actions, we have designed our resolution strategy to encourage cooperation of foreign regulators during a resolution event and minimize incentives for taking unilateral actions.

First, our resolution strategy for key foreign entities of the firm either minimizes reliance on action by host jurisdiction authorities or assumes cooperation with foreign regulators in host jurisdictions only to the extent cooperation is in the best interests, or not inconsistent with the interests, of local stakeholders.

Second, our resolution strategy supports foreign regulatory cooperation by ensuring through the prepositioning of resources at Key Operating Entities, maintenance of a central buffer at IHC and execution of a secured Support Agreement that our foreign operating entities will remain fully capitalized under local law and have sufficient funding and liquidity so that they will not need to enter their own, local proceedings.

Third, our resolution strategy includes advance planning and preparation, including advance confidential communications with foreign regulators to familiarize them with our strategy, before we expect we would have to use our resolution plan and during financial stress that could lead to our resolution. We believe that advance communication will enable foreign regulators to better understand how abstaining from ring-fencing our international subsidiaries or branches will preserve the value of local operations and achieve better outcomes for local creditors and stakeholders than if one of our foreign entities were cut off from the rest of the firm.

Resolution Planning and Why JPMorgan Chase Is Resolvable

Our Resolution Plan Is Designed to Mitigate Challenges and Work in the Real World

Fourth, we have developed a Crisis Communication Plan, which is designed to address communications to all relevant internal and external constituencies, including, among others, foreign regulators. To ensure that the Crisis Communication Plan is implemented at the appropriate points during a stress scenario, the implementation of the Crisis Communication Plan is linked to specific triggers that reflect our firm's financial condition. Our Crisis Communication Plan is designed to help us to maintain close contact with U.S. and host country regulators throughout financial stress and engage in real-time coordination on recovery and resolution actions to successfully implement our recovery and resolution plans.

We believe that by engaging our foreign regulators in our resolution planning and establishing a framework to maintain communication and coordination with our foreign regulators during a resolution scenario, we have significantly reduced the likelihood that our foreign regulators would engage in ring-fencing or otherwise act in a manner adverse to our resolution plan.

Communications and Coordination with Foreign Regulators

Today:

- set the groundwork for cooperation through extensive business-as-usual communications efforts to educate host-country regulators on our resolution plan
- maintain and update, as needed, a tailored Crisis Communication Plan that provides a guide to communications to key stakeholders, including foreign regulators, in recovery or resolution

In financial stress scenario:

- update and implement our Crisis Communication Plan to communicate and coordinate in real time with foreign regulators

Although we have made these preparations, as a conservative measure, our resolution plan assumes soft ring-fencing, which is where foreign regulators limit transfers of assets between affiliates resolution. Thus, although our resolution plan is designed to encourage cooperation by foreign regulators, it is also designed to work even if foreign regulators fail to fully cooperate and decide to restrict the activities or assets of our foreign operating companies.

FAQs

TABLE OF CONTENTS

Scope of Our Resolution Plan.....65

Capital and Liquidity/Funding.....67

Governance Mechanisms and Triggers68

Critical Service Relationships.....69

Employee Retention and Continuity of Operations70

Derivatives and Trading Activities.....70

Resolution Process.....72

International Stakeholder and Regulator Coordination73

Recovery and Resolution Planning—General74

Defined terms are capitalized and may be found in the Glossary beginning on page 153.

Scope of Our Resolution Plan

Q. How are businesses designated as in-scope for purposes of our resolution plan?

A. The Agencies' implementing rule for Section 165(d) of the Dodd-Frank Act requires that our resolution plan focus on a subset of particularly important business lines—including associated operations, services, functions and support—the failure of which would result in a material loss of JPMorgan Chase's revenue, profit or franchise value. We have determined that our Corporate function and four principal operating segments—Consumer/Business Banking, Corporate & Investment Bank, Commercial Banking and Asset & Wealth Management—for which financial results are presented in the U.S. GAAP financial statements and, therefore, are described in our parent company's reports on Forms 10-K and 10-Q, fall within this subset of important business lines. Corporate and these four operating segments (referred to as lines of business) include 22 underlying component businesses (referred to as sub-lines of business), which we have determined also fall within this subset of important business lines. In total, 27 of our business lines have been designated as in-scope for our resolution plan.

Q. How are operations designated as Critical Operations for purposes of our resolution plan?

A. The Agencies' implementing rule for Section 165(d) of the Dodd-Frank Act defines Critical Operations as operations, including associated services, functions and support, the failure or discontinuance of which would pose a threat to the financial stability of the United States. The Agencies have jointly designated certain of our operations as Critical Operations.

Q. How are entities and/or branches designated as in-scope for purposes of our resolution plan?

A. The Agencies' implementing rule for Section 165(d) of the Dodd-Frank Act requires that our resolution plan focus on a subset of particularly important subsidiaries and foreign offices within the firm that are significant to the activities of one or more of our Critical Operations, lines of business or sub-lines of business. We refer to these subsidiaries and offices as Material Legal Entities.

To determine whether a legal entity or branch in our firm is a Material Legal Entity for purposes of our resolution plan, we consider the following quantitative and qualitative criteria.

Total Assets

Any direct or indirect operating subsidiary of our parent company that would be required, if it were a stand-alone, independent entity, to file a resolution plan under section 165(d) of the Dodd-Frank Act will be designated as a Material Legal Entity. In general, this means that any of our operating entities that have total assets of \$50 billion or more will be designated as a Material Legal Entity.

For foreign branches of our main bank, JPMCB, any foreign branch that has greater than \$10 billion in total assets over the prior two fiscal years is designated as a Material Legal Entity.

Financial Importance to Lines of Business or Sub-Lines of Business

For operating entities (i.e., not for nonoperating subsidiaries such as intermediate holding companies or pass-through entities), we consider the financial importance of the entities to lines of business or sub-lines of business.

We look specifically to three financial metrics to determine an entity's financial importance to a line of business or sub-line of business: (1) total assets; (2) total revenue; and (3) total net income. For a limited number of entities, due to the nature of their activities, we consider assets under management or total liabilities instead of total assets for purposes of determining whether they are Material Legal Entities.

An operating entity will be designated as a Material Legal Entity if it satisfies either of the following criteria:

- two of the three financial metrics for the operating entity account for more than 10% of the total financial activity of a line of business or sub-line of business; or
- the operating entity needs to be designated as a Material Legal Entity to ensure that at least 75% of the financial metrics for each line of business and sub-line of business are covered by Material Legal Entities.

Importance to Critical Operations

For all entities, we consider the importance of the entities to our Critical Operations based on the following criteria:

- the entity provides greater than 10% of funding and liquidity to a Critical Operation;
- the entity employs greater than 10% of the headcount required to run a Critical Operation; and
- the entity executes greater than 10% of activity for one of the firm's top 20 most significant FMUs.

We also consider certain additional quantitative criteria for specific Critical Operations.

As a backstop, if designated Material Legal Entities do not account for at least 75% of the funding (together with third-party sources of funding), headcount, and payment, clearing and settlement activity for each Critical Operation, we consider designating additional entities as Material Legal Entities to meet the 75% threshold. We believe this backstop helps to ensure that we, as required by the Agencies' implementing rule for section 165(d) of the Dodd-Frank Act, designate as Material Legal Entities all entities that are significant to a Critical Operation.

In addition to the quantitative criteria discussed above, we also consider qualitative criteria:

- as part of determining whether an additional entity should be designated to meet the 75% threshold, whether the absence of the entity would impede or disrupt the provision of a Critical Operation; and
- regardless of its size, whether the entity is essential to the provision of a Critical Operation. If the entity is essential, then it will be designated as a Material Legal Entity.

Importance to Derivative Activities

Designated Material Legal Entities must in the aggregate represent the execution of at least 90% of the notional amount and number of trades for all:

- external client-facing derivative activities;
 - internal interaffiliate derivative activities; and
 - internal interaffiliate derivative activities between Material Legal Entities.
-

Q. How often are entities and/or branches assessed to determine whether they should be designated as Material Legal Entities for the resolution plan?

We assess entities to determine whether they should be designated as Material Legal Entities on a quarterly basis as part of our business-as-usual processes. This assessment involves both (1) the review of existing Material Legal Entities to either confirm their designation or undesignate them, and (2) the evaluation of entities that are not currently designated as Material Legal Entities to determine whether they should be so designated. As part of our assessment, we consider prior-quarter-end financial data, as well as additional inputs from Corporate Treasury and lines of business, as required by our MLE designation criteria.

This quarterly assessment process is subject to significant oversight by senior management. We have established a governance forum that meets on a quarterly basis to review the results of our quarterly MLE designation assessment with the JPMorgan Chase Recovery and Resolution Executive. To ensure that relevant recovery and resolution planning individuals are kept abreast of changes to MLE designation, we make sure that, as appropriate, key decisions regarding MLE designations are disseminated to existing recovery and resolution planning governance bodies following the quarterly governance forums and changes to MLE designations are reflected in our management information systems. In addition, when a legal entity change occurs (i.e., eliminated or created), the impact on the MLE designation is considered.

Capital and Liquidity/Funding

Q. During Single Point of Entry, Key Operating Entities are given “sufficient capital and liquidity support.” What total liquidity resources and loss absorbing capital resources are available at the firm?

A. We hold approximately \$381 billion in total loss absorbing resources and \$524 billion of HQLA, enabling us to absorb extensive capital losses and weather severe liquidity stress. Our loss absorbing resources consist mostly of long-term debt and common equity, and also include preferred equity and certain reserves. Equity and long-term debt are resources that could be used to impose losses on shareholders and creditors—not taxpayers—if we were to fail.

We maintain an appropriate balance of projected resolution liquidity and capital resources at all of our Key Operating Entities, and IHC serves as a central buffer, consisting of capital and liquidity resources, that can be used to provide additional support to our Key Operating Entities in a range of resolution scenarios.

Q. When and how are resources calculated?

A. We have implemented a process whereby capital and liquidity resources at our Key Operating Entities are calculated and monitored on a regular, ongoing basis (in some cases daily). These calculations are based on how much capital and liquidity each of our Key Operating Entities requires for business-as-usual purposes and to successfully execute our resolution strategy, should the need arise. We use conservative forecasts of losses in a resolution scenario to calculate the amount of capital each of our Key Operating Entities requires to remain solvent and maintain market confidence while our parent company is resolved. With respect to liquidity, we: (1) calculate the minimum operating liquidity, including intraday liquidity needs, needed at each Key Operating Entity in order for that entity to meet its routine obligations; and (2) conservatively forecast the maximum liquidity, or peak funding need, required at each Key Operating Entity in order for that entity to stabilize while our parent company is resolved.

Q. What are examples of intercompany frictions?

A. An intercompany friction is anything that could limit the free flow of capital or liquidity to Key Operating Entities. A basic example of a friction is tax—if we wanted to send \$80 to an entity and there was a 20% tax on the transfer, then the tax friction would mean we need to have \$100 available in order to provide the \$80 ($\$100 - 20\% \text{ in taxes} = \80). An example of a regulatory friction would be the need to obtain a regulatory approval to move financial resources to an entity, which could delay the timely receipt of capital and/or liquidity support. An example of a jurisdictional friction is the risk that a foreign regulator will restrict a local operating entity from using its excess financial resources to support other operating entities (a practice commonly referred to as ring-fencing). To reduce or eliminate potential intercompany frictions, we maintain an appropriate balance of projected resolution liquidity and capital resources at all of our Key Operating Entities.

Q. Have you incorporated the Basel III Advanced RWA framework into the resolution financial modeling, in addition to using Standardized RWA?

A. Certain capital ratios are determined by using risk-weighted assets, or RWA. We have conservatively incorporated both the Advanced and Standardized Basel RWA frameworks into calculations used in our resolution plan.

Governance Mechanisms and Triggers

Q. What are examples of circumstances that constitute a "trigger" and how is that determined?

A. Triggers are used to escalate critical information to key decision makers and initiate governance processes in our firm so that they can take appropriate and timely action throughout the various stages of stress/recovery and resolution (Business as Usual, Stress Period, Recovery Period, Filing Preparation Period, Resolution Weekend and the Post-Resolution Event Period). These triggers, referred to as Stage Triggers, are based on the financial condition of the firm as a whole and are tied to indicators of the firm's health, such as certain regulatory requirements. If the

firm's condition deteriorates below a certain regulatory metric or threshold, then a Stage Trigger would move the firm further along in the stages.

Certain triggers are used so that our Key Operating Entities have sufficient capital and liquidity for a resolution scenario. These triggers are tied to projected capital and liquidity needs to successfully implement our Single Point of Entry strategy. If capital and/or liquidity levels at our Key Operating Entities were to fall below the projected amounts, the entities are recapitalized or provided liquidity support pursuant to the Support Agreement.

Q. Are separate triggers determined for each legal entity?

A. Certain triggers in resolution are specifically tied to the capital or liquidity levels at each Key Operating Entity. If capital and/or liquidity levels are expected to fall below the projected needs at any given Key Operating Entity, a Support Trigger is breached and the entity is provided support pursuant to the Support Agreement. Stage Triggers are determined for the firm as a whole.

Critical Service Relationships

Q. How are contracts with vendors and third parties handled in resolution?

A. We have, where necessary, revised the terms of the contracts we have with vendors and other third parties so that the critical services provided to our Key Operating Entities cannot be terminated solely because of the failure of our parent entity, as is contemplated in our resolution plan. In particular, contracts that contain termination rights and change-of-control clauses that could have impeded our resolvability have been amended to remove those provisions and to allow us to transfer or assign the contract in a resolution event. Any new contracts with any entity in our firm will also incorporate these resolution and divestiture friendly provisions. In addition, our frameworks of liquidity needed for resolution take into account the payments our Key Operating Entities would need to continue to make to vendors and other third parties in order to continue to receive services in a resolution scenario. So when we talk about being prepositioned, that includes prepositioning to continue to pay for services.

Q. How could intragroup interconnectedness complicate resolution?

A. Key operating entities within our firm rely on each other for certain critical services and share certain corporate resources. JPMCB, our main bank subsidiary, houses many of the systems, data, IP and other shared corporate functions used by our other Key Operating Entities. Many of our other Key Operating Entities also share personnel, facilities and other resources with each other. Although an interruption of these critical services could complicate a smooth resolution, the preparations we have made for resolution and our Single Point of Entry strategy are designed so that Key Operating Entities that provide these critical services have sufficient financial resources to remain operational, pay for services and otherwise meet obligations when due in a resolution scenario.

Q. What arrangements are in place to support interconnected operations within the firm during resolution?

A. Our intragroup critical services are supported by structures and features (legal and financial) to support their continuity and minimize complications during a resolution scenario. Under our resolution strategy, Key Operating Entities can continue to provide critical services to each other because all entities, other than our parent company, remain funded and continue to operate without being placed in resolution proceedings. In order to further support the continuity of our critical services in a resolution scenario, we have taken, or plan to take, the following additional actions to support our critical services:

- we have structured our firm so that nearly all of the critical services are provided by the JPMCB Bank Chain, all of which continue to operate through the Resolution Period;
- our Key Operating Entities are party to intragroup servicing and licensing agreements with resolution-appropriate provisions so that they can continue to pay for and receive critical services in a resolution scenario;
- for critical services provided by our Objects of Sale, to the extent necessary we are prepared to enter into transition services agreements at the time of the sale or divestiture so that our other Key Operating Entities can continue to receive critical services in resolution; and
- in the event a Key Operating Entity needs to be wound down, other entities within our firm have the capabilities and stand ready to continue providing the critical services previously provided by the wound-down entity.

Employee Retention and Continuity of Operations

Q. How can you ensure knowledge management and employee continuity in key functions during resolution?

A. We understand that a successful resolution strategy requires that certain key employees and personnel have the incentive to stay, even while the firm's financial position deteriorates. To that end, we have developed an employee retention framework designed to appropriately incentivize key employees and personnel to stay in a resolution scenario, even if our parent company were to fail. Key employees and personnel are identified on a regular basis, and employee retention plans have been designed to be put into place for each key employee in a resolution scenario.

Derivatives and Trading Activities

Q. How have you estimated the resolution costs of unwinding your derivatives and trading activities portfolio?

A. For purposes of the estimates, the active wind-down of the derivative positions would, at a high level, be accomplished in the following three ways.

- **Terminated Trades.** All positions that include termination clauses and generate negative liquidity for the firm are assumed to close out.
- **Maturing Trades.** All positions with maturity of less than 18 months are assumed to mature without being renewed.

- **Novated Trades.** Some of the positions with maturities greater than 18 months that are not subject to termination clauses are assumed to be packaged and sold (novated) to other dealers active in the market.

We further segmented our derivatives portfolio according to: (1) the operating subsidiary from which the package would be sold; (2) product segment, which is the specific type of position or narrow class of positions that would be sold within the package; and (3) counterparty type (central counterparty, broker-dealer, non-bank financials, corporates), which adds an important indicator of the characteristics and complexity of the position to be sold. For each of these segments, we estimated the stressed market price.

Since October 2016, we further enhanced our orderly active wind-down analysis by:

- establishing a framework to develop novation packaging and residual portfolio logic;
- developing a trade-level database to allow for detailed analyses of novation packages and residual portfolio composition;
- upgrading analytics to efficiently process the high volume of trade-level information and increased diagnostics;
- developing a more robust, automated process for sourcing and linking granular data for use in orderly wind-down analyses;
- refining novation packaging logic and creating novation packages based on individual trades to reflect market practices; and
- evolving our approach to the residual portfolio, which would constitute a deterministic (hard-to-sell) residual portfolio and a probabilistic (unpicked trades) residual portfolio.

Based on our enhanced orderly active wind-down analysis, we have: modeled that we can successfully unwind substantially all or 96% of our derivatives portfolio over an 18-month period; estimated costs of rehedging or replacing risk, under the assumption that all hedges must be executed through central counterparties; and identified the residual amount of positions that would possibly remain after 18 months, and determined that these positions were not systemically important.

Q: What assumptions have you made for your passive wind-down analysis?

A: Our passive wind-down analysis assumes run-off from maturities and anticipated client-directed terminations, and specifically integrates risk-based considerations for estimates of basis risk and computation of hedging costs on the portfolio. The analysis provides an estimate of the financial resources required over time to support a passive run-off of the trading book, until the point of total run-off or when resources are depleted, in the event that investment-grade ratings for the trading entities are not maintained or reestablished, and this estimate has been incorporated into our resolution capital and liquidity frameworks. As required by the Agencies, in conducting our passive wind-down analysis, we assumed that entities cannot access bilateral OTC markets and that hedging is limited to exchange-traded and centrally cleared instruments.

Q: What does the ISDA Protocol do?

A: The ISDA Protocol overrides cross-default rights that arise under certain Qualified Financial Contracts when a parent company that provides a guarantee or credit support for the Qualified Financial Contracts files for Chapter 11 bankruptcy, if one of the following two sets of conditions is met:

- the parent company's obligations under the guarantees are transferred to (1) an unaffiliated third party or (2) a company organized to hold the parent's assets in connection with the parent's bankruptcy proceedings for the benefit of the bankruptcy estate, but that is not controlled by the parent company, its creditors or its affiliates; or
- the bankruptcy court elevates legal claims based on the parent company's Guarantee Obligations to a certain priority status in the parent's bankruptcy case.

One of the two sets of conditions above must be satisfied by the later of 48 hours, or 5:00 p.m. on the first business day, after the parent company files for bankruptcy.

Resolution Process

Q. How does the Single Point of Entry strategy support the wind-down of an entity and its operations (as opposed to an entity being stabilized and continuing and/or being divested)?

A. Our Single Point of Entry strategy is designed so that all of our Key Operating Entities would have or receive sufficient capital and liquidity support to carry out the strategy for that specific entity. This means that an entity which would be wound-down under the strategy has sufficient resources to orderly close out transactions, to pay employees and to meet all obligations as they come due while it is being wound down.

Q. Why would "problem" entities that contributed to the failure of the organization be supported?

A. Our resolution strategy is a value-preserving strategy, designed to ensure the continuity of the critical services and operations we provide, and to maximize the benefit for our parent company's creditors in the event it files for bankruptcy. As such, all of our Key Operating Entities, including any potential problem entities that may have contributed to the failure of the organization, are provided support in order to remain as solvent, going concerns throughout resolution. We would expect, however, that senior management of any so-called problem entities would have to take responsibility and be replaced, and the cause of any "problem" would be remediated.

Q. How are potential Object-of-Sale buyers evaluated?

A. Some of the same professionals at our firm who advise clients on mergers and acquisitions have screened an expansive universe of potential acquirers, both U.S. and foreign, for our Objects of Sale. For each Object of Sale, we apply four main criteria to determine which buyers are the most suitable:

- **Scale.** The potential buyer must have the financial ability to acquire the Object of Sale in a resolution scenario;
- **Strategic Fit.** We evaluate the strategic advantages of adding the Object of Sale to the potential buyer's existing business or financial portfolio;
- **Business Fit.** A strategic buyer must be able to seamlessly integrate the operations of the acquired Object of Sale into its own; and
- **Regulatory Considerations.** We evaluate which approvals may be required for a particular sale and the likelihood that these approvals can be obtained.

Using this methodology, we have identified multiple potential buyers, strategic and financial, for each of our 22 Objects of Sale.

Q. Why do you believe there will be willing buyers of your Objects of Sale in a resolution scenario?

A. We have conducted detailed reviews of potential acquirers and their ability and appetite to purchase our Objects of Sale in a resolution scenario. We believe that our Objects of Sale are highly attractive businesses. Many of them are global leaders and top competitors in the products and markets in which they have chosen to compete. As a result, we expect each Object of Sale to have multiple, diverse and not necessarily overlapping potential buyers.

International Stakeholder and Regulator Coordination

Q. How can you assume cooperation and coordination with key international stakeholders?

A. We designed our resolution strategy to minimize or eliminate the need for global regulatory cooperation by having only our parent company enter resolution proceedings in the United States, while our Key Operating Entities receive necessary capital and liquidity support and continue as going concerns under a trust insulated from the resolution process. This means that the only necessary actions by foreign regulators generally are processing of or approving the indirect change in control to the trust. Because moving the Key Operating Entities under a trust enables them to continue providing services to local clients, depositors or other stakeholders without interruption, and the entities will have sufficient capital and liquidity to meet local regulatory and other obligations, those actions are aligned as closely as possible with local regulatory concerns and goals of home-country financial stability and encourage, to the extent required, global regulatory cooperation.

Recovery and Resolution Planning—General

Q. What resources has the firm dedicated to resolution planning?

Over the last six years, we have spent hundreds of thousands of hours and several billion dollars ensuring that we are resilient and resolvable. Figure 23 summarizes the resources that we have dedicated to resolution planning over the last six years.

Figure 23. Key Facts About Our Resolution Planning



Q. How does the firm’s resolution plan differ from a traditional corporate bankruptcy?

A. The focus of a traditional corporate bankruptcy is on maximizing the amount of recovery for creditors. By insulating all of our Key Operating Entities from resolution proceedings, our Single Point of Entry strategy is a highly effective way to preserve the value of our enterprises for the benefit of our parent company’s creditors. Preservation of value is not, however, the sole focus of our resolution plan.

A significant focus of our resolution plan is on facilitating the orderly and timely resolution of JPMorgan Chase in a manner that does not threaten the rest of the U.S. financial system and does not require U.S. taxpayer support. To this end, our resolution plan is designed to: (1) limit financial contagion and disruptive

knock-on effects; (2) ensure the continuation of Critical Shared Services that provide Critical Operations; (3) minimize the risk of adverse counterparty actions; (4) minimize deposit attrition; (5) reduce or eliminate the need for cooperation by non-U.S. regulators; and (6) ensure that creditors and shareholders—not taxpayers—bear any losses. In addition, under our resolution plan, senior management and culpable personnel will be held responsible for their role in the firm’s failure. In this sense, resolution is the same as bankruptcy in any other industry.

Q. What steps is the firm taking to maintain and improve resolvability looking forward?

A. We are not waiting until the next crisis to update our resolution plan—we regularly test our resolution strategy under rigorous stress scenarios (both developed internally and provided by our regulators), and we regularly challenge our resolution plan assumptions and self-identify and undertake new initiatives to enhance our resilience and resolvability. Resolvability considerations are now embedded in our business-as-usual governance frameworks so that they inform our strategy and day-to-day decisions and operations.

Q. What key steps has the firm taken to resolve any previously identified Deficiencies or Shortcomings?

A. We have remedied all of the Deficiencies and addressed all of the Shortcomings identified by our regulators, mainly through actions completed last year, as described in our 2016 Submission (the public summary of which may be found here: [2016 Public Filing](#), as well as through actions described in this 2017 Public Filing that we completed by the submission of our 2017 Resolution Plan.

As background, in April 2016, we received a letter from our regulators identifying four Deficiencies—to be remedied before the submission of our 2016 Resolution Plan—and two Shortcomings—to be addressed before the submission of our 2017 Resolution Plan. The letter may be found here: [April 2016 Letter](#). Our regulators acknowledged in a December 2016 letter to us that we had adequately remedied the Deficiencies they identified in their April 2016 letter. This letter may be found here: [December 2016 Letter](#). For our 2017 Resolution Plan we completed any remaining actions necessary to fully address the Shortcomings identified by our regulators in their April 2016 letter, as well as all other guidance we have received and self-identified resolvability enhancements.

Figure 24 provides a mapping of our actions to remediate Deficiencies and address Shortcomings identified by the Agencies in our 2015 Resolution Plan in the April 2016 Letter and address vulnerabilities identified in the 2017 Guidance to relevant sections of the 2016 and 2017 Public Filings.

