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How To Eat an Elephant: Corporate Group Structure of Systemically Important Financial Institutions, Orderly Liquidation Authority, and Single Point of Entry Resolution

ABSTRACT. This Note evaluates the Orderly Liquidation Authority under the Dodd-Frank Act (OLA) and the Federal Deposit Insurance Corporation's "Single Point of Entry" (SPOE) strategy. Applying organizational theory, this Note finds that because the parent and the subsidiaries of a financial group are not perfect substitutes, adoption of the OLA and the SPOE strategy can lead to behavioral changes that undermine the OLA. Moreover, due to the lack of clear asset segregation in financial groups, adoption of the OLA can lead to uncertainty and liquidity issues. In response, this Note proposes a package of solutions, including an expanded government backstop and subsidiary-level stress testing.

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INTRODUCTION

Financial institutions are, by nature, vulnerable to sudden failures in times of economic distress. Their business model often relies on one key characteristic: maturity transformation.¹ Through maturity transformation, financial intermediaries take the assets of depositors and other short-term lenders, pool those assets, and invest in long-term projects.² In this process, short-term assets are "transformed" into long-term assets. Maturity transformation connects lenders who have funds to invest but want access to them on short notice with borrowers who need funds for long-term projects.³

Maturity transformation has two important implications for the stability of the financial intermediary. First, because a financial institution cannot easily sell off the illiquid, long-term loans and other assets it holds, it must accept a significant discount for its assets when it is forced to liquidate them rapidly due to external pressures (often called a "fire sale").⁴ Second, a financial intermediary is almost always highly leveraged, meaning that its shareholders' equity is a tiny fraction of its total assets and that the financial intermediary funds its as-

- See William C. Dudley, President and Chief Exec. Officer, Fed. Reserve Bank of N.Y., More Lessons from the Crisis, Remarks at the Center for Economic Policy Studies Symposium, Princeton, New Jersey 5 (Nov. 19, 2009), http://www.bis.org/review/r091117a.pdf [http:// perma.cc/G9GE-RHDL]. Not all financial institutions engage in maturity transformation – for example, insurance companies do not – but a significant number of large financial institutions borrow with short-term liabilities and invest in long-term assets.
- See Sandra C. Krieger, Exec. Vice President, Fed. Reserve Bank of N.Y., Reducing the Systemic Risk in Shadow Maturity Transformation, Remarks at the Global Association of Risk Professionals 12th Annual Risk Management Convention, New York City (Mar. 8, 2011), http://www.newyorkfed.org/newsevents/speeches/2011/kri110308.html [http://perma.cc /B6QZ-MNEL]; Janet L. Yellen, Chair, Bd. of Governors of the Fed. Reserve Sys., Opening Remarks at the Federal Reserve Bank of Atlanta's 2014 Financial Markets Conference, Atlanta, Georgia (Apr. 15, 2014), http://www.federalreserve.gov/newsevents/speech/yellen2014 0415a.htm [http://perma.cc/5AXX-GTKV].
- 3. Edward Simpson Prescott, Introduction to the Special Issue on the Diamond-Dybvig Model, 96 FED. RES. BANK RICHMOND ECON. Q. 1, 1-2 (2010).
- 4. In other words, financial institutions have much lower liquidation value compared to their going-concern value. Going-concern value refers to the value of the company as a continually-operating firm, while liquidation value refers to the value of the company when it is sold off piecemeal. Most firms have higher going-concern value than liquidation value, but this difference is even starker in the case of financial institutions. For evidence of fire sale discounts in the residential mortgage-backed securities (RMBS) market during the recent financial crisis, see Craig B. Merrill et al., *Why Were There Fire Sales of Mortgage-Backed Securities by Financial Institutions During the Financial Crisis?* 27 (Ohio State Univ. Fisher Coll. of Bus. Working Paper No. 2013-03-02, 2013), http://ssrn.com/abstract=2212684 [http://perma.cc/JXB9-UASK] ("All else equal, when selling an RMBS, a firm that experienced a larger negative operating cash flow sold RMBS at a statistically significant greater decline in price compared to a firm with a less negative operating cash flow shock.").

sets largely by borrowing.⁵ As a result of these characteristics, financial institutions are susceptible to liquidity runs that can cause insolvency.⁶ In the event of a negative shock to the economy, lenders might rapidly withdraw their money from a financial intermediary (a liquidity run), and since many financial intermediaries only have a small sliver of equity,⁷ they can easily fall insolvent if the initial phase of a liquidity run forces a fire sale of long-term assets and a consequent decrease in asset value. Facing the prospect of insolvency of the financial intermediary, the remaining lenders would also rush to withdraw their money, creating a vicious cycle.

This vicious cycle played a particularly prominent role during the financial crisis of 2007-08, especially in the failure of Lehman Brothers, which was then the fourth largest investment bank in the United States.⁸ Because of the deterioration of the housing market that started in 2006, Lehman Brothers' real estate-related assets had created concerns in the market. Lehman had funded those assets with short-term loans (including repurchase agreements, or "repos"), with maturities as short as one day.9 In normal times, Lehman was able to renew its overnight loans as they came due, as the providers of those loans continued to have faith in Lehman's ability to repay a day later. However, as concerns over the investment bank's balance sheet mounted, and those same lenders lost faith in Lehman's ability to repay, Lehman's funding dried up. Its counterparties refused to roll over short-term loans and demanded larger collateral for the same loan amount.¹⁰ This process accelerated in the week leading up to September 15, 2008, when the investment bank collapsed.¹¹ The Chapter 11 bankruptcy of Lehman Brothers and the ensuing scramble for the investment bank's assets destroyed the remaining franchise value and pushed asset

7. See Kalemli-Ozcan et al., supra note 5, at 43 fig.3.

^{5.} See Sebnem Kalemli-Ozcan et al., Leverage Across Firms, Banks, and Countries 43 fig.3 (Nat'l Bureau of Econ. Research Working Paper No. 17354, 2011), http://www.nber.org/papers /w17354.pdf [http://perma.cc/7LAX-7KS2] (indicating that between 2000 and 2009, in the aggregate, commercial banks were leveraged at least ten-to-one, meaning that their equity only amounted to one-tenth of assets, and broker-dealers were leveraged at least twenty-to-one).

^{6.} *See* Prescott, *supra* note 3, at 2. Insolvency means that the debtor's liabilities exceed its assets. A liquidity run can cause balance sheet insolvency by forcing the debtor to sell its assets at depressed prices to raise cash.

Yalman Onaran & Christopher Scinta, Lehman Files Biggest Bankruptcy Case as Suitors Balk, BLOOMBERG (Sept. 15, 2008, 9:43 AM), http://www.bloomberg.com/apps/news?pid =newsarchive&sid=awh5hRyXkvs4 [http://perma.cc/B8WU-RSV7].

^{9.} FIN. CRISIS INQUIRY COMM'N, THE FINANCIAL CRISIS INQUIRY REPORT 326, 328 (2011) [hereinafter FINANCIAL CRISIS INQUIRY REPORT].

^{10.} Id. at 328.

^{11.} *Id.* at 324-43.

values down even further; Lehman's unsecured creditors recovered only twenty-one percent of their claims.¹²

This inherent instability of financial institutions creates the need for a resolution regime for systemically important financial institutions. Banks do fail, and when major banks fail, their failure damages the real economy tremendously.¹³ For example, the financial crisis of 2007-08 left a tremendous credit gap, leading to a significant reduction in loans extended.¹⁴ As a result of this "credit crunch," the unemployment rate in the United States shot up from 5.0% in December 2007 to 10.0% in October 2009.¹⁵ While the risk of a financial institution failure may be mitigated ex ante by measures that regulate banks' balance sheet composition and risk metrics,¹⁶ it may be impossible to prevent financial institution failures altogether. A certain degree of risk-taking by financial institutions is necessary if they are to fulfill their mission of connecting lenders with borrowers through maturity transformation. That risktaking, however prudent, creates some possibility of failure. Therefore, ex ante measures must be coupled with an ex post resolution mechanism designed to wind down failing financial institutions in case of a crisis.

The Dodd-Frank Act's Orderly Liquidation Authority ("the OLA") is an answer to this call.¹⁷ The failure of Lehman Brothers showed that there was no suitable mechanism for rehabilitating or liquidating a troubled investment bank. While the Federal Deposit Insurance Corporation (FDIC) had statutory power to wind down insured commercial banks, that power did not reach non-depository financial institutions, such as independent investment banks.¹⁸ Therefore, before the OLA, policymakers had only two options for faltering in-

- 14. See Victoria Ivashina & David Scharfstein, Bank Lending During the Financial Crisis of 2008, 97 J. FIN. ECON. 319, 319 (2010).
- Federal Reserve Economic Data: Civilian Unemployment Rate, FED. RES. BANK ST. LOUIS, http://research.stlouisfed.org/fred2/series/UNRATE [http://perma.cc/88RP-U7J9]; FINANCIAL CRISIS INQUIRY REPORT, supra note 9, at 23.
- 16. These measures aim to reduce the probability of failure for major financial institutions by making them less risky. For example, such measures may include increased capital requirements, increased liquidity requirements, and regulation of assets that major financial institutions may hold.
- **17.** Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, §§ 201-17, 124 Stat. 1376, 1442-1520 (2010).
- **18**. 12 U.S.C. § 1821(c) (2012).

Jonathan Stempel, Lehman Plans to Distribute \$14.2 Billion to Creditors, REUTERS (Mar. 27, 2013, 4:52 PM), http://www.reuters.com/article/2013/03/27/us-lehman-bankruptcy -idUSBRE92Q0HV20130327 [http://perma.cc/ZG6R-WPYR].

^{13.} In this Note, "banks" refers not only to commercial or investment banks but also to a broader category of financial institutions. For commercial banks, the FDIC receivership mechanism mitigates systemic risk concerns, but as seen later in this Note, the FDIC receivership may not be sufficient for large commercial banks. *See infra* Part I.

vestment banks: bankruptcy (for example, Lehman Brothers) or bailout (for example, Bear Stearns or AIG).¹⁹ Neither option was attractive. The case of Lehman Brothers had shown that the Bankruptcy Code could not deal effectively with the failure of a large financial institution. Once Lehman filed for bankruptcy, its counterparties – whose "qualified financial contracts" were exempt from the Bankruptcy Code's automatic stay-effectively dismembered Lehman's derivatives portfolio, resulting in tremendous destruction of value.²⁰ Moreover, while ad hoc bailouts had saved several large financial institutions in 2008, they were also politically unpopular and criticized for encouraging moral hazard and excessive risk-taking.²¹ Large, complex financial institutions, knowing that policymakers cannot let them fail lest their failure jeopardize the whole financial system, would take even more risks as a result of this implicit government backstop, increasing the size of their balance sheets in the process and creating a vicious cycle. The OLA aims to fill this gap, providing the FDIC with the power to wind down systemically important financial institutions in an orderly fashion.

Of course, quickly liquidating a major financial group in an orderly manner is no easy task. Large financial groups are behemoths with hundreds of subsidiaries and intricate webs of guarantees. To solve this problem, in December 2012, the FDIC proposed a Single Point of Entry strategy ("SPOE," "the SPOE strategy," or "the SPOE approach") for exercising its OLA powers.²² Under SPOE, when a financial group is in danger of failing, the FDIC would place the parent company of that group into receivership but leave its subsidiaries out of

^{19.} FINANCIAL CRISIS INQUIRY REPORT, supra note 9, at 291, 343, 352.

See Thomas J. Fitzpatrick IV & James B. Thomson, Economic Commentary: How Well Does Bankruptcy Work When Large Financial Firms Fail? Some Lessons from Lehman Brothers, FED. RES. BANK CLEV. (Oct. 26, 2011), http://www.clevelandfed.org/research/commentary/2011 /2011-23.cfm [http://perma.cc/54RC-FDWD].

^{21.} If the federal government assumes the downside risk of a bad investment by bailing out large financial institutions, the financial institutions' shareholders and creditors have even more incentive to gamble with the firms' assets. For examples of the reactions to the bailouts of large financial institutions in 2008, see Simon Johnson & James Kwak, *Lehman Brothers and the Persistence of Moral Hazard*, WASH. POST: HEARING (Sept. 15, 2009, 8:33 AM), http://www.washingtonpost.com/wp-dyn/content/article/2009/09/15/AR2009091500943 .html. [http://perma.cc/2ATM-MEXQ]; Sara Murray, *Incumbents Face Tough Vote Amid Bailout Backlash*, WALL ST. J. (Sept. 26, 2008, 12:01 AM), http://online.wsj.com/articles /SB122239978850878211 [http://perma.cc/3VTA-TXJG]; and *The Curse of Politics*, ECONO-MIST (Apr. 16, 2009), http://www.economist.com/node/13492409 [http://perma.cc/JA7M -E9LH].

