Preface to PowerPoint Presentation:
Resolution of Global Systemically Important Financial Institutions
Under the Bankruptcy Code

Post-crisis reforms have focused on how to make the banking system safer and, at the same time, how to improve resolution procedures if these strengthened prudential measures should prove inadequate to safeguard the solvency of individual banks. This latter emphasis was entirely missing from the international regulatory agenda before the crisis and is an implicit acknowledgment that the lack of workable resolution tools exacerbated the financial crisis. On December 7, 2017, The Wharton Financial Institutions Center sponsored a workshop on “The Resolution of Global Systemically Important Banks (G-SIBs) Under the U.S. Bankruptcy Code.” The Dodd-Frank Act specified that the U.S. Bankruptcy Code should be the preferred resolution mechanism in the U.S. The workshop focused on how resolution might be accomplished with minimal disruption to the financial system under current U.S. bankruptcy procedures. This contrasts with other initiatives that have emphasized bankruptcy reform or the debate over the relative merits of resolution under the Bankruptcy Code versus resolution under the administrative procedures described in Title II of the Dodd-Frank Act. Our focus was how bankruptcy resolution could be applied under current law.

The attached briefing materials provide an overview of multiple issues that must be addressed when bankruptcy procedures are applied to a G-SIB. The summary begins with a review of how the resolution readiness of U.S. G-SIBs has improved since 2008 emphasizing increases in capital strength and liquidity resources. Next the summary examines the Single Point of Entry (SPOE) strategy, developed jointly by the Bank of England and the FDIC, and shows how it might be employed to facilitate the resolution of distressed institutions under the U.S. Bankruptcy Code. The summary then turns to the problem of how to deal with the destabilizing impact of the sudden termination of a G-
SIB’s qualified financial contracts that resulted in seizure and liquidation of collateral, substantial losses and a substantial outflow of liquidity in the Lehman Brothers bankruptcy. Finally, the summary examines how the Living Wills prepared by U.S. G-SIBs address a variety of obstacles to the SPOE strategy such as the sufficiency of resources, potential legal challenges to recapitalization, timely approval of emergency motions and cooperation with foreign regulators.

This summary and selected primary documents served as the basis of a lively and productive discussion among participants in the workshop who included bankruptcy judges, leading bankruptcy practitioners, legal scholars, academic specialists in financial regulation, and regulators. The discussion took place under the Chatham House Rule and so the details cannot be shared publicly. We, nonetheless, hope that the attached briefing documents, which highlight the multiple challenges that must be addressed in implementing the resolution of a G-SIB under the U.S. bankruptcy code, will help facilitate additional discussion and debate.
Resolution of Global Systemically Important Financial Institutions Under the Bankruptcy Code

December 7, 2016
Resolution of Global Systemically Important Financial Institutions Under the Bankruptcy Code

December 7, 2016

Workshop Agenda .............................................................................................................. 1

Resolution Readiness of U.S. G-SIBs: 2008 vs. Today ................................................. 3

Overview: Single Point of Entry (“SPOE”) Resolution of Distressed U.S. G-SIBs Under the Bankruptcy Code .......................................................... 11

QFC Close-Out Risk: ISDA Protocol and QFC Rules .................................................. 40

Potential Hurdles to SPOE Resolution and How U.S. G-SIB Resolution Plans Address Them ......................................................................................... 45

Additional Recommended Reading .............................................................................. 82

Glossary ............................................................................................................................. 88
Resolution of Global Systemically Important Financial Institutions Under the Bankruptcy Code

Wednesday, December 7, 2016

8th Floor, Jon M. Huntsman Hall
3730 Walnut Street
Philadelphia, PA 19104

Agenda
(Chatham House Rule Applies)

Continental Breakfast: 8:15 to 9:00 a.m.

Welcome
9:00 to 9:15 a.m.

Session 1: Resolution Readiness of U.S. G-SIBs: 2008 vs. Today
9:15 to 9:45 a.m.

How have U.S. G-SIBs changed since 2008?
- Increased Capital
- Increased Liquidity
- LCR Requirement
- External TLAC debt
- Liquidity prepositioning and internal TLAC debt
- Modifications of corporate structure
- Recovery and Resolution Planning

Session 2: Overview: Single Point of Entry (“SPOE”) Resolution of Distressed U.S. G-SIBs Under the Bankruptcy Code
9:45 to 10:15 a.m.

Purposes of SPOE
- Maximize value of the group for parent stakeholders
- Avoiding the need for government bailout
- Preserving financial stability (critical operations)

Overview of SPOE Resolution Strategies
- Pre-failure recapitalization; continuation of critical operations
- One company (elevation motion) and two company (transfer motion) models
- Recapitalization and bankruptcy triggers to assure sufficiency of capital and liquidity to meet projected resolution needs
- Resolution Period: Continuing subsidiaries and “solvent wind-down” subsidiaries
- Post-Resolution: smaller and simpler than pre-failure firms
Session 3: QFC Close-Out Risk: ISDA Protocol and QFC Rules  
10:15 to 10:45 a.m.  
Lehman cross-default problem and consequences  
Statutory solutions in national resolution regimes  
  • Title II and BRRD  
  • Cross-border enforcement concerns  
Problem under the Bankruptcy Code  
  • The need for a contractual solution  
  • ISDA Protocol (Section 2) and Proposed QFC Rules  

Break: 10:45 to 11:00 a.m.

Session 4: Potential Hurdles to SPOE Resolution and How U.S. G-SIB Resolution Plans Address Them  
11:00 a.m. to Noon  
Sufficiency of resources  
  • A deeper dive into RLAP, RLEN, RCEN and triggers  
  • Resolution plan assumptions  
    o Rapid run (LCR runoff in 30 days)  
    o Ring-fencing/international cooperation  
Potential Legal Challenges to Recapitalization  
  • The potential challenges (avoidance powers, fiduciary duties, equitable relief, etc.)  
  • Mitigants  
    o Secured Support Agreement  
    o Prefunded intermediate holding company  
Potential issues relating to elevation/transfer motion  
  • Two forms of motion (Transfer/Elevation)  
  • Notice/speed (due process)  
  • Assumption/elevation of guarantees of financial contracts  
  • Resolution governance  
Foreign Regulator Cooperation

Roundtable Discussion 1: Pre-Failure Recapitalization  
Noon to 12:45 p.m.

Lunch: 12:45 to 1:45 p.m.

Roundtable Discussion 2: Triggers, Sufficiency of Resolution Resources, Ring-Fencing  
1:45 to 2:45 p.m.  
Break: 2:45 to 3:00 p.m.

Roundtable Discussion 3: Bankruptcy Motions and Post-PNV Governance  
3:00 to 4:00 p.m.

Roundtable Discussion 4: Recap and Next Steps  
4:00 to 4:30 p.m.
Resolution of Global Systemically Important Financial Institutions Under the Bankruptcy Code

Session 1: Resolution Readiness of U.S. G-SIBs: 2008 vs. Today

December 7, 2016
U.S. G-SIB Increased Liquid Asset Ratios

U.S. G-SIBs have 3x more liquid assets (defined as cash, bank deposits and U.S. Treasury and Agency debt securities) as a percentage of deposits and of total liabilities compared to before the 2008 financial crisis.

Liquid Assets / Deposits
Liquid Assets / Total Liabilities

Liquid Assets = Cash and Due from Banks + U.S. Treasury, Agencies and GSE Debt (held to maturity and available for sale)  
Average Liquidity Ratio = weighted average for BAC, BNYM, C, JPM, STT and WFC

Source: SNL Financial, Regulatory Filings
U.S. G-SIB Reduced Reliance on Short-Term Funding

U.S. G-SIBs have reduced their reliance on short-term wholesale funding. G-SIBs have significantly lowered their reliance on short-term wholesale funding... and pushed out the duration of any remaining short-term wholesale funding.

Note: Short-term funding defined as commercial paper, trading liabilities, <1 yr borrowings, repurchase agreements. Ratio shown as aggregate of all U.S. G-SIBs.


Source: SNL Financial, Regulatory Filings, FRBNY
U.S. Liquidity Coverage Ratio (LCR)

SUMMARY OF THE LCR

- Requires high-quality liquid assets (HQLAs) to be at least 100% of prescribed projected net cash outflows over a 30-day stress period. The percentage may be increased at the discretion of the primary federal regulator, to account for additional liquidity risks.

- The U.S. LCR:
  - Defines HQLAs
  - Prescribes standardized projected cash inflow and outflow rates
  - Caps cash inflows at 75% of cash outflows for purposes of the calculation
  - Includes an add-on for potential maturity mismatches

- As a practical matter the bulk of net outflows occur early in the 30-day stress period

\[
\frac{\text{High-Quality Liquid Assets (HQLAs)}}{\text{Net Cash Outflows}} \geq 100\%
\]
U.S. LCR
TOTAL HQLAs

- Total HQLAs include unencumbered holdings of categories of assets, subject to:
  1. prescribed haircuts and caps for certain categories
  2. operational requirements, including the ability to monetize
  3. limitations for assets held by consolidated subsidiaries

- Examples of assets that may be fully counted toward total HQLAs, provided they are not encumbered (except in very limited circumstances):
  1. Excess reserves held at a Federal Reserve Bank (subject to certain exceptions)
  2. Balances held at foreign central banks not subject to restrictions on their use
  3. U.S. Treasuries
  4. Other liquid and readily marketable U.S. Government Agency securities

- Certain other assets may be partially counted towards total HQLAs, subject to limits.
U.S. G-SIBs Increased Capital Ratios

U.S. G-SIBs have higher risk-based capital ratios today in a stressed environment than actual risk-based capital ratios in 2008.

Today banks are starting with 2x the capital they had pre-crisis....