Figure 24. Mapping of JPMorgan Chase's Actions to Address Deficiencies and Shortcomings Identified by the Agencies in the 2015 Resolution Plan and the 2017 Guidance Requirements

		Discussion of JPMorgan Chase's Actions to Address Requirements		
Category	Summary of Requirements	2016 Public Filing (available here)	2017 Public Filing	
Deficiencies Identified in JPMorgan Chase's 2015 Resolution Plan	Liquidity	<ul style="list-style-type: none"> • RLAP—Enhance frameworks to measure the stand-alone liquidity position needed at each Material Legal Entity to cover stressed outflows • Ensure frameworks assume that potential funding shortfalls at Material Legal Entities can only be met with resources from JPMC or IHC • Compare existing RLAP framework to a new framework that addresses the concerns noted • Ensure that liquidity frameworks reflect interconnectedness and potential funding frictions • RLEN—JPMC must provide a detailed description of its RLEN framework and process enhancements for the estimation of liquidity needed to execute the firm's resolution strategy 	Section 4	Updated in Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"
	Legal Entity Rationalization	<ul style="list-style-type: none"> • Establish LER Criteria that are: <ul style="list-style-type: none"> ○ clear and actionable to promote best alignment of legal entities and lines of business to improve the firm's resolvability; and ○ include facilitation of recapitalization of Material Legal Entities prior to the Resolution Period • Evidence governance procedures to ensure LER Criteria are applied on an ongoing basis • Provide detailed divestiture options, including an in-depth analysis of potential financial and operational obstacles to execution and potential buyers 	Sections 5 & 6	Updated in Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"
	Derivatives and Trading Activities <i>Active Wind-Down Analysis; Stabilization; Residual Derivatives Portfolio</i>	<ul style="list-style-type: none"> • Develop detailed Rating Agency Playbooks for the reestablishment of investment grade ratings for our trading entities • Produce detailed estimates of the financial resources required to support an active orderly wind-down of our derivatives and trading portfolio • Document an analysis of the active orderly wind-down of our derivatives and trading portfolios using templates developed by the Agencies • Incorporate into the RLAP and RLEN models the losses and liquidity required to wind down the firm's derivative positions 	Section 7	Updated in Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"

Figure 24. Mapping of JPMorgan Chase's Actions to Address Deficiencies and Shortcomings Identified by the Agencies in the 2015 Resolution Plan and the 2017 Guidance Requirements (continued)

		Discussion of JPMorgan Chase's Actions to Address Requirements	
Category	Summary of Requirements	2016 Public Filing (available here)	2017 Public Filing
Shortcomings Identified in JPMorgan Chase's 2015 Resolution Plan	<p>Governance Mechanisms</p> <p><i>Playbooks and Triggers</i></p>	<ul style="list-style-type: none"> Amend Governance Playbooks to identify triggers linked to specific actions at each stage of distress post-recovery, including the execution of JPMC's bankruptcy filing and related pre-filing actions Ensure triggers are based, at a minimum, on capital, liquidity and market metrics and incorporate JPMC's methodologies for forecasting liquidity and capital needs 	<p>Section 3</p> <p>Updated in Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"</p>
	<p>Governance Mechanisms</p> <p><i>Pre-Bankruptcy Parent Support</i></p>	<ul style="list-style-type: none"> Document an expanded legal analysis of potential state and bankruptcy law challenges to the provision of financial support to Material Legal Entities, as contemplated in the resolution plan, and mitigants to the provision of such support Develop mitigants to effectively ensure adequate capitalization of Material Legal Entities in addition to the Support Agreement 	<p>Section 3</p> <p>Updated in Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"</p>
	<p>Operational</p> <p><i>Shared and Outsourced Services</i></p>	<ul style="list-style-type: none"> Identify all material outsourced services which support Critical Operations which could not be promptly substituted, and ensure they contain resolution friendly terms 	<p>Section 8</p> <p>Updated in Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"</p>
Other Requirements Identified by the Agencies in the 2017 Guidance Which are Not Included in the Deficiencies or Shortcomings	<p>Capital</p>	<ul style="list-style-type: none"> Maintain adequate amount of loss absorbing resources to recapitalize Material Legal Entities so operations can continue while JPMC is in bankruptcy, including external and internal TLAC <ul style="list-style-type: none"> Internal TLAC should be positioned to balance certainty associated with prepositioning and flexibility provided by holding recapitalization resources at the parent company Develop adequate methodology for periodically estimating amount of capital that may be needed to support each Material Legal Entity after JPMC's bankruptcy filing 	<p>Section 9</p> <p>Updated in Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"</p>

Figure 24. Mapping of JPMorgan Chase's Actions to Address Deficiencies and Shortcomings Identified by the Agencies in the 2015 Resolution Plan and the 2017 Guidance Requirements (continued)

		Discussion of JPMorgan Chase's Actions to Address Requirements	
Category	Summary of Requirements	2016 Public Filing (available here)	2017 Public Filing
<p>Operational</p> <p><i>Payment, Clearing and Settlement Activities; Managing, Identifying and Valuing Collateral; Management Information Services; Legal Obstacles Associated with Emergency Motions</i></p>	<ul style="list-style-type: none"> Quantify and explain how JPMC would satisfy obligations and exposures related to payment, clearing and settlement activities, using volume and value data for each FMU, and how JPMC plans to facilitate continued access Develop analysis of contingency arrangements, which should include prepositioning of additional liquidity at FMUs, limiting intraday credit provisions to clients, and requiring clients to pre-fund settlement activity Demonstrate capability of managing, identifying and valuing the collateral received from and posted to external parties and affiliates (described in SR Letter 14-1) Maintain MIS capabilities to readily produce data on a legal entity basis and have controls to ensure data integrity and reliability (as described in SR Letter 14-1) Allocate requisite technical and project management resources to complete MIS infrastructure projects by July 2017, including a robust governance and accountability framework and detailed project plans Perform a detailed analysis of the specific types of financial and risk data that would be required to execute the Preferred Strategy, and how frequently such information would need to be produced Address potential significant legal obstacles associated with emergency motions (e.g., due process arguments by creditors, such as that creditors have not had sufficient notice or opportunity to respond to the Emergency Transfer Motion) Discuss whether outreach to interested parties, such as creditors of JPMC or the bankruptcy bar, would enhance the success of the Preferred Strategy Address legal issues associated with the implementation of the stay on cross-default rights described in Section 2 of the ISDA Protocol 	<p>Sections 3 & 11</p>	<p>Updated in Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"</p>

Figure 24. Mapping of JPMorgan Chase’s Actions to Address Deficiencies and Shortcomings Identified by the Agencies in the 2015 Resolution Plan and the 2017 Guidance Requirements (continued)

		Discussion of JPMorgan Chase’s Actions to Address Requirements	
Category	Summary of Requirements	2016 Public Filing (available here)	2017 Public Filing
Operational <i>Payment, Clearing and Settlement Activities; Legal Obstacles Associated with Emergency Motions</i>	<ul style="list-style-type: none"> Provide clients with transparency into the potential impacts from implementation of contingency arrangements, and consider additional actions Develop a Bankruptcy Playbook, and draft emergency motions and filing papers 	—	Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"
	<ul style="list-style-type: none"> Maintain well-developed derivatives booking practices with strong systems capabilities to track and monitor market, credit and liquidity risk transfers between legal entities Maintain operational capacity to facilitate the orderly transfer of prime brokerage accounts to peer prime brokers 	Section 11	Updated in Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"
	<ul style="list-style-type: none"> Develop passive wind-down analysis—estimate of financial resources required to support passive run-off of trading book in the event of failure to maintain or reestablish investment grade ratings 	—	Section: "Resolution Planning and Why JPMorgan Chase Is Resolvable"

JPMorgan Chase Enhancements to Resolvability

TABLE OF CONTENTS

Enhancements.....	82
Capital.....	82
Liquidity and Funding.....	82
Governance	83
Divestiture Readiness, Separability and Optionality.....	83
Derivatives and Trading Activities	83
Legal Entity Rationalization and Business Simplification	84
Operational Capabilities and Readiness	84

Enhancements

Defined terms are capitalized and may be found in the Glossary beginning on page 153.

The firm has been focused on bolstering and enhancing its overall resolvability since the financial crisis with a particular focus on core elements of our resolution plan including:

- capital;
- liquidity and funding;
- governance;
- divestiture readiness, separability and optionality;
- derivatives and trading activities;
- legal entity rationalization and business simplification; and
- operational capabilities and readiness.

Since the financial crisis, we have made over 900 enhancements to our firm to meaningfully raise the bar on the firm's resolvability and optionality in a resolution scenario and to embed recovery and resolution planning into our day-to-day management, decision-making, governance and strategic priorities. We have invested substantial senior management and employee time and billions of dollars enhancing and simplifying our operating processes, governance, reporting, controls, infrastructure, capabilities, resolvability and support functions.

Highlights of some of the most significant resolvability enhancements since the financial crisis are as follows:

Capital

- Increased firm's Tier 1 Common Equity over \$75 billion from 2009 to 2016
- Proactively reduced non-operating deposits, reduced level 3 assets and reduced notional derivatives, driving down our G-SIB capital surcharge
- Established a comprehensive capital monitoring trigger framework for the firm to monitor from Business as Usual to the Stress Period to the Recovery Period and to resolution
- Developed and implemented in Business as Usual, capital frameworks for resolution capital resources and needs (RCAP/RCEN)
- Enhanced capital reporting capabilities

- Enhanced MLE capital management policies
- Prepositioned resources at Material Legal Entities and at IHC to ensure sufficient resources available to fund recapitalizations of Material Legal Entities in our Preferred Strategy
- Developed risk appetite framework, including thresholds, limits and escalation protocols
- Developed and enhanced CCAR/DFAST capabilities, including development of independent challenge function

Liquidity and Funding

- Increased firm's HQLA from \$341 billion in 2012 to \$524 billion in 2016
- Compliant with LCR and proposed U.S. NSFR rule, and on track to be compliant with TLAC requirements
- Developed and implemented robust framework to ensure the firm could survive a severe market and idiosyncratic liquidity stress event
- Expanded JPM Liquidity Stress Framework to cover resolution liquidity resources and execution needs (RLAP/RLEN)
- Established new Liquidity Risk Oversight function within Risk organization to independently assess, challenge and control liquidity risk within the organization
- Established a comprehensive liquidity trigger framework to monitor from Business-as-Usual to the Stress Period to the Recovery Period and to resolution
- Integrated enhanced liquidity triggers in Contingency Funding Plan and Limit and Indicators Policy
- Prepositioned liquidity at Material Legal Entities and at IHC to ensure sufficient resources available to fund our Preferred Strategy
- Implemented our firmwide intraday liquidity framework, improved ability to manage liquidity risk and reduced intraday liquidity facilities

- Proactively reduced our reliance on short-term wholesale funding
- Simplified intercompany liquidity and funding flows and interconnectedness
- Simplified/eliminated certain JPMC activities, including ceasing third-party derivatives, short-term funding and limiting guarantee activity
- Automated our internal liquidity stress with daily capabilities
- Enhanced liquidity and funding analysis for all Material Legal Entities across multiple economic scenarios
- Compliant with resolution clean holding company requirements

Governance

- Designed Single Point of Entry strategy which allows the firm to be resolved most efficiently
- Created JPMorgan Holdings LLC (IHC), an intermediate holding company
- Completed transfer of assets from JPMC to IHC
- Executed secured Support Agreement
- Created Governance Playbooks for all Material Legal Entities
- Developed new Bankruptcy Playbook, drafted Emergency Transfer Motion and First Day Papers
- Developed crisis management playbooks
- Significantly enhanced firmwide governance (e.g., Oversight & Control, Valuation Control Group's remit expanded, establishment of RCMO)
- Established firmwide and line of business / Critical Operation / functional recovery and resolution governance leaders and executive steering committee

- Doubled our Control functions headcount and spent billions on technology for our security, regulatory and controls agenda
- Enhanced and focused on the firm's culture and conduct

Divestiture Readiness, Separability and Optionality

- Objectively identified and analyzed most attractive sale, IPO/spin-off candidates—Objects of Sale—to enhance optionality
- Conducted comprehensive market analysis of potential buyers, including acquirer capacity
- Created Divestiture Playbooks and data rooms for identified Objects of Sale, as well as a divestiture playbook summary
- Conducted valuations under different market conditions
- Outlined process for divestiture
- Assessed obstacles and mitigants for separability
- Assessed legal entity structures to support divestiture optionality
- Developed carve-out financial statements for Objects of Sale and IPO carve-out financial statements for select Objects of Sale

Derivatives and Trading Activities

- Established framework and automated process to facilitate a robust analysis of active and passive derivatives wind-down scenarios
- Conducted active unwind analysis of the firm's derivatives, incorporated into Preferred Strategy and associated costs into our resolution capital and liquidity needs
- Conducted a separate passive unwind of our derivatives portfolio which assumes run-off from maturities, and anticipated client-directed terminations

- Developed Rating Agency Playbooks for our most significant derivative entities
- Adherents to the ISDA Protocol and associated Jurisdictional Modular Protocols for derivatives and certain non-derivatives Qualified Financial Contracts
- Completed analysis of operational capabilities to ensure timely and orderly transfer of prime brokerage customer accounts
- Enhanced firmwide booking model flows and controls documentation
- Approved list of legal entities agreed for client facing and risk management derivatives
- Established legal entity booking model governance forum

Legal Entity Rationalization and Business Simplification

Legal Entity Rationalization

- Created and enhanced governance over legal entities
- Enhanced our global legal entity risk oversight and reporting
- Instituted detailed and actionable LER Criteria appropriately focused on resolvability
- Implemented LER Criteria in firmwide business-as-usual governance, policies and procedures
- Completed strategic assessments of all legal entities not identified as candidates for elimination against the LER Criteria
- Reduced operating legal entities by approximately 50% since January 2013
- Eliminated four Material Legal Entities
- Significant number of businesses exited (over 45), including physical commodities, private equity, retirement plan services, student loan portfolio, Carlson Wagonlit, international commercial card, various Asset & Wealth Management non-core fund businesses, Issuing and Paying Agent businesses, and U.K. transfer agency

- Significant business simplification efforts (e.g., enhancements to businesses to further support divestiture readiness, ceasing student loan originations, reducing number of mortgage product offerings, exiting high risk customers, reducing cross regional dependencies)
- Simplified and reduced product offerings
- Aligned outstanding inter-entity derivatives with LER Criteria and minimized volume accordingly
- Changed funding flows that did not meet the LER Criteria
- Removed risk of specified entity cross-default language contained within JPMVEC ISDA agreements against JPMCB and JPMS plc for certain client trades

JPMS plc

- Eliminated four intermediate holding companies in the JPMS plc ownership chain, and reduced two additional U.K. entities associated with the simplification actions for JPMS plc
- Guarantee prospectively removed as of June 1, 2017; obtained JPMS plc stand-alone credit rating from rating agencies, informed clients
- Inter-entity derivatives—completed full target \$5.2 trillion notional reduction on back-to-back derivatives between JPMCB and JPMS plc; ongoing compression now established as business-as-usual process

Operational Capabilities and Readiness

- Developed specific FMU playbooks
- Developed alternative strategies for all agent banks and FMUs
- Enhanced automated reporting for Payment, Clearing and Settlement activities

- Implemented a firmwide finance and risk data quality program
- Instituted a global cross-border program, including a library of country-specific rules, controls and monitoring processes, solutions and training designed to identify and mitigate cross-border risk
- Installed governance over Critical Operations establishing Critical Operation oversight teams
- Enhanced governance of Critical Operations with peer reviews, cross Critical Operations risk exercises and standardized monthly reporting
- Developed plan to ensure continuity of Critical Shared Services that support Critical Operations
- Analyzed and mapped Critical Shared Services
- Developed retention framework and evidenced its application in actual events in resolution planning
- Developed crisis communications plans for each line of business, each Critical Operation
- Modified assignment and termination provisions of key vendor and agent bank contracts supporting Critical Operations and Lines of Business
- Developed Vendor Exit Plans for all critical vendors
- Simplified vendor relationships by eliminating over 3,600 relationships
- Implemented robust third-party oversight program to improve risk-based management of vendors
- Leveraged global critical availability framework to define critical applications; aligned critical applications to resolution plans
- Created strategic technology and operations location hubs
- Rationalized software applications
- Created a payments control program to assess and mitigate operational payment risk on a prioritized basis
- Implemented Global Master Service Agreement for interaffiliate services, with resolution friendly language
- Implemented Global Master Revenue-Sharing Agreement for interaffiliate revenue sharing, with resolution friendly language.
- Implemented Ancillary Rights Agreement to enable firmwide leverage of IP
- Developed our recovery processes, analyses and documentation
- Implemented business-as-usual processes for recovery and resolution appendix information to evidence readily available capabilities
- Established and tested crisis management executive command center and crisis management plan
- Significant investments in our regulatory, compliance and control efforts
- Created electronic asset repositories for key data and information needed in resolution
- Contract databases created with searchable key terms

Overview of JPMorgan Chase

TABLE OF CONTENTS

Lines of Business	89
Consumer & Community Banking.....	90
Corporate & Investment Bank.....	91
Commercial Banking	92
Asset & Wealth Management	93
Corporate	93
Material Legal Entities	94
Financial Interconnectedness.....	98
Sources of Funds	101
Deposits	102
Short-Term Funding	104
Long-Term Funding and Issuance	104
Overview of Capital Management Policy	105
Capital	105
Enhancements in the 2017 Resolution Plan to Address the 2017 Guidance Capital Requirements	105
Overview of Liquidity Management Policy	107
Enhancement of Resolution Liquidity Adequacy and Positioning Framework	107
Enhancement of Resolution Liquidity Execution Need Framework.....	108
High Quality Liquid Assets.....	110
Derivatives and Hedging Activities	111
Description of Derivatives and Hedging Activities.....	111
Notional Amount of Derivative Contracts	112
Operational Interconnectedness	114
Material Legal Entity Operational Interconnectivity	114
Material Legal Entity Connectivity by Shared Services	122
Overview of Critical Shared Services.....	125

TABLE OF CONTENTS (continued)

Financial Market Utilities and Payment, Clearing and Settlement	126
Payment Systems	126
Securities	127
Other	129
Agent Banks	129
Description of Management Information Systems	131
Description of Material Management Information	131
Liquidity Risk	131
Liquidity Risk Management and Oversight	131
Liquidity Risk Infrastructure Initiative	132
Liquidity Risk Governance and Measurement	132
Internal Stress Testing.....	132
Contingency Funding Plan	132
Liquidity, Finance, Risk and Regulatory Management Reporting.....	132
Capital Management and Oversight	133
Key Regulators for JPMC, JPMCB and CUSA	134
Principal Officers	135
Governance	136
Resolution Planning Corporate Governance Structure and Processes.....	136

Lines of Business

Defined terms are capitalized and may be found in the Glossary beginning on page 153.

JPMC, a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and one of the largest banking institutions in the United States, with operations worldwide. The firm had approximately \$2.5 trillion in assets and \$254 billion in stockholders' equity as of December 31, 2016. The firm is a leader in investment banking, financial services for consumers and small businesses, commercial banking, financial transaction processing and asset management. Under the J.P. Morgan and Chase brands, we serve millions of customers in the United States and many of the world's most prominent corporate, institutional and government clients.

For resolution planning purposes, JPMorgan Chase has identified 27 "core business lines." Under the 165(d) Rule, core business lines means "those business lines of the covered company, including associated operations, services, function and support, that, in the view of the

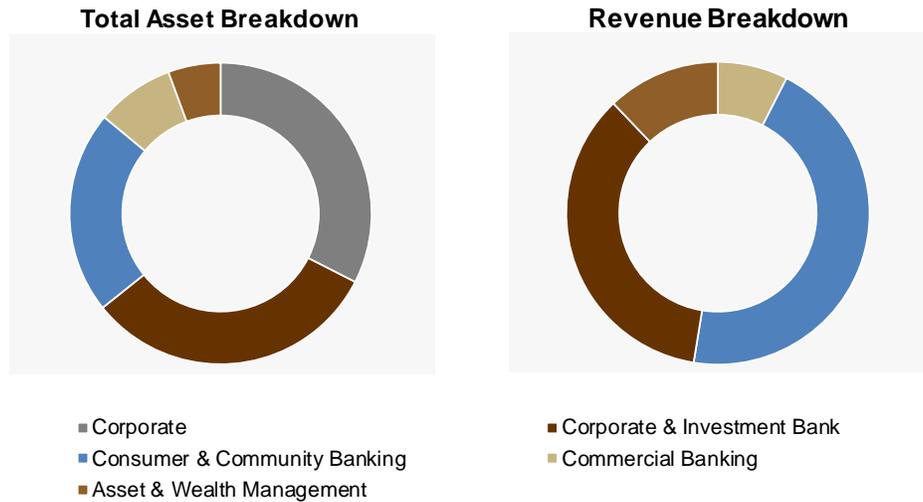
covered company, upon failure would result in a material loss of revenue, profit, or franchise value." We have identified 27 core business lines, which we refer to as lines of business or sub-lines of business, which represent the firm's four principal business segments, as well as Corporate, and the 22 sub-segments that report into the segments that we believe satisfy the definition of core business line. Figure 25 sets out all of our lines of business and sub-lines of business, and Figure 26 describes the relative size of our five lines of business based on total assets and revenue.

The lines of business and sub-lines of business discussed in this Public Filing are core business lines identified solely for resolution planning purposes. In some circumstances, resolution sub-lines of business listed in this Public Filing might differ from JPMC's sub-segments discussed in the 2016 Form 10-K.

Figure 25. Lines of Business and Sub-Lines of Business

Consumer & Community Banking	Corporate & Investment Bank	Commercial Banking	Asset & Wealth Management	Corporate
<ul style="list-style-type: none"> ▪ Consumer/Business Banking ▪ Mortgage Production ▪ Mortgage Servicing ▪ Real Estate Portfolios ▪ Auto & Student Lending ▪ Commerce Solutions ▪ Credit Card 	<ul style="list-style-type: none"> ▪ Fixed Income ▪ Equities ▪ Global Clearing ▪ Prime Brokerage & Equity Financing ▪ Custody & Fund Services ▪ Treasury Services ▪ Global Investment Banking ▪ Global Lending 	<ul style="list-style-type: none"> ▪ Middle Market ▪ Commercial Term Lending ▪ Corporate Client Banking ▪ Real Estate Banking 	<ul style="list-style-type: none"> ▪ Asset Management ▪ Wealth Management 	<ul style="list-style-type: none"> ▪ Treasury and CIO

Figure 26. Relative Sizes of the Lines of Business



Consumer & Community Banking

Consumer & Community Banking, or CCB, offers services to consumers and businesses through bank branches, ATMs, online, mobile and telephone banking. Consumer & Community Banking is organized into Consumer/Business Banking, Mortgage Banking (including Mortgage Production, Mortgage Servicing and Real Estate Portfolios) and Card, Commerce Solutions & Auto. Consumer & Community Banking offers deposit and investment products and services to consumers, and lending, deposit, and cash management and payment solutions to small businesses. Mortgage Banking includes mortgage origination and servicing activities, as well as portfolios consisting of residential mortgages and home equity loans. Credit Card, Commerce Solutions and Auto & Student Lending issues credit cards to consumers and small businesses, offers payment processing services to merchants, and originates and services auto loans and leases.

The following sub-segments within Consumer & Community Banking have been designated as sub-lines of business.

Consumer/Business Banking

Consumer/Business Banking, or CBB, offers deposit and investment products and services to consumers, and

lending, deposit, and cash management and payment solutions to small businesses. Consumer/Business Banking offers a wide variety of bank products including checking and savings accounts, credit and debit cards and related financial services. These products generally are available through multiple distribution channels including approximately 5,200 bank branches and over 18,000 ATMs, as well as through telephone banking, online banking and mobile banking. Consumer/Business Banking serves consumers through its branch and ATM network in the United States.

Mortgage Production

Mortgage Production represents the mortgage origination business, including four origination channels, secondary marketing, and production operations support.

Mortgage Servicing

Mortgage Servicing includes Servicing and Shared Services & Other Support. Servicing assists customers for the life of their loan by delivering customer service through functions including sending monthly statements, collecting payments, supporting customers who need assistance in paying their mortgage or in resolving delinquency, and generally managing loan servicing. Shared Services & Other Support is a single utility of support functions that partner with each Mortgage Banking business on project management, regulatory

and business change management, employee communications, valuations, customer issue resolution and reporting.

Real Estate Portfolios

Real Estate Portfolios consists of residential mortgage and home equity loans that JPMorgan Chase retains for investment purposes.

Auto & Student Lending

Auto & Student Lending provides auto loans and leases to consumers primarily through the purchase of retail installment sales contracts, through a national network of automotive dealers. In addition, JPMCB accepts applications for direct auto loans to consumers through its branches, phone and online. JPMCB also provides commercial and real estate loans to auto dealers. Subsequent to March 31, 2017, JPMC entered into an agreement to sell the student loan portfolio. The sale is complete.

Commerce Solutions

Commerce Solutions is a global payment processing and merchant acquiring business with offices in the United States, Canada and Europe.

Credit Card

Credit Card offers a wide variety of bankcard products to cater to the needs of multiple consumer and small business customer segments.

Corporate & Investment Bank

The Corporate & Investment Bank, or CIB, consists of Banking and Markets & Investor Services. CIB serves approximately 7,000 clients, including corporations, governments, states, municipalities, healthcare organizations, educational institutions, banks and investors. It offers a complete range of financial services and products, and provides strategic advice, lends money, raises capital, assists in managing risk and extends liquidity.

Banking offers a full range of investment banking products and services in all major capital markets, including advising on corporate strategy and structure, capital-raising in equity and debt markets, as well as loan origination and syndication. Banking also includes

Treasury Services, which provides transaction services, consisting of cash management and liquidity solutions.

Markets & Investor Services is a global market-maker in cash securities and derivative instruments, and offers sophisticated risk management solutions, prime brokerage, and research. Markets & Investor Services also includes Securities Services, a leading global custodian, which provides custody, fund accounting and administration, and securities lending products principally for asset managers, insurance companies, and public and private investment funds.

The following sub-segments within Corporate & Investment Bank have been designated as sub-lines of business.

Markets

Fixed Income

Fixed Income is a sub-line of business within Corporate & Investment Bank. Fixed Income is active across credit markets, rate markets, currency markets and securitized product markets.

Equities

Equities is a sub-line of business within Corporate & Investment Bank. Equities provides equity solutions to corporate, institutional and hedge fund clients, and distributors, private investors and broker-dealers worldwide. Solutions provided by Equities include trade execution, program and special equity trading services, equity-linked services and structuring for new equity-linked issuances, as well as marketing, structuring and trading services on equity-based or fund-based derivatives products.

Investor Services

Global Clearing

Global Clearing is a sub-line of business within Corporate & Investment Bank. Global Clearing is run as a holistic, single line of business, with overlapping infrastructure, management team and personnel. It specializes in three core services: (1) futures and options; (2) OTC clearing; and (3) derivatives Intermediation. Global Clearing also includes the U.S. Broker Dealer and Securities Clearance businesses.

Prime Brokerage & Equity Financing

Prime Brokerage & Equity Financing is a sub-line of business within Corporate & Investment Bank. Prime Brokerage & Equity Financing is JPMorgan Chase's global, integrated client financing and clearing platform. The business offers a comprehensive range of financing, clearing, settlement, and trade execution services to hedge funds across the world.

Custody & Fund Services

Custody & Fund Services is a sub-line of business within Corporate & Investment Bank. Custody & Fund Services is an integrated offering for institutional investors comprised of three divisions providing securities processing and related services: Custody, Fund Services and Trading Services.

Banking

Treasury Services

Treasury Services is a sub-line of business within Corporate & Investment Bank. The Treasury Services business is a full service provider of cash management, liquidity, escrow services and electronic financial services, specifically for treasury professionals, financial institutions and government agencies.

Global Investment Banking

Global Investment Banking is a sub-line of business within Corporate & Investment Bank. Global Investment Banking works with a broad range of clients, from large and middle market corporations to financial institutions and governments. Global Investment Banking provides advisory, full service capital raising, credit solutions and risk management solutions to help clients achieve their financial objectives.

Global Lending

Global Lending is a sub-line of business within Corporate & Investment Bank. The Global Lending business is a full service provider of traditional credit products, including loans, revolving commitments and cross-border trade transactions to CIB Banking clients globally. The key Global Lending portfolios are: (1) credit portfolio loans; and (2) trade finance.