Resolving Globally Active, Systemically Important, Financial Institutions, FED. DEPOSIT INS. CORP. & BANK ENG. (2012) [hereinafter FDIC WHITE PAPER], www.fdic.gov/about/srac /2012/gsifi.pdf [http://perma.cc/V4G5-FQVP].

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resolution.²³ Next, the FDIC would transfer all assets of the parent to a bridge company and leave the debt behind, creating a well-capitalized bridge company that could assist the subsidiaries as needed.²⁴ Thus, by cancelling the debt of the parent ("bailing in" that debt), the FDIC could avoid putting operating subsidiaries into bankruptcy.²⁵ Those subsidiaries could continue to operate as usual, averting a disorderly collapse of a systemically important financial institution.²⁶

In light of this description from the FDIC of its intended strategy for exercising its OLA powers and the lack of academic literature on this recent proposal, this Note argues that the SPOE strategy inadequately accounts for the corporate group structure of major financial institutions. First, the SPOE approach can encourage moral hazard by the creditors of the subsidiaries of a financial group: protected by the parent's creditors, the subsidiaries' creditors may not monitor the financial group's risk-taking activities. While the SPOE approach would reduce moral hazard at the parent level, theories of corporate group structure suggest that the parent's creditors would not be able to offset the moral hazard of the subsidiaries' creditors and that both the overall level of monitoring and the cost of credit for the financial group would decrease. Second, based on existing theory and empirical evidence from the 2008 financial crisis, this Note argues that clear asset segregation among affiliated legal entities is a key prerequisite to a successful liquidation under the SPOE approach. This prerequisite, however, is missing in many circumstances.²⁷ In response to these weaknesses, this Note puts forward a package of solutions, including an expanded FDIC backstop for troubled institutions and subsidiary-level stress testing.

This Note's contributions are twofold. First, it connects the theory of corporate organization with the theory of financial regulation. To date, most of the scholarly work on the regulation of financial institutions has focused on those institutions' peculiarities as monolithic *financial institutions* but not as *corporate groups*. The fact that these banks are organized as corporate groups with hundreds of subsidiaries complicates their resolution even further. From this complication, this Note uncovers points of weakness in the OLA that have previously been overlooked. Second, the Note highlights the point that, in a corporate group structure, creditors of different entities within the group can-

Id. at 6. In an FDIC receivership, the FDIC acts in a manner similar to a bankruptcy trustee. It takes over the powers of the institution's officers, directors, and shareholders, including collecting obligations due to the institution, liquidating assets, and paying off creditors.

^{24.} Id.

^{25.} Id.

²⁶. See id.

^{27.} See infra Part IV.

not be treated as interchangeable. For example, as noted in Part IV, a creditor of a subsidiary may be more likely to be bailed out than a creditor of a parent, so these creditors would not be functionally equivalent. Taking this nonequivalency as a starting point, this Note evaluates these weaknesses and offers a more refined assessment of the OLA.

Improving the OLA (and its implementation strategy, the SPOE approach) should be a high priority even after the financial crisis of 2008, particularly in light of recurrent instabilities involving financial institutions. For example, in April and May of 2012, JPMorgan Chase incurred \$6.2 billion in trading losses (known colloquially as the "London Whale" scandal) through its Chief Investment Office, revealing gaps in risk management.²⁸ Likewise, Citigroup failed the Federal Reserve's "stress test" in early 2014, with the Federal Reserve citing "a number of deficiencies in [Citi's] capital planning practices, including in some areas that had been previously identified by supervisors as requiring attention, but for which there was not sufficient improvement."²⁹ These weaknesses suggest the possibility of another major banking failure in the foreseeable future and the pressing need for the OLA's effective implementation.

The rest of this Note proceeds as follows: Part I outlines the general provisions of Title II of the Dodd-Frank Act and the SPOE strategy. Part II puts forward the goals of an optimal resolution mechanism and the standard by which we can judge the implementation of the OLA. Part III outlines what the proponents of the SPOE approach have argued are the strengths of the strategy. Part IV asserts that imperfections in the corporate group structure of large financial institutions can undermine the implementation of the OLA through the SPOE approach. Lastly, Part V proposes a solution to improve the resolution mechanism for systemically important financial institutions.

I. ORDERLY LIQUIDATION AUTHORITY (OLA): KEY PROVISIONS

A. Statutory Framework of the Orderly Liquidation Authority

Title II of the Dodd-Frank Act establishes the FDIC's Orderly Liquidation Authority. The statute authorizes the FDIC, the Board of Governors of the

^{28.} See JPMorgan Chase & Co., Annual Report (Form 10-K) 68 (Feb. 28, 2013), http://www.sec.gov/Archives/edgar/data/19617/000001961713000221/corp10k2012.htm [http://perma.cc/D3CG-6YC9]; Dawn Kopecki, JPMorgan Pays \$920 Million To Settle London Whale Probes, BLOOMBERG (Sept. 20, 2013, 12:00 AM), http://www.bloomberg.com /news/2013-09-19/jpmorgan-chase-agrees-to-pay-920-million-for-london-whale-loss.html [http://perma.cc/NBA2-VZZY].

^{29.} Comprehensive Capital Analysis and Review 2014: Assessment Framework and Results, BD. GOVERNORS FED. RES. SYS., http://www.federalreserve.gov/bankinforeg/stress-tests/CCAR /March-2014-Summary-of-Results.htm [http://perma.cc/JR9L-V4X8].

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Federal Reserve System, and the Secretary of the Treasury to put a financial institution into receivership, in a way modeled on the FDIC's authority to take over a troubled insured depository institution as its receiver.³⁰ The resolution process begins when the FDIC and the Federal Reserve Board of Governors recommend to the Treasury Secretary that a financial institution be put into receivership, either at their own initiative or at the Secretary's request.³¹ At the FDIC and the Federal Reserve's request, the Treasury Secretary is required to appoint the FDIC as the institution's receiver if certain conditions are met.³²

Once the FDIC becomes the receiver of a failing financial institution, it can operate and liquidate the firm with near-complete freedom. The FDIC can "take over the assets and operate the covered financial company with all the powers of the members or shareholders, the directors, and the officers of the covered financial company."³³ It can also appoint itself as the receiver of a failing subsidiary.³⁴ As the receiver of the seized financial institution, the FDIC would have extensive latitude in managing the company, including the power to merge it with another institution,³⁵ to transfer the institution's assets (without any consent or approval),³⁶ to suspend legal actions pending against the company,³⁷ to avoid certain transfers,³⁸ and to disallow claims that are not

- **35**. *Id*. § 210(a)(1)(G)(i)(I).
- **36**. *Id*. § 210(a)(1)(G)(i)(II).
- **37**. *Id*. § 210(a)(8).
- **38**. *Id*. § 210(a)(11).

^{30.} Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 203, 124 Stat. 1376, 1450-54 (2010). For a definition of "receivership," see *supra* note 23.

^{31.} Dodd-Frank Act § 203(a). The statute does not specify the sources of information on which the FDIC and the Federal Reserve Board of Governors must rely in determining the solvency of a financial institution. Under the traditional resolution regime for insured depository institutions, the FDIC relies on several sources, including a "failing bank letter" from the institution's chartering authority and data requests sent to a troubled institution. *Resolutions Handbook*, FED. DEPOSIT INS. CORP. 6-7 (2003), https://www.fdic.gov/bank/historical /reshandbook/ch2procs.pdf [http://perma.cc/3UPJ-XDMV].

^{32.} These conditions are: (1) the institution is in default or in danger of default; (2) resolution of the failed institution under other applicable law (most likely the Bankruptcy Code) would have "serious adverse effects on financial stability in the United States"; (3) no viable private sector alternative is available; (4) the side effects of an orderly liquidation under Title II on various stakeholders – creditors, counterparties, shareholders, and other market participants – are acceptable; (5) an orderly liquidation under Title II would avoid or mitigate such adverse effects on various stakeholders of the institution; (6) a federal regulator has ordered that all convertible debt instruments be converted; and (7) the institution is a "financial company" under Section 201 of the Act. Dodd-Frank Act § 203(b).

³³. *Id*. § 210(a)(1)(B)(i).

³⁴. *Id*. § 210(a)(1)(E)(i).

proven to its satisfaction,³⁹ all with limited judicial review.⁴⁰ In addition, during the resolution process, the counterparties' ability to force termination or liquidation of contracts would be limited, as Title II imposes a one-day stay on the liquidation of qualified financial contracts, which include repurchase agreements (repos) and swaps.⁴¹ If the FDIC transfers the contracts to a bridge financial company within that stay period and provides the counterparty with notice of such a transfer, the counterparty would no longer be able to exercise its liquidation right.⁴²

At the same time, Title II does constrain the FDIC in some important respects. First, the FDIC may not use taxpayer funding in its role as receiver.⁴³ All funds must come from the disposition of assets or from the Orderly Liquidation Fund (OLF) created through assessments on financial institutions (similar to the FDIC's Deposit Insurance Fund).⁴⁴ Second, the FDIC may not take an equity stake in the seized financial institution or any of its subsidiaries.⁴⁵ This provision in effect prohibits the type of bailouts that occurred in 2008 and 2009, in which the federal government took equity positions (often preferred stock) in ailing financial institutions and essentially became a part-owner of these firms.⁴⁶

These powers granted to the FDIC – along with the restrictions placed on it – show that the focus of the OLA is on enabling swift resolution of financial institutions by removing obstacles to the FDIC's role as the receiver while preventing ad hoc bailouts of the type that occurred in 2008 and 2009. For example, the limitation on judicial review,⁴⁷ immunity for directors who acquiesce to the Treasury,⁴⁸ and the FDIC's authority to repudiate contracts unilaterally⁴⁹ would pave the way for a quick receivership process. Therefore, in principle the OLA would prevent the failure of a major financial institution from developing into a system-wide catastrophe.

- **42**. Dodd-Frank Act § 210(c)(10).
- **43**. *Id*. § 214(c).
- 44. Id. § 214(b).
- **45**. *Id*. § 206(6).
- 46. See, e.g., FINANCIAL CRISIS INQUIRY REPORT, supra note 9, at 373-76; Am. Int'l Grp., Current Report (Form 8-K) (Sept. 22, 2008), http://www.sec.gov/Archives/edgar/data/5272 /000095012308011496/y71452e8vk.htm [http://perma.cc/2S5V-EDG3].
- **47**. Dodd-Frank Act § 210(a)(9)(D).
- **48**. *Id*. § 207.
- **49**. *Id*. § 210(c).

³⁹. *Id*. § 210(a)(3)(D).

⁴⁰. *Id*. § 210(a)(9)(D).

Normally, under the Bankruptcy Code, counterparties can terminate or liquidate those contracts immediately. 11 U.S.C. §§ 559-60 (2012).

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B. The FDIC's Roadmap for Implementation of the OLA: Single Point of Entry (SPOE)

Despite its ambitions, the OLA cannot succeed without an appropriate implementation scheme. Of course, the FDIC has a long history of resolving insured depository institutions; since its inception in 1933, the FDIC has resolved more than three thousand failed depository institutions.⁵⁰ The vast majority of these, however, were small banks without complex balance sheets.⁵¹ The FDIC has resolved only one bank with more than \$100 billion in assets: Washington Mutual, which had assets of \$307 billion when it failed in September 2008.⁵² By contrast, today there are twenty-five bank holding companies (and many other non-BHC (bank holding company) financial institutions, such as AIG) with assets over \$100 billion; the largest bank holding company in the United States, JPMorgan Chase, has \$2.5 trillion in assets, more than eight times the assets of Washington Mutual.⁵³ The bank failures with which the FDIC is familiar are quite small in comparison,⁵⁴ and the FDIC's expertise in resolving large, complex financial institutions may be limited.⁵⁵

- 50. Failures & Assistance Transactions, FDIC HISTORICAL STATISTICS ON BANKING, http://www2.fdic.gov/hsob/ [http://perma.cc/WAE2-PZUT] (follow "Failures and Assistance Transactions" hyperlink; then specify under Transaction Type "All Failures" between the effective dates of 1934 until 2013).
- Of the 3,465 banks resolved by the FDIC between 1934 and 2013, only 299 (8.6%) had assets over \$1 billion (in 2014 dollars, adjusted for inflation) at the time of failure. *Id.*; *Federal Reserve Economic Data: Consumer Price Index for All Urban Consumers: All Items*, FED. RES. BANK ST. LOUIS, http://research.stlouisfed.org/fred2/series/CPIAUCSL [http://perma.cc/4HU2 -Z39N].
- 52. Failures & Assistance Transactions, *supra* note 50.
- Holding Companies with Assets Greater Than \$10 Billion, FeD. FIN. INSTS. EXAMINATION COUNCIL NAT'L INFO. CENTER, http://www.ffiec.gov/nicpubweb/nicweb/Top5oForm.aspx [http://perma.cc/LTB4-CPFN].
- 54. Another problem is balance sheet complexity. For example, Washington Mutual was a traditional depository institution with deposits constituting the majority of its liabilities and loans constituting the majority of its assets. Washington Mutual Inc., Annual Report Amendment No. 1 (Form 10-K/A) 11 (May 22, 2008), http://www.sec.gov/Archives/edgar /data/933136/000104746908006870/a2185889210-ka.htm [http://perma.cc/N2FY-PLNZ]. In comparison, Goldman Sachs's liabilities are largely funded by repurchase agreements and unsecured wholesale borrowings, and the vast majority of its assets are securities and financial instruments rather than simple loans. Goldman Sachs Grp., Annual Report (Form 10-K) 119 (Feb. 23, 2013), http://www.sec.gov/Archives/edgar/data/886982 /000119312513085474/d446679d10k.htm [http://perma.cc/BX8V-MJ4S].
- **55.** Moreover, the FDIC almost always uses a "purchase-and-assumption" strategy in resolving failed banks, whereby assets and liabilities are sold to another depository institution. Failures & Assistance Transactions, *supra* note 50. When the largest banks fail, however, it is unclear whether this "purchase-and-assumption" strategy would work given that there would be few buyers large enough to take on the banks' assets and liabilities.