...so that even if they went through an economic downturn worse than the last financial crisis...

...banks would have 50% more capital after absorbing losses from stress than actual capital compared to 2008.

<table>
<thead>
<tr>
<th>Actual CET1*</th>
<th>Stressed Losses (from 2016 DFAST)</th>
<th>Stressed CET1 (from 2016 DFAST**)</th>
<th>Actual T1 Common</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.7%</td>
<td>4.4%</td>
<td>8.3%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

All capital ratios presented on an aggregate (weighted average) basis for all eight U.S. GSIBs. Actual T1 Common as of 12/31/2008 reflects the Tier 1 Common ratio in effect prior to Basel III. Stressed CET1 as of 12/31/2015 reflects the minimum CET1 ratio (under Basel III) under the supervisor-run severely adverse scenario, based on supervisory results of the 2016 DFAST process, for all U.S. G-SIBS.

Source: SNL Financial, Regulatory Filings, 2016 DFAST Results

* CET1 = Common Equity Tier 1 capital, a measurement of a bank’s core equity capital, subject to adjustments and deductions under Basel III
** DFAST = Dodd-Frank Act Stress Testing
A proposed rule would require U.S. G-SIBs to maintain minimum ratios of external TLAC, plus a buffer consisting of CET1 capital.

TLAC would include all Tier 1 instruments except minority interests.

TLAC would also include eligible senior long-term debt securities.

Many U.S. G-SIBs already satisfy the proposed requirements.

---

*AT1 = Additional Tier 1, instrument that may be included in a banking organization’s overall Tier 1 calculations; generally perpetual non-cumulative preferred stock subject to certain conditions
External TLAC

U.S. G-SIBs have substantially increased and restructured their equity and long-term unsecured debt so that all of it can now be used to absorb losses without threatening financial stability.

- TLAC consists of equity plus long-term unsecured debt that can be converted to common equity in bankruptcy
- U.S. G-SIBs now have >5 times more usable TLAC
- In 2008, long-term senior debt not usable without imposing losses pro rata on short-term senior debt (e.g., commercial paper)
- Subordinated debt and Additional Tier 1 were considered unusable in 2008 because of market confusion about loss waterfall
- U.S. G-SIBs have restructured themselves to make long-term senior debt structurally junior to short-term debt
- Enough long-term debt (senior + subordinate) to recapitalize U.S. G-SIBs at full Basel III capital levels under conditions twice as severe as 2008 financial crisis

All capital ratios presented on an aggregate (weighted average) basis. Ratios for 2008 exclude MS and GS because information on the other TLAC components is not publicly available. Ratios for 2016 include all eight U.S. G-SIBs.

Source: Federal Reserve, SNL Financial, Regulatory Filings.
Resolution of Global Systemically Important Financial Institutions Under the Bankruptcy Code

Session 2:
Overview: Single Point of Entry (“SPOE”) Resolution of Distressed U.S. G-SIBs Under the Bankruptcy Code

December 7, 2016
Table of Contents

- SPOE as Resolution Method for U.S. G-SIBs
- What Is “Single Point of Entry” Resolution?
- SPOE Resolution Applied to Simplified U.S. G-SIB Structure
- Timing of Recapitalization and Chapter 11 Proceedings
- Resolution Period
- Post-Resolution
SPOE as Resolution Method for U.S. G-SIBs
SPOE as Resolution Method for U.S. G-SIBs

HYPOTHETICAL U.S. G-SIB STRUCTURE FOR DISCUSSION

Note: This is a hypothetical and greatly simplified U.S. G-SIB structure. The location of various legal entities, including whether they are in a separate legal chain or in a chain with a domestic insured bank, varies from firm to firm. Asset management entities are not shown.
SPOE as Resolution Method for U.S. G-SIBs

RESOLUTION AND SYSTEMIC RISK

- Abrupt shutdown of a U.S. G-SIB can spark contagion, creating systemic risk
  - Destruction of asset values (QFC closeouts; fire-sales of assets; mark-to-market)
  - Shutdown of critical functions (e.g., cessation of clearing and settlement; loss of access to customer accounts)
  - Loss of confidence of short-term creditors of other G-SIBs (contagious runs)

- Additional Challenges for “Multiple Point of Entry” (“MPOE”) Resolution
  - Conflicts of interest may occur among affiliates—Lehman U.S./UK experience is illustrative (intercompany claims)
  - Foreign regulators may ring-fence to protect local interests—little incentive to cooperate
  - Control is dispersed (by country and by entity type)
  - High-risk interaffiliate services may be interrupted
  - Financial contracts at risk of termination and closeout because of direct defaults
  - Failed entities may lose access to clearing and financial market utilities
  - Local asset maintenance requirements and ring-fencing may be imposed
  - Going-concern value more likely to decline
  - Uncertainty regarding cross-border recognition of the home country resolution regime
SPOE as Resolution Method for U.S. G-SIBs

RECAPITALIZATION ALTERNATIVE

- When possible recapitalization and continuation of operating subsidiaries without resolution proceedings is less disruptive
  - Critical functions would continue without interruption
  - Going concern value would be preserved for holding company stakeholders
  - Losses would be imposed on shareholders and private creditors, with no need for a government bailout
  - Moral hazard would be avoided

SPOE Resolution Under the Bankruptcy Code is feasible

At current U.S. G-SIB capital and liquidity levels, it is possible to recapitalize operating subsidiaries and commence chapter 11 proceedings for holding company only
SPOE as Resolution Method for U.S. G-SIBs

MINIMUM REQUIREMENTS

- Requirements for successful SPOE resolution
  - Capital and loss-absorbing debt (TLAC) at holding company
    - TLAC is subordinated to claims of operating subsidiary creditors
    - TLAC investors absorb operating losses when subsidiaries are recapitalized
  - Holding company assets to recapitalize subsidiaries
  - The ability to meet firm-wide liquidity needs until recapitalized operations stabilize
  - Preservation of safe-harbored QFCs (avoiding closeout losses)
  - Cooperation from non-U.S. regulators
What Is “Single Point of Entry” Resolution?
What Is SPOE Resolution?

- Basics of SPOE resolution of U.S. G-SIB
  - Chapter 11 proceedings are commenced for bank holding company (“BHC”) only
  - Operating subsidiaries (“OpCos”) are recapitalized prior to commencement of BHC chapter 11 proceedings
    - OpCos continue in business outside bankruptcy or resolution proceedings
    - Going concern value of OpCos is preserved until orderly sale (including IPO), wind-down or distribution of shares to bankruptcy estate
    - Systemic risk is minimized
  - Losses are absorbed by shareholders and creditors of BHC (TLAC), but recoveries are enhanced by preservation of going concern value of OpCos

- Two versions:
  - “Two Company” SPOE
  - “One Company” SPOE
What Is SPOE Resolution?

**TWO COMPANY SPOE**

- Old HoldCo recapitalizes OpCos during pre-bankruptcy stress “Runway Period”
- After commencement of Old HoldCo chapter 11 proceedings, OpCo shares transferred to new debt free holding company (“New HoldCo”)
  - Emergency Transfer Motion (11 U.S.C. § 363) seeks Bankruptcy Court approval of:
    - Creation of New HoldCo owned by private trust for benefit of the BHC’s bankruptcy estate
    - Transfer OpCos to New HoldCo free and clear of the BHC’s creditors’ claims
    - Assumption of BHC guarantees of OpCos’ QFCs by New HoldCo
    - New management of New HoldCo and private trustee
- Closeouts of OpCo QFCs stayed by ex ante agreement (e.g., “ISDA Protocol”)
  - Transfer to New HoldCo must occur within the longer of 48 hours and one business day commencement of chapter 11 proceedings
  - QFC guarantees must be assumed by New HoldCo
- The BHC’s shareholders and creditors absorb losses of firm, but also benefit from preservation of going-concern value of OpCos until value-maximizing orderly sale or wind-down, or distribution of shares to the bankruptcy estate
What Is SPOE Resolution?
ONE COMPANY SPOE

- After the commencement of bankruptcy proceedings, OpCos continue to be operated under the BHC as the debtor in possession and are wound down
  - No Emergency Transfer Motion
  - Emergency Guarantee Elevation Motion seeks Bankruptcy Court approval of:
    - Elevation of any claims under BHC’s guarantees of OpCo QFCs to administrative expense priority in BHC’s chapter 11 proceedings
    - Guarantees are unlikely to be drawn because QFCs will be paid or novated in going-concern wind-down
- Closeouts of OpCos' QFCs stayed by ex ante agreement if Guarantee Elevation Order timely entered by the Bankruptcy Court
- BHC shareholders and creditors absorb the losses of the firm, but also benefit from preservation of going concern value of OpCos until value-maximizing orderly wind-down.
What Is SPOE Resolution?

SUMMARY OF BENEFITS OF SPOE RESOLUTION

If SPOE resolution is feasible, it has significant benefits:

- All OpCo obligations are paid in full when due
- Systemically critical operations of OpCos, like clearing, settlement and market making, continue without interruption
- Shared services among affiliates continue without interruption
- Financial contract books are preserved (minimizing closeout losses) through meeting requirements of ex ante agreements staying closeouts
- Foreign OpCos remain open and operating, enhancing likelihood of international cooperation
- Firm's losses are absorbed by private sector TLAC stakeholders, but recoveries enhanced by preserving going concern value of OpCos until orderly sale or wind-down or distribution of shares to bankruptcy estate
SPOE Resolution Applied to Simplified U.S. G-SIB Structure
SPOE Resolution Applied to Simplified U.S. G-SIB

HYPOTHETICAL U.S. G-SIB STRUCTURE BEFORE FINANCIAL DISTRESS

Note: This is a hypothetical and greatly simplified U.S. G-SIB structure. The location of various legal entities, including whether they are in a separate legal chain or in a chain with a domestic insured bank, varies from firm to firm. Asset management entities are not shown.
### Top-Tier BHC Stand-alone Balance Sheet ($bn)*

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
</table>
| Cash and Other HQLAs                  | Unsecured long-term debt (
| BHC Deposits in Bank                  | (external TLAC debt)                      |
| Advances to Domestic Broker-Dealer    |                                          |
| Advances to Foreign Broker-Dealer     |                                          |
| Equity of Bank                        | Unsecured short-term debt                 |
| Equity of Domestic Broker-Dealer      |                                          |
| Equity of Foreign Broker-Dealer       |                                          |
| Other Assets                          |                                          |
| Total                                 | Total                                    |
| 200                                   | 200                                      |

* The figures used in this SPOE hypothetical are meant to be illustrative only.