Commercial Banking

Commercial Banking, or CB, delivers extensive industry knowledge, local expertise and dedicated service to U.S., multinational and Canadian clients, including corporations, municipalities, financial institutions and nonprofit entities with annual revenue typically ranging from \$20 million to \$2 billion. In addition, Commercial Banking provides financing to real estate investors and owners. Partnering with the firm's other businesses, Commercial Banking provides comprehensive financial solutions, including lending, treasury services, investment banking and asset management to meet its clients' domestic and international financial needs.

The following sub-segments within Commercial Banking have been designated as sub-lines of business.

Middle Market

Middle Market covers corporate, municipal and nonprofit clients, with annual revenue typically ranging between \$20 million and \$500 million.

Commercial Term Lending

Commercial Term Lending provides term financing to owners and investors of apartment buildings with five or more units as well as commercial properties including office buildings, shopping centers and industrial buildings, offering streamlined, low-cost financing solutions for purchase and refinance.

Corporate Client Banking

Corporate Client Banking focuses on U.S. and Canadian companies, typically with revenues of over \$500 million and up to \$2 billion. It also focuses on clients that have broader investment banking needs.

Real Estate Banking

Real Estate Banking provides full service banking to professional real estate developers, investors, real estate investment trusts, real estate operating companies and investment funds active in major markets across the United States.

Asset & Wealth Management

Asset & Wealth Management, or AWM, with client assets of \$2.5 trillion, is a global leader in investment and wealth management. Asset & Wealth Management clients include institutions, high net worth individuals and retail investors in many major markets throughout the world. Asset & Wealth Management offers investment management across most major asset classes including equities, fixed income, alternatives and money market funds. Asset & Wealth Management also offers multi-asset investment management, providing solutions for a broad range of clients' investment needs. For Wealth Management clients, Asset & Wealth Management also provides retirement products and services, brokerage and banking services including trusts and estates, loans, mortgages and deposits. The majority of Asset & Wealth Management's client assets are in actively managed portfolios.

The following sub-segments within Asset & Wealth Management have been designated as sub-lines of business.

Asset Management

Asset Management provides comprehensive investment management services and products globally across multiple asset classes to institutional clients, pooled fund vehicles and retail investors, including public, corporate and union employee benefit funds, mutual funds, high net worth individuals, corporations, foundations, endowments, insurance companies, other financial institutions and governments and their agencies. Such services also include the provision of sub-advisory services to other investment managers, whether affiliated or unaffiliated, and their clients, from the United States and internationally.

Wealth Management

Wealth Management offers investment advice and wealth management services including investment management, brokerage, capital markets and risk management, tax and estate planning, banking, capital raising, alternative investments and specialty-wealth advisory services to high and ultra high net worth individuals, families, money managers, business owners, trusts, personal holding companies and small corporations worldwide. Wealth Management also provides such services to smaller

charities, foundations and endowments. Wealth Management is organized into the following divisions: Ultra High Net Worth; High Net Worth; International Private Bank; and J.P. Morgan Securities.

Corporate

The Corporate segment consists of Treasury and Chief Investment Office, or CIO, and Other Corporate, which includes corporate staff units and expense that is centrally managed. Treasury and CIO are predominantly responsible for measuring, monitoring, reporting and managing the firm's liquidity, funding and structural interest rate and foreign exchange risks, as well as executing the firm's capital plan. The major Other Corporate units include Real Estate, Enterprise Technology, Legal, Compliance, Finance, Human Resources, Internal Audit, Risk Management, Oversight & Control, Corporate Responsibility and various Other Corporate groups.

The following sub-segments within Corporate have been designated as sub-lines of business.

Treasury and CIO

Treasury and CIO are predominantly responsible for measuring, monitoring, reporting and managing the firm's liquidity, funding and structural interest rate and foreign exchange risks, as well as executing the firm's capital plan. The risks managed by Treasury and CIO arise from the activities undertaken by the firm's four major reportable business segments to serve their respective client bases, which generate both on- and off-balance sheet assets and liabilities.

Material Legal Entities

Under the 165(d) 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.” For resolution planning purposes, we have identified 30 material entities, which we refer to as Material Legal Entities, including 24 that are legal entities

and six that are branches. The Material Legal Entities and their organizational structure are set out in Figure 27. Figure 28 and Figure 29 describe the jurisdiction, chain of ownership and entity type for each Material Legal Entity.

Figure 27. Material Legal Entities

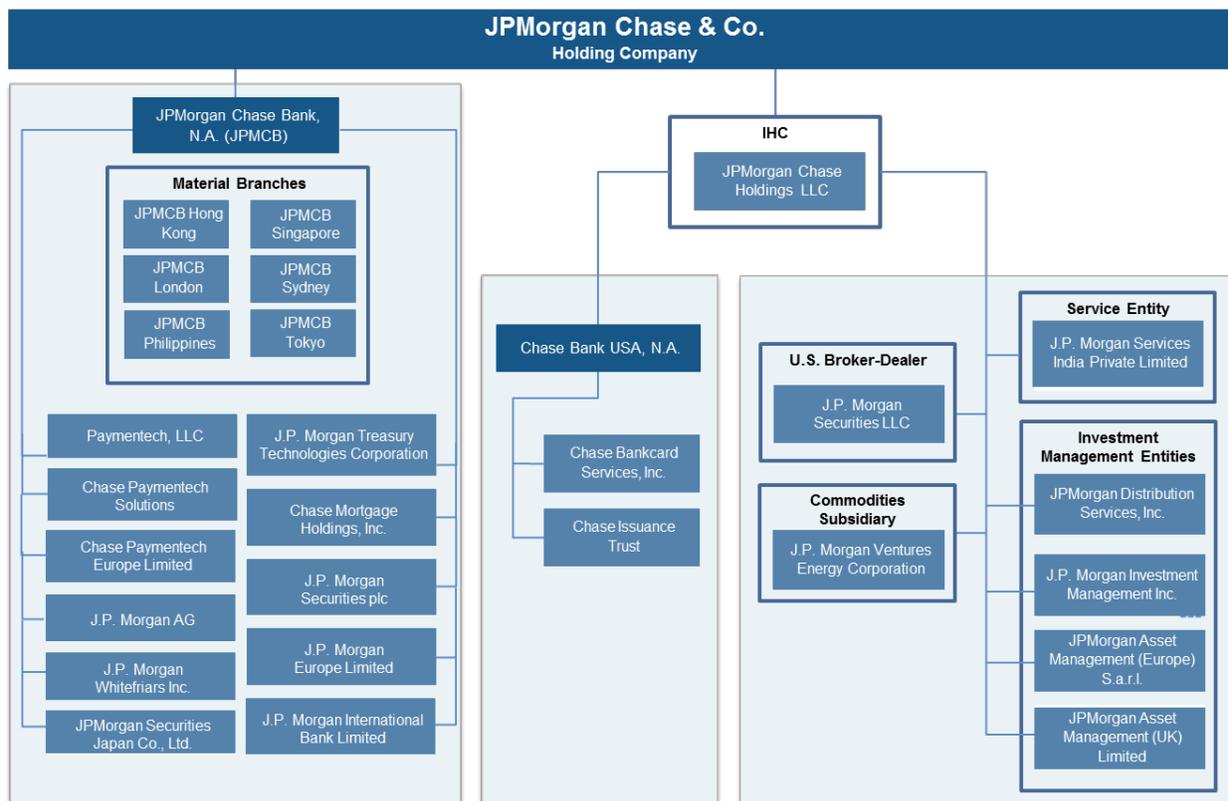
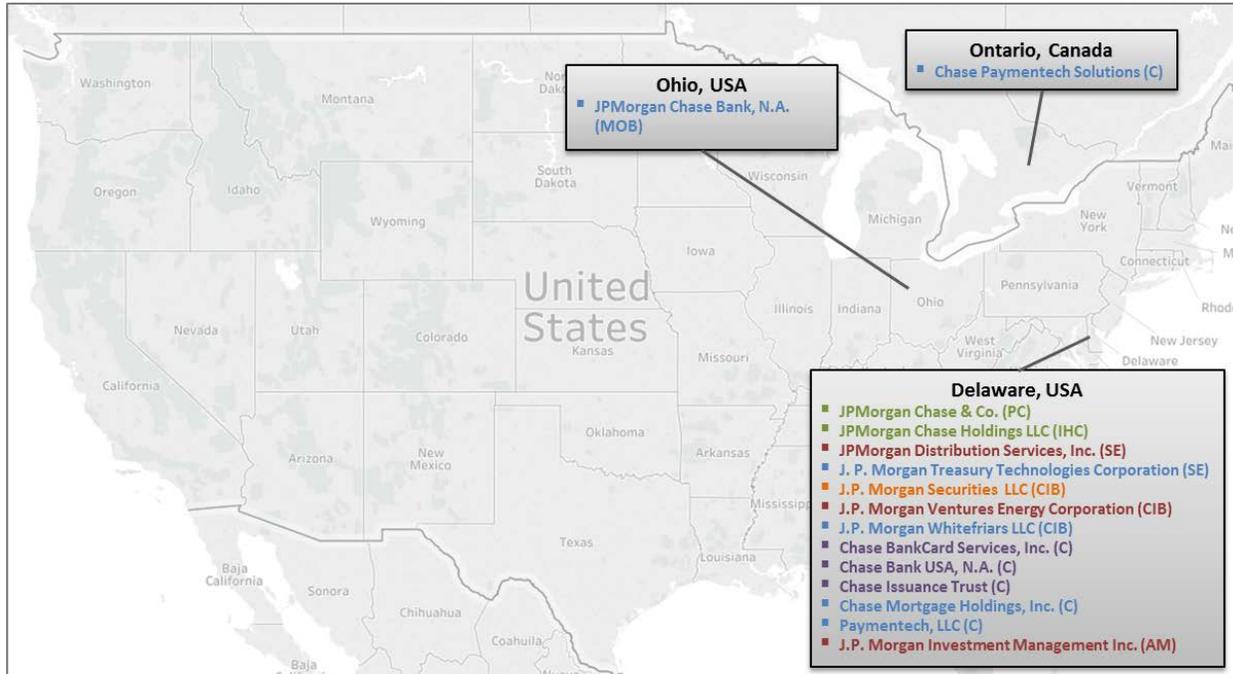


Figure 28. Jurisdiction, Chain of Ownership and Entity Type for Each Material Legal Entity

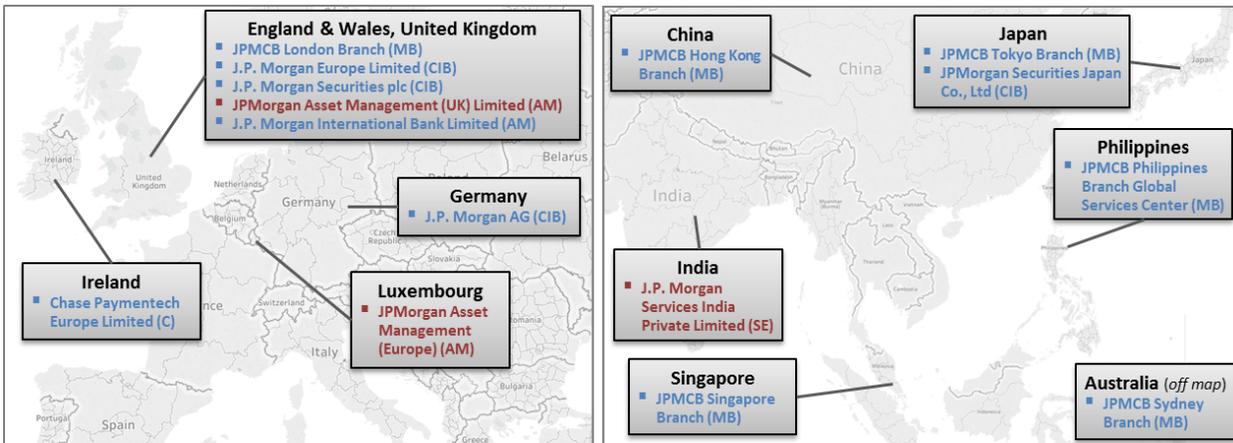


Chain of Ownership

- Bank Holding Company
- JPMCB Bank Chain
- U.S. Broker-Dealer
- CUSA Bank Chain
- Non-Bank Chain

Type of Entity

- PC: Parent Company
- MOB: Main Operating Bank
- MB: Material Branch
- IHC: Intermediate Holding Company
- SE: Service Entity
- CIB: Corporate & Investment Bank Entity
- C: Consumer-related Entity
- AM: Asset Management Entity



Chain of Ownership

- Bank Holding Company
- JPMCB Bank Chain
- U.S. Broker-Dealer
- CUSA Bank Chain
- Non-Bank Chain

Type of Entity

- PC: Parent Company
- MOB: Main Operating Bank
- MB: Material Branch
- IHC: Intermediate Holding Company
- SE: Service Entity
- CIB: Corporate & Investment Bank Entity
- C: Consumer-related Entity
- AM: Asset Management Entity

Figure 29. Material Legal Entities

Entity Name	Description
JPMorgan Chase & Co.	The top-tier financial holding company of JPMorgan Chase. This entity is subject to supervision by the Federal Reserve.
JPMorgan Chase Holdings LLC	Wholly owned subsidiary of JPMC and a bank holding company. This entity is the holding company for subsidiaries other than JPMCB and its subsidiaries.
JPMorgan Chase Bank, N.A.	Wholly owned national bank subsidiary of JPMC. This entity offers a wide range of banking services to its customers, both domestically and internationally.
JPMCB London Branch	A material foreign branch of JPMCB.
JPMCB Hong Kong Branch	A material foreign branch of JPMCB.
JPMCB Philippine Global Service Center or JPMCB PGSC	A material foreign branch of JPMCB.
JPMCB Singapore Branch	A material foreign branch of JPMCB.
JPMCB Sydney Branch	A material foreign branch of JPMCB.
JPMCB Tokyo Branch	A material foreign branch of JPMCB.
J.P. Morgan Services India Private Limited	Indian corporation providing operating services to affiliates through phone center, transaction processing, IT infrastructure and applications development support, accounting and finance, and analytics support.
JPMorgan Distribution Services, Inc.	The U.S. distributor and shareholder servicing agent for JPMorgan Chase's mutual funds.
J.P. Morgan Treasury Technologies Corporation	Provides cash management and trade and treasury management services to JPMCB and its affiliates.
J.P. Morgan AG	A fully licensed bank that manages Euro clearing for the firm worldwide, among other activities.
J.P. Morgan Europe Limited	A fully licensed bank that provides marketing, custody and payment services both to its clients and on behalf of its affiliates.
JPMorgan Securities Japan Co., Ltd.	A registered broker-dealer and investment advisor.
J.P. Morgan Securities LLC	A registered U.S. broker-dealer, investment advisor and futures commission merchant. It is the firm's primary broker-dealer in the United States.
J.P. Morgan Securities plc	The principal investment banking entity in EMEA. Its activities include underwriting, trading, brokerage, advisory and prime brokerage services.
J.P. Morgan Ventures Energy Corporation	Provides commodities risk management solutions to clients globally. Those solutions include financial derivatives transactions as well as physical commodities transactions.
J.P. Morgan Whitefriars LLC	Acts as the firm's primary legal entity where risk positions are booked for certain businesses of the Corporate & Investment Bank through JPMCB London Branch.
Chase BankCard Services, Inc.	Provides Credit Card with operational support (customer service, payment processing, debt collection, etc.) at various locations throughout the country.

Entity Name	Description
Chase Bank USA, N.A.	A chartered national bank in the United States. Conducts activities predominantly related to credit card lending and other forms of consumer lending.
Chase Issuance Trust	A special purpose statutory trust which securitizes credit card loan receivables for CUSA.
Chase Mortgage Holdings, Inc.	A holding company for mortgages originated outside of the state of New York for tax purposes.
Chase Paymentech Europe Limited	The firm's primary merchant processing entity in Europe.
Chase Paymentech Solutions	The primary merchant processing entity in Canada.
Paymentech, LLC	The firm's primary merchant processing entity in the United States.
JPMorgan Asset Management (Europe) S.à.r.l.	The primary fund management and distribution entity for the Luxembourg mutual fund range.
JPMorgan Asset Management (UK) Limited	The primary U.K. investment advisory entity within J.P. Morgan Asset Management.
J.P. Morgan International Bank Limited	Offers discretionary investment management, brokerage, advisory, custody and banking services, fund marketing and hedge fund advisory to clients in Europe, Latin America and Asia.
J.P. Morgan Investment Management Inc.	The primary U.S. investment advisory entity within J.P. Morgan Asset Management.

Financial Interconnectedness

Parent holding company and subsidiary funding

The vast majority of our interaffiliate funding is coordinated through two Material Legal Entities: IHC and JPMCB. JPMC issues debt and equity securities into the capital markets and uses the proceeds to capitalize JPMCB and IHC. JPMCB funds its own banking activities as well as those of its subsidiaries, branches and bank affiliates. On a going-concern basis, IHC provides funding support to nonbank subsidiaries, including JPMS LLC, both through equity and debt investments and placements.

Our use of a centralized funding framework is designed to optimize liquidity sources and uses, and to ensure flexibility firmwide so that we can allocate liquidity when and whenever it may be needed in the franchise. This centralized framework by design creates financial interconnectedness between and among the firm's Material Legal Entities, in particular as between IHC, JPMCB and their direct and indirect subsidiaries. Figure 30 sets out the primary financial interconnectedness of the firm's Material Legal Entities, as of December 31, 2016.

Figure 30. Interaffiliate Funding

Material Legal Entity	Primary Interaffiliate Financial Transaction Counterparties
JPMorgan Chase & Co.	JPMorgan Chase Holdings, LLC
JPMorgan Chase Holdings, LLC	JPMorgan Chase Bank, N.A. J.P. Morgan Securities LLC JPMorgan Chase & Co.
JPMorgan Chase Bank, N.A.	JPMorgan Chase Holdings, LLC Chase Bank USA, N.A. J.P. Morgan Securities LLC Paymentech, LLC
JPMCB London Branch	JPMorgan Chase Bank, N.A. JPMCB Hong Kong Branch JPMorgan Asset Management (UK) Limited Chase Paymentech Europe Limited
JPMCB Hong Kong Branch	JPMorgan Chase Bank, N.A. JPMCB London Branch
JPMCB PGSC	N/A
JPMCB Singapore Branch	JPMorgan Chase Bank, N.A. JPMCB London Branch JPMCB Hong Kong Branch
JPMCB Sydney Branch	JPMCB London Branch JPMorgan Chase Bank, N.A. JPMCB Singapore Branch JPMCB Hong Kong Branch
JPMCB Tokyo Branch	JPMCB London Branch JPMorgan Chase Bank, N.A.
J.P. Morgan Services India Private Limited	N/A
JPMorgan Distribution Services, Inc.	N/A

Material Legal Entity	Primary Interaffiliate Financial Transaction Counterparties
J.P. Morgan Treasury Technologies Corporation	N/A
J.P. Morgan AG	JPMCB London Branch
J.P. Morgan Europe Limited	JPMCB London Branch
JPMorgan Securities Japan Co., Ltd.	JPMCB London Branch
J.P. Morgan Securities LLC	J.P. Morgan Securities plc JPMorgan Chase Bank, N.A.
J.P. Morgan Securities plc	JPMCB London Branch J.P. Morgan International Bank Limited J.P. Morgan Europe Limited J.P. Morgan Ventures Energy Corporation
J.P. Morgan Ventures Energy Corporation	JPMorgan Chase Holdings, LLC
J.P. Morgan Whitefriars LLC	J.P. Morgan Securities LLC J.P. Morgan Securities plc
Chase BankCard Services, Inc.	JPMorgan Chase & Co. JPMorgan Chase Bank, N.A.
Chase Bank USA, N.A.	JPMorgan Chase & Co. JPMorgan Chase Bank, N.A.
Chase Issuance Trust	Chase Bank USA, N.A.
Chase Mortgage Holdings Inc.	JPMorgan Chase Bank, N.A.
Chase Paymentech Europe Limited	N/A
Chase Paymentech Solutions	N/A
Paymentech, LLC	N/A
JPMorgan Asset Management (Europe) S.a.r.l.	N/A
JPMorgan Asset Management (UK) Limited	N/A
J.P. Morgan International Bank Limited	N/A
J.P. Morgan Investment Management Inc.	N/A

The firm's Material Legal Entities obtain capital and funding resources on both an intercompany basis, as well as through public and private issuances of debt and equity instruments to third parties. Additionally, certain of

the Material Legal Entities raise funding through the financing of debt and equity securities. Figure 31 highlights the sources of third-party and intercompany capital and funding sources by Material Legal Entity.

Figure 31. Capital and Funding Resources

Material Legal Entity	Third Party			Intercompany		
	Deposits	Debt	Equity Capital	Deposits	Debt	Equity Capital
JPMorgan Chase & Co.		✓	✓		✓	
JPMorgan Chase Holdings, LLC					✓	✓
JPMorgan Chase Bank, N.A.	✓	✓		✓	✓	✓
JPMCB London Branch	✓	✓		✓	✓	
JPMCB Hong Kong Branch	✓	✓		✓	✓	
JPMCB PGSC						
JPMCB Singapore Branch	✓	✓		✓	✓	
JPMCB Sydney Branch	✓	✓		✓	✓	
JPMCB Tokyo Branch	✓	✓		✓	✓	
J.P. Morgan Services India Private Limited						✓
JPMorgan Distribution Services, Inc.						✓
J.P. Morgan Treasury Technologies Corporation						✓
J.P. Morgan AG	✓	✓		✓	✓	✓
J.P. Morgan Europe Limited	✓	✓		✓	✓	✓
JPMorgan Securities Japan Co., Ltd.					✓	✓
J.P. Morgan Securities LLC		✓			✓	✓
J.P. Morgan Securities plc	✓	✓		✓	✓	✓
J.P. Morgan Ventures Energy Corporation		✓			✓	✓
J.P. Morgan Whitefriars LLC		✓			✓	✓
Chase BankCard Services, Inc.						✓
Chase Bank USA, N.A.	✓	✓		✓	✓	✓
Chase Issuance Trust		✓			✓	
Chase Mortgage Holdings Inc					✓	✓
Chase Paymentech Europe Limited					✓	✓
Chase Paymentech Solutions						✓
Paymentech, LLC					✓	✓
JPMorgan Asset Management (Europe) S.a.r.l.						✓
JPMorgan Asset Management (UK) Limited						✓
J.P. Morgan International Bank Limited	✓			✓		✓
J.P. Morgan Investment Management Inc.					✓	✓

Interaffiliate Derivative Transactions

JPMCB, through its branches, acts as the primary centralized hedge counterparty for interaffiliate derivative transactions within JPMorgan Chase. Transactions entered into between JPMCB's branches and JPMorgan Chase affiliates are documented under standard ISDA Master Agreement contracts and include terms for collateralization between the parties, specified termination events and the closeout methodology to be applied in the event of a default. As part of its 2015 Resolution Plan, JPMorgan Chase had previously removed cross-default provisions from all interaffiliate ISDA Master Agreements.

Financial Interconnectedness in Resolution Event

At any point in time, including at the inception of a resolution event, various borrowings undertaken in the ordinary course will be outstanding between JPMorgan Chase entities. Such borrowings are captured within the firm's liquidity management systems and recorded in the subsidiaries' books and records. During a resolution event, as noted in the description of the firm's Contingency Funding Plan, action plans will be implemented to manage liquidity flow between entities, subject to limit and indicators and in compliance with legal, regulatory and operational restrictions, to optimize each entity's ability to meet its liquidity demands. JPMorgan Chase has outlined the steps that would be taken in the Hypothetical Resolution Scenario for the 2017 Resolution Plan with the Agencies, with detailed, substantiated assumptions. The 2017 Resolution Plan as submitted to the Agencies demonstrates the firm's ability to meet the required net funding outflows generated by the resolution event in compliance with the assumptions prescribed by the Agencies for 2017 Resolution Planning purposes.

Sources of Funds

Management believes that the firm's unsecured and secured funding capacity is sufficient to meet its on- and off-balance sheet obligations.

The firm funds its global balance sheet through diverse sources of funding, including a stable deposit franchise and secured and unsecured funding in the capital markets. The firm's loan portfolio (\$894.8 billion at December 31, 2016), is funded with a portion of the firm's deposits (\$1,375.2 billion at December 31, 2016) and through securitizations and, with respect to a portion of the firm's real estate-related loans, with secured borrowings from the Federal Home Loan Banks, or FHLBs. Deposits in excess of the amount utilized to fund loans are primarily invested in the firm's investment securities portfolio or deployed in cash or other short-term liquid investments based on their interest rate and liquidity risk characteristics. Securities borrowed or purchased under resale agreements and trading assets debt and equity instruments are primarily funded by the firm's securities loaned or sold under agreements to repurchase, trading liabilities, debt and equity instruments and a portion of the firm's long-term debt and stockholders' equity. In addition to funding securities borrowed or purchased under resale agreements and trading assets, debt and equity instruments, proceeds from the firm's debt and equity issuances are used to fund certain loans and other financial and nonfinancial assets, or may be invested in the firm's investment securities portfolio. See the discussion below for additional information relating to deposits, short-term funding, and long-term funding and issuance.

Deposits

Figure 32 summarizes, by line of business, the period-end and average deposit balances as of, and for the years, ended December 31, 2016 and 2015.

A key strength of the firm is its diversified deposit franchise, through each of its lines of business, which provides a stable source of funding and limits reliance on the wholesale funding markets. A significant portion of the firm's deposits are consumer deposits, which are considered a stable source of liquidity. Additionally, the majority of the firm's wholesale operating deposits are also considered to be stable sources of liquidity because they are generated from customers that maintain operating service relationships with the firm.

The firm's loans-to-deposits ratio was 65% at both December 31, 2016 and 2015.

As of December 31, 2016, total deposits for the firm were \$1,375.2 billion, compared with \$1,279.7 billion at December 31, 2015 (61% of total liabilities at each of December 31, 2016 and 2015). The increase was attributable to higher consumer and wholesale deposits. The increase in consumer deposits reflected continuing strong growth from existing and new customers, and the impact of low attrition rates. The wholesale increase was driven by growth in operating deposits related to client activity in Treasury Services, and inflows in Asset & Wealth Management primarily from business growth and the impact of new rules governing money market funds.

Figure 32. Deposit Balances

Deposits As of or for the year ended December 31, (in millions)	Year ended December 31,			
			Average	
	2016	2015	2016	2015
Consumer & Community Banking	\$ 618,337	\$ 557,645	\$ 586,637	\$ 530,938
Corporate & Investment Bank	412,434	395,228	409,680	414,064
Commercial Banking	179,532	172,470	172,835	184,132
Asset & Wealth Management	161,577	146,766	153,334	149,525
Corporate	3,299	7,606	5,482	17,129
Total Firm	\$ 1,375,179	\$ 1,279,715	\$ 1,327,968	\$ 1,295,788

The firm believes average deposit balances are generally more representative of deposit trends. The increase in average deposits for the year ended December 31, 2016 compared with the year ended December 31, 2015, was predominantly driven by an increase in consumer deposits, partially offset by a reduction in wholesale non-operating deposits, driven by the firm's actions in 2015 to reduce such deposits. For further discussion of deposit and liability balance trends, see the discussion of the firm's business segments results and the Consolidated

Balance Sheet Analysis on pages 51 to 70 and pages 43 to 44, respectively in the 2016 Annual Report.