Recognizing this limited experience, the FDIC (along with the Bank of England) released a December 2012 white paper detailing its blueprint for implementing the OLA.⁵⁶ This strategy was memorialized in a December 2013 notice and request for comment from the FDIC, which largely mirrored the 2012 white paper.57 Called the "Single Point of Entry" resolution strategy, the FDIC's plan calls for receivership of the parent-and only the parent-in the event of a financial group failure.58 The FDIC would only "enter" at the top and leave the subsidiaries to operate as usual.⁵⁹ Since the parent is often a holding company without significant trading operations, putting the parent into receivership would not affect the day-to-day activities of the financial group. In principle, systemic risk would be minimized since the subsidiaries would continue operating normally and trading with their counterparties. By contrast, in a multiple point of entry approach, the resolution authority would have to put each and every endangered subsidiary into receivership; those subsidiaries would face substantial obstacles to normal operation, in turn threatening other financial institutions that rely on those subsidiaries.

In theory, an SPOE resolution of a systemically important financial institution would proceed as follows: upon the Treasury Secretary's determination that the institution should be put into receivership, the FDIC would take control of the parent company of the financial group while the subsidiaries remained in operation.⁶⁰ The FDIC would then create a bridge financial holding company pursuant to its powers under Title II.⁶¹ The bridge company would act as a buyer, akin to the acquirer in a "purchase-and-assumption" transaction typical for the FDIC.⁶² Assets of the old parent – which would consist mostly, if not entirely, of equity stakes in the subsidiaries – would be transferred to the bridge company.⁶³

After the assets are transferred, the FDIC would conduct a valuation of the transferred assets. Based on its valuation, the FDIC would determine the appropriate level of liabilities for the parent and write down subordinated unse-

^{56.} FDIC WHITE PAPER, *supra* note 22.

See Resolution of Systemically Important Financial Institutions: The Single Point of Entry Strategy, 78 Fed. Reg. 76,614 (Dec. 18, 2013) [hereinafter SPOE Notice].

^{58.} Id. at 76,616.

^{59.} Id.

^{60.} FDIC WHITE PAPER, supra note 22, at 6; SPOE Notice, supra note 57, at 76,616.

Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 210(h), 124 Stat. 1376, 1496-1504 (2010).

^{62.} In a "purchase-and-assumption" transaction, a healthy bank purchases some of the assets of a failed bank and assumes some or all of the liabilities of the target as well. FED. DEPOSIT INS. CORP., *supra* note 31, at 19.

^{63.} FDIC WHITE PAPER, supra note 22, at 6; SPOE Notice, supra note 57, at 76,617-18.

cured debt to reduce liabilities to that appropriate level.⁶⁴ Since assets would remain the same and liabilities would have decreased, the bridge company would have more equity than the old parent did.⁶⁵ In exchange for the cancellation of their existing claims, the debt holders would receive equity or convertible subordinated debt (that is, convertible to equity) in the bridge company.⁶⁶ In virtually all scenarios, the existing stockholders would be wiped out, and in many cases, the subordinated creditors of the parent would see at least some of their claims converted to equity.⁶⁷ Thus, in effect, the FDIC would recapitalize the old parent company by converting some of its more junior liabilities into equity.⁶⁸ After the parent is recapitalized, it would be able to support its subsidiaries as necessary and return to normal operations.

As an example, consider a two-tier financial group. The sole subsidiary has assets of \$100, no external liabilities, and \$100 in equity, all held by the parent. The parent has assets of \$100 (equity in the subsidiary), external debt of \$90, and equity (held by the public) of \$10. Furthermore, assume that the parent's debt of \$90 is composed of \$50 in senior debt and \$40 in subordinated debt. Therefore, the financial group on a consolidated basis has assets of \$100, liabilities of \$90, and equity of \$10 (since intercompany holdings cancel out).

When the subsidiary incurs a loss of \$20, its assets decline to \$80. As a result, the equity stake in the subsidiary also declines to \$80, and so do the assets of the parent, because the sole asset of the parent is an equity stake in the subsidiary. Since the group as a whole still has liabilities of \$90, its liabilities then exceed its assets, rendering it insolvent. Under SPOE resolution, the parentand only the parent-will be put into resolution. The parent's assets (worth \$80) will be transferred to the bridge holding company set up by the FDIC. If the FDIC determines that the appropriate capital ratio is 10%, then it will transfer \$72 in liabilities to the bridge holding company as well, with priority given to the senior creditors. Therefore, the transferred liabilities will consist of \$50 in senior debt and \$22 in subordinated debt. The subordinated creditors will see their claims written down from \$40 to \$22. In exchange, they will receive the entire equity stake in the bridge holding company, worth \$8. The old equity will not be transferred, and the old equityholders' claims will be worthless. Consequently, the parent's senior creditors will not take any losses; the parent's subordinated creditors will take \$10 in losses (they originally held \$40

^{64.} FDIC WHITE PAPER, supra note 22, at 13-14; SPOE Notice, supra note 57, at 76,618-19.

^{65.} Assets always equal liabilities plus shareholders' equity.

^{66.} FDIC WHITE PAPER, *supra* note 22, at 6; SPOE Notice, *supra* note 57, at 76,618.

^{67.} FDIC WHITE PAPER, *supra* note 22, at 6.

^{68.} It is important to note, however, that without sufficient unsecured debt at the parent level to "bail in," it may be necessary to put the subsidiaries with the greatest losses into resolution as well.

in subordinated debt and now hold \$22 in subordinated debt and \$8 in equity); and the parent's equityholders will take \$10 in losses (they held \$10 in equity, all of which will be wiped out).

Several important aspects of the SPOE approach are designed to minimize the impact on operating subsidiaries. First, the SPOE approach would prevent a mass termination of contracts at the subsidiary level. Since the subsidiaries would remain in operation, their counterparties would have little incentive to terminate their contracts. If the counterparties seek to terminate their contracts with the subsidiaries, moreover, the FDIC has the power to enforce those agreements notwithstanding any counterparty termination rights.⁶⁹ Through this mechanism, the FDIC would be able to save the subsidiaries from suffering massive losses from the termination of contracts and falling into insolvency as Lehman Brothers' subsidiaries did in 2008. Second, the FDIC's white paper notes that liquidity pressures would be alleviated through intercompany loans from the recapitalized parent, through the open market (as the recapitalization would restore confidence in the financial markets), or through loans from the OLF.⁷⁰ By providing liquidity and preventing the termination of parentguaranteed contracts, the FDIC would allow the subsidiaries to operate without significant obstacles.

II. GOALS OF AN OPTIMAL RESOLUTION STRATEGY

To evaluate Title II of the Dodd-Frank Act and the FDIC's SPOE strategy, it is helpful first to delineate the goals that an optimal resolution strategy should achieve and the criteria by which to judge the OLA and SPOE.

A logical starting point of this exercise is the problem that the OLA is attempting to solve: the "too-big-to-fail" problem and the associated issues of moral hazard and systemic risk.⁷¹ Too-big-to-fail institutions are firms that pose significant risk to the overall financial system because of their size, complexity, or interconnectedness.⁷² As a result of the negative externalities (systemic risk) that these institutions pose, policymakers cannot afford to let them

⁶⁹. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 210(c)(10), (16), 124 Stat. 1376, 1491-93 (2010).

^{70.} FDIC WHITE PAPER, *supra* note 22, at 6-7, 10-11.

^{71.} The Dodd-Frank Act's preamble notes that it is enacted "[t]o promote the financial stability of the United States by improving accountability and transparency in the financial system, to end 'too big to fail', to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes." Dodd-Frank Act pmbl.

^{72.} See Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Res. Sys., Statement Before the Financial Crisis Inquiry Commission 19 (Sept. 2, 2010), http://www.federalreserve.gov /newsevents/testimony/bernanke20100902a.pdf [http://perma.cc/MU5U-PFKV].

fail lest their failure jeopardize the whole financial system. Knowing that policymakers will act to bail out these institutions in a crisis, the creditors of a firm that is too big to fail may have little incentive to monitor the institution's activities, and the firm itself lacks any incentive to curb its risk-taking.⁷³ This generates a vicious cycle, whereby a too-big-to-fail institution engages in excessive risk-taking, enlarges its balance sheet, and becomes even more too-big-tofail.⁷⁴

As the former Federal Reserve Chairman Ben Bernanke has described,⁷⁵ too-big-to-fail institutions impose three costs on the broader economy. First is the moral hazard problem: because of the expectation of a government bailout, firms will engage in more risk-taking than is socially optimal.⁷⁶ Second, the too-big-to-fail problem puts smaller firms at a disadvantage by forcing them to compete with bigger institutions that have a lower cost of funding due to the prospect of a government bailout.⁷⁷ Third, as financial institutions become bigger, riskier, and more interconnected, financial crises become even more destructive, increasing the costs on the overall financial system and the real economy.⁷⁸

An optimal resolution mechanism should address the too-big-to-fail problem on two fronts. First, it should impose costs on those responsible for the failure of an institution – for example, executives and equityholders – as a prospective mechanism for deterring excessive risk-taking. Second, a resolution mechanism should seek to minimize the impact of a firm's failure on the overall financial system. This goal encompasses a variety of factors, the most important of which are speed, stability, and certainty. Speed is important because failed financial institutions' assets are essentially "melting ice cubes."⁷⁹ Failed financial institutions' assets can depreciate drastically soon after failure because counterparties are often unwilling to do business with a firm in resolution, leading to destruction of franchise value. Moreover, because financial instruments fluctuate in value significantly over short periods of time, it is important to mitigate the depreciation in value during the restructuring process. Speed works hand-in-hand with *stability*: if creditors and counterparties reach haphazardly for the assets of the failed institution, the consequent unwinding of positions (often at fire sale prices) can cripple the balance sheet of the firm in

- 74. Id.
- 75. Id.
- 76. Id.
- 77. Id. at 21.
- 78. Id.

⁷³. *Id*. at 20-21.

^{79.} See Comment Letter from the Sec. Indus. and Fin. Mkt. Ass'n and the Clearing House Ass'n L.L.C. to the Fed. Deposit Ins. Corp., at A-5 (May 23, 2011).

resolution.⁸⁰ Finally, creditors require *certainty* in the implementation of an effective resolution: a lack of confidence can lead to contagion in the financial markets. Uncertainty over a systemically important financial institution's resolution can ruin market participants' risk appetite.

III. ADVANTAGES OF THE OLA AND THE SPOE STRATEGY

The proponents of the SPOE strategy usually tout three advantages of the SPOE approach: speed, reduction in moral hazard, and stability. These advantages are outlined in this Part. Part IV then challenges the validity of some of these advantages.