**Note**: This is a BHC stand-alone balance sheet, which shows only BHC investments in OpCos, and not the OpCos’ assets and liabilities. A consolidated balance sheet would show that the firm has $850bn – $1tn in assets.

---

These BHC assets can be used to recapitalize and provide liquidity to OpCos after the onset of financial distress.
SPOE Resolution Applied to Simplified U.S. G-SIB

HYPOTHETICAL LOSSES

Losses in Subs ($bn)

Bank: $40 Loss
- $35 Remaining Equity

Domestic Broker-Dealer: $5 Loss
- $10 Remaining Equity

Foreign Broker-Dealer: $5 Loss
- $5 Remaining Equity

Total Losses: $50 bn
Remaining BHC Equity: $50 bn

Public Shareholders

Bank Holding Company

Bank

Domestic Broker-Dealer

Foreign Broker-Dealer

Foreign Bank Branch

Foreign Subsidiary
### Top-Tier BHC Stand-alone Balance Sheet After Losses and Before Recapitalization ($bn)

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Other HQLAs</td>
<td>Unsecured long-term debt 100</td>
</tr>
<tr>
<td>BHC Deposits in Bank</td>
<td>Unsecured short-term debt 0</td>
</tr>
<tr>
<td>Advances to Domestic Broker-Dealer</td>
<td>100 → 50</td>
</tr>
<tr>
<td>Advances to Foreign Broker-Dealer</td>
<td>10 → 5</td>
</tr>
<tr>
<td>Equity of Bank 75 → 35</td>
<td>Equity 100 → 50</td>
</tr>
<tr>
<td>Equity of Domestic Broker-Dealer</td>
<td>15 → 10</td>
</tr>
<tr>
<td>Equity of Foreign Broker-Dealer</td>
<td>10 → 5</td>
</tr>
<tr>
<td>Other Assets 15</td>
<td></td>
</tr>
<tr>
<td><strong>Total 200 → 150</strong></td>
<td><strong>Total 200 → 150</strong></td>
</tr>
</tbody>
</table>
SPOE Resolution Applied to Simplified U.S. G-SIB
OPERATING SUBSIDIARIES RECAPITALIZED AND PROVIDED LIQUIDITY PRIOR TO BHC BANKRUPTCY

After providing capital and liquidity to its OpCos, the BHC commences chapter 11 proceedings and immediately files Emergency Transfer Motion (for Two Company SPOE) or Emergency Guarantee Elevation Motion (for One Company SPOE)

<table>
<thead>
<tr>
<th>Assets</th>
<th></th>
<th>Liabilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Other HQLAs</td>
<td>25→2</td>
<td>Unsecured long-term debt</td>
<td>100</td>
</tr>
<tr>
<td>BHC Deposits in Bank</td>
<td>35→0</td>
<td>Unsecured short-term debt</td>
<td>0</td>
</tr>
<tr>
<td>Advances to Broker-Dealer 1</td>
<td>15→0</td>
<td>Equity</td>
<td>50</td>
</tr>
<tr>
<td>Advances to Broker-Dealer 2</td>
<td>10→0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity of Bank</td>
<td>35→93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity of Broker-Dealer 1</td>
<td>10→25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity of Broker-Dealer 2</td>
<td>5→15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Assets</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>150</td>
<td><strong>Total</strong></td>
<td>150</td>
</tr>
</tbody>
</table>

Contributions of capital and liquidity to OpCos must be structured to be resilient against avoidance and other legal challenges in BHC bankruptcy proceedings.
Recapitalized OpCos transferred to New HoldCo owned by Resolution Trust for benefit of BHC's bankruptcy estate

Left-behind debts of BHC subject to plan of reorganization

BHC in chapter 11 proceedings (debtor in possession)

New HoldCo

Trust

Beneficiary

Transfer Pursuant to Sale Order

Guarantee Obligations of OpCos' QFCs assumed by New HoldCo

Recapitalized Bank

Recapitalized Domestic Broker-Dealer

Recapitalized Foreign Broker-Dealer

Foreign Bank Branch

Foreign Subsidiary

Recapitalized Foreign Subsidiary

Recapitalized Domestic Branch
Only some of the BHC’s liquid resources are transferred to New HoldCo; the remainder is left behind in the BHC to cover chapter 11 administrative expenses (not shown here). This is New HoldCo’s balance sheet. As adjusted, $1 billion is transferred to New HoldCo, and $1 billion is left behind in the BHC’s bankruptcy estate.

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Other HQLAs</td>
<td>Unsecured long-term debt 0</td>
</tr>
<tr>
<td>Equity of Bank</td>
<td>Unsecured short-term debt 0</td>
</tr>
<tr>
<td>Equity of Broker-Dealer 1</td>
<td>93</td>
</tr>
<tr>
<td>Equity of Broker-Dealer 2</td>
<td>25</td>
</tr>
<tr>
<td>Other Assets</td>
<td>Total 149</td>
</tr>
<tr>
<td>Total</td>
<td>Total 149</td>
</tr>
</tbody>
</table>

*The New Holdco will be required to comply with capital requirements generally applicable to fully capitalized and open bank holding companies.*
Recapitalized OpCos wound down under BHC as debtor in possession

Guarantee Elevation Order
Guarantee Obligations relating to OpCos’ QFCs elevated to administrative priority claims in BHC’s chapter 11 proceedings

BHC in chapter 11 (debtor in possession)

Other debts of BHC subject to plan of reorganization

Recapitalized Bank

Recapitalized Domestic Broker-Dealer

Recapitalized Foreign Broker-Dealer

Foreign Bank Branch

Foreign Subsidiary
Some U.S. G-SIBs have interposed an intermediate holding company or funding company to facilitate implementation of their SPOE resolution strategy (enhancing flexibility in allocating assets to OpCos)

BHC capital and liquidity resources can be prepositioned in IHC or funding company prior to the onset of financial distress and provided to OpCos on a more flexible, “as and when needed” basis during the resolution period instead of contributing it all to specific OpCos prior to bankruptcy filing.
Timing of Recapitalization and Chapter 11 Proceedings
Timing

TRIGGER FRAMEWORK

- Timing of recapitalization and commencement of BHC’s chapter 11 case
  - The recapitalization of the OpCos and the BHC’s chapter 11 filing must occur while the firm’s available capital and liquidity resources are sufficient to support resolution needs
  - U.S. G-SIBs are required to develop “triggers” based on available capital and liquidity resources compared to the projected resolution capital and liquidity needs of the firm's OpCos
    - Similar to DIP financing projections
    - Conservative assumptions (for example, LCR outflows)
    - Updated daily if financial distress becomes severe
    - Projections are made for each entity, determining adequacy of prepositioned capital and liquidity resources
    - Any projected shortfalls at the OpCo level must be covered by BHC resources

Triggers are designed to occur while BHC resources remain sufficient to cover projected OpCo capital and liquidity needs in resolution
Resolution Period
Resolution Period
MANAGEMENT OF THE FIRM AFTER CHAPTER 11 FILING

- The management of the firm will be identified and approved by the Bankruptcy Court in the Transfer Order or Guarantee Elevation Order.

- Depending on the firm’s resolution strategy, actions during the resolution period may include:
  - Winding down certain subsidiaries (e.g., wholesale broker-dealer);
  - Disposing of certain subsidiaries or business lines through sales (as described in the firm’s objects of sale analyses); or
  - Continuing to operate subsidiaries or business lines for the benefit of the BHC’s bankruptcy estate.
Resolution Period
ACTIVE AND PASSIVE WIND-DOWN OF TRADING PORTFOLIOS

- The 2017 Guidance* indicates that “dealer firms” (which include Bank of America, Citigroup, Goldman Sachs, JPMorgan Chase and Morgan Stanley) must develop a strategy to stabilize, wind down or novate their large derivative portfolios in an orderly manner following the BHC’s bankruptcy filing.