Figure 33 summarizes short-term and long-term funding, excluding deposits, as of December 31, 2016 and 2015, and average balances for the years ended December 31, 2016 and 2015. For additional information, see the Consolidated Balance Sheet Analysis on pages 43–44 and Note 21 in the 2016 Annual Report.

Figure 33. Short-Term and Long-Term Funding Sources

Sources of funds (excluding deposits)				
As of or for the year ended December 31, (in millions)	2016	2015	Average	
			2016	2015
Commercial paper:				
Wholesale funding	\$ 11,738	\$ 15,562	\$ 15,001	\$ 19,340
Client cash management	–	–	–	18,800 ⁽ⁱ⁾
Total commercial paper	\$ 11,738	\$ 15,562	\$ 15,001	\$ 38,140
Obligations of Firm-administered multi-seller conduits^(a)	\$ 2,719	\$ 8,724	\$ 5,153	\$ 11,961
Other borrowed funds	\$ 22,705	\$ 21,105	\$ 21,139	\$ 28,816
Securities loaned or sold under agreements to repurchase:				
Securities sold under agreements to repurchase	\$ 149,826	\$ 129,598	\$ 160,458	\$ 168,163
Securities loaned ^(b)	12,137	16,877	13,195	18,633
Total securities loaned or sold under agreements to repurchase^{(b)(c)(d)(e)}	\$ 161,963	\$ 146,475	\$ 173,653	\$ 186,796
Senior notes	\$ 151,042	\$ 149,964	\$ 153,768	\$ 147,498
Trust preferred securities	2,345	3,969	3,724	4,341
Subordinated debt	21,940	25,027	24,224	27,310
Structured notes	37,292	32,813	35,978	31,309
Total long-term unsecured funding	\$ 212,619	\$ 211,773	\$ 217,694	\$ 210,458
Credit card securitization ^(a)	31,181	27,906	29,428	30,382
Other securitizations ^{(a)(f)}	1,527	1,760	1,669	1,909
FHLB advances	79,519	71,581	73,260	70,150
Other long-term secured funding ^(g)	3,107	5,297	4,619	4,332
Total long-term secured funding	\$ 115,334	\$ 106,544	\$ 108,976	\$ 106,773
Preferred stock^(h)	\$ 26,068	\$ 26,068	26,068	\$ 24,040
Common stockholders' equity^(h)	\$ 228,122	\$ 221,505	224,631	\$ 215,690

- (a) Included in beneficial interest issued by consolidated variable interest entities on the firm's consolidated balance sheets.
- (b) Prior period amounts have been revised to conform with current period presentation.
- (c) Excludes federal funds purchased.
- (d) Excludes long-term structured repurchase agreements of \$1.8 billion and \$4.2 billion as of December 31, 2016 and 2015, respectively, and average balances of \$2.9 billion and \$3.9 billion for the years ended December 31, 2016 and 2015, respectively.
- (e) Excludes long-term securities loaned of \$1.2 billion and \$1.3 billion as of December 31, 2016, and December 31, 2015, respectively, and average balances of \$1.3 billion and \$0.9 billion for the years ended December 31, 2016 and 2015, respectively.
- (f) Other securitizations include securitizations of student loans. The firm's wholesale businesses also securitize loans for client-driven transactions, which are not considered to be a source of funding for the firm and are not included in the table.
- (g) Includes long-term structured notes which are secured.
- (h) For additional information on preferred stock and common stockholders' equity see Capital Risk Management on pages 76 to 85, consolidated statements of changes in stockholders' equity, Note 22 and Note 23 in the 2016 Annual Report.
- (i) During 2015, the firm discontinued its commercial paper customer sweep cash management program.

Short-Term Funding

The firm's sources of short-term secured funding primarily consist of securities loaned or sold under agreements to repurchase. Securities loaned or sold under agreements to repurchase are secured predominantly by high quality securities collateral, including government-issued debt and agency mortgage-backed securities, and constitute a significant portion of the federal funds purchased and securities loaned or sold under repurchase agreements on the consolidated balance sheets. The decrease in the average balance of securities loaned or sold under agreements to repurchase for the year ended December 31, 2016, compared with the balance at December 31, 2015, was largely due to lower secured financing of trading assets-debt and equity instruments in Corporate & Investment Bank related to client-driven market-making activities. The balances associated with securities loaned or sold under agreements to repurchase fluctuate over time due to customers' investment and financing activities; the firm's demand for financing; the ongoing management of the mix of the firm's liabilities, including its secured and unsecured financing (for both the investment securities and market-making portfolios); and other market and portfolio factors.

Long-Term Funding and Issuance

Long-term funding provides additional sources of stable funding and liquidity for the firm. The firm's long-term funding plan is driven by expected client activity, liquidity considerations, and regulatory requirements, including TLAC requirements. Long-term funding objectives include maintaining diversification, maximizing market access and optimizing funding costs. The firm evaluates various funding markets, tenors and currencies in creating its optimal long-term funding plan.

The significant majority of the firm's long-term unsecured funding is issued by JPMC to provide maximum flexibility in support of both bank and nonbank subsidiary funding needs. JPMC contributes substantially all net funding proceeds to IHC. IHC does not issue debt to external counterparties. Figure 34 summarizes long-term unsecured issuance and maturities or redemptions for the years ended December 31, 2016 and 2015. For additional information, see Note 21 in the 2016 Annual Report.

Figure 34. Long-Term Unsecured Funding

Year ended December 31, (in millions)	2016	2015
Issuance		
Senior notes issued in the U.S. market	\$ 25,639	\$ 19,212
Senior notes issued in non-U.S. markets	7,063	10,188
Total senior notes	32,702	29,400
Subordinated debt	1,093	3,210
Structured notes	22,865	22,165
Total long-term unsecured funding – issuance	\$ 56,660	\$ 54,775
Maturities/redemptions		
Senior notes	\$ 29,989	\$ 18,454
Trust preferred securities	1,630	1,500
Subordinated debt	3,596	6,908
Structured notes	15,925	18,099
Total long-term unsecured funding – maturities/redemptions	\$ 51,140	\$ 44,961

The firm raises secured long-term funding through securitization of consumer credit card loans and advances from the FHLBs. Figure 35 summarizes the securitization issuance and FHLB advances and their respective maturities or redemption for the years ended December 31, 2016 and 2015.

Figure 35. Long-Term Secured Funding

Year ended December 31, (in millions)	Issuance		Maturities/Redemptions	
	2016	2015	2016	2015
Credit card securitization	\$ 8,277	\$ 6,807	\$ 5,025	\$ 10,130
Other securitizations(a)	—	—	233	248
FHLB advances	17,150	16,550	9,209	9,960
Other long-term secured funding(b)	455	1,105	2,645	383
Total long-term secured funding	\$ 25,882	\$ 24,462	\$ 17,112	\$ 20,721

(a) Other securitizations includes securitizations of student loans.
 (b) Includes long-term structured notes which are secured.

The firm's wholesale businesses also securitize loans for client-driven transactions; those client-driven loan securitizations are not considered to be a source of funding for the firm and are not included in the table above. For further description of the client-driven loan securitizations, see Note 16 in the 2016 Annual Report.

Overview of Capital Management Policy

Capital

Our capital management framework is designed to facilitate a rapid and orderly wind down of JPMC in the event of its resolution under the U.S. Bankruptcy Code.

Our approach to capital management is to ensure that JPMorgan Chase operates with resiliency throughout the business cycle, maintains long-term stability, serves as a source of strength to subsidiaries and maintains sufficient capital resources, appropriately allocated to its Material Legal Entities, to operate throughout resolution. JPMorgan Chase's capital management framework consists of internal minimum capital targets and strong capital governance processes that include a series of capital monitoring triggers at both the JPMC- and MLE-level.

Recent enhancements addressed the 2017 Guidance, including the creation of IHC, execution of the Support Agreement and development of the RCEN calculation and monitoring framework to ensure that we have sufficient capital resources to execute our Preferred Strategy. The RCEN framework is also designed to ensure an appropriate balance between capital resources prepositioned at each of our Material Legal Entities or held as a central buffer at IHC.

Enhancements in the 2017 Resolution Plan to Address the 2017 Guidance Capital Requirements

The 2017 Guidance required us to:

- develop triggers linking the estimate of the capital and liquidity needed to support Material Legal Entities through a full implementation of the Preferred Strategy to ensure that the Material Legal Entities can continue to operate, be wound down or sold (as applicable under the Preferred Strategy) in the event JPMC files for bankruptcy; and
- enhance JPMorgan Chase's existing capital management framework to provide for effective and timely monitoring of RCAP, RCEN and associated triggers.

We addressed the first part of this requirement as part of our 2016 Submission by developing RCEN and RCAP frameworks and prepositioning capital resources at, and developing capital monitoring triggers for, JPMC and all other Material Legal Entities. We also incorporated the monitoring of JPMC's capital monitoring triggers into our business-as-usual processes and procedures. For the 2017 Resolution Plan, we completed a number of enhancements to our reporting processes to ensure effective and timely monitoring of RCAP, RCEN, prepositioned financial resources and the MLE capital monitoring triggers, as follows:

- implemented a periodic process (at least quarterly) for ongoing calculation of MLE-level capital ratios and the monitoring thereof against the capital monitoring triggers set forth in the Material Legal Entities' capital management policies;
- implemented a periodic process (at least monthly) for the ongoing calculation and monitoring of JPMC's RCAP and RCEN;
- implemented a periodic process (at least monthly) for the ongoing calculation and monitoring of prepositioned financial resources at each Material Legal Entity and RCEN;
- in the event that JPMC files for bankruptcy, we have also ensured that we have the capability to estimate the near-term capital shortfall for each Material Legal Entity on a daily basis; and
- set capital monitoring triggers for IHC based on those of JPMC, and expanded the scope of the firmwide capital management policy and associated calibration supplement to include IHC.

To support the enhancements described above, we have:

- defined and communicated a clear framework of ownership and requirements, with monthly submissions, by Material Legal Entity, for each capital monitoring trigger defined in the relevant Material Legal Entity's capital management policy;

- provided training and documented guidance to the MLE data submitters;
- incorporated the new metrics, RCAP, RCEN and prepositioned capital resources, as well as, MLE recapitalization levels into existing reporting process on a monthly basis; and
- documented operational steps to be taken in the event of a breach in capital monitoring triggers.

We believe that the firm has satisfied all of the 2017 Guidance's capital requirements and so, subject to supervisory feedback, are not anticipating any significant changes to our capital management framework as it relates to resolution planning.

Overview of Liquidity Management Policy

Since the submission of the 2015 Resolution Plan, we have significantly strengthened the firm's liquidity position, while we continued to enhance our funding and liquidity management framework in conjunction with the evolving regulatory requirements related to resolution planning. We have enhanced our capabilities and implemented a comprehensive framework for estimating MLE liquidity needs prior to, and during resolution, including the development of enhanced RLAP and RLEN frameworks. The enhanced liquidity frameworks also detail material intercompany flows in each Material Legal Entity by counterparty, with product-level breakouts and daily cash flows for 365 days. Among other enhancements, we have positioned liquidity at Material Legal Entities, in many cases through new term funding arrangements, and we executed actions to simplify material intercompany funding relationships and reduce interconnectedness. We have also built a liquidity buffer at IHC to provide additional resiliency and flexibility in meeting resolution liquidity needs. We believe that these enhancements, together with the significant increase in JPMC's excess liquidity resources and the strengthened funding and liquidity management framework, have addressed Agency feedback.

Enhancement of Resolution Liquidity Adequacy and Positioning Framework

RLAP has been integrated into the firm's day-to-day liquidity risk management approach to sizing and managing liquidity needs by aligning JPM Stress to RLAP. We have enhanced our RLAP framework by estimating the stand-alone liquidity requirements as well as the resulting net liquidity position of each Material Legal Entity under stress, prior to resolution. In doing so, we incorporated identification and quantification of potential frictions at Material Legal Entities, including those associated with Material Legal Entities positioning liquidity resources at other Material Legal Entities. Additionally, we positioned a liquid asset buffer centrally at IHC to support potential liquidity shortfalls at Material Legal Entities. In doing so, we have considered daily contractual mismatches between inflows and outflows, daily movement of cash and collateral for intercompany transactions, daily stressed liquidity flows and trapped liquidity. The enhanced RLAP framework is also supported by a detailed analysis of the

interconnectedness of JPMCB London Branch, JPMS plc and JPMCB New York Branch.

RLAP Framework Assumptions and Analysis

The baseline for the enhanced RLAP framework is the JPM Liquidity Stress Framework, which is designed to estimate potential cash outflows under severe stress and ensure that the firm has sufficient liquidity resources to meet such cash outflows throughout the stress horizon. The JPM Liquidity Stress Framework assumes that a severe stress event results in JPMorgan Chase issuer credit ratings being downgraded by all three major rating agencies to one notch below investment grade on the first day of stress. This leads to a severe liquidity crisis owing to a loss of wholesale and retail funding, additional collateral margin postings, customer and counterparty outflows, a rapid decline in the trading value of JPMC's debt and other market factors. The framework also assumes that JPMorgan Chase would suffer severe deposit attrition, draws on unfunded lending commitments, significant derivative outflows, and would be unable to refinance maturing wholesale funding obligations, except for secured funding or lending transactions backed by high quality assets.

The RLAP framework includes a Restricted Liquidity Framework for funding frictions, which assesses jurisdictional, operational, counterparty and tax frictions. The Restricted Liquidity Framework is used to identify liquidity that could potentially be trapped within JPMorgan Chase legal entities. JPMC has created an enhanced Restricted Liquidity Framework to assess liquidity transfer restrictions at the MLE level (including between branches of JPMCB).

The enhanced RLAP Framework measures peak net funding outflows for each Material Legal Entity on a stand-alone basis and includes an enhanced level of granularity, reflecting daily cash flows throughout the Stress Period, as well as a product-level breakout of third-party and intercompany flows. Intercompany transactions are treated similarly to third-party transactions, with no fungibility of surplus liquidity across Material Legal Entities (including between branches of JPMCB). The enhanced RLAP framework provides an estimate of the amount of liquidity resources necessary to effectively meet the anticipated cumulative net peak

funding outflows (inclusive of restricted liquidity); and after taking into consideration liquidity prepositioned at the Material Legal Entity, any additional liquidity buffer that may be required to be maintained at IHC to support any liquidity shortfalls within the Material Legal Entities. The RLAP estimates reflect a conservative view of available sources of liquidity.

Material Legal Entities will primarily rely on prepositioned liquidity resources at the MLE level, and if necessary, the central liquidity buffer at IHC.

Reduction of Intercompany Funding Frictions

In conjunction with enhancements to the Restricted Liquidity Framework noted above, we also simplified material intercompany funding relationships and financial interconnectedness, thereby mitigating the potential risk of interaffiliate funding frictions. We completed actions to minimize potential intercompany funding frictions, including:

- eliminated certain intercompany commitments and replaced them with term unsecured funding;
- discontinued certain intercompany sweep arrangements;
- increased the tenor for certain unsecured and secured intercompany transactions;
- reduced interconnectedness by reducing or eliminating pass-through entities between the ultimate lender and ultimate borrower for certain intercompany transactions;
- transferred certain JPMC deposits and other JPMCB subsidiary demand deposit accounts from JPMCB London Branch to JPMCB New York Branch;
- continued legal entity simplification efforts, which have had the effect of significantly reducing intercompany funding flows; and
- distributed dividends from certain of JPMCB's non-MLE subsidiaries to JPMCB.

Enhancement of Resolution Liquidity Execution Need Framework

We enhanced the RLEN framework and process to estimate the stand-alone liquidity requirements to execute the Preferred Strategy, and the resulting net liquidity position of each Material Legal Entity in resolution, by:

- providing greater detail on the estimate of:
 - the minimum operating liquidity required by each Material Legal Entity; and
 - the peak daily funding needs of each Material Legal Entity following Resolution Weekend;
- reflecting the interconnectedness and potential funding frictions between various Material Legal Entities; and
- incorporating triggers into the Limit and Indicators Policy and the Contingency Funding Plan for the provision of liquidity support under the Support Agreement and for voting by the JPMC Board on whether to commence bankruptcy proceedings for JPMC under the amended JPMC Governance Playbook.

A description of our enhanced RLEN framework is set forth below. We believe that our enhanced RLEN framework, together with these related actions, addressed Agency feedback. We will use our enhanced RLEN framework on an ongoing basis.

RLEN Framework Assumptions and Analysis

The enhanced RLEN framework uses as a baseline the RLAP framework, subject to certain additional, resolution-specific modifications.

The estimates used in the RLEN framework reflect the minimum liquidity required at each Material Legal Entity to execute the Preferred Strategy throughout the Resolution Period and, thus, inform the timing of when JPMC should file for bankruptcy. The minimum liquidity required at each Material Legal Entity is calculated as the sum of:

- the minimum operating liquidity required to ensure that the Material Legal Entity can operate without disruption throughout the Resolution Period, including net operating expenses, intraday funding requirements and restricted liquidity;
- the liquidity required to ensure the Material Legal Entity can undertake an orderly wind down of its derivatives and trading assets, where applicable; and
- the Material Legal Entity's projected peak cumulative net funding outflows during the Resolution Period.

RLEN identifies the peak cumulative net funding needed to stabilize each Material Legal Entity after JPMC files for bankruptcy. We currently do not assume access to third-party unsecured funding markets throughout the Resolution Period, in our enhanced RLEN framework.

As part of our resolution liquidity modeling, we provide daily views of estimated RLEN cash flows (consistent with the enhanced framework) for 365 days, inclusive of the Runway Period.

The enhanced Restricted Liquidity Framework used in the RLAP framework is also used in the RLEN framework. The framework primarily applies to intercompany unsecured and secured transactions, commitments and derivatives, including transactions between Material Legal Entities and non-Material Legal Entities, and all other significant transactions. We implemented an additional third-party friction analysis to capture other funding frictions in the estimation of the minimum operating liquidity required by each Material Legal Entity.

High Quality Liquid Assets

HQLA is the amount of assets that qualify for inclusion in the U.S. LCR. HQLA primarily consists of cash and certain unencumbered high quality liquid assets, as defined under the U.S. LCR rules.

As of December 31, 2016, the firm's HQLA was \$524 billion, as compared with \$496 billion as of December 31, 2015. The increase in HQLA primarily reflects the impact of sales, maturities and paydowns in non-HQLA-eligible securities, as well as deposit growth in excess of loan growth. Certain of these actions resulted in increased excess liquidity at JPMCB and CUSA, which is excluded from the firm's HQLA, as required under the U.S. LCR rules. The firm's HQLA may fluctuate from period to period primarily due to normal flows from client activity.

Figure 36 presents the firm's estimated HQLA included in the U.S. LCR broken out by HQLA-eligible cash and securities as of December 31, 2016.

As of December 31, 2016, in addition to HQLA reported above, the firm had approximately \$262 billion of unencumbered marketable securities, such as equity securities and fixed income debt securities, available to raise liquidity, if required. This includes HQLA-eligible securities included as part of the excess liquidity at JPMCB. The firm also maintains borrowing capacity at various FHLBs, the Discount Window and various other central banks as a result of collateral pledged by the firm to such banks. Although available, the firm does not view the borrowing capacity at the Discount Window and the various other central banks as a primary source of liquidity. As of December 31, 2016, the firm's remaining borrowing capacity at various FHLBs and the Discount Window was approximately \$221 billion. This remaining borrowing capacity excludes the benefit of securities included in HQLA or other unencumbered securities that are currently held at the Discount Window, but for which the firm has not drawn liquidity.

Figure 36. High Quality Liquid Assets

(\$ billions)	December 31, 2016
HQLA	
Eligible Cash(a)	\$323
Eligible Securities(b)	\$201
Total HQLA(c)	\$524

(a) Cash on deposit at central banks.

(b) Predominantly includes U.S. agency mortgage-backed securities, U.S. Treasuries, and sovereign bonds net of applicable haircuts under U.S. LCR rules.

(c) Excludes excess HQLA at JPMCB and CUSA.

Derivatives and Hedging Activities

Description of Derivatives and Hedging Activities

Derivative Instruments

Derivative contracts derive their value from underlying asset prices, indices, reference rates, other inputs or a combination of these factors and may expose counterparties to risks and rewards of an underlying asset or liability without having to initially invest in, own or exchange the asset or liability. The firm makes markets in derivatives for clients and also uses derivatives to hedge or manage its own risk exposures. Predominantly all of the firm's derivatives are entered into for market-making or risk management purposes.

Market-Making Derivatives

The majority of the firm's derivatives are entered into for market-making purposes. Clients use derivatives to mitigate or modify interest rate, credit, foreign exchange, equity and commodity risks. The firm actively manages the risks from its exposure to these derivatives by entering into other derivative transactions or by purchasing or selling other financial instruments that partially or fully offset the exposure from client derivatives.

Risk Management Derivatives

The firm manages certain market and credit risk exposures using derivative instruments, including derivatives in hedge accounting relationships and other derivatives that are used to manage risks associated with specified assets and liabilities.

Interest rate contracts are used to minimize fluctuations in earnings that are caused by changes in interest rates. Fixed-rate assets and liabilities appreciate or depreciate in market value as interest rates change. Similarly, interest income and expense increases or decreases as a result of: (1) variable-rate assets and liabilities resetting to current market rates; and (2) the repayment and subsequent origination or issuance of fixed-rate assets and liabilities at current market rates. Gains or losses on the derivative instruments that are related to such assets and liabilities are expected to substantially offset this variability in earnings. The firm generally uses interest rate swaps, forwards and futures to manage the impact of interest rate fluctuations on earnings.

Foreign currency forward contracts are used to manage the foreign exchange risk associated with certain foreign currency-denominated (i.e., non-U.S. dollar) assets and liabilities and forecasted transactions, as well as the firm's net investments in certain non-U.S. subsidiaries or branches whose functional currencies are not the U.S. dollar. As a result of fluctuations in foreign currencies, the U.S. dollar-equivalent values of the foreign currency-denominated assets and liabilities or the forecasted revenues or expenses increase or decrease. Gains or losses on the derivative instruments related to these foreign currency-denominated assets or liabilities, or forecasted transactions, are expected to substantially offset this variability.

Commodities contracts are used to manage the price risk of certain commodities inventories. Gains or losses on these derivative instruments are expected to substantially offset the depreciation or appreciation of the related inventory.

Credit derivatives are used to manage the counterparty credit risk associated with loans and lending-related commitments. Credit derivatives compensate the purchaser when the entity referenced in the contract experiences a credit event, such as bankruptcy or a failure to pay an obligation when due. Credit derivatives primarily consist of credit default swaps. For a further discussion of credit derivatives, see the discussion in the Credit derivatives section on pages 184 to 186 in the 2016 Annual Report on Form 10-K.

For more information about risk management derivatives, see the risk management derivatives gains and losses table on page 184 in the 2016 Annual Report on Form 10-K, and the hedge accounting gains and losses tables on pages 182 to 184 also in the 2016 Annual Report on Form 10-K.

Derivative Counterparties and Settlement Types

The firm enters into OTC derivatives, which are negotiated and settled bilaterally with the derivative counterparty. The firm also enters into, as principal, certain exchange-traded derivatives such as futures and options, and OTC-cleared derivative contracts with central counterparties. Exchange-traded derivatives contracts are generally standardized contracts traded on an exchange and cleared by the central counterparty, which is the firm's counterparty from the inception of the transactions. OTC-cleared derivatives are traded on a bilateral basis and then novated to the central counterparty for clearing.

Derivative Clearing Services

The firm provides clearing services for clients where the firm acts as a clearing member with respect to certain

derivative exchanges and clearing houses. The firm does not reflect the clients' derivative contracts in its Consolidated Financial Statements. For further information on the firm's clearing services, see Note 29 in the 2016 Annual Report on Form 10-K.

For information on the accounting treatment of derivatives, please refer to the 2016 Annual Report on Form 10-K and other JPMC 1934 Act reports.

Notional Amount of Derivative Contracts

Figure 37 summarizes the notional amount of derivative contracts outstanding as of December 31, 2016 and December 31, 2015.

Figure 37. Derivative Contracts

December 31, (in billions)	Notional Amounts(b)	
	2016	2015
Interest rate contracts		
Swaps	\$22,000	\$24,162
Futures and forwards	5,289	5,167
Written options	3,091	3,506
Purchased options	3,482	3,896
Total interest rate contracts	33,862	36,731
Credit derivatives(a)	2,032	2,900
Foreign exchange contracts		
Cross-currency swaps	3,359	3,199
Spot, futures and forwards	5,341	5,028
Written options	734	690
Purchased options	721	706
Total foreign exchange contracts	10,155	9,623
Equity contracts		
Swaps	258	232
Futures and forwards	59	43
Written options	417	395
Purchased options	345	326
Total equity contracts	1,079	996
Commodity contracts		
Swaps	102	83
Spot, futures and forwards	130	99
Written options	83	115
Purchased options	94	112
Total commodity contracts	409	409
Total derivative notional amounts	\$47,537	\$50,659

(a) For more information on volumes and types of credit derivative contracts, see the Credit derivatives discussion on pages 184 to 186 in the 2016 Annual Report on Form 10-K.

(b) Represents the sum of gross long and gross short third-party notional derivative contracts.

While the notional amounts disclosed above give an indication of the volume of the firm's derivatives activity, the notional amounts significantly exceed, in the firm's view, the possible losses that could arise from such transactions. For most derivative transactions, the notional amount is not exchanged; it is used simply as a reference to calculate payments.

For further details on the impact of derivatives on the consolidated statements of income and balance sheet, please refer to the 2016 Annual Report on Form 10-K and other JPMC 1934 Act reports.

Operational Interconnectedness

The firm's Material Legal Entities enter into transactions between each other for services and financing in the ordinary course of business.

Certain of the firm's operations act as internal utilities providing services centrally across business lines and Material Legal Entities. Certain corporate or staff functions are managed centrally for the benefit of the firm globally and provided to most, if not all, Material Legal Entities of the firm. In addition, the firm provides certain operations to the U.S. marketplace which are designated as Critical Operations by the Agencies. Collectively, such services are referred to as Critical Shared Services in this Public Filing.

These services and functions are centralized at JPMorgan Chase to maximize efficiency and economies of scale, to facilitate risk management oversight and ensure an effective organizational and management design. These centralized functions inherently and by design result in operational interconnectedness amongst and between our Material Legal Entities.

Critical Shared Services provided by one Material Legal Entity to another Material Legal Entity are governed by interaffiliate service agreements, not unlike standard third-party vendor contracts.