A. The SPOE Approach Enables Quick Resolution of a Large Financial Group

Proponents of the SPOE approach often argue that it allows for quick resolution of a large financial group.⁸¹ Under a multiple point of entry approach, all assets of the financial group are subject to resolution, so they must be either transferred or liquidated. In a major financial group, this is a daunting task. For example, Lehman Brothers had 930,000 open derivative contracts at the time of its failure.⁸² Moreover, a financial group may have hundreds of subsidiaries, many of which are intertwined in a complex network of cross-stream, upstream, and downstream guarantees.⁸³ As an example, at the end of 2013, JPMorgan Chase had approximately five hundred subsidiaries, many of which

82. See Too Big To Fail, supra note 80, at 72.

^{80.} See, e.g., Jeffrey McCracken, Lehman's Chaotic Bankruptcy Filing Destroyed Billions in Value, WALL ST. J., Dec. 29, 2008, http://online.wsj.com/article/SB123050916770038267.html [http://perma.cc/GA4H-L3JQ]. As an example, upon Lehman's bankruptcy filing, approximately 733,000 of Lehman's 930,000 derivative contracts were terminated, resulting in a massive destruction of value. See Too Big To Fail: The Role for Bankruptcy and Antitrust Law in Financial Regulation Reform: Hearing Before the Subcomm. on Commercial and Admin. Law of the H. Comm. on the Judiciary, 111th Cong. 72 (2009) [hereinafter Too Big to Fail] (testimony of Harvey R. Miller, Senior Partner, Weil, Gotshal & Manges LLP).

See, e.g., Daniel K. Tarullo, Member, Bd. of Governors of the Fed. Res. Sys., Toward Building a More Effective Resolution Regime: Progress and Challenges (Oct. 18, 2013), http://www.federalreserve.gov/newsevents/speech/tarullo20131018a.htm [http://perma.cc /GF3B-FF2P].

^{83.} With an upstream guarantee, a subsidiary guarantees its parent's obligations. With a down-stream guarantee, a parent guarantees its subsidiary's obligations. With a cross-stream guarantee, one subsidiary guarantees the obligations of another subsidiary under common control.

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were incorporated in foreign jurisdictions.⁸⁴ The multiple point of entry strategy would require the FDIC to assess whether each subsidiary should be put into resolution, transfer all assets to a bridge company, and resolve or disallow claims against those subsidiaries. This process would cause significant delays at a time when such delays would be catastrophic.⁸⁵

In contrast, the SPOE strategy can concentrate the FDIC's resources at the top and allow the parent entity to recapitalize and support its subsidiaries as they face problems. The FDIC would only need to determine whether one company—the parent—needs to be put into resolution. Once it is determined that the parent is not viable and should be resolved, the FDIC can simply create one bridge company, transfer the parent's assets to that company, recapitalize it, and provide support from the Orderly Liquidation Fund as necessary. These tasks can be accomplished within a much shorter time frame, as they only involve the parent. The simplicity of the SPOE approach would allow for quick implementation during a crisis, helping to limit the spillover effect from the failure of a systemically important financial institution.

B. The SPOE Approach Reduces Moral Hazard for the Parent's Creditors and Shareholders

According to the proponents of the SPOE approach, the strategy also reduces moral hazard at the parent level. Under the model of recapitalization developed by the FDIC, the bridge financial company cannot be recapitalized using taxpayer funding.⁸⁶ With this prohibition, the FDIC would most likely wipe out the equity in the parent and leave behind a substantial amount of unsecured liabilities in order to recapitalize the parent.⁸⁷ Since all assets would be transferred to the bridge company, the equity and the liabilities left behind in the parent–now a shell company–would be worthless. In exchange, the subordinated (and in some cases, senior) unsecured debt holders who saw their

JPMorgan Chase & Co., Annual Report (Form 10-K) 365-73 (Feb. 19, 2014), http://www.sec .gov/Archives/edgar/data/19617/000001961714000289/corp10k2013.htm [http://perma.cc /9CPG-YVC2].

^{85.} Timing is particularly crucial in the case of financial institutions, since creditors can pull their funding extremely rapidly. For example, after Lehman's failure triggered a panic in the financial markets, Morgan Stanley lost \$31 billion in funding from repo lenders within one week, amounting to nearly a quarter of its total liquidity pool. FINANCIAL CRISIS INQUIRY REPORT, *supra* note 9, at 362.

See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 206(6), 124 Stat. 1376, 1459 (2010).

^{87.} FDIC WHITE PAPER, *supra* note 22, at 12-13.

claims written down would receive equity and convertible debt in the new holding company.⁸⁸

This process effectively amounts to a "bail-in," whereby the company is recapitalized without infusion of capital from outside sources.⁸⁹ As all assets are transferred, the asset side of the parent's balance sheet would remain the same, but the liability and equity side would be restructured to deleverage the institution.⁹⁰ The shareholders and the unsecured creditors of the parent would thus bear the loss from the company's failure.

Of course, even in a government-sponsored bailout, the shareholders are often, if not always, wiped out.⁹¹ Nonetheless, the fact that unsecured creditors take a loss upon the holding company's failure is highly important from an incentives perspective. Ex ante, creditors have a very different risk-profile than shareholders do. Shareholders prefer risk-taking because they receive the unlimited upside from risky investments, while creditors are structurally riskaverse because their upside is limited by the principal they are owed.⁹² Yet if the prospect of a bailout removes the creditors' downside risk, creditors' incentive to rein in the company's risk-taking evaporates. Furthermore, if monitoring is costly, and such costs are shouldered exclusively by individual creditors, creditors would prefer to avoid those costs, even if the social benefits from monitoring exceed the costs. Such moral hazard, enabled by a wealth transfer from taxpayers, would lead to investments that are riskier than the socially optimal level.

If, however, the government avoids this wealth transfer from taxpayers to creditors (and indirectly to the shareholders by lowering their cost of funding),

^{88.} Id. at 6.

^{89.} While the FDIC White Paper itself does not use the term "bail-in" in the context of the U.S. recapitalization model, commentators often call the recapitalization process a "bail-in." See, e.g., Jim Fuchs, From Bailouts to Bail-Ins: Will the Single-Point-of-Entry Concept End "Too Big To Fail"?, FED. RES. BANK ST. LOUIS (2013), https://www.stlouisfed.org/publications /cb/articles/?id=2410 [http://perma.cc/LW7Q-R9U2].

^{90.} This deleveraging process helps stabilize a financial institution. Debt-particularly in the form of short-term loans – is destabilizing in that it has fixed repayment amounts and creditors can pull their funding by refusing to roll over their loans. In contrast, equity does not have fixed repayment amounts, and equityholders cannot demand repayment of their funding. Therefore, by deleveraging (that is, substituting equity for debt), the financial institution can emerge as a more stable entity.

^{91.} For example, Bear Stearns shareholders received only \$10 per share in the firm's forced merger with JPMorgan Chase, even though its stock had been trading at just shy of \$170 a year before the merger. FINANCIAL CRISIS INQUIRY REPORT, *supra* note 9, at 282, 290. Similarly, in the bailouts of Fannie Mae, Freddie Mac, and AIG, shareholders were all but wiped out. *Id.* at 320; Am. Int'l Grp., *supra* note 46.

See generally Michael C. Jensen & William H. Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. FIN. ECON. 305 (1976).

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the creditors would be exposed to the downside risk of reckless debtor investments. This exposure would incentivize creditors to price default risk into the rates they charge and to monitor risky activities, aligning the interests of society with the interests of the financial institution as a whole.

C. The SPOE Approach Maintains Stability While a Firm Is in Resolution

Perhaps the greatest strength of the SPOE strategy is that it would leave the majority of a failing company undisturbed and maintain overall stability and continuation of operations. Instability can produce negative externalities in three ways. First, the disorderly unwinding of contract positions can destroy the value of a firm's assets, reducing recoveries for its creditors and counterparties (who are often financial institutions themselves).⁹³ Title II of the Dodd-Frank Act and the SPOE strategy can remedy this problem by halting a disorderly liquidation of assets. Since a financial group's broker-dealer subsidiaries would not be in resolution under SPOE, the derivative contracts and other qualified financial contracts in which subsidiaries are engaged would not be subject to automatic termination by reason of counterparty default.⁹⁴ The failed financial group would be able to maintain its portfolio of qualified financial contracts, avoiding the type of instability that cost Lehman creditors billions of dollars.

Another possible source of spillover – ways in which one firm's troubles can affect other firms – is a fire sale of assets. As asset prices fall, other financial institutions that hold those assets would see the value of their assets fall as well.⁹⁵ Since liabilities would remain the same, such a decline in the asset value would lead to a corresponding decline in shareholders' equity. In order to avoid being undercapitalized, these institutions would be forced to sell their assets, putting further downward pressure on prices and continuing the downward cycle.

95. While most physical assets are carried on firms' balance sheets at historical cost and thus are not affected by a subsequent decrease in market price, financial instruments are "marked to market," and their carrying value is affected by the market price of those instruments.

^{93.} See, e.g., Amias Gerety, Acting Assistant Sec'y for Fin. Insts., U.S. Dep't of Treasury, Remarks Before the Exchequer Club (Sept. 17, 2014), http://www.treasury.gov/press -center/press-releases/Pages/jl2638.aspx [http://perma.cc/R3G4-H3AE] ("The decision to terminate [derivative contracts] based on an exogenous event, while perhaps individually rational, destroys value for the individual counterparty, the failing firm and other stakeholders.").

^{94.} Even if the contracts are guaranteed by the parent or have cross-default provisions, under Title II, upon the FDIC's appointment as the receiver of a failed institution, the counterparties of derivative contracts or other qualified financial contracts cannot exercise their termination rights until 5:00 p.m. the next day and cannot exercise their rights at all if those contracts are transferred before the 5:00 p.m. deadline. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 210(c)(10)(B), 124 Stat. 1376, 1491 (2010).

The OLA and SPOE can preempt this fire sale by preventing a sell-off triggered by a major institution's failure. Like the counterparties to derivatives, the counterparties to repo and other securities contracts are not permitted to liquidate and seize the collateral until 5:00 p.m. the day after the FDIC is appointed as the receiver. If the FDIC transfers those contracts before that deadline, the counterparties cannot exercise their liquidation and foreclosure rights at all.⁹⁶ Moreover, the SPOE approach means that subsidiaries with deteriorating investment positions would remain in business and be able to slowly push those assets off their balance sheets instead of liquidating them all at once. Lastly, this process would be facilitated by the support that the subsidiaries can receive from the parent, which in turn can obtain assistance from the FDIC and the Orderly Liquidation Fund.⁹⁷ Thus, as long as temporary assistance continues flowing from the FDIC, the subsidiaries would be able to liquidate their investments in a slow but orderly manner and remain in operation.

The last source of systemic risk from instability is interruption of vital services such as financing, insurance, and brokerage. For example, AIG posed massive systemic risk because its failure would have cut off countless non-financial and financial firms from insurance services.⁹⁸ The SPOE strategy can mitigate this problem by allowing the subsidiaries that provide vital services to continue to operate during the group's resolution, preventing spillover effects to non-financial industries.

IV. CORPORATE GROUP STRUCTURE AND DISADVANTAGES OF THE OLA

Part III identified several advantages of the SPOE approach to the resolution of large financial institutions. All of these advantages, however, have one commonality: they assume an optimal corporate group structure. That is, they assume (1) that the corporate group has clear dividing lines among different constituent legal entities and (2) that the parent is functionally equivalent to the subsidiaries in terms of the ease of supervision of the firm's risk-taking activities. In other words, they assume that the parent company's creditors can monitor the group's risk-taking activities just as well as the subsidiaries' creditors can.

The reality is different. Often a corporate group does not have clear dividing lines among different constituent legal entities. Because, in most cases,

^{96.} Dodd-Frank Act $\S 210(c)(8)(F)$.

^{97.} FDIC WHITE PAPER, *supra* note 22, at 6-7.

^{98.} The Causes and Effects of the AIG Bailout: Hearing Before the H. Comm. on Oversight and Gov't Reform, 110th Cong. 14 (2008) (testimony of Eric R. Dinallo, Superintendent, N.Y. State Ins. Dep't).

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firms only have to report consolidated financial data, the dividing lines often become blurred. Furthermore, the holding company's creditors may not be functional equivalents of the subsidiaries' creditors in terms of their monitoring capability.

This Part argues that these imperfections in corporate group structure may lead to cracks in the implementation of the OLA through the SPOE approach. These weaknesses might arise in three ways: (1) since monitoring capability of the parent's creditors is weaker than that of the subsidiaries' creditors, moral hazard can increase on net; (2) since OLA resolution carries with it certain adverse consequences for the financial firm (such as automatic replacement of management), a financial firm may shift liabilities to the subsidiaries and force the FDIC to bail out the company instead of resolving it through the OLA; and (3) implementation of the SPOE approach, which essentially relies on a quarantine of the parent and problematic subsidiaries, may not be possible when the dividing lines among different constituent legal entities are unclear.