- Specifically, the firms must plan for:
  - The passive run-off of the trading book in the event that they are not able to maintain or re-establish investment-grade ratings;
  - An orderly, active wind-down of the derivatives portfolio; and
  - The disposition of any residual derivatives portfolio.
Post-Resolution
# Post-Resolution

**SIZE OF REMAINING OPERATIONS SIGNIFICANTLY REDUCED**

## U.S. G-SIBs Title I Resolution Plans—Public Section Description of Post-Resolution Firm

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• ~40% reduction in overall assets, including 1/3 reduction in main bank assets and 80% reduction in non-bank asset</td>
<td>• Discrete businesses disposed of through combination of strategic sales, wind-downs, or transfers</td>
<td>• Banking businesses divested; each divested business is significantly smaller and less systemically important</td>
<td>• Firm would cease to exist post-resolution; all assets would be sold or unwound</td>
</tr>
<tr>
<td>• Reduction of product offerings, global footprint and customers</td>
<td>• Remaining assets, likely to consist of the bank and certain operational services business generating fee-based income, taken public through IPO</td>
<td>• Broker-dealers either sold as going concerns or subject to solvent wind-down</td>
<td>• Only surviving businesses would be asset management and merchant banking businesses, which would have been sold</td>
</tr>
<tr>
<td>• Wind down, sale or simplification of certain business lines</td>
<td>• Banking businesses divested; each divested business is significantly smaller and less systemically important</td>
<td>• Firm would cease to exist post-resolution; all assets would be sold or unwound</td>
<td>• Only surviving businesses would be asset management and merchant banking businesses, which would have been sold</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• ~ 40% reduction in main bank assets (including branches)</td>
<td>• Firm would cease to exist post-resolution</td>
<td>• ~50% reduction of bank’s balance sheet by one year after idiosyncratic stress event</td>
<td>• ~70% reduction in main bank assets.</td>
</tr>
<tr>
<td>• ~ 75% reduction in broker-dealer assets; none would be systemically important</td>
<td>• Business lines would either be sold or wound down</td>
<td>• Firm’s size and operational footprint may shrink further due to the potential sale of investment management business</td>
<td>• BHC would sell certain businesses and seek to reorganize around any remaining businesses; however, if there are no remaining businesses, BHC would liquidate its remaining assets and cease to exist</td>
</tr>
<tr>
<td>• Reduced demand for services shrink service entities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Certain entities disposed of as part of BHC liquidation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Public Sections of 2015 Title I Resolution Plans; October 2016 Submissions
Resolution of Global Systemically Important Financial Institutions Under the Bankruptcy Code

Session 3:
QFC Close-Out Risk: ISDA Protocol and QFC Rules

December 7, 2016
The Lehman Problem. One of the destabilizing features of the Lehman Brothers failure was the sudden termination of Lehman’s financial contracts arising initially on the counterparties’ exercise of cross-defaults based on the bankruptcy of the Lehman parent and subsequently on the counterparties’ exercise of direct defaults against Lehman’s material operating subsidiaries when the subsidiaries commenced their own bankruptcy or similar proceedings. This resulted in:

- seizure and liquidation of collateral
- substantial losses
- a significant outflow of liquidity

QFC Events of Default

1. Direct default: Entry of covered entity subsidiary into an insolvency proceeding.
2. Cross-default: Commencement of proceeding under the Bankruptcy Code with respect to the top-tier BHC parent.
The Cross-Default and Direct Default Problems
IMPACT OF SINGLE POINT OF ENTRY (“SPOE”) RESOLUTION

- The SPOE resolution method avoids the direct default problem entirely, because the parent holding company is the only entity to file for bankruptcy. The operating subsidiaries—which are the direct parties to the QFCs—remain out of bankruptcy.

- Early termination rights (both direct default and cross-default rights) under derivatives and certain other QFCs are stayed under various special resolution regimes (“SRRs”)
  - The Orderly Liquidation Authority (“OLA”) provisions of Title II of the Dodd-Frank Act
  - The EU Bank Recovery and Resolution Directive (“BRRD”)
  - Other SRRs based on the general principles laid out in the Financial Stability Board Key Attributes

- However, problems remain:
  - Extraterritorial Gap. The prohibition under OLA on QFC counterparties’ exercising direct default and cross-default rights may not be given effect outside the United States. This could arise, for example, if a QFC with a foreign subsidiary is governed by foreign law.
  - Bankruptcy Code Gap. The Bankruptcy Code does not contain a provision like that in OLA staying the exercise of cross-default rights by counterparties or non-debtor subsidiaries upon a bank holding company’s bankruptcy filing.
Section 2 of the ISDA Protocol amends ISDAs and other QFCs among adhering parties to restrict the exercise of cross-default rights, subject to certain creditor protections.

**Overridden Cross-Defaults**

The Protocol overrides all QFC default rights that are related, directly or indirectly, to an affiliate of the direct party becoming subject to a U.S. insolvency proceeding (cross-default).

**Creditor Protections**

If a QFC benefits from a guarantee or other credit support (credit enhancement) furnished by a parent, default rights related to the parent becoming a debtor under Chapter 11 will only be stayed for 48 hours (or one business day, whichever is longer) unless the court enters an order with respect to one of the following within such period (at which point the stay becomes a permanent override):

- **Transfer** of the credit enhancement, together with all or substantially all of the assets of the parent (or the net proceeds therefrom), to a bridge company owned by a trust for the benefit of the estate or to a third party
- **Assumption** of the obligations under the credit enhancement as an administrative expense in the parent’s chapter 11 case

**Certain Default Rights are not Overridden**

- **Performance Default Rights**: based upon—
  - Insolvency of the direct party to the QFC
  - Failure of the direct party to satisfy a payment or delivery obligation under the QFC or another contract between the parties, or failure of the credit support provider to satisfy a payment or delivery obligation under the credit enhancement
- **Unrelated Default Rights**: not related, directly, or indirectly, to an affiliate entering into U.S. insolvency proceedings.
  - The counterparty attempting to exercise a default right bears the burden of proof to show the default right is “unrelated.”
  - Default rights triggered solely by an affiliate entering a non-U.S. insolvency proceeding are not overridden unless the U.S. parent has entered U.S. insolvency proceedings.
The Board of Governors of the Federal Reserve System has issued a proposed rule that would prohibit certain cross-default rights and transfer restrictions in covered QFCs, subject to certain creditor protections. Substantially identical rules have been proposed by the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation.

The proposed rules largely track the requirements of the ISDA Protocol, but there are some notable differences:

- The scope of the cross-defaults overridden is broader than under the ISDA Protocol.
- The ISDA Protocol contains enhanced creditor protections.
- The proposed rules would allow for compliance through adherence to the ISDA Protocol.
Resolution of Systemically Important Financial Institutions Under the Bankruptcy Code

Session 4:
Potential Hurdles to SPOE Resolution and How U.S. G-SIB Resolution Plans Address Them

December 7, 2016
Table of Contents

Overview of Four Key Hurdles to SPOE Resolution

Key Hurdle 1: Assuring Sufficiency of Resolution Resources

Key Hurdle 2: Limiting Legal Challenges to Pre-Bankruptcy Support of OpCos

Key Hurdle 3: Timely Approval of Emergency Motions

Key Hurdle 4: Foreign Regulator Cooperation
Overview of Four Key Hurdles to SPOE Resolution
Overview of Four Key Hurdles to SPOE Resolution

WHAT ARE THE KEY HURDLES?

- Four key hurdles to SPOE Resolution:
  1. Assuring sufficiency of capital and liquidity resources for each OpCo to remain outside insolvency proceedings after failure of the BHC
  2. Limiting legal challenges to pre-bankruptcy support of OpCos by the BHC during the Runway Period prior to the BHC’s bankruptcy filing
  3. Timely approval of an emergency bankruptcy motions (an “Emergency Transfer Motion” or “Emergency Guarantee Elevation Motion”) that satisfies the requirements of contractual QFC stay provisions in order to achieve prompt stabilization of the firm’s business
  4. Foreign regulator cooperation allowing non-U.S. OpCos to remain outside insolvency or resolution proceedings and continue as going concerns after the BHC’s bankruptcy filing
Overview of Four Key Hurdles to SPOE Resolution

HOW KEY HURDLES ARE ADDRESSED IN U.S. G-SIB RESOLUTION PLANS

<table>
<thead>
<tr>
<th>Hurdle</th>
<th>How Key Hurdles Are Addressed</th>
</tr>
</thead>
</table>
| 1. Assuring Sufficiency of Resolution Resources | - Higher capital and liquidity resources at the onset of material financial distress  
- OpCo recapitalization and contractual stay of QFC closeouts to limit fire sale of assets  
- Triggers to cause the BHC’s bankruptcy filing to occur while available resources remain sufficient for successful SPOE Resolution |
| 2. Limiting Legal Challenges to Pre-Bankruptcy OpCo Support | - Contractually binding mechanism (Support Agreement) requiring the BHC to provide capital and liquidity support for OpCos  
- Security interest in contributable assets to secure support obligations  
- Prefunded intermediate holding company or funding entity |
| 3. Timely Approval of the Emergency Motion  | - Prior notice/disclosure  
- Limited relief requested  
- Preserves value for the estate  
- No need for a valuation of consideration received for estate assets  
- Mitigation of risk to financial stability  
- Performance of QFCs by OpCos, which minimizes exposure to assumed QFC guarantees |
| 4. Foreign Regulator Cooperation            | - Assurance that foreign OpCos will meet or exceed regulatory capital requirements at all times  
- Conservative assumptions about limiting interaffiliate transactions during resolution period (soft ring-fencing) |
Key Hurdle 1: Assuring Sufficiency of Resolution Resources
### Assuring Sufficiency of Resolution Resources

**PLAN FEATURES THAT ASSURE SUFFICIENCY OF RESOLUTION RESOURCES**

<table>
<thead>
<tr>
<th>Plan Feature</th>
<th>Implications for Hurdle</th>
</tr>
</thead>
</table>
| Higher capital and liquidity resources at the onset of financial distress   | - Enhanced TLAC and liquidity requirements  
- Firms start with substantially more capital and liquidity resources than in 2008  
- Fair value of firm’s assets, even after stress losses, should exceed its liabilities  
- Prepositioned “internal TLAC” and contributable assets (RCAP) available to recapitalize OpCos  
- QFC amendments to eliminate cross-default and termination rights  
- Post-PNV losses can be reduced because QFC books can be preserved despite BHC’s bankruptcy filing  
- Rapid Net Cash Outflow Assumption (LCR)  
- Firms must maintain sufficient HQLAs to cover a sudden, rapid run on liquidity |
| Fire sales of assets will be reduced                                         | - OpCos prepared to meet liquidity run with their prepositioned HQLAs and contributable HQLAs from BHC/IHC (RLAP)  
- Will reduce loss-producing fire sales of illiquid assets by OpCos to meet liquidity needs  
- Elimination of QFC closeouts  
- Will avoid fire sales of collateral to generate cash to meet termination obligations |
| Triggers to cause the BHC’s bankruptcy filing to occur while available resources remain sufficient for SPOE Resolution | - Recapitalization and Bankruptcy Triggers (RLEN and RCEN calculations)  
- During a stress period, firms must be able to estimate projected capital and liquidity needs to successfully accomplish SPOE Resolution using conservative assumptions  
- Firms required to have contractual and governance triggers comparing projected resolution needs to available resources to ensure OpCos are recapitalized and the BHC’s chapter 11 proceedings are commenced while there are sufficient resources to implement SPOE Resolution |
Assuring Sufficiency of Resolution Resources