These interaffiliate service agreements specify the contractual terms and conditions for providing the products, services and operations. JPMorgan Chase's interaffiliate service agreements contain appropriate contractual provisions to ensure that interaffiliate services continue in a resolution event and are not immediately terminated thereby ensuring operational continuity.

JPMorgan Chase is organized whereby the majority of its Critical Shared Services are concentrated in the JPMCB and CUSA Bank Chains, as well as its nonbank, self-sustaining service company, JPMSIPL.

Operations that do not qualify as bank-eligible, such as certain broker-dealer activities, cannot be housed in banking entities. Any such Critical Shared Services that are not bank eligible are largely undertaken in the U.S. broker-dealer Material Legal Entities.

Importantly, the firm's main operating bank entity, JPMCB, acts as the main contracting agent firmwide. This results in the majority of JPMorgan Chase's third-party vendor contracts for its Critical Shared Services being centralized in JPMCB, its branches and subsidiaries. Furthermore, JPMCB is a central repository and manager of the majority of the firmwide technology, real estate, personnel and other assets for the firm's Critical Shared Services.

Material Legal Entity Operational Interconnectivity

Figure 38 illustrates the operational interconnectivity of JPMorgan Chase's Material Legal Entities. As expected, JPMCB is the primary provider of critical shared services and the main receiver of interaffiliate services.

Figure 38. Summary of Interaffiliate Services

Material Legal Entity	Primarily Receives Interaffiliate Services From	Top 5 Services Received	Primarily Provides Interaffiliate Services To	Top 5 Services Provided
JPMorgan Chase & Co.	JPMorgan Chase Bank, N.A. J.P. Morgan Securities LLC	Administrative Services Financial Services and Global Finance Operations Transaction Services Rent Legal, Risk and Compliance Services	JPMorgan Chase Bank, N.A. J.P. Morgan Securities LLC J.P. Morgan Investment Management Inc.	Administrative Services Training and Human Resources Insurance Services Audit and Tax Services Sourcing, Procurement, Records Management, etc.
JPMorgan Chase Bank, N.A.	JPMorgan Services India Private Limited J.P. Morgan Securities LLC J.P. Morgan Treasury Technologies Corp. JPMorgan Chase & Co J.P. Morgan Europe Limited Chase Bank USA, N.A. J.P. Morgan International Bank Limited J.P. Morgan Securities plc JPMorgan Securities Japan Co., Ltd. J.P. Morgan AG J.P. Morgan Investment Management Inc. Chase BankCard Services, Inc.	Administrative Services Technology Services Offshore Operational Services Transaction Services Rent	J.P. Morgan Securities LLC J.P. Morgan Securities plc Chase Bank USA, N.A. J.P. Morgan Europe Limited J.P. Morgan Investment Management Inc. Chase BankCard Services, Inc. JPMorgan Securities Japan Co., Ltd. Paymentech, LLC JPMorgan Asset Management (UK) Limited J.P. Morgan International Bank Limited JPMorgan Chase & Co J.P. Morgan AG J.P. Morgan Treasury Technologies Corp.	Technology Services Administrative Services Financial Services and Global Finance Operations Legal, Risk and Compliance Services AWM Investment Management Activities
JPMorgan Chase Bank, N.A. - London Branch	JPMorgan Chase Bank, N.A. Chase Paymentech Europe Limited	Technology Services Administrative Services Transaction Services Financial Services and Global Finance Operations Offshore Operational Services	JPMorgan Chase Bank, N.A. J.P. Morgan Securities LLC J.P. Morgan Securities plc Chase Paymentech Europe Limited	Technology Services Administrative Services Treasury Operations Financial Services and Global Finance Operations Transaction Services

Overview of JPMorgan Chase

Operational Interconnectedness

Material Legal Entity	Primarily Receives Interaffiliate Services From	Top 5 Services Received	Primarily Provides Interaffiliate Services To	Top 5 Services Provided
JPMCB Philippine Global Service Center	JPMorgan Chase Bank, N.A. JPMorgan Chase Bank N.A. - London Branch JPMorgan Chase Bank N.A. - Hong Kong Branch	Financial Services and Global Finance Operations Training and Human Resources Administrative Services Technology Services Audit and Tax Services	JPMorgan Chase Bank, N.A.	Offshore Operational Services Credit Card Servicing Rent Financial Services and Global Finance Operations Call Center Services
JPMorgan Chase Bank N.A. - Hong Kong Branch	JPMorgan Chase Bank, N.A. JPMorgan Chase Bank N.A. - Singapore Branch JPMorgan Chase Bank N.A. - London Branch	Technology Services Administrative Services Legal, Risk and Compliance Services Transaction Services Treasury Operations	JPMorgan Chase Bank, N.A. JPMorgan Chase Bank N.A. - Singapore Branch JPMorgan Chase Bank N.A. - Sydney Branch J.P. Morgan Securities LLC J.P. Morgan Securities plc JPMorgan Securities Japan Co., Ltd.	Technology Services Administrative Services Legal, Risk and Compliance Services Financial Services and Global Finance Operations Rent
JPMorgan Chase Bank N.A. - Singapore	JPMorgan Chase Bank, N.A. JPMorgan Chase Bank N.A. - London Branch JPMorgan Chase Bank N.A. - Hong Kong Branch	Administrative Services Technology Services Financial Services and Global Finance Operations Legal, Risk and Compliance Services Transaction Services	JPMorgan Chase Bank, N.A. JPMorgan Chase Bank N.A. - Sydney Branch JPMorgan Chase Bank N.A. - Hong Kong Branch JPMorgan Chase Bank N.A. - London Branch J.P. Morgan Securities LLC J.P. Morgan Securities plc	Technology Services Administrative Services Legal, Risk and Compliance Services Transaction Services Financial Services and Global Finance Operations
JPMorgan Chase Bank N.A. - Sydney Branch	JPMorgan Chase Bank, N.A. JPMorgan Chase Bank N.A. - London Branch JPMorgan Chase Bank N.A. - Hong Kong Branch	Technology Services Transaction Services Administrative Services Offshore Operational Services Treasury Operations	JPMorgan Chase Bank, N.A.	Administrative Services Transaction Services Offshore Operational Services Technology Services Training and Human Resources

Overview of JPMorgan Chase

Operational Interconnectedness

Material Legal Entity	Primarily Receives Interaffiliate Services From	Top 5 Services Received	Primarily Provides Interaffiliate Services To	Top 5 Services Provided
JPMorgan Chase Bank N.A. - Tokyo Branch	JPMorgan Chase Bank, N.A.	Technology Services	JPMorgan Chase Bank, N.A.	Administrative Services
	JPMorgan Chase Bank N.A. - Singapore	Administrative Services	JPMorgan Chase Bank N.A. - Singapore	Technology Services
	JPMorgan Chase Bank N.A. - London Branch	Financial Services and Global Finance Operations	J.P. Morgan Securities LLC	Sales Distribution Channel Support
	JPMorgan Chase Bank N.A. - Hong Kong Branch	Legal, Risk and Compliance Services	J.P. Morgan Securities plc	Transaction Services
	JPMorgan Securities Japan Co., Ltd.	Risk Management Services	JPMorgan Securities Japan Co., Ltd.	Research
J.P. Morgan Services India Private Limited			JPMorgan Chase Bank, N.A.	Offshore Operational Services Technology Services Financial Services and Global Finance Operations Transaction Services Call Center Services
JPMorgan Distribution Services, Inc.	JPMorgan Chase Bank, N.A. JPMorgan Chase & Co	Training and Human Resources Rent Technology Services Financial Services and Global Finance Operations Legal, Risk and Compliance Services		
J.P. Morgan Treasury Technologies Corporation	JPMorgan Chase Bank, N.A.	Technology Services Training and Human Resources Administrative Services Network (Voice/Data) Services Legal, Risk and Compliance Services	JPMorgan Chase Bank, N.A.	Technology Services Transaction Services Administrative Services Treasury Operations Rent
J.P. Morgan AG	JPMorgan Chase Bank, N.A.	Treasury Operations Technology Services Administrative Services Transaction Services Sourcing, Procurement, Records Mgmt, etc.	JPMorgan Chase Bank, N.A. J.P. Morgan Securities plc	Treasury Operations Sales Distribution Channel Support Administrative Services Rent Transaction Services

Overview of JPMorgan Chase

Operational Interconnectedness

Material Legal Entity	Primarily Receives Interaffiliate Services From	Top 5 Services Received	Primarily Provides Interaffiliate Services To	Top 5 Services Provided
J.P. Morgan Europe Limited	JPMorgan Chase Bank, N.A.	Technology Services Administrative Services Transaction Services Financial Services and Global Finance Operations Offshore Operational Services	JPMorgan Chase Bank, N.A.	Sales Distribution Channel Support Transaction Services Administrative Services Treasury Operations Financial Services and Global Finance Operations
JPMorgan Securities Japan Co., Ltd.	JPMorgan Chase Bank, N.A.	Technology Services Administrative Services Legal, Risk and Compliance Services Financial Services and Global Finance Operations Transaction Services	JPMorgan Chase Bank, N.A. J.P. Morgan Securities LLC J.P. Morgan Securities plc	Technology Services Legal, Risk and Compliance Services Administrative Services Custody Services Transaction Services
J.P. Morgan Securities LLC	JPMorgan Chase Bank, N.A.	Technology Services AM Investment Management Activities Administrative Services Financial Services and Global Finance Operations Rent	JPMorgan Chase Bank, N.A.	Administrative Services Transaction Services Research AM Funds Management Services Financial Services and Global Finance Operations
J.P. Morgan Securities plc	JPMorgan Chase Bank, N.A.	Administrative Services Technology Services Financial Services and Global Finance Operations Risk Management Services Transaction Services	JPMorgan Chase Bank, N.A. J.P. Morgan Securities LLC	Administrative Services Research Custody Services Clearing and Settlement Services Rent
J.P. Morgan Ventures Energy Corporation	JPMorgan Chase Bank, N.A.	Risk Management Services Financial Services and Global Finance Operations Technology Services Administrative Services Transaction Services		

Overview of JPMorgan Chase

Operational Interconnectedness

Material Legal Entity	Primarily Receives Interaffiliate Services From	Top 5 Services Received	Primarily Provides Interaffiliate Services To	Top 5 Services Provided
J.P. Morgan Whitefriars LLC	JPMorgan Chase Bank, N.A.	Administrative Services Financial Services and Global Finance Operations Transaction Services Technology Services Sourcing, Procurement, Records Mgmt, etc.	J.P. Morgan Securities LLC J.P. Morgan Securities plc	Administrative Services
Chase BankCard Services, Inc.	JPMorgan Chase Bank, N.A.	Research Rent Statements Processing and Publication Technology Services Training and Human Resources	JPMorgan Chase Bank, N.A. Chase Bank USA, N.A.	Credit Card Servicing Mail & Copy Services Training and Human Resources Technology Services Risk Management Services
Chase Bank USA, N.A.	JPMorgan Chase Bank, N.A.	Technology Services Risk Management Services Administrative Services Training and Human Resources Legal, Risk and Compliance Services	JPMorgan Chase Bank, N.A. Chase BankCard Services, Inc.	Rent Branch Services Financial Services and Global Finance Operations Administrative Services Technology Services
Chase Issuance Trust				
Chase Mortgage Holdings Inc	JPMorgan Chase Bank, N.A.	Mortgage Loan Servicing		
Chase Paymentech Europe Limited	JPMorgan Chase Bank, N.A. Paymentech, LLC	Credit Card Servicing Training and Human Resources Legal, Risk and Compliance Services Offshore Operational Services Sourcing, Procurement, Records Mgmt, etc.	JPMorgan Chase Bank, N.A.	Offshore Operational Services

Overview of JPMorgan Chase

Operational Interconnectedness

Material Legal Entity	Primarily Receives Interaffiliate Services From	Top 5 Services Received	Primarily Provides Interaffiliate Services To	Top 5 Services Provided
Chase Paymentech Solutions	JPMorgan Chase Bank, N.A. Paymentech, LLC	Credit Card Servicing Rent Statements Processing and Publication Technology Services Legal, Risk and Compliance Services	Paymentech, LLC	Legal, Risk and Compliance Services
Paymentech, LLC	JPMorgan Chase Bank, N.A.	Technology Services Training and Human Resources Rent Audit and Tax Services Risk Management Services	JPMorgan Chase Bank, N.A. Chase Paymentech Europe Limited Chase Paymentech Solutions	Credit Card Servicing Rent Technology Services Offshore Operational Services
JPMorgan Asset Management (Europe) S.a r.l.	JPMorgan Chase Bank, N.A.	Rent Training and Human Resources Financial Services and Global Finance Operations Technology Services Sourcing, Procurement, Records Mgmt, etc.	JPMorgan Chase Bank, N.A.	Training and Human Resources Legal, Risk and Compliance Services Sourcing, Procurement, Records Mgmt, etc. Rent AM Investment Management Activities
JPMorgan Asset Management (UK) Limited	JPMorgan Chase Bank, N.A.	Rent Legal, Risk and Compliance Services Technology Services Financial Services and Global Finance Operations Audit and Tax Services	J.P. Morgan Investment Management Inc. J.P. Morgan International Bank Limited	AM Investment Management Activities Training and Human Resources Legal, Risk and Compliance Services
J.P. Morgan International Bank Limited	JPMorgan Chase Bank, N.A.	Technology Services Rent Legal, Risk and Compliance Services Administrative Services Transaction Services	JPMorgan Chase Bank, N.A.	Technology Services Administrative Services Transaction Services AM Funds Management Services Advertising, PR, Market Research, etc.

Overview of JPMorgan Chase

Operational Interconnectedness

Material Legal Entity	Primarily Receives Interaffiliate Services From	Top 5 Services Received	Primarily Provides Interaffiliate Services To	Top 5 Services Provided
J.P. Morgan Investment Management Inc.	JPMorgan Chase Bank, N.A. JPMorgan Chase & Co	Technology Services Rent Legal, Risk and Compliance Services AM Investment Management Activities Training and Human Resources	JPMorgan Chase Bank, N.A. JPMorgan Asset Management (UK) Limited	Technology Services AM Investment Management Activities Training and Human Resources Mail & Copy Services
JPMorgan Chase Holdings LLC	JPMorgan Chase Bank, N.A.	Loan Servicing Financial Services and Global Finance Operations		

Regardless of the resolution strategy, the capital and liquidity management frameworks ensure that the funding needed to support the required services is both available and provided to the Material Legal Entities needed to undertake the activities necessary to directly and indirectly support JPMorgan Chase’s Critical Shared Services.

Material Legal Entity Connectivity by Shared Services

While the section above highlights the firm’s operational interconnectedness at the MLE level, this section highlights the operational interconnectedness at the Critical Shared Service level. As expected, JPMCB is in the main provider of Critical Shared Services, followed by its MLE branches and finally by JPMSIPL.

Excluding rent and management overhead, the top five Critical Shared Services include:

- Technology Services;
- Legal, Risk and Compliance Services;
- Offshore Operational Services;
- Financial Services and Global Finance Operations; and
- Transaction Services.

Figure 39 highlights the top five Critical Shared Services for our Material Legal Entities. The chart focuses on the top five shared services and shows the Material Legal Entities that provide 85% of each of the Critical Shared Services and reinforces the concentration of Critical Shared Services, as the vast majority of such services are housed within the JPMCB and CUSA Bank Chains and JPMSIPL.

Figure 39. Top Five Shared Services by Providing Entity

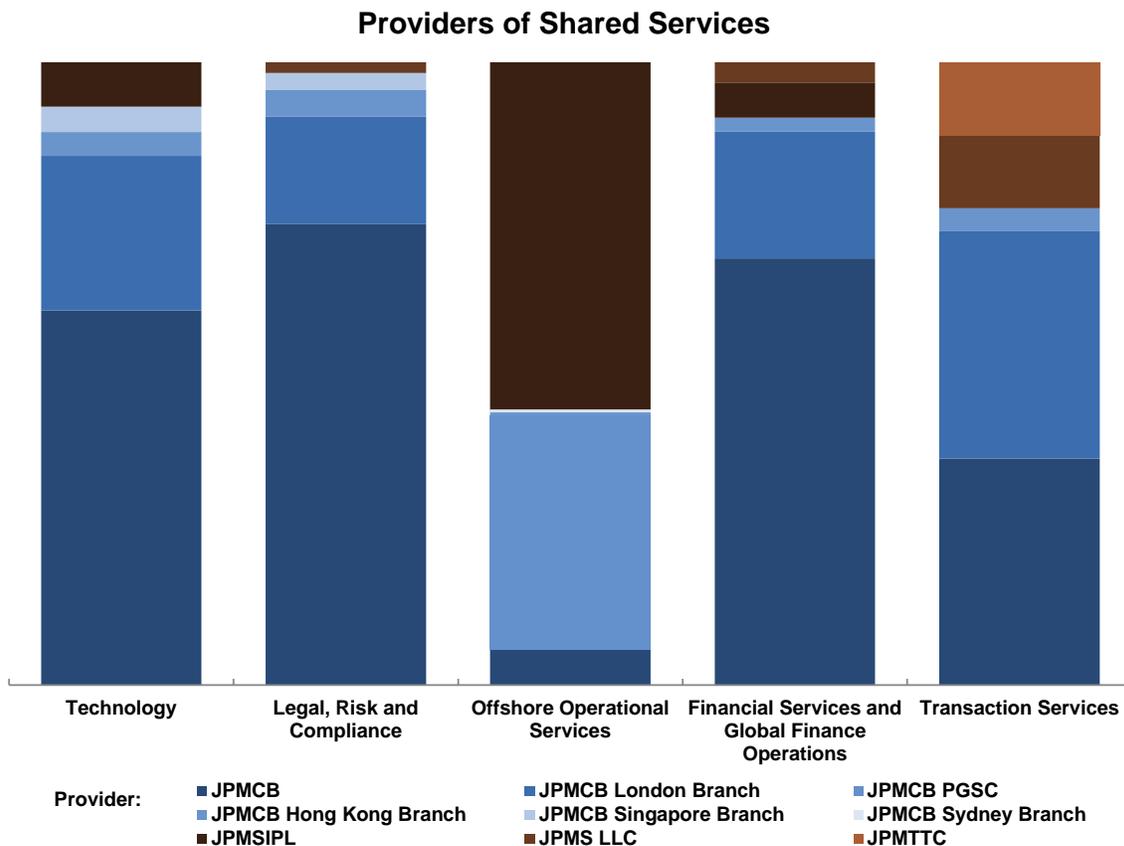
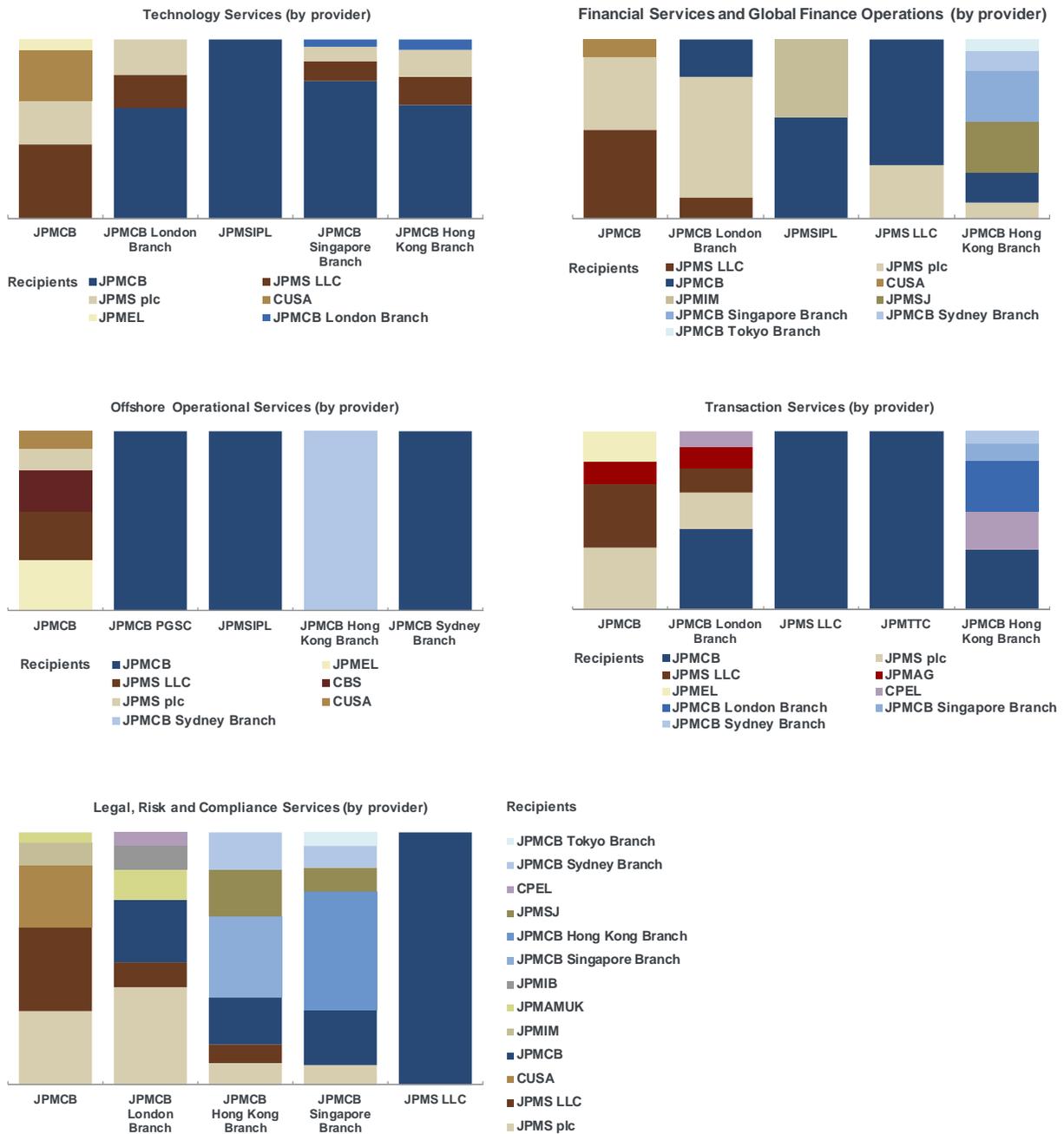


Figure 40 shows the receiver breakdown of service types provided from each providing Material Legal Entity. This set of charts provides additional detail at the individual Critical Shared Service level. These charts also highlight for the given Critical Shared Service: the top five providers for the service; and the Material Legal Entity receiving the service. From a scale perspective, Technology is roughly four times as large as the other four Critical Shared Services, which are all of a similar scale.

Each chart represents one of the top five Critical Shared Services. On each chart, the bar represents the Material Legal Entity providing the service, and each segment represents the Material Legal Entity receiving the service.

Figure 40. Top Five Shared Services by Providing and Receiving Entity



Overview of Critical Shared Services

We Concentrate Critical Shared Services in the JPMCB Bank Chain and JPMSIPL

We view and have defined Critical Shared Services to include both our Critical Operations, which act as central essential utilities for the firm, as well as the essential, centrally managed shared Corporate and line of business staff functions (e.g., Technology, Legal, Human Resources) necessary to support such Critical Operations, legal entities, and lines of business.

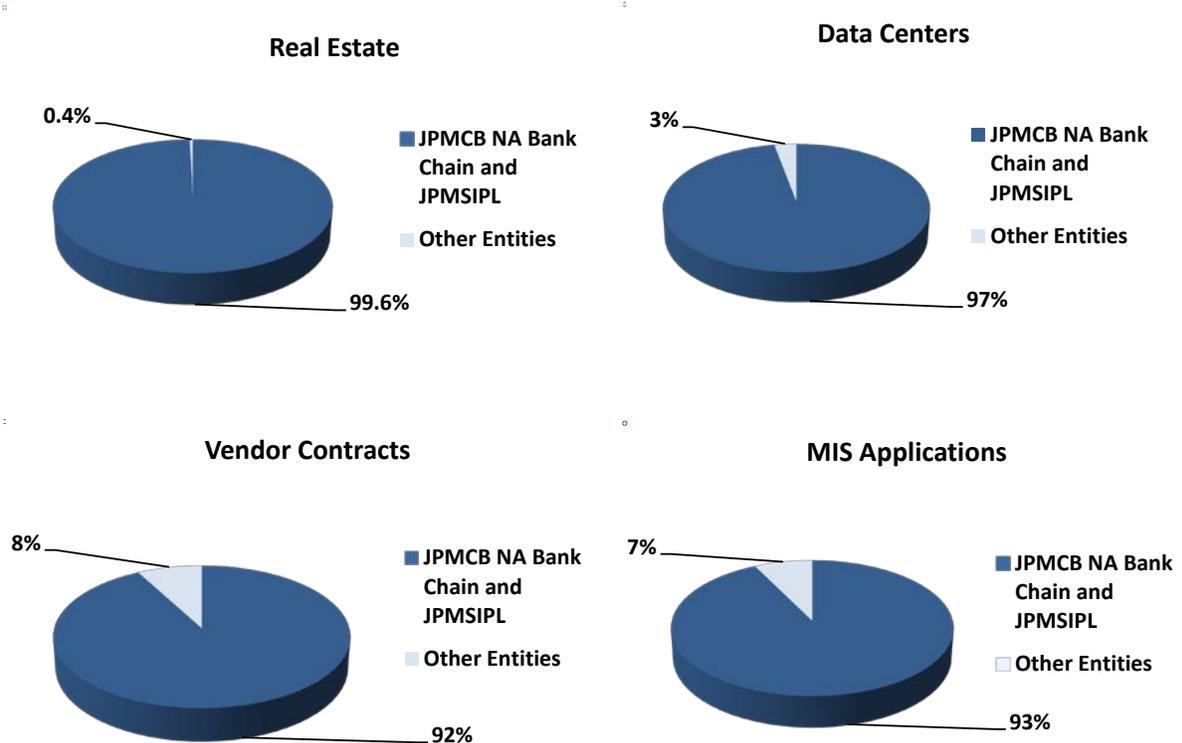
As illustrated by Figure 41, JPMorgan Chase concentrates shared services (e.g., assets, personnel, IT, facilities, IP, contracts) necessary to provide the Critical Shared Services within the JPMCB Bank Chain and JPMSIPL. Additionally, services that must be provided (or are most optimally provided) by broker-dealer entities are similarly concentrated in JPMS LLC, and credit card services are concentrated in the CUSA Bank Chain.

The legal entity and resolution strategy benefits from this governance structure and the management principles it employs:

- the vast majority of such personnel, critical vendor relationships and management information systems applications directly supporting its Critical Shared Services, as noted above, are held through the JPMCB Bank Chain and JPMSIPL; and
- regardless of the resolution strategy, the frameworks ensure that the funding needed to support the required services is both available and provided to the legal entities needed to undertake the activities necessary to directly and indirectly support JPMorgan Chase’s Critical Shared Services.

JPMC believes this concentration and funding framework help meet the objective of operational continuity during a resolution event.