A. The SPOE Strategy Increases the Moral Hazard of the Subsidiaries' Creditors

From the perspective of corporate group structure, the first problem with the SPOE strategy is that it may encourage moral hazard for subsidiary creditors. Earlier, this Note addressed how the SPOE strategy would reduce moral hazard at the parent level.⁹⁹ By forcing the conversion of the parent company's debt to equity in the bridge company, the SPOE strategy would motivate creditors of the parent legal entity to monitor the financial group's risky activities. The creditors, who are structurally more risk-averse than the stockholders, would therefore provide a counterbalance to the risk-seeking behavior of the stockholders, who may otherwise be inclined to take excessive risks knowing that they will reap the upside benefits but will bear limited losses.¹⁰⁰

Unfortunately, the flip side applies to the counterparties and creditors of the subsidiaries: the SPOE strategy can increase moral hazard of the subsidiaries' creditors and counterparties. Under the existing bankruptcy regime, the parent's creditors and the subsidiaries' creditors share the burden of a failed investment. As one subsidiary's asset value declines, the equity stake in that subsidiary depreciates as well. Since the corporate parent's assets include an equity stake in its subsidiaries, this depreciation leads to a decline in the parent's asset value. If the parent's assets are not sufficient to repay the parent's creditors, the parent's creditors will take the first losses, which are limited to the difference

⁹⁹. *See supra* Part III.B.

^{100.} Limited liability is key to this asymmetry, since the most that the shareholders can lose is their equity investment in the firm. On the other hand, there is no limit to the amount of money that they stand to earn if risky investments prove to be successful.

between the parent's equity stake in other subsidiaries and the principal amount of the parent's debt. As the troubled subsidiary's asset value declines even further, and it becomes insolvent, the subsidiary's creditors begin to take losses. Overall losses from the troubled subsidiary's failure are thus split between that subsidiary's creditors and the parent's creditors.

On the other hand, under the SPOE approach, the parent's creditors would bear all losses until they are wiped out. At the core of the SPOE approach is the conversion of debt to equity at the parent level, which would enable the bridge company to provide assistance to its subsidiaries.¹⁰¹ For example, the recapitalized parent could forgive intercompany loans that a subsidiary owes to the parent, increasing the subsidiary's equity level.¹⁰² Even if the subsidiaries were the source of the financial group's plight, they could remain in operation with the parent's assistance and continue to meet their obligations to their counterparties and creditors.¹⁰³ If the losses are bigger than the parent's creditors can absorb, the subsidiaries' creditors and counterparties may take a loss,¹⁰⁴ but the subsidiaries' creditors would only take a loss after the parent's creditors are wiped out.

To see this, consider a simple corporate group structure, with one parent (P) and two subsidiaries (S1 and S2). Assume that each subsidiary's assets are worth \$100, with \$50 in liabilities and \$50 in equity (held entirely by the parent). Therefore, the parent's assets (equity stake in the subsidiaries) are worth \$100. Furthermore, assume that the parent's assets are funded with \$80 in liabilities and \$20 in equity. On a consolidated scale, the company has \$180 in liabilities (\$50 each in two subsidiaries and \$80 in the parent) and \$20 in equity from outside investors (all at the parent level), with a capital ratio of 10%.

When S1 suffers a catastrophic loss of \$75 and fails, the parent's equity stake in the subsidiary is wiped out first. However, since S1 is insolvent, its creditors also take a loss, only receiving \$25. The parent's assets are reduced to \$50, making it insolvent as well, since its liabilities (\$80) exceed assets (\$50).

^{101.} See FDIC WHITE PAPER, supra note 22, at 6.

^{102.} Fin. Regulatory Reform Initiative, Too Big To Fail: The Path to a Solution, BIPARTISAN POL'Y CENTER 31 (May 2013), http://bipartisanpolicy.org/wp-content/uploads/sites/default/files /TooBigToFail.pdf [http://perma.cc/4T73-V6YP?type=pdf].

^{103.} There may be several reasons why a parent would keep a failing subsidiary in business. For example, putting a subsidiary in bankruptcy leads to embarrassment and reputational loss for the corporate group, so as long as the cost of keeping the subsidiary in business does not exceed the reputational loss, a parent may choose to keep a subsidiary in business.

^{104.} Improving Cross Border Resolution To Better Protect Taxpayers and the Economy: Hearing Before the Subcomm. on Nat'l Sec. and Int'l Trade and Fin. of the S. Comm. on Banking, Hous. & Urban Affairs, 113th Cong. 9 (2013) (statement of James R. Wigand, Director, Office of Complex Financial Institutions) [hereinafter Wigand], http://www.fdic.gov/news/news /speeches/spmay1513_2.pdf [http://perma.cc/NEY2-PRPL?type=pdf].

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As a result, the parent's creditors take a loss as well, seeing their claims written down to \$50 (with a loss of \$30). The total loss of \$75 is broken down as follows: \$25 by S1's creditors, \$30 by the parent's creditors, and \$20 by the parent's equityholders.

Under SPOE, however, the losses would be distributed differently. On a consolidated basis, the group would be severely undercapitalized, with assets of \$125 and liabilities of \$180. Assuming that the appropriate capital ratio is 10% (as before), the FDIC would write down the total liabilities to \$112.5, with the parent's creditors taking the first losses, and the parent's creditors would see their claims written down from \$80 to \$12.5. They would also receive \$12.5 in equity, but that would still give them \$55 in losses. After this process, the parent can make further equity investment in S1, allowing that troubled subsidiary to remain alive. Under SPOE, therefore, the total loss of \$75 would be distributed as follows: \$55 by the parent's creditors and \$20 by the parent's equityholders.

In effect, when a financial group fails, the FDIC would subordinate the unsecured liabilities of the parent to the liabilities of the subsidiaries.¹⁰⁵ Such subordination reduces the risk of loss to the creditors of the subsidiaries because the FDIC would not impose losses on the subsidiaries' creditors unless and until the parent's unsecured liabilities are fully converted into equity, even if the losses originated—as they usually do—from the subsidiaries.¹⁰⁶ With a lower risk of loss, the subsidiary creditors would have less incentive to monitor the risk-taking activities of the subsidiaries. The parent creditors would in effect be providing a subsidy to the subsidiary creditors and freeing the subsidiary creditors from the costs of monitoring.¹⁰⁷

Some argue that such subordination is not a problem because the parent creditors can simply charge higher interest rates ex ante on their loans to compensate for their higher risk of loss.¹⁰⁸ Yet the moral hazard problem associated with financial institutions includes not only artificially low pricing of credit (which the above argument addresses) but also lack of monitoring by the creditors. While an extension of this argument means that the parent creditors

^{105.} The FDIC white paper does not mention a "write-down" of secured liabilities, and the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 210(b)(5), 124 Stat. 1376, 1477 (2010), protects secured claims. FDIC White Paper, *supra* note 22.

^{106.} FDIC WHITE PAPER, supra note 22, at 6.

^{107.} One possible counterargument is that parent creditors will demand a higher interest rate to compensate for this "subsidy." However, as noted in the subsequent paragraph, the increase in the interest rate would only partially offset the increase in moral hazard.

^{108.} Shaun Kern, Creditor Treatment and Single Point of Entry, BIPARTISAN POL'Y CENTER (June 26, 2013), http://bipartisanpolicy.org/blog/2013/06/26/creditor-treatment-and-single-point -entry [http://perma.cc/ATP9-EWBB].

will have a greater incentive to monitor the financial group to compensate for the lower monitoring incentive of the subsidiary creditors, the parent creditors cannot monitor the risk-taking activities of the financial group as well as the subsidiary creditors can.¹⁰⁹ The parent creditors have to monitor a wide range of activities of the group, while the subsidiary creditors can focus on the narrower set of activities that each subsidiary engages in.¹¹⁰ Hence, the increased motivation of the parent creditors to monitor the activities of the financial group would not be able to fully compensate for the reduced level of monitoring by the subsidiary creditors. As a result, the subordination of the parent creditors to the subsidiary creditors would increase moral hazard overall and allow risk levels beyond the socially optimal level.

B. The SPOE Strategy Encourages Financial Groups To Shift Liabilities to Their Subsidiaries

The SPOE strategy relies heavily on the assumption that the unsecured liabilities of the parent company will be sufficient to cover the losses of the financial group, especially given that a write-down of unsecured liabilities would be easier than a write-down of secured liabilities.¹¹¹ For example, the FDIC notes that in the United States, the parent typically issues most of the external unsecured debt of a financial group, giving the parent sufficient loss-absorbing capacity.¹¹²

However, the imperfections in the corporate group structure of large financial institutions have perverse behavioral implications. The SPOE strategy can encourage financial groups to change their intra-group capital structure and issue more debt at the subsidiary level, rather than at the parent level, in order to undermine the implementation of the SPOE approach. This incentive may be particularly strong since an OLA resolution would mean the automatic ouster of current management¹¹³ and loss to the parent's creditors. As the Bipartisan Policy Center has remarked, the SPOE strategy would increase the risk of loss to the parent's creditors who will demand higher interest rates to compen-

^{109.} Since parent creditors would want to monitor the subsidiaries vigorously but cannot, this problem is distinct from the traditional problem of reduced incentive (as opposed to capacity) to monitor the financial group.

^{110.} See Richard A. Posner, The Rights of Creditors of Affiliated Corporations, 43 U. CHI. L. REV. 499, 516-17 (1976).

¹¹¹. FDIC WHITE PAPER, *supra* note 22, at 12. Write-down means that the face value of the claims would be reduced.

^{112.} Id. at 13.

^{113.} Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 206, 124 Stat. 1376, 1459 (2010).

sate.¹¹⁴ Given this change in the interest rate, a financial group can lower its cost of debt by originating its unsecured loans from the subsidiaries rather than from the parent.

There are counterarguments to the proposition that a financial group would move its liabilities to its subsidiaries. First, as a financial group moves its liabilities to the subsidiaries, the cost of credit incurred by the group may not decrease because a smaller asset pool is backing each loan. The creditors of the parent have recourse to a diversified asset pool, mitigating the risk of a catastrophic loss, while the creditors of a subsidiary only have recourse to specialized assets. In case of a downturn in the specific sector that the subsidiary operates in (assuming that other subsidiaries operate in different sectors), the possibility of a catastrophic loss is greater since there is no diversification of risk. Accordingly, debt issued at the subsidiary level requires a higher interest rate than debt issued at the parent level, and a financial group would not be able to lower its cost of credit by issuing external debt at the subsidiary level.

This argument, however, is undermined by the fact that corporate groups utilize cross-stream and downstream guarantees extensively.¹¹⁵ As noted above, with a downstream guarantee, the parent guarantees performance of a subsidiary's obligations, and with a cross-stream guarantee, a subsidiary guarantees performance of another subsidiary's obligations.¹¹⁶ With cross-stream and downstream guarantees, a subsidiary creditor effectively has recourse to all the assets of the group. If the debtor subsidiary itself fails, the creditor can pursue the assets of the other subsidiaries and the parent who have guaranteed the loan. In effect, the creditor of a subsidiary obligation guaranteed by the parent or another subsidiary has recourse to multiple layers of assets, increasing the probability of recovering the creditor's claims. Subsidiary creditors' access to the diversity of the corporate group's asset pool means that borrowing at the parent elvel.

Second, one may also argue that the subsidiaries' debt will become more expensive as a financial group moves its liabilities away from the parent because there would be a smaller amount of unsecured liabilities at the parent level that can be written down to recapitalize the financial group and the subsidiaries' debt may bear losses as a result in an SPOE resolution. This position is correct if it were assumed that, in the absence of a sufficient cushion, the subsidiary debt would be written down in the same way as the parent debt. In such a scenario, it does not matter where the financial group puts its liabilities;

^{114.} See Kern, supra note 108.

See Richard Squire, Strategic Liability in the Corporate Group, 78 U. CHI. L. REV. 605, 607 (2011).

^{116.} See supra note 83.

a certain amount of the debt will be written down in both cases, and the overall credit premium should be the same.

Despite this equivalency argument, there is reason to believe that the subsidiary debt would not be written down in the same way if there is insufficient unsecured debt at the parent level. Without sufficient unsecured debt at the parent level, it would be necessary to put the subsidiaries with the greatest losses into resolution, repeating the "bail-in" process for each subsidiary.¹¹⁷ This effectively turns the SPOE strategy into a multiple point of entry approach, complicating the resolution process immensely. The simplicity offered by SPOE would be replaced by the complexity of maintaining the vital subsidiaries' operation. As complications mount and spillover effects become more likely, the possibility of a bailout increases.¹¹⁸ As Joshua Mitts points out, Dodd-Frank makes bailouts more difficult but not impossible.¹¹⁹ When resolution becomes too difficult and complicated as a result of the financial institution's moving its liabilities to its subsidiaries, banking regulators may be forced to cut the Gordian Knot by bailing out the financial group. The increased probability of a bailout when liabilities are pushed to subsidiaries would lower the expected losses to subsidiary creditors. Under this model, subsidiary creditors would not increase their interest rates as much as they would without the possibility of a bailout. This would drive a wedge between the cost of capital for a top-heavy firm (one that issues most of its liabilities from the parent) and the cost of capital for a bottom-heavy firm (one that issues most of its liabilities from the subsidiaries) Financial groups may attempt to take advantage of this differential by moving their liabilities to the subsidiaries.