POSITIONING LIQUIDITY AND TRIGGERS: RCAP, RLAP, RCEN, AND RLEN

- Four new resolution planning concepts introduced in the regulator Guidance for 2017 §165(d) Annual Resolution Plan (“2017 Guidance”) address positioning of resources and triggers for recapitalization and bankruptcy
  - Resolution Capital Adequacy and Positioning (“RCAP”)
  - Resolution Liquidity Adequacy and Positioning (“RLAP”)
  - Resolution Capital Execution Need (“RCEN”)
  - Resolution Liquidity Execution Need (“RLEN”)

* “Guidance for 2017 § 165(d) Annual Resolution Plan Submissions By Domestic Covered Companies that Submitted Resolution Plans in July 2015” published by the FDIC and the Board of Governors of the Federal Reserve System
Assuring Sufficiency of Resolution Resources

POSITIONING LIQUIDITY AND TRIGGERS: RCAP, RLAP, RCEN, AND RLEN (cont’d)

- **RCAP and RLAP:** Positioning Resources for a Hypothetical Future SPOE Resolution
  - Firms must “position” appropriate balance of contributable and prepositioned (internal) capital and liquidity resources during business as usual (“BAU”) to anticipate a stress scenario

- **RCEN and RLEN:** Projecting **Actual** Needs of OpCos to Make SPOE Resolution Feasible
  - When under financial stress, firms are required to make real-time projections of capital and liquidity needs of OpCos during resolution period
  - Projections comparable to projections provided to DIP lenders

*“Guidance for 2017 § 165(d) Annual Resolution Plan Submissions By Domestic Covered Companies that Submitted Resolution Plans in July 2015” published by the FDIC and the Board of Governors of the Federal Reserve System*
During BAU, U.S. G-SIBs are required to balance the positioning of contributable and prepositioned capital and liquidity resources to address a future hypothetical stress scenario.

**RCAP**

**Ex ante** balanced positioning of Contributable Assets and prepositioned capital and internal TLAC taking into account the projected capital needs (covering both pre- and post-bankruptcy losses) of each OpCo in severe stress scenario

- Available for contribution or forgiveness to recapitalize OpCos
- Intended to be sufficient for OpCos to meet capital requirements throughout resolution
- Balance between ensuring certainty associated with prepositioning internal TLAC and retaining flexibility by keeping contributable assets at the BHC or at an Intermediate Holding Company or funding entity (each an “IHC”)
- Meets prepositioning requirements for foreign OpCos imposed by local regulators

**RLAP**

**Ex ante** balanced positioning of Contributable Assets and prepositioned high-quality liquid assets (HQLAs) taking into account projected pre- and post-bankruptcy liquidity needs of each OpCo in severe stress scenario

- To cover liquidity deficits during a severe stress period of accelerated cash outflows lasting at least 30 days
- Balance between prepositioned liquidity and keeping liquidity resources at the BHC or IHC
- RLAP Methodology should take into account:
  - the daily contractual mismatches between inflows and outflows;
  - the daily flows from movement of cash and collateral for all interaffiliate transactions; and
  - the daily stressed liquidity flows and trapped liquidity as a result of actions taken by clients, counterparties, key financial market utilities, and foreign supervisors

* 2017 Guidance
Assuring Sufficiency of Resolution Resources
PROJECTING REAL TIME RESOLUTION NEEDS: RCEN AND RLEN

During a stress period, U.S. G-SIBs are required to estimate and regularly update projected capital and liquidity needed to implement SPOE Resolution based on facts unfolding in the actual stress scenario being experienced by the group.

- **RCEN**: Projected capital resources needed at each OpCo following the BHC’s bankruptcy filing to cover projected losses while SPOE Resolution is executed.
  - Must be sufficient to ensure compliance with capital requirements applicable to each OpCo after absorbing both pre and post-bankruptcy losses.
  - Updated daily during stress period.

- **RLEN**: Projected liquidity resources needed at each OpCo after the BHC’s bankruptcy filing to cover net liquidity outflows until liquidity levels stabilize (the “Stabilization Date”).
  - Must be sufficient to cover both:
    - cumulative net outflows in post-bankruptcy period (after offsetting inflows) until Stabilization Date, and
    - peak intra-day liquidity needs.
  - Updated daily during stress period.

RCEN and RLEN are used to formulate triggers so action is taken while sufficient resources remain to execute SPOE Resolution.
Why are projection-based triggers needed?
- Triggers based on current (static) capital levels can be lagging indicators
  - Dependent upon timing of losses
- Triggers based on current capital and liquidity levels don’t account for future needs

Who develops the projection models and how are they vetted?
- U.S. G-SIBs develop and confer with regulators about model methodology (variables and assumptions) during annual resolution planning process

Why is daily updating of projections required during the stress period?
- Facts, including market conditions and reactions of customers and counterparties, change throughout stress period
- Projection model must take account of real time changes as the stress scenario unfolds

How do triggers address the risk of forcing failure unnecessarily while recovery is still possible?
- Triggers are designed to occur when failure is inevitable but resources are still sufficient for successful resolution

Triggers should occur if projected resolution capital or liquidity needs are approaching the remaining amount of the firm’s capital or liquidity resources
Assuring Sufficiency of Resolution Resources
DAILY COMPARISON OF CAPITAL AND LIQUIDITY NEEDS TO AVAILABLE RESOURCES

- Daily projection of resolution capital and liquidity needs (RCEN and RLEN) of OpCos
  - Models estimate projected capital and liquidity needs (RCEN and RLEN) as though an SPOE Resolution were commenced immediately
  - Earlier recapitalization and SPOE Resolution leads to earlier stabilization of OpCos
    - Reduces capital and liquidity needs in resolution

- Daily measurement of available resources—two components
  - Remaining prepositioned OpCo resources, including liquidity and internal TLAC
  - Contributable Assets at the BHC or IHC

- Daily comparison of projected needs and resources during stress period
  - Projected needs and available resources are updated daily to address changed facts (net cash outflows, market conditions, projected losses, reactions of customers, counterparties, FMUs, etc.)

- Illustrative assumptions used in projection models
  - Very rapid outflow of runnable liabilities
  - Limitations on access to credit (additional collateral required to be posted with FMUs, clearing banks, counterparties; limits on governmental support; timing of return of access to markets)
  - Real-time adjustment of expected prices and timing of asset sales in stressed markets
  - Limits on access to affiliate resources (soft ring-fencing)
  - Limits on access to hedging during wind-down of trading books
Assuring Sufficiency of Resolution Resources
OPCO RCEN AND RLEN SHORTFALLS

1. During a stress period, once a **Calculation Event** has occurred, RCEN and RLEN are regularly projected for each material OpCo to detect shortfalls and determine each OpCo’s incremental resource needs.

2. An OpCo’s RLEN is measured against its remaining HQLAs to estimate its projected liquidity needs (RLEN Shortfall)

   \[ \text{RLEN Shortfall} = \text{RLEN} - \text{HQLA} \]

3. An OpCo’s RCEN is measured against its internal TLAC to project its capital needs (RCEN Shortfall)

   \[ \text{RCEN Shortfall} = \text{RCEN} - \text{TLAC} \]

4. An OpCo’s resource needs are determined by the greater of its RLEN and RCEN shortfalls

   \[ \text{Resource Need} = \max(\text{RLEN Shortfall}, \text{RCEN Shortfall}) \]

---

* Calculation Event: an early governance trigger requiring commencement of daily RLEN and RCEN projection calculations designed to occur when the G-SIB’s liquidity outflows or capital losses suggest the onset of financial distress
Assuring Sufficiency of Resolution Resources

RECAPITALIZATION TRIGGER

- Recapitalization Trigger occurs when the HQLAs and other assets held at the BHC or IHC level that are available for contribution to the OpCos approach the aggregate capital or liquidity needs of the OpCos based on the RCEN/RLEN shortfall calculation.

\[
\text{Recapitalization Trigger} \quad \frac{\text{Available Financial Resources}}{\text{Aggregate Resource Needs}} \rightarrow 1.0
\]

Buffers are built into the trigger calculation so the recapitalization and the BHC’s bankruptcy occur while available resources remain sufficient to meet capital and liquidity needs during the resolution period.

- The precise ratio in the Recapitalization Trigger will depend upon where the buffers are built into the system (RLEN/RCEN or the recapitalization ratio).

- Upon occurrence of the Recapitalization Trigger:
  - The BHC’s remaining contributable assets are contributed to the OpCos or an IHC
  - Thereafter, the BHC files for protection under chapter 11
    - The Recapitalization Trigger is also a governance trigger for the BHC director and management action regarding the BHC’s chapter 11 proceedings.
Resolution Plan Liquidity Outflow Assumptions
MODELS ASSUME RAPID DEPLETION OF HQLAs DURING RUNWAY PERIOD PRIOR TO RESOLUTION

RLAP models require U.S. G-SIBs to hold HQLAs to cover liquidity deficits (Cumulative Net Outflows) of material entities for a stress period of at least 30 days. (See note below.)