Figure 41. Overview of JPMorgan Chase Critical Shared Services



Financial Market Utilities and Payment, Clearing and Settlement

Membership in Material Payment, Clearing and Settlement Systems

JPMorgan maintains memberships and/ or participations (either directly or indirectly) in 20 significant FMUs and agent banks to facilitate the clearing and settlement of customer securities, derivatives and cash transactions.

Those FMUs and agent banks are listed in Figure 42 below, and are described in more detail in the sections that follow.

Figure 42. Top 20+ FMUs and Agent Banks

Top 20+ FMUs and Agent Banks	
Payment Systems	
1.	FedWire Funds Service
2.	The Clearing House Interbank Payments System
3.	FedACH Services
4.	Electronic Payments Network
5.	Trans-European Automated Real-time Gross settlement Express Transfer System
6.	Euro Banking Association - EURO1
7.	Clearinghouse Automated Payment System
8.	FX Yen Clearing System
US Securities	
9.	Fedwire Securities Service
10.	The Depository Trust Company
11.	National Securities Clearing Corporation
12A.	FICC Government Securities Division
12B.	FICC Mortgage-Backed Securities Division
13.	CME Clearing
European Securities	
14.	Euroclear UK & Ireland Limited (CREST)
15.	Euroclear Bank SA/NV
16.	Clearstream Banking SA
17.	LCH Clearnet Limited
18.	LCH Clearnet SA
Others	
19.	CLS
20.	SWIFT
Agent Banks	
21.	Royal Bank of Canada
22.	BNP Paribas

Payment Systems

U.S. Payment Systems FMUs

Fedwire Funds Service, or Fedwire Funds, is a wire transfer services provider that is owned and operated by the Federal Reserve Banks. Fedwire Funds is a real-time gross settlement system. Payments are continuously settled on an individual, order-by-order basis without netting. Participants use Fedwire Funds to instruct a Federal Reserve Bank to debit funds from the participant's own Reserve Bank account and credit the Federal Reserve Bank account of another participant. Fedwire Funds processes, among other things, the purchase and sale of federal funds; the purchase, sale and financing of securities transactions; the disbursement or repayment of loans; the settlement of domestic and cross-border U.S. dollar commercial transactions; and the settlement of real estate transactions and other high-value, time-critical payments; however it can be used to process any payment. Fedwire Funds has not been designated as systemically important by the Financial Stability Oversight Council.

The Clearing House Interbank Payments System, or CHIPS, a U.S. payments system, is a service of The Clearing House Payments Company LLC, or The Clearing House, which, in turn, is owned by many of the world's largest commercial banks. CHIPS is a large-value wire transfer payment system with real-time final net settlement of payments. Payments become final on completion of settlement, which occurs throughout the day. CHIPS processes a large proportion of U.S. dollar cross-border payments and an increasing volume of U.S. domestic payments.

FedACH Services, or FedACH, is an electronic payment system providing automated clearing house, or ACH, services that is owned and operated by the Federal Reserve Banks. The ACH system exchanges batched debit and credit payments among business, consumer and government accounts. The system processes preauthorized recurring payments such as payroll, Social Security, mortgage and utility payments, and nonrecurring payments such as telephone-initiated payments and checks converted into ACH payments at lockboxes and points of sale. It also processes outbound cross-border ACH payments through the FedGlobal service.

Electronic Payments Network, or EPN, is an electronic payment system providing ACH services. EPN is owned and operated by The Clearing House Payments Company LLC, or The Clearing House. EPN facilitates exchanges of batched debit and credit payments among business, consumer and government accounts. The system processes pre-authorized recurring payments such as payroll, Social Security, mortgage and utility payments, as well as non-recurring payments such as telephone-initiated payments and the conversion of checks into ACH payments at lockboxes and points of sale. It also processes inbound and outbound cross-border ACH payments through foreign gateway operators.

European Payment Systems FMUs

Trans-European Automated Real-time Gross settlement Express Transfer system, or TARGET2, is the real-time gross settlement linking system owned and operated by the Eurosystem. TARGET2 is the settlement system for cross border payments in euro, with settlement in central bank money. Participating commercial banks access the TARGET2 system via the national central banks of Eurozone Member States. TARGET2 has to be used for all payments involving the Eurosystem, as well as for the settlement of operations of all large-value net settlement systems and securities settlement systems handling the euro (e.g., EURO1).

EURO1 is a private sector owned payment system for domestic and cross-border single payments in euro between banks operating in the European Union. EURO1 participants exchange commercial and financial payments to other participants through the EURO1/STEP1 system, which is operated by EBA Clearing (the trading name of ABE Clearing S.A.S) and is subject to the lead oversight of the European Central Bank.

The Clearing House Automated Payment System, or CHAPS, is the U.K.'s interbank payment system for large value sterling payments. CHAPS is operated by CHAPS Clearing Company Limited, or CHAPS Co. For its normal operation, CHAPS depends on the real-time gross settlement IT infrastructure of the Bank of England. CHAPS Co is also subject to Bank of England oversight. CHAPS Co is owned by the members of CHAPS.

The Foreign Exchange Yen Clearing System, is the settlement system for payments in Japanese yen,

resulting from foreign exchange transactions, transactions in the euroyen market, export-import transactions and other similar transactions. The processing of payments takes place on the Bank of Japan Financial Network System, whereby payments are settled on a real-time gross settlement basis. The Bank of Japan is an oversight body of the payment and settlement systems in Japan.

Securities

U.S. Securities FMUs

Fedwire Securities Service, or Fedwire Securities, is a national securities book entry system that is owned and operated by the Federal Reserve Banks. Fedwire Securities conducts real-time transfers of securities and related funds, on a gross basis. Fedwire Securities provides for the issuance, maintenance, safekeeping, transfer and settlement for U.S. Treasury securities, for many federal government agency and government-sponsored enterprise securities and for certain international organizations' securities. Fedwire Securities serves depository institutions, the U.S. Treasury and federal government agencies. Fedwire Securities is primarily governed by the Federal Reserve and the Federal Reserve Banks. The U.S. Treasury also oversees specified fiscal agency activities of Fedwire Securities.

The Depository Trust Company, or DTC, is a central securities depository providing depository and book-entry services for eligible securities and other financial assets to its participants, which are principally banks and broker-dealers. DTC is a subsidiary of The Depository Trust & Clearing Corporation, or DTCC, which is owned by the participants/members of its clearing agency subsidiaries, including international broker-dealers, correspondent and clearing banks, mutual fund companies and investment banks. DTC processes the movement of securities for trades that are cleared and settled in the Continuous Net Settlement system operated by its affiliate National Securities Clearing Corporation, a central counterparty for the clearance of trades in U.S. cash markets; processes transactions settled in Canadian dollars through its interface with credit default swap Clearing and Depository Services, Inc.; provides settlement services for institutional trades (which typically involve money and securities transfers between custodian banks and broker-

dealers); and provides for the settlement of issuances and maturities of money market instruments.

National Securities Clearing Corporation, or NSCC, a U.S. securities clearing agency, is a subsidiary of the Depository Trust & Clearing Corporation which, in turn, is owned by its users, including major banks, broker-dealers, and other financial institutions. NSCC provides clearing, settlement, risk management, central counterparty services and a guarantee of completion for certain transactions for virtually all U.S. broker-to-broker trades involving equities, corporate and municipal debt, American depository receipts, exchange-traded funds, and unit investment trusts. NSCC supports more than 50 exchanges, alternative trading systems and other trading centers, as well as banks, broker-dealers and other clearing members. NSCC generally clears and settles trades on a T+3 basis. It is regulated by the SEC and supervised by the Federal Reserve.

Fixed Income Clearing Corporation, or FICC, a U.S. securities clearing agency, is also a subsidiary of the Depository Trust & Clearing Corporation which, in turn, is owned by its users, including major banks, broker-dealers and other financial institutions. FICC operates two divisions, the Government Securities Division and the Mortgage Backed Securities Division. Each division offers services to its own members pursuant to separate rules and procedures. FICC is registered as a clearing agency with the SEC and supervised by the Federal Reserve.

- Government Securities Division is a central counterparty and provides real-time trade matching, netting and clearing services for trades in U.S. government debt issues, including repurchase agreements. Securities transactions processed by Government Securities Division include Treasury bills, bonds, notes and government agency securities.
- Mortgage Backed Securities Division is a central counterparty and provides real-time trade matching, netting, and clearing services for the mortgage backed securities market. FICC is registered as a clearing agency with the SEC and supervised by the Federal Reserve.

Chicago Mercantile Exchange Inc. (CME) Clearing provides clearing and settlement services for futures,

options, and over-the-counter derivatives products. CME has been designated by the Financial Stability Oversight Council as a systemically important financial market utility pursuant to Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act. CME is registered with the CFTC as a derivatives clearing organization, and is regulated by the CFTC. As a systemically important FMU, CME is also subject to regulatory oversight by the Federal Reserve.

European Securities FMUs

Euroclear UK & Ireland, or EUI (formerly CREST), system is the U.K.'s Central Securities Depository, providing facilities for the dematerialized holding of U.K. equities, exchange traded funds, gilt securities and money market instruments (as well as certain foreign securities through CREST depository instruments). CREST is also the securities settlement system for the settlement of these instruments. Through its links to securities settlement system in other jurisdictions (including the United States) settlement of some non-U.K. securities is also possible in CREST. EUI is regulated in the United Kingdom by the Bank of England.

Euroclear Bank, or Euroclear, provides international central securities depository services and settlement services for cross-border transactions involving domestic and international bonds, equities, derivatives and investment funds. Euroclear is a primary provider of settlement services for Eurobonds. The Euroclear group includes Euroclear Belgium, Euroclear Finland, Euroclear France, Euroclear Nederland, Euroclear Sweden, and Euroclear UK & Ireland, which provide settlement services in their respective local markets. Euroclear also provides related banking services to its settlement participants.

Clearstream is an international central securities depository and securities settlement system owned and operated by Clearstream Bank S.A., or CBL. A wide range of financial instruments (spanning a variety of equity and debt instruments and warrants) are eligible for deposit and transfer in Clearstream. CBL provides custody related services (corporate action processing, withholding tax services, etc.) for securities held in Clearstream. CBL also provides securities borrowing and lending services to Customers as well as a triparty collateral management service (including a triparty repo service). CBL is incorporated in Luxembourg and is

authorized as a credit institution (i.e., a bank) by the *Commission de Supervision du Secteur Financier of Luxembourg*. CBL is also subject to the oversight of the Central Bank of Luxembourg.

LCH.Clearnet Limited, or LCH Ltd, is a central counterparty incorporated under the laws of England and Wales. LCH provides central clearing for a wide range of products including, commodities (exchange traded and OTC); equities, energy, fixed income (RepoClear), FX contracts (ForexClear), Freight; and interest rate and credit default swaps (SWAPClear). It is regulated by the Financial Services Authority and is also subject to the oversight of the Bank of England. LCH Ltd also is a derivatives clearing organization in the United States, and is subject to CFTC rules and the U.S. Commodity Exchange Act. LCH Ltd is a wholly owned subsidiary of LCH.Clearnet Group Limited.

LCH.Clearnet SA, or LCH SA, is a central counterparty incorporated under the laws of France. It provides central clearing of a wide range of products including: credit default swaps, energy (Bluenext); futures and options, equities, and cash bonds and repos. LCH is regulated as a credit institution and central counterparty by a regulatory college consisting of the market regulators and central banks from the jurisdictions of France, Netherlands, Belgium and Portugal. LCH SA is also regulated in the United Kingdom by the Bank of England as a recognized overseas clearing house. LCH SA is a wholly owned subsidiary of LCH.Clearnet Group Limited.

Other

CLS Bank International, or CLS Bank, is a multi-currency cash settlement system. Through its Continuous Linked Settlement, or CLS, platform, CLS Bank settles payment instructions related to trades in traded FX spot contracts, FX forwards, FX options, FX swaps, credit derivatives across eighteen major currencies. CLS Bank's parent company, CLS Group Holdings, is a Swiss company that owns CLS UK Intermediate Holdings, Ltd., which in turn owns CLS Bank and CLS Services, a company organized under the laws of England that provides technical and operational support to CLS Bank. As an Edge Act corporation, CLS Bank is regulated and supervised in the United States by the Federal Reserve. In the United Kingdom, Her Majesty's Treasury has specified CLS Bank as a recognized payment system, and it is subject to regulation by the Bank of England.

The Society for Worldwide Interbank Financial Telecommunication, or SWIFT, provides a telecommunication platform for the exchange of standardized financial messages between financial institutions, between financial institutions and market infrastructures, and between financial institutions and their corporate clients. Although SWIFT is neither a payment system nor a settlement system and, as such, is not regulated by central banks or bank supervisors, a large and growing number of systemically important payment systems have become dependent on SWIFT, as a critical service provider. SWIFT is therefore subject to oversight by the central banks of the G10 led by the National Bank of Belgium.

Agent Banks

Royal Bank of Canada, or RBC, is the largest bank in Canada by market capitalization, and ranks among the top 20 banks globally by market capitalization. RBC operates in five key market segments; Personal and Commercial Banking, Wealth Management, Insurance, Investor & Treasury Services, and Capital Markets. RBC is listed as a Schedule I bank by the Canadian Bankers Association, authorized by the Office of the Superintendent of Financial Institutions to operate in Canada, and authorized under the Bank Act to accept deposits, which may be eligible for deposit insurance provided by the Canadian Deposit Insurance Corporation. RBC is designated as a domestic systemically important bank in Canada, and acts as JPMorgan Chase's correspondent bank and subcustodian in Canada.

The BNP Paribas Group was formed in 2000 through the merger of Banque Nationale de Paris and Paribas. The BNP Paribas Group, which includes BNP Paribas Securities Services SCA, or BP2S, and BNP Paribas S.A., or BNPSA, is organized into three core business divisions: Investment Solutions, Retail Banking, Corporate & Investment Bank. BP2S, which falls within Corporate & Investment Bank, provides clearing and settlement services for transactions involving domestic and international bonds, equities, derivatives and investment funds. BP2S provides subcustody services via its proprietary network in 26 countries globally. BP2S is regulated by the French regulators *Autorité de Contrôle Prudentiel et de Résolution* and *Autorité des Marchés Financiers*, which provides them with a European Passport. Local regulators such as the Dutch *Autoriteit Financiële Markten* or the German Federal

Financial Supervisory Authority may regulate specific local businesses undertaken by BP2S. BNP acts as JPMorgan Chase's subcustodian across nine markets in Europe, and as JPMorgan Chase's correspondent bank in France.

Description of Management Information Systems

Description of Material Management Information

JPMorgan Chase maintains a comprehensive set of management information surrounding its risk, liquidity, financial and regulatory reporting and monitoring.

JPMorgan Chase's risk management framework and governance structure are intended to provide comprehensive controls and ongoing management of the major risks inherent in its business activities. The firm employs a holistic approach to risk management intended to ensure the broad spectrum of risk types are considered in managing its business activities. The firm's risk management framework is intended to create a culture of risk awareness and personal responsibility throughout the firm where collaboration, discussion, escalation and sharing of information are encouraged.

The firm's exposure to risk through its daily business dealings, including lending and capital markets activities and operational services, is identified and aggregated through the firm's risk management infrastructure. There are several major risk types identified in the business activities of the firm: liquidity risk, credit risk, market risk, country risk, model risk, principal risk, operational risk, legal, regulatory, and compliance risk, fiduciary risk and reputation risk.

Liquidity Risk

Liquidity risk is the risk that the firm will be unable to meet its contractual and contingent obligations. Liquidity risk management is intended to ensure that the firm has the appropriate amount, composition and tenor of funding and liquidity in support of its assets.

Liquidity Risk Management and Oversight

The JPMorgan Chase corporate treasury liquidity management function, in conjunction with the independent Liquidity Risk Oversight function have established and implemented strategies, policies and procedures to effectively manage firmwide liquidity risk, which are documented through the Liquidity Risk Oversight Policy, liquidity management framework, Contingency Funding Plan and Limit and Indicators Policy. JPMorgan Chase senior management recognizes the importance of a robust liquidity management function that supports strategic decision-making activities, and produces robust management and supervisory reporting

through identification, measurement, monitoring, analytics and reporting of liquidity risk within the firm. Policies and procedures are in place for the review of all liquidity stress testing practices, methodologies, and assumptions through the firmwide Liquidity Stress Governance Forum. Liquidity risk appetite is determined through the firm's risk appetite policy, where parameters are set and approved by the JPMC CEO, CFO and CRO.

Liquidity Risk Oversight's responsibilities include but are not limited to:

- establishing and monitoring limits, indicators, and thresholds, including liquidity appetite tolerances;
- defining and monitoring internal firmwide and legal entity stress tests and regulatory defined stress testing;
- reporting and monitoring liquidity positions, balance sheet variances and funding activities; and
- conducting ad hoc analysis to identify potential emerging liquidity risks.

Treasury is responsible for liquidity management. The primary objectives of effective liquidity management are to ensure that the firm's core businesses are able to operate in support of client needs, meet contractual and contingent obligations through normal economic cycles as well as during stress events, ensure funding mix optimization, and availability of liquidity sources. The firm manages liquidity and funding using a centralized, global approach in order to optimize liquidity sources and uses.

In the context of the firm's liquidity management, Treasury is responsible for:

- analyzing and understanding the liquidity characteristics of the firm, lines of business and legal entities' assets and liabilities, taking into account legal, regulatory, and operational restrictions;
- defining and monitoring firmwide and legal entity liquidity strategies, policies, guidelines, and Contingency Funding Plan;
- managing liquidity within approved liquidity risk appetite tolerances and limits; and
- setting transfer pricing in accordance with underlying liquidity characteristics of balance sheet assets and liabilities as well as certain off-balance sheet items.

Liquidity Risk Infrastructure Initiative

Since Q4 2011 JPMC has worked to implement the firm wide, mission critical Liquidity Risk Infrastructure initiative. The objective of the initiative is to develop world class liquidity risk measurement, analytics, reporting, and management capabilities utilizing a high degree of automation that enables the firm to increase the granularity and frequency of analytic and reporting capabilities while adapting to changing business needs in a timely manner. The program will allow Corporate Treasury, Liquidity Risk Oversight and the lines of business Treasury teams to do the following:

- support strategic decision-making and our fortress balance sheet;
- ensure the firm is appropriately funded in all economic cycles;
- monitor and manage liquidity at the firm and legal entity levels within approved liquidity risk appetite tolerances as well as other internal and regulatory requirements;
- meet regulatory reporting requirements; and
- support resolution planning, liquidity analytics and reporting requirements.

Liquidity Risk Governance and Measurement

Specific committees responsible for liquidity governance include firmwide ALCO as well as lines of business and regional ALCOs, and the CTC Risk Committee.

Internal Stress Testing

Liquidity stress tests are intended to ensure sufficient liquidity for the firm under a variety of adverse scenarios. Results of stress tests are therefore considered in the formulation of the firm's funding plan and assessment of its liquidity position. Liquidity outflow assumptions are modeled across a range of time horizons and contemplate both market and idiosyncratic stress. Standard stress tests are performed on a regular basis and ad hoc stress tests are performed in response to specific market events or concerns. In addition, stress scenarios are produced for JPMC and its major subsidiaries.

Liquidity stress tests assume all of the firm's contractual obligations are met and then take into consideration varying levels of access to unsecured and secured funding markets. Additionally, assumptions with respect to potential non-contractual and contingent outflows are contemplated.

The firm also conducts weekly market risk stress testing processes to better understand risks across a range of economic and market scenarios and weekly interest rate stress testing processes to measure long and short term interest rate sensitivity.

Contingency Funding Plan

The Contingency Funding Plan, which is reviewed by ALCO and approved by the Directors Risk Policy Committee, is a compilation of procedures and action plans for managing liquidity through stress events. The Contingency Funding Plan incorporates the limit and indicators set by the Liquidity Risk Oversight group. These limit and indicators are reviewed regularly to identify the emergence of risks or vulnerabilities in the firm's liquidity position. The Contingency Funding Plan identifies the alternative contingent liquidity resources available to the firm in a stress event.

Liquidity, Finance, Risk and Regulatory Management Reporting

Maintaining a strong balance sheet to manage through economic volatility is considered a strategic imperative of the JPMC Board, CEO and Operating Committee. This balance sheet philosophy consists of conservative accounting and a focus on risk-adjusted returns, strong capital and reserves, and robust liquidity. The first line of defense against any idiosyncratic or systemic crisis is ensuring that the company remains in strong financial condition and that the firm is run such that unforeseen, but possible, risk scenarios are manageable. JPMC's business strategies, risk management framework, and a fortress balance sheet philosophy emphasize strength in capital, liquidity and reserves, and are all designed to achieve these objectives.

We measure each of JPMC's businesses objectively in relation to performance targets, competitor performance, quality of earnings, and the current point within the credit cycle.

Importantly, each business is evaluated against “fully-loaded” income statements and balance sheets, which include both direct costs and allocated costs based on arm's-length agreements and market based pricing. The firm's disciplined approach to financial management includes a continual focus on a strong capital position and the maintenance of a strong liquidity profile, especially during stressed environments, coupled with a conservative reserving approach.

JPMC's management reporting processes are structured to promptly identify key information, escalate and engage the appropriate level of management to review and assess key information and swiftly decision appropriate sets of actions and responses to any emerging situations and ongoing results. There are a host of daily, weekly, monthly and quarterly reporting processes at the firm. We aim to provide transparent, accurate, reliable and timely financial information that can be used by management to make sound financial decisions; for analysts to assess the firm's financial position; investors to make informed decisions; and regulators to supervise and examine us appropriately. Our goal is to continuously improve the reporting process through enhancements to the control and financial reporting environment that focus on analytics, compliance and reporting; enhancing the accuracy and transparency, and efficiency of its financial reporting, internally and across regulatory and external reporting.

The technology functions that serve our businesses support the firm's risk, liquidity, financial and regulatory reporting infrastructure to ensure both internal and external clients have access to the tools and information necessary. The technology functions are coordinated around a firm wide Technology organizational structure. Technology reports to the JPMC CIO and, in certain cases, also to line of business executives. The JPMorgan Chase Technology function includes both business aligned application development and enterprise wide technology solutions to support the firm's risk, liquidity, financial and regulatory reporting structure.

Capital Management and Oversight

We have established capital management oversight and reporting processes to monitor the level and composition of capital against internal minimum capital targets and capital monitoring triggers as well as processes to monitor capital distribution triggers. Ongoing capital monitoring consists of weekly, quarterly, semi-annual and annual processes that are executed to ensure that actual or forecast depletion of capital (on a transitional and fully phased-in basis) is identified and escalated in a timely manner to allow for active management of the capital position of JPMC.

Key Regulators for JPMC, JPMCB and CUSA

As we conduct a range of financial activities in multiple countries, JPMorgan Chase is supervised by multiple regulators. The Federal Reserve acts as an umbrella regulator, and certain of JPMC's subsidiaries are regulated directly by additional authorities based on the particular activities of those subsidiaries. The firm's national bank subsidiaries, JPMCB and CUSA, are subject to supervision and regulation by the OCC and, with respect to certain matters, by the Federal Reserve and the FDIC. Outside the United States, JPMCB's branches are also supervised by local bank regulators, such as the Bank of Japan for JPMCB Tokyo Branch, and the Hong Kong Monetary Authority for JPMCB Hong Kong Branch.

Nonbank subsidiaries, such as JPMS LLC, are subject to supervision and regulation by the SEC and, with respect to certain futures-related and swaps-related activities, by the CFTC. The firm conducts securities underwriting, dealing and brokerage activities in the United States through JPMS LLC and other broker-dealer subsidiaries, all of which are subject to SEC regulations, the Financial Industry Regulatory Authority and the New York Stock Exchange, among others. The firm conducts similar securities activities outside the United States subject to local regulatory requirements. For example, in the United Kingdom, those activities are conducted by J.P. Morgan Securities plc, which is regulated by the Prudential Regulation Authority, a subsidiary of the Bank of England which has responsibility for prudential regulation of banks and other systemically important institutions, and the Financial Conduct Authority, which regulates prudential matters for other firms and conduct matters for all market participants. In Japan, the firm's securities activities are conducted by JPMorgan Securities Japan Co. Ltd., which is regulated by the Japan Financial Services Agency.

The firm's investment management business is subject to significant regulation in numerous jurisdictions around the world relating to, among other things, the safeguarding of client assets, offerings of funds,

marketing activities, and transactions among affiliates and management of client funds. Certain of the firm's subsidiaries are registered with, and subject to oversight by, the SEC as investment advisers. As such, the firm's registered investment advisers are subject to the fiduciary and other obligations imposed under the Investment Advisers Act of 1940 and the rules and regulations promulgated thereunder, as well as various states securities laws.

The firm has subsidiaries that are members of futures exchanges in the United States and abroad and are registered accordingly. In the United States, one subsidiary is registered as a futures commission merchant, and other subsidiaries are either registered with the CFTC as commodity pool operators and commodity trading advisors or exempt from such registration. These CFTC-registered subsidiaries are also members of the National Futures Association. The firm's commodities business is also subject to regulation by the Chicago Mercantile Exchange, London Metals Exchange and the Federal Energy Regulatory Commission. JPMCB, J.P. Morgan Securities LLC, J.P. Morgan Securities plc and J.P. Morgan Ventures Energy Corporation have registered with the CFTC as swap dealers.

The firm and its subsidiaries also are subject to federal, state and international laws and regulations concerning the use and protection of certain customer, employee and other personal and confidential information, including those imposed by the Gramm-Leach-Bliley Act and the Fair Credit Reporting Act, as well as the EU Data Protection Directive, among others. The firm is also subject to laws and regulations relating to corrupt and illegal payments to government officials and others in the jurisdictions in which it operates, such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act.

For further details on material supervisory authorities, please refer to the 2016 Annual Report on Form 10-K and other JPMC 1934 Act reports.