Furthermore, this phenomenon has been empirically demonstrated. When European banks faced the possibility of a bail-in in 2011, they began to issue more debt at the subsidiary level than at the parent level.¹²⁰ Likewise, when

^{117.} See Wigand, supra note 104, at 9.

See, e.g., Joshua R. Mitts, Systemic Risk and Managerial Incentives in the Dodd-Frank Orderly Liquidation Authority, 1 J. FIN. REG. 51 (2015).

^{119.} While Congress would need to enact legislation permitting bailouts, it is certainly possible that Congress would do so when another catastrophic crisis hits. *See id.* at 17.

^{120.} Orderly Liquidation Authority: FDIC Announces Its Strategy, MORRISON & FOERSTER LLP 6 (2012), http://www.mofo.com/files/Uploads/Images/120516-Orderly-Liquidation-Authority -FDIC-Announces-Its-Strategy.pdf [http://perma.cc/8HBP-HLRX]. Others have noted the possibility of increased issuance of external debt at the subsidiary level. See Joseph H. Sommer, Why Bail-in? And How!, 20 ECON. POL'Y REV., Dec. 2014, at 207, 220 ("Market forces may not provide enough [parental debt], since firms may prefer to issue liabilities through the subsidiaries, as profitable financial products."); Tarullo, supra note 81 ("Absent [a requirement that complex banking firms hold minimum amounts of long-term, unsecured debt at the holding company level], one could expect declines in these levels as the quite flat yield curve of recent years steepens; indeed, we have recently seen some evidence of the beginnings of such declines.").

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Portuguese bank Banco Espirito Santo was bailed out in August 2014 at the cost of \pounds 4.9 billion to the Portuguese government, the senior bondholders of the bank were left virtually untouched, showing the Portuguese government's reluctance to impose harsh costs on senior creditors even when government funds were at risk.¹²¹ As a result, in pricing senior bonds of European banks, debt markets have been slow to account for the possibility of a bail-in, anticipating that European governments will protect senior bondholders instead of bailing them in.¹²² This feedback mechanism demonstrates that when the market perceives the possibility of a bailout, it will correspondingly reduce the cost of credit demanded. In order to take advantage of this feedback mechanism, it is possible that U.S. financial groups would also move toward a bottom-heavy debt structure to increase the probability of a bailout, thereby hindering the implementation of SPOE.

C. The SPOE Approach Relies on an Unrealistic Assumption of Clear Asset Segregation

Lastly, the SPOE strategy presupposes that the FDIC will be able to divide the assets of the company neatly among different subsidiaries, but such an assumption may be incorrect in many cases.¹²³ There are examples of corporate groups that do not keep a good record of the division of assets among different constituent legal entities within the group, as they only have to report consolidated numbers.¹²⁴ As shown below in the cases of Lehman Brothers and Deutsche Bank, financial groups – with fluid assets that quickly move on and off their balance sheets – also encounter this problem.

In the context of SPOE resolution, clear asset segregation is important for three reasons. First, the bail-in recapitalization approach requires that the FDIC make an accurate valuation of the assets of the parent. The bail-in recapitalization essentially mimics a judicial valuation of a company's assets during

^{121.} Editorial, Another Lousy Bank Bailout, WALL ST. J., Aug. 4, 2014, http://online.wsj.com /articles/espirito-santos-lousy-bailout-1407182109 [http://perma.cc/MX3A-7XWN].

^{122.} See Alice Gledhill, Bail-in of Senior European Bank Debt Not Fully Priced in, REUTERS, Oct. 31, 2014, http://www.reuters.com/article/2014/10/31/banks-debt-idUSL6NoSF34W20141031 [http://perma.cc/ZK6U-PWQY].

^{123.} Henry Hansmann and Reinier Kraakman pioneered the idea of "asset partitioning." Henry Hansmann & Reinier Kraakman, Organizational Law as Asset Partitioning, 44 EUR. ECON. REV. 807 (2000). Protection of a parent's assets from a subsidiary's creditors through the corporate veil (which they term "asset partitioning") allows for better monitoring and efficient resolution in bankruptcy. Here, however, I use the term "asset segregation," as this Part focuses on situations where the ownership of a certain asset lies clearly within a corporate group but not clearly within a particular constituent company of that corporate group.

^{124.} Squire, supra note 115, at 615-16.

bankruptcy proceedings. The FDIC (acting as the judge) determines what the assets are worth and what the appropriate level of equity is given the asset size, and it imposes corresponding losses on the creditors in exchange for equity in the bridge company.¹²⁵ The amount of conversion depends on the gap between the assets and the liabilities of the parent. If the assets are overvalued, then too little unsecured debt would be converted into equity in the bridge company. Such a mistake would lead to a lower than optimal level of equity for the bridge company.

For example, assume that in order to provide support to its subsidiaries the parent has to have at least a 10% leverage ratio and that the parent has \$80 in assets and \$100 in unsecured liabilities.¹²⁶ So the parent is insolvent and its equity is worth nothing. If the FDIC overvalues the assets and determines that the parent has assets worth \$90, the FDIC would write down \$19 of the liabilities and give 100% of the equity in the bridge company to the parent's creditors whose claims were written down, believing that it has restored the equity position of the bridge company to \$9, equal to 10% of the assets. Yet if after the dust clears the bridge company's assets are worth \$80, the bridge company would still be insolvent, and it would be forced to undergo the resolution process again to further write down \$9 of the liabilities. Given the turmoil to which a resolution process – however stable – can lead, this would be a suboptimal result.

On the other hand, if the FDIC undervalues the assets in the presence of multiple tiers of liabilities, then the junior creditors would take a greater loss, while senior creditors would reap a windfall. Although the result of undervaluation would overcapitalize the bridge company, the junior creditors would want to be compensated for this risk of greater loss by charging a higher interest rate.¹²⁷ For instance, assume that the parent has \$80 in assets, \$70 in senior debt, and \$30 in subordinated debt, and assume that the FDIC believes 10% to be the appropriate capital ratio necessary for the parent to provide support to its subsidiaries. The company is clearly insolvent, so equity is irrelevant. Without undervaluation, the FDIC would write down subordinated debt to \$2 and give the subordinated debt holders the entire equity in the bridge company (worth \$8 now), meaning that the subordinated creditors get \$10. If the FDIC undervalues the assets to \$70, it would wipe out the subordinated creditors, write down the senior creditors' debt to \$63, and give the senior creditors the

^{125.} FDIC WHITE PAPER, supra note 22, at 6.

^{126.} For the sake of simplicity, assume there is no other debt.

^{127.} One possible counterargument is that since old junior creditors will get the equity stake in the recapitalized company, whatever they lose on their debt would be offset by the gains on their equity in the recapitalized company. However, equity and debt have different payoff profiles, so they cannot be treated as completely interchangeable.

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entire equity in the bridge company. That would amount to a windfall for the senior creditors at the expense of the subordinated creditors, and such an error in valuation would lead to fairness and efficiency concerns.¹²⁸

Second, a clear division of assets is important in facilitating the ex post resolution of problematic subsidiaries. Under the SPOE strategy, after the initial recapitalization of the parent, the FDIC may also restructure the remainder of the business, including shrinking the subsidiaries that caused the distress, breaking them up, or liquidating them.¹²⁹ Such restructuring requires an accurate assessment of the assets and the liabilities of each subsidiary to determine financial viability. Furthermore, in order to separate a problematic subsidiary from the rest of the financial group and liquidate it, the FDIC would need to know which assets belong to the problematic subsidiary and which assets do not. Without clear asset segregation, the FDIC would not be able to make an accurate assessment of each individual subsidiary's viability, hampering the post-resolution restructuring process.

Lastly, as a corollary, a clear division of assets among different subsidiaries is important to reduce uncertainty in the marketplace. As noted in Part II, an optimal resolution mechanism should aim to reduce uncertainty in the marketplace in order to mitigate a drastic reduction in risk appetite. Uncertainty and ambiguity lead to risk-averse behavior, as demonstrated during the 2007-08 crisis,¹³⁰ and market-wide risk-aversion can freeze the flow of credit.

The lack of a clear division among the assets of different subsidiaries can lead to risk aversion because the counterparties and the creditors of a particular subsidiary would not know the financial viability of that subsidiary. The determination of viability hinges on the amount of assets each subsidiary has. Hence, whether certain subsidiaries may be restructured and whether such restructuring would affect the creditors of the relevant subsidiaries are questions that cannot be answered without a clear division of assets. In normal times, the lack of a clear demarcation among the assets of different subsidiaries does not pose a problem, as the probability of failure and loss to creditors is low. When financial institutions are weakened and market conditions are unfavorable, however, this lack of asset segregation can heighten uncertainty and, consequently, risk-aversion. The legal regime governing corporate structures allows a corporate group to compartmentalize its assets among different subsidiaries, but if a financial group does not divide its assets clearly among different subsidiaries, then the protection offered by the legal regime is useless.

See Lucian Arye Bebchuk, A New Approach to Corporate Reorganizations, 101 HARV. L. REV. 775 (1988).

^{129.} FDIC WHITE PAPER, supra note 22, at ii.

See Nina Boyarchenko, Ambiguity Shifts and the 2007-2008 Financial Crisis, 59 J. MONETARY ECON. 493 (2012).

Despite the importance of a clear demarcation among the assets of different constituent companies of a financial group, there is evidence that financial groups do not maintain such demarcations, unintentionally or intentionally. One such example is the litigation between Lehman Brothers Holdings' bankruptcy estate and Barclays over the British bank's purchase of Lehman's U.S. broker-dealer operation in bankruptcy.¹³¹ Lehman's bankruptcy estate asserted that Barclays had made a side deal with certain Lehman executives – an agreement that was a sweetheart deal for Barclays in several ways.¹³² First, assets were transferred at a discount to book value: while the assets were worth \$75 billion, Barclays paid only \$70 billion.¹³³ Second, Barclays was allowed to terminate a repurchase agreement under which it provided Lehman's brokerage business with short-term financing, with terms stipulating that Barclays would foreclose on the collateral posted for the repo and keep any excess.¹³⁴ Since Lehman had posted excess collateral of \$5 to \$7 billion, Barclays pocketed the excess collateral value.135 Third, Lehman executives engaged in an asset "scramble" to find more assets to hand over to Barclays in the sale, 136 culminating in the transfer of \$5 billion worth of assets without consideration.¹³⁷ Lastly, Barclays presented an inflated value of assumed liabilities to the court to make the deal look more favorable to Lehman's bankruptcy estate than it actually was.¹³⁸ Furthermore, the complaint alleged that none of these maneuvers was disclosed to the court, to Lehman's counsel, or to Lehman's executives not involved in the negotiations.¹³⁹

Ruling on the case, Judge James Peck was persuaded by Lehman's factual allegations. In his opinion, he noted that "[m]ovants have proven that some very significant information was left out of the record of the hearing on Lehman's motion to approve the sale of the Broker-Dealer Business to Barclays "¹⁴⁰ He also acknowledged the "asset scramble" that occurred just

- 136. *Id*. at 4.
- 137. Id. at 19-20.
- 138. Id. at 13-14.
- 139. Id. at 2-3.
- 140. Lehman, 445 B.R. at 150.

Lehman Bros. Holdings v. Barclays Capital, Inc. (*In re* Lehman Bros. Holdings), 445 B.R. 143 (Bankr. S.D.N.Y. 2011).

^{132.} Adversary Complaint at 2-3, Lehman Bros. Holdings v. Barclays Capital, Inc. (In re Lehman Bros. Holdings), 445 B.R. 143 (Bankr. S.D.N.Y. 2009) (No. 08-13555 JMP), 2009 WL 3848374.

¹³³. *Id*. at 11.

¹³⁴. *Id*. at 3.

^{135.} Id. at 18-19.

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before the asset purchase deal closed.¹⁴¹ Although Judge Peck declined to reverse the court's approval of the deal and noted that the additional information would not have changed the ruling at the time of the deal given the extraordinary circumstances,¹⁴² his opinion bolsters the credibility of the complaint's factual allegations.¹⁴³

The Lehman case provides a troubling insight into the asset divisions – or lack thereof – in a systemically important financial institution. The fact that \$5 billion in assets could be put together in a Friday morning scramble shows the scope of the gray area. Moreover, the complaint alleged that Lehman became aware of the windfall to Barclays only after court-ordered discovery.¹⁴⁴ It is quite astonishing that a \$5 billion understatement in assumed assets and a \$1 billion overstatement in assumed liabilities went unnoticed, indicating the depth of the fog facing creditors in the liquidation of a systemically important financial institution.