Note: Regulatory guidance provides that: “With respect to RLAP, the firm should be able to measure the stand-alone liquidity position of each material entity (including material entities that are non-U.S. branches) — i.e., the high-quality liquid assets (HQLA) at the material entity less net outflows to third parties and affiliates — and ensure that liquidity is readily available to meet any deficits. The RLAP model should cover a period of at least 30 days and reflect the idiosyncratic liquidity profile and risk of the firm. . . . The stand-alone net liquidity position of each material entity (HQLA less net outflows) should be measured using the firm’s internal liquidity stress test assumptions.” Agency Guidance for July 2017 Submissions
If no action is taken to recapitalize OpCos and resolve the firm, it may be impossible to stabilize liquidity outflows. The rate of continued decline in HQLAs will depend on actions of FMUs and counterparties, market conditions, etc.

Eventually the OpCos may run out of liquidity and fail.
If OpCos are fully recapitalized and SPOE is implemented, OpCo liquidity outflows should stabilize and access of OpCos to credit markets should return, as long as the OpCos have access to sufficient liquidity to sustain their operations until the firm’s liquidity stabilizes (the “Stabilization Date”) (see below).

The Recapitalization Trigger tests projected OpCo liquidity needs (whether based on RCEN or RLEN shortfalls) until the expected Stabilization Date against the firm’s available liquidity resources to determine when the recapitalization and the BHC’s Chapter 11 filing should occur.

* For purposes of this illustration it is assumed that, based on the daily RLEN and RCEN calculations, the G-SIB determines that the Recapitalization Trigger has occurred shortly before day 14, triggering final BHC support contributions to the OpCos, or an IHC if one is used, and BHC’s bankruptcy filing promptly thereafter. This is illustrated on the next page.
Resolution Plan Liquidity Outflow Assumptions

ILLUSTRATION OF RECAPITALIZATION TRIGGER USING IHC STRUCTURE*

Recapitalization Trigger
After a Calculation Event occurs, the RCEN and RLEN Shortfalls of the OpCos are recalculated daily. As the resolution liquidity needs of the OpCos (the green curve below) approach the available HQLAs held by IHC (the red curve below) the Recapitalization Trigger occurs, whereupon the BHC makes its final support contribution to the IHC and the BHC commences its chapter 11 proceedings. After BHC commences its chapter 11 proceedings, IHC continues to provide capital and liquidity support to OpCos as needed.

* For firms without IHCs, upon occurrence of the Recapitalization Trigger, pursuant to the Support Agreement, BHC would transfer all available capital and liquidity support resources directly to the OpCos prior to commencing BHC’s chapter 11 proceedings. The firm’s Consolidated HQLAs would not change, but, unlike the IHC model, all HQLAs would be prepositioned in OpCos prior to BHC’s bankruptcy.
Key Hurdle 2: Limiting Legal Challenges to Pre-Bankruptcy Support of OpCos
Limiting Legal Challenges to Pre-Bankruptcy Support of OpCos

POTENTIAL LEGAL CHALLENGES AND MITIGANTS

- During stress period and prior to the BHC’s bankruptcy filing, capital and liquidity resources of the BHC are used to support stressed OpCos:
  - Resources are pushed downstream to OpCos during the stress period
- BHC creditors may assert the BHC was insolvent when support was provided to OpCos
- Most likely potential legal challenges:
  - Fraudulent or preferential transfer
  - Performance of fiduciary duties by directors
  - Attempts to obtain preemptive injunctive relief against support transfers
- U.S. G-SIBs have included the following features in their resolution plans to mitigate potential legal challenges:
  - Contractually binding support mechanisms (Support Agreements)
  - Security interests in Contributable Assets (HQLAs and intercompany debt receivables from OpCos)
  - Prefunded intermediate holding companies or funding entities (“IHCs”)
Limiting Legal Challenges to Pre-Bankruptcy Support of OpCos

SUPPORT AGREEMENT AND SECURITY INTEREST IN CONTRIBUTABLE ASSETS

- Purpose of Support Agreement and security interest
  - Creates a contractually binding commitment to provide capital and liquidity support to OpCos to meet needs during resolution period
  - Secured by perfected security interest in all assets that will be used to provide support to OpCos during a future stress period

- Entered into prior to financial distress, when the BHC is unambiguously solvent
  - For fraudulent transfer purposes, all support obligations are incurred and the security interest is granted when the BHC is solvent under all relevant definitions

- Public disclosure of Support Agreement and security interest during business as usual, so all investors are aware of their existence
  - Public section of the Resolution Plan
  - Periodic disclosures required under the ‘34 Act
  - Debt offering documents
Limiting Legal Challenges to Pre-Bankruptcy Support of OpCos
DEFENSES PROVIDED BY SUPPORT AGREEMENT AND SECURITY INTEREST

Support Agreement and security interest in contributable assets provide effective defenses against potential legal challenges

- Fraudulent transfer
  - Support obligations incurred and security interests granted while the BHC is solvent under all relevant legal definitions
  - Support transfers by the BHC to OpCos during stress period in satisfaction of secured obligations under Support Agreement are neither intentional nor constructive fraudulent transfers under applicable federal or state law

- Preference
  - Support Agreement creates antecedent debt, but security interest provides a defense
Limiting Legal Challenges to Pre-Bankruptcy Support of OpCos
DEFENSES PROVIDED BY SUPPORT AGREEMENT AND SECURITY INTEREST

- **Breach of fiduciary duties by directors**
  - Performance by the BHC of its support obligations should conform to fiduciary duties of the BHC’s board because the BHC and its creditors would not benefit and could be harmed if the BHC failed to perform Support Agreement
  - A secured contract damages claim would arise if the BHC breached

- **Injunctive relief**
  - Plaintiffs would have low probability of success on the merits of legal challenges
  - No irreparable harm to plaintiffs (due to secured damage claim if the BHC fails to perform)
  - Balance of harms weighs strongly against injunctive relief
    - Substantially greater harm to OpCos and public interest than harm to plaintiffs

- **Covenant compliance**
  - Support is designed to comply with asset transfer restrictions, if any
  - U.S. G-SIB BHC’s do not have negative pledge covenants, so there are no restrictions on granting the liens securing the Support Agreement
### Limiting Legal Challenges to Pre-Bankruptcy Support of OpCos

**USE OF PREFUNDED IHC STRUCTURE CAN FURTHER LIMIT THE RISK OF LEGAL CHALLENGES**

<table>
<thead>
<tr>
<th>Two Support Structures Used by S-GiBs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BHC Provides Support</strong></td>
<td>- The BHC enters into Secured Support Agreement</td>
</tr>
<tr>
<td></td>
<td>- All capital and liquidity support is provided to OpCos by the BHC prior to the BHC’s bankruptcy</td>
</tr>
<tr>
<td></td>
<td>- Allocation of support among OpCos based on projections</td>
</tr>
<tr>
<td></td>
<td>- Most suitable to firms that expect wind-down</td>
</tr>
<tr>
<td><strong>IHC (an actual intermediate holding company or a special purpose funding entity) Provides Support</strong></td>
<td>- Uses existing or newly created IHC with no external debt</td>
</tr>
<tr>
<td></td>
<td>- During BAU:</td>
</tr>
<tr>
<td></td>
<td>- IHC is prefunded with contributable assets</td>
</tr>
<tr>
<td></td>
<td>- IHC becomes party to Support Agreement and grants a security interest in its contributable assets</td>
</tr>
<tr>
<td></td>
<td>- Upon occurrence of Recapitalization Trigger, the BHC makes a contribution to IHC of remaining HQLAs and other assets in excess of bankruptcy expense holdback</td>
</tr>
<tr>
<td></td>
<td>- After Recapitalization Trigger, IHC provides capital and liquidity to OpCos as and when needed, including after the BHC commences its bankruptcy proceedings</td>
</tr>
</tbody>
</table>
Secured Support Agreement Timeline
TIMELINE OF SPOE RESOLUTION INCLUDING PREFUNDING OF IHC

1. BAU
   - Stress Event—Recovery Plan Triggered

2. Pre-Failure Runway Period
   - Calculation Event: Daily Calculation of Recapitalization Trigger Begins

3. Resolution Period
   - Recapitalization Trigger: BHC’s Final Contribution to IHC
   - Support provided by IHC to OpCos as and when needed

- Prefunding of IHC With Contributable Assets
- Execution by the BHC and IHC of Support and Security Agreements

BHC’s Chapter 11 Filing
Limiting Legal Challenges to Pre-Bankruptcy Support of OpCos

BENEFITS OF PREFUNDED IHC STRUCTURE

- Using prefunded IHC structure can provide the following benefits:
  - Additional flexibility to provide support where and when needed
    - Does not require allocation of resources among OpCos during Runway Period based on RCEN and RLEN projections
    - After the BHC commences chapter 11 proceedings, IHC remains outside bankruptcy and provides support to OpCos as and when needed
  - Additional arguments against legal challenges because during stress period, support for OpCos comes from IHC rather than the BHC
    - Fraudulent transfer defense (*Adelphia Communications* defense)
    - Breach of fiduciary duties defense (IHC controls transfer decision, not BHC)
    - IHC is not bound by BHC’s obligations
Key Hurdle 3: Timely Approval of Emergency Motions
Timely Approval of Emergency Motions

EMERGENCY TRANSFER MOTION: PROCEDURAL MATTERS

- **Timing**
  - Filed immediately upon commencement of the BHC’s chapter 11 proceedings
  - ISDA Protocol requirement: approval and closing of transfer must occur by the later of 48 hours and one business day after commencement of the BHC’s bankruptcy
    - If proceedings commence over “Resolution Weekend,” allows until close of business the following Monday for the closing to occur
  - Hearing must be completed with sufficient time to close transfer