Principal Officers

Figure 43. Executive officers of JPMC and JPMCB as of June 15, 2017

Name	Positions and offices
James Dimon	Chairman of the Board, Chief Executive Officer and President of JPMC Chief Executive Officer and President of JPMorgan Chase Bank, N.A.
Ashley Bacon	Chief Risk Officer since June 2013. He had been Deputy Chief Risk Officer since June 2012, prior to which he had been Global Head of Market Risk for the Investment Bank (now part of Corporate & Investment Bank).
John L. Donnelly	Head of Human Resources.
Mary Callahan Erdoes	Chief Executive Officer of Asset & Wealth Management.
Stacey Friedman	General Counsel since January 1, 2016, prior to which she was Deputy General Counsel since July 2015 and General Counsel for the Corporate & Investment Bank since August 2012. Prior to joining JPMorgan Chase in 2012, she was a partner at the law firm of Sullivan & Cromwell LLP.
Marianne Lake	Chief Financial Officer since January 1, 2013, prior to which she had been Chief Financial Officer of Consumer & Community Banking since 2009.
Douglas B. Petno	Chief Executive Officer of Commercial Banking since January 2012. He had been Chief Operating Officer of Commercial Banking since October 2010, prior to which he had been Global Head of Natural Resources in the Investment Bank (now part of Corporate & Investment Bank).
Daniel E. Pinto	Chief Executive Officer of the Corporate & Investment Bank since March 2014 and Chief Executive Officer of Europe, the Middle East and Africa since June 2011. He had been Co-Chief Executive Officer of the Corporate & Investment Bank from July 2012 until March 2014, prior to which he had been head or co-head of the Global Fixed Income business from November 2009 until July 2012.
Gordon A. Smith	Chief Executive Officer of Consumer & Community Banking since December 2012, prior to which he had been Co-Chief Executive Officer since July 2012. He had been Chief Executive Officer of Card Services since 2007 and of Auto & Student Lending since 2011.
Notes regarding additional, select officer titles with JPMorgan Chase Bank, N.A.	
William C. Weldon	Non-executive Chairman of the Board
James R. Vallone	General Auditor
Frank Pearn	Chief Compliance Officer
John S. Horner	Treasurer
Molly Carpenter	Secretary
Cristiano M. Almeida	Controller
Notes regarding additional, select officer titles with Chase Bank USA, N.A.	
William C. Weldon	Non-executive Chairman of the Board
Jennifer A. Piepszak	Chief Executive Officer
Catherine M. Hogan	Chief Financial Officer
James Dimon	President
Brian D. King	Chief Risk Officer / Credit Officer
Richard H. Samson	Chief Compliance Officer
Vincent J. Mattamira	Treasurer
Todd S. Lehner	Chief Operating Officer
Kathryn B. McGarvey	Chief Liquidity Risk Officer
Julie B. Dennis	Auditor
George A. Thompson	General Counsel and Secretary

Resolution Planning Corporate Governance Structure and Processes

Resolution planning at JPMorgan Chase is coordinated in a resolution planning office led by a senior officer of the firm in the CFO organization. As head of resolution planning, this senior officer has firmwide responsibility to ensure that the firm is adopting business organizational strategies, policies, and procedures that appropriately address the challenges faced in establishing a robust and credible resolution regime.

The head of resolution planning works closely with the management teams of each of the lines of business and sub-lines of business, as well as with the management teams of functional support groups (e.g., Risk, Finance, Treasury, Legal, HR, Technology & Operations, Mergers & Acquisitions, etc.) to assess resolution strategies. The Office of the Head of Resolution Planning is responsible for compiling, reviewing, and maintaining all resolution-related information.

To support and maintain the sustainability of resolution planning at the firm, we embed required resolution related information into the ongoing, business-as-usual control processes, reporting, and governance of the firm. Development of the resolution plan is subject to independent review and challenge.

The senior officer responsible for resolution planning reports to the CFO, who is ultimately accountable for the resolution plan. A governance body consisting of the JPMC CFO, CRO, and General Counsel among others is in place to provide oversight and guidance to the resolution planning process. Each of the Operating Committee members reviews and approves their respective line of business or functional resolution analyses and information. The process is reviewed with the Directors Risk Policy Committee, and updates on progress are made regularly to the Directors Risk Policy Committee. The submission of our 2017 Resolution Plan has been approved by the JPMC Board.

**Other Required
Financial
Information
Disclosures in the
Public Filing**

Other Required Financial Information Disclosures in the Public Filing

TABLE OF CONTENTS

Summary Financial Information.....	139
Capital Risk Management	146
Strategy and Governance.....	148
Monitoring and Management of Capital	148
Regulatory Capital	148
Line of Business Equity	151
Planning and Stress Testing.....	151
Other Capital Requirements	152

Summary Financial Information

Defined terms in this section are capitalized and may be found either in the Glossary beginning on page 153 or in the 2016 Annual Report.

Figure 44 is the firm's Consolidated Balance Sheet from the firm's Annual Report on Form 10-K for the period ended December 31, 2016. For a more detailed discussion on each of the specific line captions on the Consolidated Balance Sheets, please refer to the 2016 Annual Report on Form 10-K and other JPMC 1934 Act reports.

Figure 44. JPMorgan Chase – Consolidated Balance Sheets(a)

December 31, (in millions)	2016	2015
Assets		
Cash and due from banks	\$23,873	\$20,490
Deposits with banks	365,762	340,015
Federal funds sold and securities purchased under resale agreements	229,967	212,575
Securities borrowed	96,409	98,721
Trading assets	372,130	343,839
Securities	289,059	290,827
Loans	894,765	837,299
Allowance for loan losses	(13,776)	(13,555)
Loans, net of allowance for loan losses	880,989	823,744
Accrued interest and accounts receivable	52,330	46,605
Premises and equipment	14,131	14,362
Goodwill	47,288	47,325
Mortgage servicing rights	6,096	6,608
Other intangible assets	862	1,015
Other assets	112,076	105,572
Total assets	\$2,490,972	\$2,351,698
Liabilities		
Deposits	\$1,375,179	\$1,279,715
Federal funds purchased and securities loaned or sold under repurchase agreements	165,666	152,678
Commercial paper	11,738	15,562
Other borrowed funds	22,705	21,105
Trading liabilities	136,659	126,897
Accounts payable and other liabilities	190,543	177,638
Beneficial interests issued by consolidated variable interest entities	39,047	41,879
Long-term debt	295,245	288,651
Total liabilities	2,236,782	2,104,125
Stockholders' equity	254,190	247,573
Total liabilities and stockholders' equity	\$2,490,972	\$2,351,698

(a) The accompanying footnotes included in our Annual Report on Form 10-K are an integral part of our consolidated financial statements.

Other Required Financial Information Disclosures in the Public Filing

Summary Financial Information

The Federal Reserve establishes capital requirements, including well-capitalized standards, for the consolidated financial holding company. The OCC establishes similar minimum capital requirements and standards for the firm's national banks, including JPMCB and CUSA.

Capital rules under Basel III establish minimum capital ratios and overall capital adequacy standards for large and internationally active U.S. bank holding companies and banks, including the firm and its insured depository institution subsidiaries. Basel III presents two comprehensive methodologies for calculating RWA: a general (standardized) approach (Basel III Standardized) and an advanced approach (Basel III Advanced). Certain of the requirements of Basel III are subject to phase-in periods that began on January 1, 2014 and continue through the end of 2018.

There are three categories of risk-based capital under the Basel III Transitional rules: CET1 capital, as well as Tier 1 capital and Tier 2 capital. CET1 capital predominantly includes common stockholders' equity (including capital for AOCI related to debt and equity securities classified as AFS as well as for defined-benefit pension and OPEB plans), less certain deductions for goodwill, MSRs and deferred tax assets that arise from NOL and tax credit carryforwards. Tier 1 capital predominantly consists of CET1 capital as well as perpetual preferred stock. Tier 2 capital includes long-term debt qualifying as Tier 2 and qualifying allowance for credit losses. Total capital is Tier 1 capital plus Tier 2 capital.

Figure 45 presents the risk-based capital ratios for JPMorgan Chase under both Basel III Standardized Transitional and Basel III Advanced Transitional at December 31, 2016 and 2015.

Figure 45. JPMC Risk-Based Capital Ratios

JPMorgan Chase – Capital Ratios	Basel III Standardized Transitional	Basel III Standardized Transitional	Basel III Advanced Transitional	Basel III Advanced Transitional
	2016	2015	2016	2015
Year ended December 31,				
Capital ratios(a)				
CET1	12.5%	12.0%	12.4%	11.8%
Tier 1(b)	14.2	13.7	14.1	13.5
Total	16.4	16.0	15.5	15.1

(a) For each of the risk-based capital ratios, the capital adequacy of the firm is evaluated against the Basel III approach, Standardized or Advanced, resulting in the lower ratio, referred to as the Collins Floor, as required by the Collins Amendment of the Dodd-Frank Act.

(b) Includes the deduction associated with the permissible holdings of covered funds (as defined by the Volcker Rule) acquired after December 31, 2013. The deduction was not material as of December 31, 2016.

Other Required Financial Information Disclosures in the Public Filing

Summary Financial Information

In addition to providing summary financial information regarding JPMorgan Chase, the resolution rules require summary financial information of JPMorgan Chase's material U.S. banking subsidiaries to be included in the public section of this filing. The following is summary financial information as of December 31, 2016 and 2015 for JPMCB and CUSA.

Figure 46 through Figure 51 below highlight selected financial information from JPMCB and CUSA 2016 and 2015 call reports as required by the Federal Reserve and FDIC resolution plan rules. For the most complete, updated description of most of the topics covered in this filing, including financial information regarding assets, liabilities, capital and major funding sources, JPMCB and CUSA call reports should be read in their entirety.

Figure 46. JPMorgan Chase Bank, N.A. – Consolidated Balance Sheets

December 31, (in millions)	2016	2015
Assets		
Cash and balances due from depository institutions	\$413,066	\$337,791
Securities	284,932	284,745
Federal funds sold and securities purchased under agreements to resell	205,104	174,002
Loans and lease financing receivables	782,594	725,378
Trading assets	245,063	242,385
Premises and fixed assets (including capitalized leases)	11,455	10,647
Other real estate owned	506	680
Investments in unconsolidated subsidiaries and associated companies	149	261
Direct and indirect investments in real estate ventures	8,989	7,939
Intangible assets	33,396	33,954
Other assets	97,549	96,876
Total assets	\$2,082,803	\$1,914,658
Liabilities		
Deposits	\$1,480,238	\$1,312,940
Federal funds purchased and securities sold under agreements to repurchase	74,778	77,262
Trading liabilities	111,486	100,862
Other borrowed money (includes mortgage indebtedness and obligations under capitalized leases)	122,627	143,124
Subordinated notes and debentures	4,134	8,581
Other liabilities	84,191	76,092
Total liabilities	1,877,454	1,718,861
Stockholders' equity	205,349	195,797
Total liabilities and stockholders' equity	\$2,082,803	\$1,914,658

Other Required Financial Information Disclosures in the Public Filing

Summary Financial Information

Figure 47 presents the risk-based capital ratios for JPMCB under both Basel III Standardized Transitional and Basel III Advanced Transitional at December 31, 2016, and 2015.

Figure 47. JPMCB Risk-Based Capital Ratios

JPMorgan Chase Bank, N.A. – Capital Ratios	Basel III Standardized Transitional	Basel III Standardized Transitional	Basel III Advanced Transitional	Basel III Advanced Transitional
Year ended December 31,	2016	2015	2016	2015
Capital ratios(a)				
CET1	13.9%	13.4%	14.2%	13.5%
Tier 1(b)	13.9	13.4	14.2	13.5
Total	14.8	14.5	14.6	14.1

(a) For each of the risk-based capital ratios, the capital adequacy of the firm are evaluated against the Basel III approach, Standardized or Advanced, resulting in the lower ratio, referred to as the Collins Floor, as required by the Collins Amendment of the Dodd-Frank Act.

(b) Includes the deduction associated with the permissible holdings of covered funds (as defined by the Volcker Rule) acquired after December 31, 2013. The deduction was not material as of December 31, 2016.

Figure 48. JPMorgan Chase Bank, N.A. – Selected Income From Foreign Offices

December 31, (in millions)	2016	2015
Total interest income in foreign offices	\$8,259	\$8,603
Total interest expense in foreign offices	2,326	2,079
Provision for loan and lease losses in foreign offices	52	160
Noninterest income in foreign offices	17,339	17,095
Realized gains (losses) on held-to-maturity and available-for-sale securities in foreign offices	116	147
Total noninterest expense in foreign offices	16,331	15,666
Net income attributable to foreign offices before internal allocations of income and expense	5,290	6,577
Consolidated net income attributable to foreign offices	\$8,516	\$5,168

Other Required Financial Information Disclosures in the Public Filing

Summary Financial Information

Figure 49. Chase Bank USA, N.A. – Consolidated Balance Sheets

December 31, (in millions)	2016	2015
Assets		
Cash and balances due from depository institutions	\$12,863	\$32,915
Securities	—	—
Federal funds sold and securities purchased under agreements to resell	—	—
Loans and lease financing receivables	102,946	97,661
Trading assets	—	—
Premises and fixed assets (including capitalized leases)	282	297
Other real estate owned	—	—
Investments in unconsolidated subsidiaries and associated companies	—	—
Direct and indirect investments in real estate ventures	—	—
Intangible assets	12,432	12,434
Other assets	7,661	6,119
Total assets	\$136,184	\$149,426
Liabilities		
Deposits	\$35,419	\$64,965
Federal funds purchased and securities sold under agreements to repurchase	100	—
Trading liabilities	—	—
Other borrowed money (includes mortgage indebtedness and obligations under capitalized leases)	57,908	46,614
Subordinated notes and debentures	4,650	4,650
Other liabilities	8,352	4,856
Total liabilities	106,429	121,085
Stockholders' equity	29,755	28,341
Total liabilities and stockholders' equity	\$136,184	\$149,426

Figure 50 presents the risk-based capital ratios for CUSA under both Basel III Standardized Transitional and Basel III Advanced Transitional at December 31, 2016, and 2015.

Figure 50. Chase Bank USA, N.A. – Risk-Based Capital

Chase Bank USA, N.A. – Capital Ratios	Basel III Standardized Transitional	Basel III Standardized Transitional	Basel III Advanced Transitional	Basel III Advanced Transitional
Year ended December 31,	2016	2015	2016	2015
Capital ratios(a)				
CET1	14.9%	14.6%	9.0%	8.5%
Tier 1(b)	14.9	14.6	9.0	8.5
Total	20.4	20.2	11.5	11.0

(a) For each of the risk-based capital ratios, the capital adequacy was evaluated against the Basel III approach, Standardized or Advanced, resulting in the lower ratio, referred to as the Collins Floor, as required by the Collins Amendment of the Dodd-Frank Act.

(b) Includes the deduction associated with the permissible holdings of covered funds (as defined by the Volcker Rule) acquired after December 31, 2013. The deduction was not material as of December 31, 2016.

Other Required Financial Information Disclosures in the Public Filing

Summary Financial Information

Figure 51. Chase Bank USA, N.A. – Selected Income from Foreign Offices

December 31, (in millions)	2016	2015
Total interest income in foreign offices	\$ —	\$ —
Total interest expense in foreign offices	—	—
Provision for loan and lease losses in foreign offices	—	—
Noninterest income in foreign offices	—	—
Realized gains (losses) on held-to-maturity and available-for-sale securities in foreign offices	—	—
Total noninterest expense in foreign offices	\$ —	\$ —
Net income attributable to foreign offices before internal allocations of income and expense	—	—
Consolidated net income attributable to foreign offices	—	—

Other Required Financial Information Disclosures in the Public Filing

Summary Financial Information

In addition to providing summary financial information on a consolidated basis regarding JPMC, JPMCB and CUSA, Figure 52 highlights total assets, total liabilities, total net revenue and net income as of December 31, 2016 for the remaining Material Legal Entities on a stand-alone basis.

Figure 52. Remaining Material Legal Entities – Selected Financial Metrics

December 31, 2016 (\$ in millions)(a)	Total Assets	Total Liabilities	Total Net Revenue	Net Income
JPMCB Bank Branches				
JPMorgan Chase Bank, N.A. – London Branch	\$352,789	\$352,586	\$6,875	\$590
JPMorgan Chase Bank, N.A. – Hong Kong Branch	10,361	10,356	936	6
JPMorgan Chase Bank, N.A. – Philippines Global Service Center	251	46	281	15
JPMorgan Chase Bank, N.A. – Singapore Branch	12,505	12,496	786	(2)
JPMorgan Chase Bank, N.A. – Sydney Branch	10,562	10,543	341	9
JPMorgan Chase Bank, N.A. – Tokyo Branch	37,529	37,493	168	32
JPMCB Subsidiaries				
J.P. Morgan AG	\$23,773	\$23,056	\$144	\$14
J.P. Morgan Europe Limited	11,193	7,555	861	191
J.P. Morgan Treasury Technologies Corporation	663	30	1,065	537
JPMorgan Securities Japan Co., Ltd.	48,478	46,442	807	231
J.P. Morgan Securities plc	391,076	351,152	7,635	2,704
J.P. Morgan Whitefriars LLC	45,246	42,260	707	409
Paymentech, LLC	9,223	6,656	975	103
J.P. Morgan International Bank Limited	18,494	17,274	466	(2)
Chase Mortgage Holdings, Inc.	40,949	34,952	1,406	840
Chase Paymentech Europe Limited	1,436	788	507	221
Chase Paymentech Solutions	1,054	323	178	78
IHC and Subsidiaries				
J.P. Morgan Chase Holdings LLC	\$217,485	\$562	\$1,479	\$1,418
J.P. Morgan Services India Private Limited	517	135	857	52
J.P. Morgan Securities LLC	379,854	362,407	13,578	3,936
J.P. Morgan Ventures Energy Corp	12,516	12,164	327	(1)
JPMorgan Asset Management (Europe) S.a.r.l.	1,829	1,355	1,291	106
JPMorgan Asset Management (UK) Limited	1,297	309	1,058	204
JPMorgan Distribution Services, Inc.	519	66	799	67
J.P. Morgan Investment Management Inc.	3,890	1,557	3,282	381
CUSA Subsidiaries				
Chase Bankcard Services, Inc.	676	31	930	48
Chase Issuance Trust	45,055	45,055	4,506	—

(a) Financial Information is being presented for individual entities, including branches but not consolidating subsidiaries, and follow the accounting and financial reporting policies of the firm, the basis of which is U.S. GAAP.

Capital Risk Management

Capital risk is the risk the firm has an insufficient level and composition of capital to support its business activities and associated risks during both normal economic environments and under stressed conditions.

A strong capital position is essential to the firm's business strategy and competitive position. Maintaining a strong balance sheet to manage through economic volatility is considered a strategic imperative of the JPMC Board, CEO and Operating Committee. The firm's balance sheet philosophy focuses on risk-adjusted returns, strong capital and robust liquidity. The firm's capital management strategy focuses on maintaining long-term stability to enable it to build and invest in market-leading businesses, even in a highly stressed environment. Prior to making any decisions on future business activities, senior management considers the implications on the firm's capital. In addition to considering the firm's earnings outlook, senior management evaluates all sources and uses of capital with a view to preserving the firm's capital strength.

The firm's capital management objectives are to hold capital sufficient to:

- maintain "well-capitalized" status for the firm and its principal bank subsidiaries;
- support risks underlying business activities;
- maintain sufficient capital in order to continue to build and invest in its businesses through the cycle and in stressed environments;
- retain flexibility to take advantage of future investment opportunities;
- serve as a source of strength to its subsidiaries;
- meet capital distribution objectives; and
- maintain sufficient capital resources to operate throughout the Resolution Period in accordance with the firm's Preferred Strategy.

These objectives are achieved through the establishment of minimum capital targets and a strong capital governance framework. Capital management is intended to be flexible in order to react to a range of potential events. The firm's minimum capital targets are based on the most binding of three pillars: an internal assessment of the firm's capital needs; an estimate of required capital under the CCAR and DFAST requirements; and Basel III Fully Phased-In regulatory minimums. Where necessary, each pillar may include a management-established buffer. The capital governance framework requires regular monitoring of the firm's capital positions, stress testing and defining escalation protocols, both at the firm and MLE levels.

The tables in Figure 53 present the Firm's Transitional and Fully Phased-In risk-based and leverage-based capital metrics under both the Basel III Standardized and Advanced Approaches. The Firm's Basel III ratios exceed both the current and Fully Phased-In regulatory minimums as of December 31, 2016 and 2015. For further discussion of these capital metrics and the Standardized and Advanced approaches, refer to Monitoring and management of capital on pages 78–82 in the 2016 Annual Report on Form 10-K.

Other Required Financial Information Disclosures in the Public Filing

Summary Financial Information

Figure 53. Transitional and Fully Phased-in Risk-Based and Leverage-Based Capital Metrics

December 31, 2016 (in millions, except ratios)	Transitional		Minimum Capital Ratios(c)	Fully Phased-In		Minimum Capital Ratios(d)
	Standardized	Advanced		Standardized	Advanced	
Risk-based capital						
CET1 capital	\$182,967	\$182,967		\$181,734	\$181,734	
Tier 1 capital	208,112	208,112		207,474	207,474	
Total capital	239,553	228,592		237,487	226,526	
Risk-weighted assets	1,464,981	1,476,915		1,474,665	1,487,180	
CET1 capital ratio	12.5%	12.4%	6.25%	12.3%	12.2%	10.5%
Tier 1 capital ratio	14.2	14.1	7.75	14.1	14.0	12.0
Total capital ratio	16.4	15.5	9.75	16.1	15.2	14.0
Leverage-based capital metrics:						
Adjusted average assets	2,484,631	2,484,631		2,485,480	2,485,480	
Tier 1 leverage ratio(a)	8.4%	8.4%	4.0	8.3%	8.3%	4.0
SLR leverage exposure	NA	\$3,191,990		NA	\$3,192,839	
SLR(b)	NA	6.5%	NA	NA	6.5%	5.0 (e)

December 31, 2015 (in millions, except ratios)	Transitional		Minimum Capital Ratios(c)	Fully Phased-In		Minimum Capital Ratios(d)
	Standardized	Advanced		Standardized	Advanced	
Risk-based capital						
CET1 capital	\$175,398	\$175,398		\$173,189	\$173,189	
Tier 1 capital	200,482	200,482		199,047	199,047	
Total capital	234,413	224,616		229,976	220,179	
Risk-weighted assets	1,465,262	1,485,336		1,474,870	1,495,520	
CET1 capital ratio	12.0%	11.8%	4.5%	11.7%	11.6%	10.5%
Tier 1 capital ratio	13.7	13.5	6.0	13.5	13.3	12.0
Total capital ratio	16.0	15.1	8.0	15.6	14.7	14.0
Leverage-based capital metrics:						
Adjusted average assets	2,358,471	2,358,471		2,360,499	2,360,499	
Tier 1 leverage ratio(a)	8.5%	8.5%	4.0	8.4%	8.4%	4.0
SLR leverage exposure	NA	\$3,079,797		NA	\$3,079,119	
SLR(b)	NA	6.5%	NA	NA	6.5%	5.0 (e)

Note: As of December 31, 2016 and 2015, the lower of the Standardized or Advanced capital ratios under each of the Transitional and Fully Phased-In approaches in the table above represents the Firm's Collins Floor, as discussed in Monitoring and management of Capital on page 78 in the 2016 Annual Report on Form 10-K.

(a) The Tier 1 leverage ratio is calculated by dividing Tier 1 capital by adjusted average assets.

(b) The SLR leverage ratio is calculated by dividing Tier 1 capital by SLR leverage exposure.

(c) Represents the Transitional minimum capital ratios applicable to the Firm under Basel III as of December 31, 2016 and 2015. At December 31, 2016, the CET1 minimum capital ratio includes 0.625% resulting from the phase-in of the Firm's 2.5% capital conservation buffer and 1.125%, resulting from the phase-in of the Firm's 4.5% G-SIB surcharge.

(d) Represents the minimum capital ratios applicable to the Firm on a Fully Phased-In Basel III basis. At December 31, 2016, the ratios include the Firm's estimate of its Fully Phased-In U.S. G-SIB surcharge of 3.5%. The minimum capital ratios will be fully phased-in effective January 1, 2019. For additional information on the G-SIB surcharge, see page 79 in the 2016 Annual Report on Form 10-K.

(e) In the case of the SLR, the full phased-in minimum ratio is effective beginning January 1, 2018.

Strategy and Governance

JPMC's CEO, in conjunction with the JPMC Board, establishes principles and guidelines for capital planning, issuance, usage and distributions, and minimum capital targets for the level and composition of capital in both Business as Usual and highly stressed environments. The Directors Risk Policy Committee assesses and approves the capital management and governance processes of the firm. JPMC's Audit Committee is responsible for reviewing and approving the capital stress testing end-to-end control framework.

The Capital Governance Committee and the Regulatory Capital Management Office support the firm's strategic capital decision-making. The Capital Governance Committee oversees the capital adequacy assessment process, including the overall design, scenario development and macro assumptions and ensures that capital stress test programs are designed to adequately capture the risks specific to the firm's businesses. The Regulatory Capital Management Office, which reports to the firm's CFO, is responsible for designing and monitoring the firm's execution of its capital policies and strategies once approved by the JPMC Board, as well as reviewing and monitoring the execution of its capital adequacy assessment process. The Basel Independent Review function, which reports to the Regulatory Capital Management Office and has direct access to both the Directors Risk Policy Committee and Capital Governance Committee, conducts independent assessments of the firm's regulatory capital framework to ensure compliance with the applicable U.S. Basel rules in support of senior management's responsibility for assessing and managing capital and for the Directors Risk Policy Committee's oversight of management in executing that responsibility. For additional discussion on the Directors Risk Policy Committee, see Enterprise-wide Risk Management on pages 71–75 in the 2016 Annual Report on Form 10-K.

Monitoring and Management of Capital

In its monitoring and management of capital, the firm takes into consideration an assessment of economic risk and all regulatory capital requirements to determine the level of capital needed to meet and maintain the objectives discussed above, as well as to support the framework for allocating capital to its business segments. While economic risk is considered prior to making decisions on future business activities, in most cases, the firm considers risk-based regulatory capital to be a proxy for economic risk capital.

Regulatory Capital

The Federal Reserve establishes capital requirements, including well-capitalized standards, for the consolidated financial holding company. The OCC establishes similar minimum capital requirements for the firm's national banks, including JPMCB and CUSA. The U.S. capital requirements generally follow Basel I through Basel III, and any successors.

Basel III Overview

Capital rules under Basel III establish minimum capital ratios and overall capital adequacy standards for large and internationally active U.S. bank holding companies and banks, including the firm and its insured depository institution subsidiaries. Basel III presents two comprehensive methodologies for calculating RWA: Basel III Standardized and Basel III Advanced. Certain of the requirements of Basel III are subject to phase-in periods that began on January 1, 2014 and continue through the end of 2018.

Basel III establishes capital requirements for calculating credit risk and market risk RWA, and in the case of Basel III Advanced, operational risk RWA. Key differences in the calculation of credit risk RWA between the Standardized and Advanced approaches are that for Basel III Advanced, credit risk RWA is based on risk-sensitive approaches which largely rely on the use of internal credit models and parameters, whereas for Basel III Standardized, credit risk RWA is generally based on supervisory risk-weightings which vary primarily by counterparty type and asset class. Market risk RWA is calculated on a generally consistent basis between Basel III Standardized and Basel III Advanced. In addition to the RWA

calculated under these methodologies, the firm may supplement such amounts to incorporate management judgment and feedback from its bank regulators.

Basel III also includes a requirement for Advanced Approach banking organizations, including the firm, to calculate SLR. For additional information on SLR, see page 82 in the 2016 Annual Report on Form 10-K.

Basel III Fully Phased-In

Basel III capital rules will become fully phased-in on January 1, 2019, at which point the firm will continue to calculate its capital ratios under both the Basel III Standardized and Advanced Approaches. The firm manages each of the businesses, as well as the corporate functions, primarily on a Basel III Fully Phased-In basis. For additional information on the firm, JPMCB and CUSA's capital, RWA and capital ratios under Basel III Standardized and Advanced Fully Phased-In rules and SLRs calculated under the Basel III Advanced Fully Phased-In rules, all of which are considered key regulatory capital measures, see Explanation and Reconciliation of the firm's Use of Non-GAAP Financial Measures and Key Performance Measures on pages 48 to 50 in the 2016 Annual Report on Form 10-K.