What makes the uncertainty worse in the case of a financial institution is the fact that unlike non-financial firms, which have most assets on-site, financial institutions have significant assets that are held by other parties.¹⁴⁵ For example, Lehman alleged that its executives transferred a \$5 to \$7 billion windfall to Barclays by terminating the repurchase agreement with Barclays and letting Barclays keep the excess collateral.¹⁴⁶ Similarly, assets belonging to Lehman but held by other parties formed the core of the "asset scramble" and the basis of an appeal to the U.S. District Court for the Southern District of New York.¹⁴⁷

144. Adversary Complaint, supra note 132, at 2.

- 146. Adversary Complaint, supra note 132, at 18.
- 147. These assets include margin assets, 15c3-3 assets, and clearance box assets. Margin assets are "approximately \$4 billion in assets that had been maintained by LBI [Lehman Brothers, Inc.] at various financial institutions 'in connection with LBI's [exchange-traded derivatives] business.'" *Barclays Capital*, 478 B.R. at 577 (quoting *In re* Lehman Bros. Holdings Inc., 445 B.R. 143, 195 (Bankr. S.D.N.Y. 2011)). 15c3-3 assets are "(i) \$769 million in securities segregated by LBI for its customers in compliance with SIPA and Rule 15c3–3 and (ii) \$507 million in assets posted by LBI as margin with the [Options Clearing Corporation]

^{141.} Id. at 189.

^{142.} Id. at 151-52.

^{143.} The case was appealed to the U.S. District Court for the Southern District of New York. Barclays Capital Inc. v. Giddens (*In re* Lehman Bros. Inc.), 478 B.R. 570 (S.D.N.Y. 2012). Judge Katherine Forrest affirmed in part and reversed in part. However, the appeal was limited to the interpretation of whether 15c3-3 assets, margin assets, and clearance box assets were included in the asset purchase agreement according to its proper interpretation, and the opinion did not touch on the factual allegations of the complaint.

^{145.} For example, as of the end of 2013, Goldman Sachs had \$62.3 billion in financial instrument assets pledged as collateral. Goldman Sachs Grp., Annual Report (Form 10-K) 125 (Feb. 27, 2014), http://www.sec.gov/Archives/edgar/data/886982/000119312514073792/d655877d10k .htm [http://perma.cc/REL6-K9H6].

These assets held by other parties can further complicate the division of assets within a financial group.¹⁴⁸

What's worse, ambiguity about the size and division of the assets of a financial group may be intentional in some cases. During the height of the financial crisis, for example, Anglo Irish Bank, Ireland's third largest bank, was mired in a scandal amid allegations that its chairman, Sean FitzPatrick, had hidden €87 million in loans from the bank's shareholders.¹⁴⁹ More recently, it was reported that Deutsche Bank had engaged in an accounting maneuver to exclude €395.5 billion in assets from its balance sheet.¹⁵⁰ These maneuvers can create substantial uncertainty among creditors and general market participants over the size and the division of assets within systemically important financial institutions.

In sum, these maneuvers – either intentional or unintentional – that obscure the size and division of assets can be toxic by increasing uncertainty in the marketplace. From an ex ante perspective, these maneuvers prevent creditors and shareholders from accurately assessing the financial health of a constituent legal entity and from curbing excessive risk-taking. From an ex post resolution perspective, the blurring of the lines among different subsidiaries can lead to ambiguity and risk-aversion because creditors cannot ascertain the likelihood of loss. This problem is accentuated under the SPOE strategy, since the approach relies fundamentally on the division of assets between the parent and the subsidiaries. If the subsidiary creditors cannot ascertain the lossabsorbing capacity of the parent and, consequently, their likelihood of loss, they can run from the operating subsidiaries as well (for example, by declining to roll over financing), thereby undermining the main goal of the SPOE strategy.

and listed as a debit item in LBI's reserve calculation for purposes of Rule 15c3-3." *Id.* at 579-80 (quoting *In re Lehman*, 445 B.R. at 191). Clearance box assets are "approximately \$1.9 billion in unencumbered securities held in LBI's 'clearance box' at the [Depository Trust & Clearing Corporation]." *Id.* at 580 (quoting *In re Lehman*, 445 B.R. at 199).

^{148.} Also, the counterparties holding the assets posted as collateral can rehypothecate those assets, lending them out or posting them as collateral themselves, which further complicates the asset calculation.

^{149.} See Anglo Irish Bank Loses 2 Executives in Loan Scandal, N.Y. TIMES, Dec. 19, 2008, http://www.nytimes.com/2008/12/19/business/worldbusiness/19iht-19irish.18821503.html [http://perma.cc/82NY-MA43].

^{150.} See Elisa Martinuzzi & Vernon Silver, Deutsche Bank Opaque Loans from Brazil to Italy Hide Risk, BLOOMBERG (July 10, 2013, 11:01 PM), http://www.bloomberg.com/news /2013-07-11/deutsche-bank-opaque-loans-from-brazil-to-italy-hide-risk.html [http://perma .cc/8JDH-BC6W].

V. IMPROVING THE OLA AND THE SPOE STRATEGY

Part IV identified three major weaknesses of the OLA and the SPOE strategy from the perspective of corporate group structure: (1) they may encourage moral hazard among subsidiary creditors and counterparties; (2) they may encourage financial groups to shift their debt to the subsidiary level; and (3) implementation of the SPOE strategy is difficult without a clear division of assets among the subsidiaries of the failed financial group.

The FDIC has recognized the second problem – liability shifting – and is in the process of adopting rules to require that systemically important financial institutions hold a certain amount of long-term liabilities at the parent level (in order to facilitate bail-ins).¹⁵¹ However, this is an inadequate solution. First, this solution does not address the moral hazard and the asset segregation problems. Second, such a minimum requirement requires calibration of the amount necessary for a bail-in, and this may prove to be incorrect if a firm suffers extremely catastrophic losses.

As such, Part V proposes two additional solutions to complement the minimum liability requirement: an expanded FDIC backstop and subsidiary-level stress-testing.

A. The FDIC Should Embrace an Expanded Government Backstop but Impose Corresponding Costs To Reduce Moral Hazard

We cannot address the issue of moral hazard of subsidiary creditors effectively without understanding the policy trade-off between bank runs and moral hazard. For example, imposing discipline by binding the FDIC's hands and imposing losses on the subsidiaries' creditors can reduce moral hazard but may also lead to runs in times of crisis. In particular, if operating subsidiaries' creditors decide to withdraw their funding and the subsidiaries face operational difficulties as a result, such a run would undermine the fundamental goal of the SPOE approach: the protection of going-concern value during liquidation.

Given these conflicting policy considerations, an appropriate solution should remove the incentives for creditors to withdraw their funding while imposing the costs of a government backstop on the financial institutions themselves. One such solution is to align the OLA more closely with the FDIC's regulation and resolution system for depository institutions.¹⁵² Under this solution, the FDIC would substantially expand its OLF backstop, making it akin to

See Resolution of Systemically Important Financial Institutions: The Single Point of Entry Strategy, 78 Fed. Reg. 76,614, 76,623 (Dec. 18, 2013).

^{152.} For an explanation of the FDIC's role in regulation and resolution of depository institutions, see FED. DEPOSIT INS. CORP., ANNUAL REPORT 2013, at 19, 37-38 (2014).

full-scale deposit insurance, while levying assessments on systemically important financial institutions to fill the OLF. The "deposit insurance" would apply to the subsidiaries' creditors, in order to maintain stable operation of the subsidiaries. At the same time, the FDIC (or a similar regulator) should scrutinize and monitor systemically important financial institutions more closely.

This approach has several advantages. First of all, as long as the FDIC makes its expanded backstop explicit, the creditors would not have an incentive to run. With an expanded backstop, the creditors know that they would be as well off if they stayed with the financial group as they would be if they withdrew their funding, especially if the statutory provisions were changed to prefund the OLF.¹⁵³ Second, this plan would impose the costs of the bailout on the financial institutions themselves. Not only would this approach resolve fairness considerations, it would also even the playing field between large and small financial institutions. While large firms may benefit from the implicit subsidy of an expected bailout, the savings in funding costs would be offset by greater assessments. In fact, the offset may be even more effective in the context of systemically important financial institutions than in the context of traditional insured banks, as there are far fewer systemically important financial institutions.¹⁵⁴ Third, the expanded government backstop, coupled with appropriate assessments on the financial institutions, would reduce the political costs associated with government rescues, since the resolutions would be funded by the industry itself and not with taxpayer money.

Expanded backstop coverage, of course, weakens the monitoring incentives for creditors and counterparties. For example, in the context of traditional commercial banks, individual depositors rarely examine their bank's financial strength. After all, they will be fully repaid up to the deposit insurance limit if the bank fails,¹⁵⁵ so the financial strength of the bank is an irrelevant factor. With an expanded FDIC backstop, other creditors would lose the incentive to monitor the risk-taking activities of systemically important financial institutions as well.

^{153.} See Thomas W. Joo, A Comparison of Liquidation Regimes: Dodd-Frank's Orderly Liquidation Authority and the Securities Investor Protection Act, 6 BROOKLYN J. CORP. FIN. & COM. L. 47, 70 (2011) ("OLA does not . . . establish prefunding of any kind.").

^{154.} In the context of a traditional insured bank, the incentive to monitor another bank is very weak; even if that bank fails and the FDIC incurs losses as a result, such a loss will be distributed among thousands of FDIC-insured banks in the United States. In contrast, since the failure of another systemically important financial institution will impose more concentrated costs on other such institutions, there is greater incentive to monitor other institutions' activities.

^{155.} See Deposit Insurance FAQs, FED. DEPOSIT INS. CORP., https://www.fdic.gov/deposit /deposits/faq.html [http://perma.cc/JD8X-TCUX].

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In order to address this side effect, the FDIC or another regulatory authority must step in to monitor and supervise systemically important financial institutions. As noted previously, the parent's shareholders and creditors may not be able to monitor the subsidiaries' risk-taking activities perfectly, and the regulators, with their authority to demand information from systemically important financial institutions, can fill that gap. While the Dodd-Frank Act establishes a robust regulatory regime, regulation cannot survive without close supervision. In regulating the systemically important financial institutions' risk-taking activities, the FDIC must closely monitor those institutions to ensure compliance. The Dodd-Frank Act provides for several ways in which regulators can receive information from systemically important financial institutions, such as the living will¹⁵⁶ and data submission to the Office of Financial Research.¹⁵⁷ These disclosures must be carefully scrutinized by banking regulators to deter excessive risk-taking and should be expanded as necessary.

Moreover, expanded coverage with assessments from systemically important financial institutions should also motivate other financial institutions to compensate for the reduced monitoring by creditors. Taxpayer bailouts do not give individual taxpayers incentives to supervise large financial institutions because they do not have the power to do so, and the responsibility is spread out among millions. Rescues funded by the industry itself, on the other hand, concentrate the costs in the hands of a few large financial institutions that act as repeat-player counterparties to each other. While an idiosyncratic failure of a single financial institution would not trigger a receivership under Title II, the failure of a large number of systemically important financial institutions would, with attendant costs imposed on the industry. As such, each systemically important financial institution has an incentive – and the capability – to monitor its counterparties in order to discourage dangerous asset correlation and to avoid the failure of a large number of systemically important financial institutions in the analysis of the industry. If a large has an incentive – and the capability – to monitor its counterparties in order to discourage dangerous asset correlation and to avoid the failure of a large number of systemically important financial institution.¹⁵⁸

157. Dodd-Frank Act § 153.

^{156.} Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 165(d), 124 Stat. 1376, 1426-27 (2010). Living wills, formally known as "resolution plans," must be filed by bank holding companies with consolidated assets over \$50 billion and by nonbank financial companies designated by the Financial Stability Oversight Council for supervision by the Federal Reserve. The living wills must describe "the company's strategy for rapid and orderly resolution in the event of material financial distress or failure of the company." *Resolution Plans*, BD. GOVERNORS FED. RES. SYS., http://www.federalreserve.gov /bankinforeg/resolution-plans.htm [http://perma.cc/R8SH-55VN].

^{158.} In particular, positive asset correlation, in which two sets of assets rise and fall together, is dangerous because when one firm's assets are impaired, other firms in the market likely suffer similar impairments as well. As a corollary, when one firm fails, creditors of other firms may assume that those other firms are also on the brink of failure, leading to destabilizing creditor runs.