- **Notice**
  - Request court approval of an Order to Show Cause allowing shortened notice
  - 20 largest creditors (mostly bondholders)
  - Notice to indenture trustees and any known bondholders
    - During Runway Period, large holders should be identified if possible
  - Notice to U.S. regulators of the BHC
  - Electronic/publication notice
  - Public disclosure: SEC filings and public section of resolution plan
Timely Approval of Emergency Motions

EMERGENCY TRANSFER MOTION: RELIEF REQUESTED

- Request for expedited bankruptcy court approval, pursuant to sections 363 and 105 of the Bankruptcy Code, of:
  - Transfer by the BHC, pursuant section 363, of OpCos and IHC to New HoldCo owned by a private trust for the benefit of the chapter 11 estate of the BHC (the “Resolution Trust”)
  - Assumption by New HoldCo of the BHC’s guarantees, if any, of the OpCos’ QFCs
  - Form of Transfer Agreement between the BHC and New HoldCo
  - Form of Transition Services Agreement among the BHC, New HoldCo and OpCos
  - Form of Trust Agreement
  - Identity of directors and management of New HoldCo
  - Identity of trustee of the Resolution Trust
Timely Approval of Emergency Motions

EMERGENCY TRANSFER MOTION: PROCEDURES

- Proof at hearing
  - Reasonableness of business judgment, including benefits to estate of transfer
    - Preservation of equity value of recapitalized OpCos
    - Elimination of loss of value and guarantee claims from QFC closeouts and fire sales of collateral that would occur if the transfer were not timely completed
    - Incremental value created by separating “good bank” from the “failed bank”
    - Increased cooperation from foreign regulators
    - Value maximizing exit strategies
  - Appropriateness of control of the OpCos by New HoldCo and the trustee of the Resolution Trust
    - Qualifications of proposed new management, proposed trustee
    - Adequacy of ongoing reporting, monitoring, etc.
    - Level of ongoing supervision of New HoldCo by regulators
      - Any restrictions on ongoing New HoldCo operations agreed with regulators would be disclosed
  - Dire systemic consequences of not approving the transfer
Timely Approval of Emergency Motions

EMERGENCY TRANSFER MOTION: CLOSING

- Closing must occur immediately after entry of approval order, within the 48-hour/one-business-day deadline
  - Preparation for closing completed during Runway Period prior to commencement of the BHC’s chapter 11 proceedings
    - Approval of New HoldCo as newly created bank holding company
    - Regulatory "change of control" approvals
    - Transfer documents signed and held in escrow
      - Relatively simple initial closing (signing agreements, stock transfer, assumption by New HoldCo of QFC guarantees)
  - Transfers of miscellaneous other assets can be completed after initial closing
  - Complexity of closing is low because OpCos are open, fully capitalized, non-bankrupt entities
    - Stock transfer only
    - Operating assets and liabilities, operating employees, exchange and FMU memberships, etc. remain with OpCos throughout transfer
Timely Approval of Emergency Motions

EMERGENCY GUARANTEE ELEVATION MOTION

- **Timing**
  - Same as Emergency Transfer Motion
- **Notice**
  - Same as Emergency Transfer Motion
- **Request for expedited bankruptcy court approval,** pursuant to sections 363 and 105 of the Bankruptcy Code, of:
  - Grant of allowed administrative priority status under sections 503(b) and 507(a)(2) of the Bankruptcy Code to claims under the BHC’s guarantees of OpCos’ QFCs
  - Approval of identify of management of the BHC
- **Proof at hearing**
  - Benefit to the estate and all creditors of elevation of guarantees
    - Similar to evidence presented in connection with Emergency Transfer Motion, except for creation of “good bank”
    - Favored by broker-dealers with a wind-down resolution strategy
  - Feasibility of wind-down underneath DIP
    - Low likelihood assumed guarantees will ever be called upon
  - Systemic consequences of not approving motion
Timely Approval of Emergency Motions

ISSUES FOR DISCUSSION REGARDING EMERGENCY MOTIONS

- Speed
  - Notice and opportunity to be heard
  - Ability of court to assimilate and decide

- Justification for elevation/assumption of QFC guarantees

- Post-hearing relationship between chapter 11 proceedings and operations
  - How limited is court and BHC creditor involvement in supervision of ongoing operations (and realization of value) after entry of order approving the applicable motion?
    - Decisions by trustee of the Resolution Trust (Emergency Transfer Motion)
      - Appointment of new directors
      - Sale of shares of New HoldCo
    - OpCos remain outside bankruptcy making their own business decisions, subject, however, to regulatory supervision
      - Sale of some or all OpCos conducted outside bankruptcy
    - Form of distributions to the estate (sale proceeds or shares)?

- Role of Regulators (at hearing and post hearing)
Key Hurdle 4: Foreign Regulator Cooperation
Foreign Regulator Cooperation

RESOLUTION PLANS ENCOURAGE COOPERATION

- Foreign Regulators unfamiliar with and fearful of bankruptcy proceedings as a resolution method
  - Prefer home country regulators to control resolution process
  - Prefer process with government liquidity backstop

- U.S. G-SIB Resolution Plans designed to encourage cooperation of foreign regulators despite unfamiliarity with bankruptcy
  - OpCos remain fully capitalized under local law
  - OpCos do not enter bankruptcy proceedings
  - Two company model quickly returns OpCos to regulator supervised New HoldCo
  - Conservative assumptions about “soft ring-fencing”
    - Limits on transfers of assets between affiliates during resolution period
  - U.S. regulator involvement in identification of new management and governance restrictions on ongoing U.S/ entities assumed

- Cooperation required from only handful of systemically critical countries
Foreign Regulator Cooperation
IMPORTANCE OF INFORMATION AND EDUCATION

- Foreign regulators are increasingly informed about how SPOE Resolution under the Bankruptcy Code will work
  - Direct discussions with U.S. regulators
  - Discussions with U.S. G-SIBs in Crisis Management Groups
  - Joint work with U.S. G-SIBs and regulators on ISDA Protocol
- Consensus among judges and experts that SPOE Resolution under the Bankruptcy Code is feasible also will help to encourage foreign regulator cooperation
Resolution of Global Systemically Important Financial Institutions Under the Bankruptcy Code

Reading List

Recommended Reading


Supplemental Reading

Lehman Brothers

• Harvey R. Miller & Maurice Horwitz, Resolution Authority: Lessons From The Lehman Experience (April 11, 2013), http://www.stern.nyu.edu/sites/default/files/assets/documents/con_041232.pdf


Dodd-Frank Excerpts

• Dodd-Frank Wall Street Reform and Consumer Protection Act, § 165(d), http://finance.wharton.upenn.edu/conferences/bankruptcy/pdf/DoddFrank_165dLivingWills.pdf


Introduction to SPOE


Possible Bankruptcy Code Amendments


• The Role of Bankruptcy Reform in Addressing Too-Big-To-Fail: Hearing Before the Senate Committee on Banking, Housing, & Urban Affairs (June 29, 2015)
  o Testimony of Professor Thomas H. Jackson, http://www.banking.senate.gov/public/_cache/files/e68e1981-46a6-4fe2-98bc-a2ea6a6535c/23C6a0e0cc53d93492511cc744028b5e.jacksontestimony72915.pdf

Making Failure Feasible: How Bankruptcy Reform Can End "Too Big to Fail" (Thomas Jackson, Kenneth E. Scott & John B. Taylor eds., 2015)


**Qualified Financial Contracts**


Cross-Border Considerations


Resolution Plans

- 2016 Public Feedback Letters from the Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation in response to the 2015 Resolution Plan Submissions (April 12 2016)

- Public Sections
  - Citigroup Inc., October Submission, Section I: Public Section (October 1, 2016), [https://www.federalreserve.gov/bankinforeg/resolution-plans/citigroup-1g-20161001.pdf](https://www.federalreserve.gov/bankinforeg/resolution-plans/citigroup-1g-20161001.pdf)