The firm's estimates of its Basel III Standardized and Advanced Fully Phased-In capital, RWA and capital ratios and SLRs for the firm, JPMCB and CUSA are based on the current published U.S. Basel III rules and on the application of such rules to the firm's businesses as currently conducted. The actual impact on the firm's capital ratios and SLR as of the effective date of the rules may differ from the firm's current estimates depending on changes the firm may make to its businesses in the future, further implementation guidance from the regulators, and regulatory approval of certain of the firm's internal risk models (or, alternatively, regulatory disapproval of the firm's internal risk models that have previously been conditionally approved).

Other Required Financial Information Disclosures in the Public Filing

Summary Financial Information

A reconciliation of total stockholders' equity to Basel III Fully Phased-In CET1 capital, Tier 1 capital and Basel III Advanced and Standardized Fully Phased-In Total capital is presented in Figure 54. For additional information on the components of regulatory capital, see Note 28 in the 2016 Annual Report on Form 10-K.

Figure 54. Capital Components

(in millions)	December 31, 2016
Total stockholders' equity	\$254,190
Less: Preferred stock	26,068
Common stockholders' equity	228,122
Less: Goodwill	47,288
Other intangible assets	862
Add: Deferred tax liabilities(a)	3,230
Less: Other CET1 capital adjustments	1,468
Standardized/Advanced CET1 capital	181,734
Preferred stock	26,068
Less: Other Tier 1 adjustments(b)	328
Standardized/Advanced Tier 1 capital	\$207,474
Long-term debt and other instruments qualifying as Tier 2 capital	\$15,253
Qualifying allowance for credit losses	14,854
Other	(94)
Standardized Fully Phased-In Tier 2 capital	\$30,013
Standardized Fully Phased-In Total capital	\$237,487
Adjustment in qualifying allowance for credit losses for Advanced Tier 2 capital	(10,961)
Advanced Fully Phased-In Tier 2 capital	\$19,052
Advanced Fully Phased-In Total capital	\$226,526

(a) Represents deferred tax liabilities related to tax-deductible goodwill and to identifiable intangibles created in nontaxable transactions, which are netted against goodwill and other intangibles when calculating TCE.

(b) Includes the deduction associated with the permissible holdings of covered funds (as defined by the Volcker Rule) acquired after December 31, 2013. The deduction was not material as of December 31, 2016.

Line of Business Equity

The firm's framework for allocating capital to its business segments (line of business equity) is based on the following objectives:

- integrate firmwide and line of business capital management activities;
- measure performance consistently across all lines of business; and
- provide comparability with peer firms for each of the lines of business.

Each business segment is allocated capital by taking into consideration stand-alone peer comparisons, regulatory capital requirements (as estimated under Basel III Advanced Fully Phased-In) and economic risk. Capital is also allocated to each line of business for, among other things, goodwill and other intangibles associated with acquisitions effected by the line of business. ROE is measured and internal targets for expected returns are established as key measures of a business segment's performance.

Planning and Stress Testing

Comprehensive Capital Analysis and Review

The Federal Reserve requires large bank holding companies, including the firm, to submit a capital plan on an annual basis. The Federal Reserve uses the CCAR and DFAST processes to ensure that large bank holding companies have sufficient capital during periods of economic and financial stress, and have robust, forward-looking capital assessment and planning processes in place that address each bank holding company's unique risks to enable them to absorb losses under certain stress scenarios. Through CCAR, the Federal Reserve evaluates each bank holding company's capital adequacy and internal capital adequacy assessment processes, or ICAAP, as well as its plans to make capital distributions, such as dividend payments or stock repurchases.

On June 29, 2016, the Federal Reserve informed the firm that it did not object, on either a quantitative or qualitative basis, to the firm's 2016 capital plan. For information on actions taken by the JPMC Board following the 2016 CCAR results, see Capital actions on page 84 in the 2016 Annual Report on Form 10-K.

The firm's CCAR process is integrated into and employs the same methodologies utilized in the firm's ICAAP process, as discussed below.

Internal Capital Adequacy Assessment Process

Semiannually, the firm completes the ICAAP, which provides management with a view of the impact of severe and unexpected events on earnings, balance sheet positions, reserves and capital. The firm's ICAAP integrates stress testing protocols with capital planning.

The process assesses the potential impact of alternative economic and business scenarios on the firm's earnings and capital. Economic scenarios, and the parameters underlying those scenarios, are defined centrally and applied uniformly across the businesses. These scenarios are articulated in terms of macroeconomic factors, which are key drivers of business results; global market shocks, which generate short-term but severe trading losses; and idiosyncratic operational risk events. The scenarios are intended to capture and stress key vulnerabilities and idiosyncratic risks facing the firm. However, when defining a broad range of scenarios, realized events can always be worse. Accordingly, management considers additional stresses outside these scenarios, as necessary. ICAAP results are reviewed by management and the JPMC Board.

For further detail on regulatory capital, economic risk capital, and line of business equity, please refer to the 2016 Annual Report on Form 10-K and other JPMC 1934 Act reports.

Other Capital Requirements

Total Loss Absorbing Capacity (TLAC)

On December 15, 2016, the Federal Reserve issued its final TLAC rule which requires the top-tier holding companies of eight U.S. G-SIBs, including the firm, among other things, to maintain minimum levels of external TLAC and external long-term debt that satisfies certain eligibility criteria by January 1, 2019. The minimum external TLAC requirement is the greater of (A) 18% of the financial institution's RWA plus applicable buffers, including its G-SIB surcharge as calculated under Method 1 and (B) 7.5% of its total leverage exposure plus a buffer equal to 2.0%. The required minimum level of eligible long-term debt is equal to the greater of (A) 6% of the financial institution's RWA, plus its U.S. Method 2 G-SIB surcharge and (B) 4.5% of the firm's total leverage exposure. The final rule permanently grandfathered all long-term debt issued before December 31, 2016, to the extent these securities would be ineligible only due to containing impermissible acceleration rights or being governed by foreign law. While the firm may have to raise long-term debt to be in full compliance with the rule, management estimates the net amount to be raised is not material and the timing for raising such funds is manageable.

Glossary

Term	Definition
165(d) Rule	Joint FDIC and Federal Reserve rule promulgated pursuant to Section 165(d) of the Dodd-Frank Act requiring the submission of resolution plans for certain bank holding companies and nonbank financial institutions
1934 Act	Securities Exchange Act of 1934
2015 Resolution Plan	Resolution plan submitted by JPMC to the Agencies by July 1, 2015 pursuant to Section 165(d)
2016 Annual Report or 2016 Form 10-K	JPMorgan Chase's annual report on Form 10-K for year ended December 31, 2016, filed with the SEC
2016 Public Filing	The public portion of the 2016 Submission
2016 Submission	Resolution submission by JPMC to the Agencies on October 1, 2016 pursuant to Section 165(d)
2017 Guidance	The Agencies' Guidance for 2017 Section 165(d) Annual Resolution Plan Submissions by Domestic Covered Companies that Submitted Resolution Plans in July 2015
2017 Public Filing	The public portion of the 2017 Resolution Plan
2017 Resolution Plan	Resolution plan submitted by JPMC to the Agencies by July 1, 2017 pursuant to Section 165(d)
ACH	Automated clearing house
Agencies	The Federal Reserve and FDIC
ALCO	Asset Liability Committee
Ancillary Rights Agreement	The overarching legal agreement which governs firmwide leverage of intellectual property
April 2016 Feedback Letter	The Agencies' April 12, 2016 feedback letter on the resolution plan submitted by JPMC to the Agencies on July 1, 2015 pursuant to Section 165(d)
Asset & Wealth Management or AWM	Asset & Wealth Management line of business or Object of Sale, as indicated in this Public Filing (as of December 31, 2016, Asset & Wealth Management was referred to as Asset Management)
Asset Management	JPMC's Asset Management sub-line of business or Object of Sale, as indicated in this Public Filing (as of December 31, 2016, Asset Management was referred to as Global Investment Management)
ATM	Automated teller machine

Term	Definition
Auto & Student Lending	JPMC's Auto & Student Lending sub-line of business
Auto Finance	JPMC's Auto Finance Object of Sale
Bankruptcy Playbook	A step-by-step bankruptcy execution plan setting forth the actions that would be taken in a resolution scenario in order to implement the Preferred Strategy; also includes a document completion guide and a guide to key components of the ISDA Protocol
Basel III	Third Basel Accord by the Basel Committee
Basel Committee	Basel Committee on Banking Supervision
BHC	Bank holding company
Board	Board of directors
BP2S	BNP Paribas Securities Services SCA
Business as Usual	The period during which JPMorgan Chase is considered to be operating normally and none of the triggers associated with recovery or resolution plan actions have occurred
Capital Governance Committee	JPMorgan Chase's committee that oversees the capital adequacy assessment process
CBL	Clearstream Bank S.A.
CCAR	Comprehensive Capital Analysis and Review
CEO	JPMC's Chief Executive Officer
CET1	Common equity tier 1 capital, as defined in 12 C.F.R. Part 217
CFO	JPMC's Chief Financial Officer
CFTC	U.S. Commodity Futures Trading Commission
CHAPS	The Clearing House Automated Payment System
CHAPS Co.	CHAPS Clearing Company Limited
CHIPS	The Clearing House Interbank Payments System
CIB Advisory	Subject matter experts within Corporate & Investment Bank
CIO	Chief Investment Office
CLS	Continuous linked settlement
CLS Bank	CLS Bank International
CME	Chicago Mercantile Exchange Inc.

Term	Definition
CMHI	Chase Mortgage Holdings, Inc.
Commerce Solutions	JPMC's Commerce Solutions sub-line of business or Object of Sale, as indicated in this Public Filing
Commercial Banking	Commercial Banking line of business
Commercial Term Lending	JPMC's Commercial Term Lending sub-line of business or Object of Sale, as indicated in this Public Filing
Consumer & Community Banking or CCB	Consumer & Community Banking line of business
Consumer/Business Banking or CBB	JPMC's Consumer/Business Banking sub-line of business
Consumer, Community & Commercial Banking	A new line of business formed during resolution by combining Commercial Banking and Consumer & Community Banking; the Consumer, Community & Commercial Banking would then be divided into seven regional Objects of Sale
Contingency Funding Plan	JPM Group's Contingency Funding Plan
Continuous Net Settlement	NSCC's core netting, allotting and fail-control engine; each security is netted to one position per participant, with NSCC as its central counterparty
Corporate	Corporate line of business
Corporate & Investment Bank or CIB	Corporate & Investment Bank line of business
Corporate Client Banking	JPMC's Corporate Client Banking sub-line of business
Corporate Treasury	JPMC's Corporate Treasury
Credit Card	JPMC's Credit Card sub-line of business or Object of Sale, as indicated in this Public Filing
Crisis Communication Plan	JPMorgan Chase's crisis communications strategy
Crisis Management Framework	Framework to support the JPMC resolution plan, designed around our resolution strategy, capital and liquidity resources and operational resilience
Critical Operations	Operations of JPMorgan Chase identified by the Agencies, including associated services, functions and support, the failure or discontinuance of which could pose a significant threat to the financial stability of the United States

Term	Definition
Critical Shared Services	Intercompany JPMorgan Chase services that support JPMorgan Chase's Critical Operations
CRO	JPMC's Chief Risk Officer
CTC Risk Committee	CIO, Treasury and Corporate Risk Committee
CUSA	Chase Bank USA, N.A.
CUSA Bank Chain	CUSA and its subsidiaries, collectively
Custody & Fund Services	JPMC's Custody & Fund Services sub-line of business or Object of Sale, as indicated in this Public Filing
Default Under Specified Transaction Provision	Cross-default provision under the ISDA Master Agreement that is triggered by a default by a "Specified Entity" under one or more "Specified Transactions," as those terms are defined in the ISDA Master Agreement
Deficiency	An aspect of JPMC's 2015 Resolution Plan that the Agencies jointly determined presented a weakness that individually, or in conjunction with other aspects, could undermine the feasibility of JPMC's resolution plan, and was required to be remediated by October 1, 2016
DFAST	Dodd-Frank Act Stress Test
Directors Risk Policy Committee	The risk policy committee of the JPMC Board, which has authority over JPMC, JPMCB and CUSA
Discount Window	The Federal Reserve Discount Window
Divestiture Playbook	Playbooks that collectively provide a clear road map to divest the Objects of Sale
Dodd-Frank Act	The Dodd-Frank Wall Street Reform and Consumer Protection Act
DTC	The Depository Trust Company
DTCC	The Depository Trust & Clearing Corporation
EBA Clearing	The trading name of ABE Clearing S.A.S
Edge Act	1919 Amendment to the Federal Reserve Act of 1913
Emergency Transfer Motion	An emergency motion to, among other things, transfer the interests of IHC to NewCo and the stock of JPMCB to IHC (and indirectly to NewCo and the Trust), to be filed immediately after commencement of JPMC's Chapter 11 Proceedings
EPN	Electronic Payments Network

Term	Definition
Equities	JPMC's Equities sub-line of business
EU	European Union
EUI	Euroclear UK & Ireland (formerly CREST)
Euroclear	Euroclear Bank
FDIC	Federal Deposit Insurance Corporation
FedACH	FedACH Services
Federal Reserve	Board of Governors of the Federal Reserve System
Fedwire Funds	Fedwire Funds Service
Fedwire Securities	Fedwire Securities Service
FHLB	Federal Home Loan Banks
Filing Preparation Period	Period that commences with the occurrence of a Filing Preparation Period Trigger and ends upon the onset of Resolution Weekend
Filing Preparation Period Trigger	The trigger indicating the onset of the Filing Preparation Period
First Day Papers	Documents relevant to the commencement of JPMC's Chapter 11 Proceedings, including the Routine First Day Motions
Fixed Income	JPMC's Fixed Income sub-line of business
FMU	Financial market utility
FX	Foreign exchange
G10	Belgium, Canada, France, Germany, Italy, Japan, Netherland, Sweden, Switzerland, United Kingdom and United States
General Counsel	JPMC's General Counsel
Global Banking	JPMC's Global Banking Object of Sale
Global Clearing	JPMC's Global Clearing sub-line of business
Global Investment Banking	JPMC's Global Investment Banking sub-line of business
Global Lending	JPMC's Global Lending sub-line of business
Global Lending Portfolio	JPMC's Global Lending Portfolio Object of Sale
Global Master Revenue-Sharing Agreement	Overarching legal agreement which governs intercompany revenue sharing

Term	Definition
Global Master Service Agreement	The overarching legal agreement which governs intercompany support services provided by JPMorgan Chase entities to one another
Governance Playbooks	An MLE's governance playbook describing the major decisions the relevant Board and senior management will need to make and actions they will need to take to facilitate JPMorgan Chase's Preferred Strategy applicable to such entity
G-SIB	Global systemically important bank
Guarantee Obligations	JPMC's guarantee or credit support obligations of certain Qualified Financial Contracts which the Covered Subsidiaries' counterparties will have the contractual right to close out based on the commencement of JPMC's bankruptcy case
HQLA	High quality liquid assets
HR	Human resources
Hypothetical Loss Scenario	Hypothetical Scenario in which JPMorgan Chase is modeled for purposes of resolution planning to suffer extraordinary and severe capital losses and liquidity outflows
IHC	JPMorgan Chase Holdings LLC
IP	Intellectual property
IPO	Initial public offering
ISDA	International Swaps and Derivatives Association, Inc.
ISDA Master Agreements	Master agreement published by the International Swaps and Derivatives Association
ISDA Protocol	2015 ISDA Universal Resolution Stay Protocol
ISDA Protocols	The ISDA Protocol and the ISDA 2014 Resolution Stay Protocol
IT	Information technology
JPM Liquidity Stress Framework	Framework designed to measure liquidity risk to ensure that JPM has sufficient liquidity resources to meet minimum operating liquidity and peak cash outflows
JPM Stress	The JPM Group internal stress testing framework is designed to measure the sufficiency of liquidity available to the firm to meet outflows over 90- and 365-day periods under stressed conditions; stress tests utilize peak cumulative outflows that occur within the prescribed time horizons

Term	Definition
JPMC	JPMorgan Chase & Co.
JPMCB	JPMorgan Chase Bank, N.A.
JPMCB Bank Chain	JPMCB and its branches and subsidiaries
JPMCB London Branch	JPMorgan Chase Bank, N.A. – London Branch
JPMCB New York Branch	JPMorgan Chase Bank, N.A. – New York Branch
JPMIB	J.P. Morgan International Bank Limited
JPMorgan Chase	JPMC and its subsidiaries
JPMorgan Chase Recovery and Resolution Executive	A senior officer who has responsibility for recovery and resolution planning at JPMorgan Chase
JPMS LLC	J.P. Morgan Securities LLC
JPMS plc	J.P. Morgan Securities plc
JPMSIPL	J.P. Morgan Services India Private Limited
JPMTTC	J.P. Morgan Treasury Technologies Corporation
JPMVEC	J.P. Morgan Ventures Energy Corporation
JPMWI	JPMorgan Whitefriars, LLC (previously referred to as JPMorgan Whitefriars, Inc.)
Jurisdictional Modular Protocol	ISDA Resolution Stay Jurisdictional Modular Protocol
Key Operating Entities	Material Legal Entities other than JPMC or IHC
LCH Ltd	LCH.Clearnet Limited
LCH SA	LCH.Clearnet SA
LCR	Liquidity coverage ratio
LER Criteria	The factors used by JPMC to evaluate its legal entities
Limit and Indicators Policy	JPMorgan Chase's firmwide limit and indicator policy
Liquidity Risk Oversight	JPMC's Liquidity Risk Oversight function
LTD	Long-term debt
Material Legal Entity or MLE	A subsidiary or branch of JPMorgan Chase that meets the definition of "material entity" under the relevant regulations
Middle Market	JPMC's Middle Market Banking sub-line of business

Term	Definition
MIS	Management Information Systems
Mortgage Production	JPMC's Mortgage Production sub-line of business
Mortgage Servicing	JPMC's Mortgage Servicing sub-line of business
Mortgage Servicing Rights	JPMC's Mortgage Servicing Object of Sale
NewCo	A holding company subsidiary of JPMC with no third-party debt created to receive and hold the interests of IHC after the failure of JPMC
NSCC	National Securities Clearing Corporation
NSFR	Net stable funding ratio
Objects of Sale	Components of JPMorgan Chase's businesses that JPMC believes are the most promising to be absorbed by the market in a timely and orderly manner in the case of its resolution
OCC	Office of the Comptroller of the Currency
Operating Committee	JPMC's operating committee
OTC	Over the counter
Other Corporate	Sub-segment of Corporate line of business; includes corporate staff units and expense that is centrally managed
Oversight & Control	A functional group within the Corporate line of business
Parent Final Contribution	JPMC's final contribution to IHC of nearly all of its remaining assets (with the exception of a holdback and certain excluded assets, including shares of JPMCB and interests of IHC) under the Support Agreement upon the occurrence of a Point of Non-Viability
Paymentech	Paymentech, LLC
Paymentech Entities	Paymentech, LLC, Chase Paymentech Solutions and Chase Paymentech Europe Limited
Point of Non-Viability	Point at which sufficient financial resources remain at the Key Operating Entities and IHC to carry out the Single Point of Entry strategy
Portfolio of Auto Loans	JPMC's Portfolio of Auto Loans Object of Sale
Portfolio of CTL Loans	JPMC's Portfolio of CTL Loans Object of Sale
Portfolio of Non-Trust Credit Card Loans	JPMC's Portfolio of Non-Trust Credit Card Loans Object of Sale

Term	Definition
Post-Resolution Event Period	The period beginning on the first business day after JPMC files for bankruptcy and lasting until JPMC's Chapter 11 Proceedings are concluded
Preferred Strategy	Single Point of Entry resolution strategy underlying the resolution plan
Prime Brokerage & Equity Financing	JPMC's Prime Brokerage & Equity Financing sub-line of business or Object of Sale, as indicated in this Public Filing
Prime Brokerage and Retail Brokerage Account Transfer Playbook	Playbook with specific steps by which JPM would timely and orderly transfer prime brokerage accounts to peer prime brokers
Public Filing	The public portion of JPMC's resolution plan
Qualified Financial Contracts	Certain common financial transactions such as agreements for derivatives, securities lending transactions and repurchase, or repo, transactions, subject to the ISDA Protocol
Rating Agency Playbooks	Playbooks for maintaining, reestablishing or establishing investment-grade ratings for derivatives trading entities
RBC	Royal Bank of Canada
RCAP	Resolution capital adequacy and positioning, which means the TLAC of JPMorgan Chase, as determined by JPMC in accordance with its current good faith interpretation of the Federal Reserve's Notice of Proposed Rulemaking Regarding Total Loss Absorbing Capacity dated November 30, 2015
RCEN	Resolution capital execution need, which means the amount of capital that JPMC (or an MLE) requires in order to maintain market confidence as required under the Preferred Strategy. Specifically, capital levels should meet or exceed all applicable regulatory capital requirements for "well capitalized" status and meet all estimated additional capital needs throughout a resolution scenario. MLEs that are not subject to capital requirements may be considered sufficiently recapitalized when they have achieved capital levels typically required to obtain an investment grade credit rating or, if the entity is not rated, an equivalent level of financial soundness.
RCMO	Regulatory Capital Management Office
Real Estate Banking	JPMC's Real Estate Banking sub-line of business
Real Estate Portfolios	JPMC's Real Estate Portfolios sub-line of business

Term	Definition
Recovery Period	The period following the Stress Period and during which the recovery plan is formally activated
Recovery Plan Activation Trigger	The trigger formally activating the recovery plan
Resolution Period	The period which begins immediately after JPMC's bankruptcy filing and extends through the completion of the Preferred Strategy
Resolution Weekend	The period following the Filing Preparation Period and lasting until JPMC commences Chapter 11 Proceedings
Restricted Liquidity Framework	Framework within the JPMorgan Chase legal entity stress framework for funding frictions which assesses jurisdictional, operational, counterparty and tax frictions
RLAP	Resolution liquidity adequacy and positioning, which means an appropriate model and process for estimating and maintaining sufficient liquidity at, or readily available to, MLEs in resolution
RLEN	Projection of resolution liquidity execution need, which means the total liquidity needed, as calculated, to satisfy a Supported Subsidiary's peak funding needs and minimum operating liquidity throughout a full implementation of the Preferred Strategy, taking into account intercompany funding frictions, and to continue uninterrupted operation throughout such period, or, if applicable, to implement an orderly wind-down consistent with the resolution plan
Routine First Day Motions	Motions customarily filed on the first day of a Chapter 11 bankruptcy case seeking relief necessary to ensure a smooth transition into bankruptcy
RWA	Risk-weighted Assets
SEC	U.S. Securities and Exchange Commission
Section 165(d)	Section 165(d) of the Dodd-Frank Act requiring the submission of resolution plans for certain bank holding companies and nonbank financial institutions, including the implementing regulations promulgated by the FDIC and the Federal Reserve thereunder
Severely Adverse	One of three hypothetical, supervisory scenarios used by the Federal Reserve in supervisory stress testing
Shortcomings	Weaknesses or gaps that were not Deficiencies, but which raised questions as to the feasibility or operationalization of the resolution plan, and had to be remedied in the 2017 Resolution Plan

Term	Definition
Single Point of Entry	Single point of entry resolution strategy where the holding company files for bankruptcy and subsidiaries receive capital and liquidity support to continue operations
SR Letter 14-1	January 2014 Federal Reserve Supervisory Letter entitled “Heightened Supervisory Expectations for Recovery and Resolution Preparedness for Certain Large Bank Holding Companies – Supplemental Guidance on Consolidated Supervision Framework for Large Financial Institutions”
Stage Triggers	JPMorgan Chase-wide liquidity and capital triggers defining the start of each stage from Business as Usual through resolution
Standardized RWA	Standardized Approach to Third Basel Accord by the Basel Committee on Banking Supervision
Stress Period	The period beginning upon the occurrence of a Stress Period Trigger and ending upon the onset of the Filing Preparation Period
Support Agreement	Secured support agreement pursuant to which IHC and JPMCB, as applicable, will provide capital and/or liquidity support to the Key Operating Entities
Support Period	The period during which a Key Operating Entity may receive a capital and/or liquidity support pursuant to, and in accordance with the terms of, the Support Agreement
Support Trigger	A point during the Support Period at which a Supported MLE has a near-term shortfall
Supported Subsidiary	Direct and indirect subsidiaries of JPMC that may receive support pursuant to the Support Agreement
SWIFT	The Society for Worldwide Interbank Financial Telecommunication
TARGET2	Trans-European Automated Real-time Gross settlement Express Transfer
The Clearing House	The Clearing House Payments Company LLC
Tier 1 Common Equity	Tier 1 capital, as defined in 12 C.F.R. Part 217
TLAC	Total loss absorbing capacity
Treasury and CIO	JPMC’s Treasury and CIO sub-line of business
Treasury Services	JPMC’s Treasury Services sub-line of business

Term	Definition
Trust	An independent private trust overseen by a trustee approved by a bankruptcy court solely for the benefit of the JPMC's Chapter 11 estate
U.K.	United Kingdom
U.S. Bankruptcy Code	Title 11 of the United States Code
U.S. GAAP	The SEC's Generally Accepted Accounting Principles
U.S. Treasuries	Securities issued by the U.S. Treasury
U.S. Treasury	U.S. Department of the Treasury
Vendor Exit Plan	Plans that outline JPMorgan Chase's approach to disengaging with a vendor and includes information necessary to transition services to an in-house solution or alternate supplier, as appropriate
Wealth Management	JPMC's Wealth Management sub-line of business or Object of Sale, as indicated in this Public Filing (as of December 31, 2016, Asset Management was referred to as Wealth Management & Investment Solutions)

Our resolution plan reflects the actions that we believe we and other stakeholders would take in a resolution event, but is hypothetical, and not binding upon the firm, a bankruptcy court or other resolution authority.

JPMorgan Chase files annual, quarterly and current reports, and proxy statements and other information with the SEC. These periodic reports and other information filed or furnished with the SEC, as they become available, can be viewed on the SEC's website at www.sec.gov and on JPMorgan Chase's investor relations website at <http://investor.shareholder.com/jpmorganchase/>.

This document and certain of the SEC reports referred to above contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on the current beliefs and expectations of JPMorgan Chase's management and are subject to significant risks and uncertainties. Actual results may differ from those set forth in the forward-looking statements. Factors that could cause JPMorgan Chase's actual results to differ materially from those described in the forward-looking statements can be found in the 2016 Form 10-K and JPMorgan Chase's Quarterly Reports on Form 10-Q filed with the SEC. JPMorgan Chase does not undertake to update the forward-looking statements to reflect the impact of circumstances or events that may arise after the date of the forward-looking statements.