- FDIC Systemic Resolution Advisory Committee
## Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017 Guidance</td>
<td>Guidance for 2017 §165(d) Annual Resolution Plan Submissions By Domestic Covered Companies that Submitted Resolution Plans in July 2015, issued by the Federal Reserve Board and the FDIC</td>
</tr>
<tr>
<td>AT1</td>
<td>Additional Tier 1 Capital; instruments that may be included in a banking organization’s overall Tier 1 Capital calculations; generally perpetual non-cumulative preferred stock subject to certain conditions</td>
</tr>
<tr>
<td>Basel III</td>
<td>Third Basel Accord; relates to bank capital and liquidity requirements, as implemented in the United States by the Federal Reserve Board, the OCC and the FDIC</td>
</tr>
<tr>
<td>BAU</td>
<td>Business As Usual</td>
</tr>
<tr>
<td>BHC</td>
<td>Bank Holding Company; the top-tier parent company of a U.S. G-SiB</td>
</tr>
<tr>
<td>BRRD</td>
<td>European Union Bank Recovery and Resolution Directive</td>
</tr>
<tr>
<td>Calculation Event</td>
<td>An early governance trigger requiring commencement of daily RLEN and RCEN projection calculations designed to occur when a G-Sib’s liquidity outflows or capital losses suggest the onset of financial distress</td>
</tr>
<tr>
<td>CET1</td>
<td>Common Equity Tier 1 Capital; a measurement of a bank’s core equity capital, subject to adjustments and deductions under Basel III</td>
</tr>
<tr>
<td>Contributable Assets</td>
<td>A G-SiB’s HQLAs and intercompany debt receivables due from OpCos, held at the BHC/IHC level, that can be contributed to Material Entities to provide capital and liquidity support</td>
</tr>
<tr>
<td>DFAST</td>
<td>Dodd-Frank Act Stress Testing</td>
</tr>
<tr>
<td>Emergency Guarantee</td>
<td></td>
</tr>
<tr>
<td>Governance Elevation Motion</td>
<td>Emergency motion used to effectuate a “One Company” SPOE in a BHC’s chapter 11 case by seeking bankruptcy court approval of the grant of administrative priority status to claims arising under BHC Guarantee Obligations</td>
</tr>
<tr>
<td>Emergency Transfer Motion</td>
<td>Emergency motion used to effectuate a “Two Company” SPOE in a BHC’s chapter 11 case by seeking bankruptcy court approval of the transfer of the stock of the Transfer Subsidiaries to a New HoldCo in exchange for (i) a 100% beneficial interest in the Resolution Trust, owner of all of the stock of the New HoldCo and (ii) New HoldCo’s assumption of all BHC Guarantee Obligations</td>
</tr>
<tr>
<td>FMU</td>
<td>Financial Market Utility</td>
</tr>
<tr>
<td>Governance Triggers</td>
<td>Triggers based on financial metrics, the breach of which prompts specific actions by a BHC’s management and board of directors in connection with the timely execution of a G-SiB’s SPOE resolution strategy</td>
</tr>
<tr>
<td>G-SIBs</td>
<td>Global Systemically Important Banking Groups; the eight U.S. G-SIBs are Bank of America, Bank of New York Mellon, Citigroup, Goldman Sachs, JPMorgan Chase, Morgan Stanley, State Street and Wells Fargo</td>
</tr>
<tr>
<td>Guarantee Elevation</td>
<td>The grant of administrative priority status to claims arising under Guarantee Obligations in a BHC’s chapter 11 bankruptcy case</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Guarantee Obligations</td>
<td>Guarantees and other contingent support obligations provided by a BHC in respect of the QFCs of its Material Entities</td>
</tr>
<tr>
<td>HQLAs</td>
<td>High-Quality Liquid Assets; defined by the U.S. LCR rule and include, for example, excess reserves held at the Federal Reserve Bank, U.S. Treasuries, balances held at foreign central banks not subject to restrictions on use, and other liquid and readily marketable U.S. Government Agency securities</td>
</tr>
<tr>
<td>IHC</td>
<td>Intermediate Holding Company; a funding entity, resourced and wholly owned by a BHC, that may contract to provide capital and liquidity support to the G-SIB’s Material Entities pursuant to a Support Agreement</td>
</tr>
<tr>
<td>Internal TLAC</td>
<td>TLAC debt of a Material Entity</td>
</tr>
<tr>
<td>IPO</td>
<td>Initial Public Offering</td>
</tr>
<tr>
<td>ISDA Protocol</td>
<td>The 2015 ISDA Universal Resolution Stay Protocol; provides for waivers of certain QFC cross-default rights if specified conditions are met</td>
</tr>
<tr>
<td>LCR</td>
<td>Liquidity Coverage Ratio; implemented pursuant to Basel III and requiring a bank holding company or bank to have sufficient HQLAs to cover at least 100% of its projected net cash outflows over a 30-day stress period</td>
</tr>
<tr>
<td>Material Entity</td>
<td>A subsidiary or foreign affiliate of a BHC that is significant to the activities of the G-SIB’s critical operations or core businesses; a G-SIB’s Material Entities will generally consist of its most material OpCos</td>
</tr>
<tr>
<td>MPOE</td>
<td>Multiple Point of Entry; resolution of a G-SIB using multiple insolvency or resolution proceedings for the G-SIB’s Material Entities</td>
</tr>
<tr>
<td>MTA</td>
<td>Master Transfer Agreement; agreement by a BHC to transfer, pursuant to a bankruptcy court order, the stock of its Transfer Subsidiaries to a New HoldCo in exchange for (i) a 100% beneficial interest in the stock of the New HoldCo and (ii) the New HoldCo’s assumption of all BHC Guarantee Obligations</td>
</tr>
<tr>
<td>New HoldCo</td>
<td>A new largely debt-free holding company created to be the transferee of the stock of a BHC’s Transfer Subsidiaries and whose stock is held by a Resolution Trust for the sole benefit of the BHC’s chapter 11 estate</td>
</tr>
<tr>
<td>OLA</td>
<td>Orderly Liquidation Authority; the FDIC’s receivership authority with regard to G-SIBs and other SIFIs; established by Title II of the Dodd-Frank Act and the FDIC’s implementing regulations</td>
</tr>
<tr>
<td>OpCos</td>
<td>A G-SIB’s operating subsidiaries</td>
</tr>
<tr>
<td>PNV</td>
<td>Point of Non-Viability; the end of the Runway Period and the point at which a BHC commences bankruptcy proceedings in an SPOE resolution</td>
</tr>
<tr>
<td>Proposed QFC Rule</td>
<td>The proposed rulemaking promulgated by the Federal Reserve Board that would require G-SIBs to adhere to the ISDA Protocol or implement similar QFC amendments providing waivers of certain QFC cross-default rights</td>
</tr>
<tr>
<td>QFCs</td>
<td>Qualified Financial Contracts; certain financial contracts benefiting from safe harbor protections under the U.S. federal Bankruptcy Code, including transactions under ISDA Master Agreements</td>
</tr>
<tr>
<td>RCAP</td>
<td>Resolution Capital Adequacy and Positioning; ex ante framework for balancing the amount of Contributable Assets kept at the BHC/IHC level and the amount of prepositioned capital and internal TLAC held at the Material Entities, taking into account projected capital needs of each Material Entity in a hypothetical stress scenario</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>RCEN</td>
<td>Resolution Capital Execution Need; projected capital needs of each Material Entity following a BHC’s chapter 11 filing to cover projected losses while an SPOE resolution is executed</td>
</tr>
<tr>
<td>RCEN Shortfall</td>
<td>The amount, if any, by which a Material Entity’s RCEN exceeds its internal TLAC debt</td>
</tr>
<tr>
<td>Recapitulation Trigger</td>
<td>Point at which a BHC’s and IHC’s combined Contributable Assets approach the aggregate capital or liquidity needs of the Material Entities based on the RCEN/RLEN shortfall calculations</td>
</tr>
<tr>
<td>Resolution Plan</td>
<td>A resolution plan prepared by a G-SIB as required by section 165(d) of the Dodd-Frank Act</td>
</tr>
<tr>
<td>Resolution Trust</td>
<td>An independent private trust established to own the stock of a New HoldCo and whose sole beneficiary is a BHC’s chapter 11 estate</td>
</tr>
<tr>
<td>Resolution Weekend</td>
<td>Weekend following a BHC’s entry into bankruptcy proceedings</td>
</tr>
<tr>
<td>RLAP</td>
<td>Resolution Liquidity Adequacy and Positioning; ex ante framework for balancing the amount of Contributable Assets kept at the BHC/IHC level and the amount of prepositioned HQLAs held at the Material Entities taking into account projected liquidity needs of each Material Entity for a period of at least 30 days in a hypothetical stress scenario</td>
</tr>
<tr>
<td>RLEN</td>
<td>Resolution Liquidity Execution Need; projected liquidity needs of each Material Entity following a BHC’s chapter 11 filing to cover net liquidity outflows until liquidity levels stabilize</td>
</tr>
<tr>
<td>RLEN Shortfall</td>
<td>The amount by which a Material Entity’s RLEN exceeds its remaining HQLAs</td>
</tr>
<tr>
<td>Runway Period</td>
<td>The period—assumed for resolution planning purposes to be no longer than 30 days—during which a G-SIB’s Material Entities are recapitalized with Contributable Assets and the BHC’s chapter 11 proceedings are commenced</td>
</tr>
<tr>
<td>SIFIs</td>
<td>Systemically Important Financial Institutions; all U.S. G-SIBs are SIFIs</td>
</tr>
<tr>
<td>Soft Ringfencing</td>
<td>Act by which a G-SIB OpCo’s assets or profits are segregated from affiliated entities for the benefit of such OpCo’s creditors while the OpCo continues to do business as a member of the G-SIB corporate group</td>
</tr>
<tr>
<td>SPOE</td>
<td>Single Point of Entry</td>
</tr>
<tr>
<td>SRRs</td>
<td>Special Resolution Regimes; regulator controlled resolution regimes referred to in Section 1 of the ISDA Protocol; SRRs include the OLA and the BRRD</td>
</tr>
<tr>
<td>Stabilization Date</td>
<td>Point in time after a BHC’s bankruptcy filing when liquidity levels stabilize at its Material Entities</td>
</tr>
<tr>
<td>Stress Event</td>
<td>Point at which a G-SIB moves from BAU conditions to a period of taking action to recover from financial stress</td>
</tr>
<tr>
<td>Stress Period</td>
<td>The period between a Stress Event and a BHC’s bankruptcy filing</td>
</tr>
<tr>
<td>Support Agreement</td>
<td>Contractually binding mechanism requiring a BHC or, if applicable, an IHC, to provide capital and liquidity support to its Material Entities</td>
</tr>
<tr>
<td>T1</td>
<td>Tier 1 Capital; includes equity capital and disclosed reserves</td>
</tr>
<tr>
<td>Title II</td>
<td>Title II of the Dodd-Frank Act; establishes OLA</td>
</tr>
<tr>
<td>TLAC</td>
<td>Total Loss-Absorbing Capacity; consists of equity plus long-term unsecured debt that can be “bailed in,” whether in connection with bankruptcy proceedings in the case of a BHC (“external TLAC”) or pursuant to a Support Agreement in the case of Material Entities (“internal TLAC”)</td>
</tr>
<tr>
<td>Transfer Subsidiaries</td>
<td>A G-SIB’s OpCos, including its IHC, if any</td>
</tr>
</tbody>
</table>