There are several possible objections to this package of proposals. One is that when systemically important financial institutions do fail and the OLF incurs large losses, the FDIC will not levy sufficient assessments due to pressure from the financial industry. This is a valid argument: during the Savings and Loan Crisis, for example, industry lobbying blocked the recapitalization of the Federal Savings and Loan Insurance Corporation fund, culminating in the creation of the Resolution Trust Corporation to take the fund's place.¹⁵⁹ Even in the absence of such lobbying, cross-firm correlations in portfolio holdings mean that when a systemically important financial institution fails, other firms may be in danger as well.¹⁶⁰ Under such circumstances, the FDIC may be unwilling to levy assessments on ailing financial institutions. But this concern has already been addressed: the Dodd-Frank Act ties the FDIC's hands in levying assessments on systemically important financial institutions. Under the Act, the FDIC must charge assessments within sixty months of the issuance of an OLF obligation, giving it some flexibility in choosing the best timing but ensuring that it does not delay assessments indefinitely.¹⁶¹ As a comparison, in the case of the Deposit Insurance Fund (DIF), the Dodd-Frank Act mandates a minimum designated reserve ratio (ratio of DIF balance to estimated insured deposits) of 1.35%.¹⁶² When the FDIC expects the reserve ratio of the Deposit Insurance Fund to fall below the minimum set by statute or when the amount actually does fall below the minimum, the FDIC must establish a restoration plan to bring the reserve ratio above the minimum within eight years.¹⁶³ Title II thus binds the FDIC's hands more tightly in the case of the OLF than in the case of the DIF. Given the DIF's successful recapitalization after the 2007-08 crisis through assessments on insured depository institutions, the OLF could well experience similar success.

Second, one may argue that increased supervision and regulation of systemically important financial institutions would have adverse effects, both on

- 161. Dodd-Frank Act § 210(0)(1)(B).
- 162. Id. § 334(a). The FDIC is free to set a higher reserve ratio; for example, the 2012 reserve ratio was 2.00%. Deposit Insurance Fund Management, FED. DEPOSIT INS. CORP., http://www.fdic.gov/deposit/insurance/fund.html [http://perma.cc/S9VT-BYJZ].
- **163**. 12 U.S.C. § 1817(b)(3)(E)(i)-(ii) (2012).

The S&L Crisis: A Chrono-Bibliography, FeD. DEPOSIT INS. CORP., http://www.fdic.gov /bank/historical/s%26l/ [http://perma.cc/6VJN-58EV].

^{160.} When a firm fails because of idiosyncratic shock (e.g., fraud and loss of reputation as in the case of Drexel Burnham Lambert) this problem does not arise. But in such a case, the need for an OLA resolution also does not arise since there is no systemic risk. See James Bullard, Worry Less About Systemic Risk, More About Inflation, FED. RES. BANK ST. LOUIS (2008), https://www.stlouisfed.org/publications/re/articles/?id=970 [http://perma.cc/LFH6-6TU9] ("In the recent history of financial markets, there have been major failures that did not seem to have a systemic effect on the market. Among these are Drexel Burnham Lambert in 1990.").

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the real economy and on the stability of financial markets. Increased regulation may increase the cost of credit for borrowers, with detrimental effects for the real economy. On the financial stability front, increased regulation may endow these institutions with an implicit government backstop, since the markets would believe that the government would not allow a systemically important financial institution to fail.

However, these adverse effects are far from certain. For one, it is unlikely that increased regulation of systemically important financial institutions would raise borrowing costs substantially.¹⁶⁴ In addition, even without formal designation of systemically important financial institutions, it is possible – and even likely – that markets will believe that the largest financial institutions already have implicit government guarantees.

A third objection is that a clawback applied to all creditors is an option superior to an expanded FDIC backstop since it imposes costs directly on creditors, encourages them to monitor the firm's risk-taking activities, and still eliminates the incentive to run. Such an argument is an extension of the status quo embodied in the Dodd-Frank Act. The Act mandates assessments first on the claimants who received additional payments during a resolution and then on large financial institutions.¹⁶⁵ In particular, the FDIC is to impose assessment "as soon as practicable" on any creditor that received any additional payments pursuant to the FDIC's authority to treat some creditors more favorably than others.¹⁶⁶ The FDIC is to claw back the difference between the actual amount received by the creditor and the amount that the creditor would have otherwise received based on liquidation value.¹⁶⁷ Hence, the status quo embodied in the Dodd-Frank Act contemplates a clawback for a subset of creditors.

In contrast, this Note's proposal would restrict the base for assessments to large financial institutions, while an alternative proposal would expand the base to all creditors. In theory, the alternative is indeed the superior proposal: it reduces the need for the FDIC to fill in the monitoring gap left by creditors without increasing the possibility of a run.

In practice, however, such a proposal would be very difficult to implement. Identifying a suitable cutoff point for clawbacks would be at best arbitrary. The absence of a cutoff renders clawbacks impossible since the FDIC cannot pursue

^{164.} While increased regulation or supervision and higher capital requirements are not entirely the same, the scholarly work on the effect of higher capital requirements can be instructive. For an example of scholarship that found little evidence of higher lending rates as a result of higher capital requirements, see Samuel G. Hanson, Anil K. Kashyap & Jeremy C. Stein, A Macroprudential Approach to Financial Regulation, 25 J. ECON. PERSPECTIVES 3 (2011).

^{165.} Dodd-Frank Act § 210(0)(1)(D)(i), § 210(0)(1)(D)(ii)(II).

^{166.} Id. § 210(0)(1)(D)(i).

^{167.} $Id \leq 210(0)(1)(D)(i)(I)-(II).$

every creditor who has withdrawn money from the financial group. Setting an arbitrary cutoff date (for example, ninety days prior to the commencement of receivership, consistent with the cutoff for voidable preferences under the Bankruptcy Code¹⁶⁸) may even accelerate runs: creditors would want to withdraw their money as early as possible to avoid being subject to the clawback. Moreover, since financial institutions are heavily funded with debt and debtlike instruments, the number of creditors that the FDIC would have to pursue would be overwhelming. In the case of Lehman, there were nearly four thousand general creditor claims permitted against the bankruptcy estate, and administering the claims process has been so complex that it is still going on more than six years after Lehman's Chapter 11 bankruptcy filing.¹⁶⁹ Reversing this process to claw back proceeds from all creditors would be even more complex, as many creditors would resist. Additionally, the process would increase uncertainty among creditors, since they would not know whether the FDIC would be pursuing them for clawbacks. In the worst-case scenario, given that the threat of avoidance actions has often been used as a bargaining chip by the management (which has the power to seek avoidance) against certain creditors before¹⁷⁰ and during¹⁷¹ bankruptcy, the FDIC may engage in similar behavior, using clawback provisions to pick the winners and losers among creditors based on its systemic risk determination. Such a policy would amount to a return to the ad hoc bailout model.

In contrast, the approach advocated by this Note is much easier to implement, as it only requires assessments on systemically important financial institutions, which are much fewer in number. The FDIC already levies regular assessments on thousands of depository institutions and would readily be able to charge assessments on an even smaller number of systemically important financial institutions.

B. Subsidiary-Level Stress Testing Can Be a Self-Enforcing Solution to the Asset Segregation Problem

Unfortunately, resolving the asset segregation issue is much more difficult for systemically important financial institutions than for non-financial companies. In a normal proceeding under the Bankruptcy Code, a judge who faces a complex web of cross-stream, upstream, and downstream guarantees can re-

^{168. 11} U.S.C. § 547(b)(4)(A) (2012).

^{169.} Trustee's Eleventh Interim Report for the Period February 15, 2014 Through September 9, 2014 and Quarterly Report on the General Creditor Claims Process at 5, *In re* Lehman Bros. Inc., No. 08-01420 (SCC) SIPA (Bankr. S.D.N.Y. 2014).

^{170.} ELIZABETH WARREN, CHAPTER 11: REORGANIZING AMERICAN BUSINESSES 111 (2008).

^{171.} J. Bradley Johnston, The Bankruptcy Bargain, 65 AM. BANKR. L.J. 213, 298-301 (1991).

sort to substantive consolidation.¹⁷² Under substantive consolidation, if the guarantees are impossible to untangle or the accounting records at the subsidiary level are woefully incomplete, the judge may treat all constituent legal entities in a corporate group as one single legal entity and consolidate the group's assets and liabilities into one pool.¹⁷³ Since all internal boundaries are disregarded, the fact that there is no clear division of assets is no longer relevant. Given that it negates corporate boundaries, substantive consolidation is indeed an extraordinary measure, one to be used sparingly.¹⁷⁴ Despite the downsides, however, substantive consolidation does provide an answer–albeit an imperfect one–when a corporate group fails to maintain clear boundaries among its subsidiaries.

On the other hand, in a resolution under Title II, substantive consolidation is no longer an option. Applying substantive consolidation to a financial group would shut down the operating subsidiaries by disrupting the flow of credit to them. The subsidiaries' debt would be subject to write-down and restructuring, leading those creditors to terminate their relationship with the subsidiaries. Such termination is contrary to the goal of the SPOE approach, which seeks to minimize disruptions to the overall financial system by keeping viable subsidiaries in operation. As such, in order to keep viable subsidiaries out of resolution, the FDIC cannot cut through the web of intra-group guarantees and murky accounting and must instead untangle those knots.

When a financial group fails, however, time is not on the FDIC's side. As noted in Part II, speed is one of the four goals that an optimal resolution regime must pursue, since financial institutions tend to be "melting ice cube[s]."¹⁷⁵ Trying to untangle the complexities of intra-group guarantees and divide the group's assets among hundreds of subsidiaries may not be possible under such time pressure. Therefore, ex ante measures that simplify intra-group guarantees and enforce asset segregation are necessary to facilitate ex post resolution of complex financial groups. One such measure is to expand stress testing – an analytic exercise designed to evaluate a financial institution's ability to withstand a hypothetical negative shock – to the subsidiary level.

^{172.} See Squire, supra note 115, at 608.

^{173.} Id.

^{174.} See In re Owens Corning, 419 F.3d 195, 211 (3d Cir. 2005) ("[B]ecause substantive consolidation is extreme (it may affect profoundly creditors' rights and recoveries) and imprecise, this 'rough justice' remedy should be rare and, in any event, one of last resort after considering and rejecting other remedies.").

^{175.} See Comment Letter from the Sec. Indus. and Fin. Mkts. Ass'n & the Clearing House Ass'n L.L.C. to the Fed. Deposit Ins. Corp., *supra* note 79, at A-5.

Currently, the Dodd-Frank Act requires supervisory stress tests only at the consolidated level.¹⁷⁶ While conducting a supervisory stress test at the consolidated level reduces costs and helps regulators to understand the higher-level financial condition of a systemically important financial institution, it provides no comprehensive micro-level view of the financial group. Stress tests conducted at the subsidiary level would fill that gap, giving regulators a more detailed view of systemically important financial institutions.

This approach has several advantages. Most importantly for the purpose of this Note, with regard to the asset segregation issue, subsidiary-level stress tests would force financial groups to maintain accurate records of the asset divisions among subsidiaries. Since regulators would need to calculate capital ratios under different scenarios at the subsidiary level, systemically important financial institutions would have to provide detailed information about the assets in each subsidiary. If the corporate group structure is too complicated, then mandating subsidiary-level stress tests can also encourage financial groups to rationalize their corporate group structures. A simple regulation mandating a clear division of assets may be difficult to enforce, but the expansion of stress tests to subsidiaries would allow regulators to enforce asset segregation more rigorously, as they can cross-check between consolidated and unconsolidated data to confirm that a financial group has properly segregated its subsidiaries' assets.

While a stress test is not strictly necessary to develop a list of assets by legal entity, the expansion of stress tests to subsidiaries has two other advantages aside from the asset segregation consideration. First, subsidiary-level stress tests can help regulators identify the particular sources of weakness in a financial group. With a consolidated stress test, regulators may not be able to pinpoint the source of the problem. Often, one part of a financial group can incur substantial losses that engulf the whole group, and a financial group is only as strong as its weakest link. For Lehman Brothers, the source of its troubles was its \$90 billion real estate portfolio.¹⁷⁷ For AIG, the sources were derivative activities at AIG Financial Products and the group's securities lending business.¹⁷⁸

Second, particularly with respect to multinational financial groups, the assumption-inherent in consolidated stress tests-that a financial group can

^{176.} Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 165(i)(1)(A), 124 Stat. 1376, 1430 (2010) ("The Board of Governors, in coordination with the appropriate primary financial regulatory agencies and the Federal Insurance Office, shall conduct annual analyses in which nonbank financial companies supervised by the Board of Governors and bank holding companies described in subsection (a) are subject to evaluation of whether such companies have the capital, *on a total consolidated basis*, necessary to absorb losses as a result of adverse economic conditions.") (emphasis added).

^{177.} FINANCIAL CRISIS INQUIRY REPORT, supra note 9, at 326.

^{178.} Id. at 344-45.

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move capital and liquidity among different subsidiaries may not hold true.¹⁷⁹ For example, sometimes regulators in different countries may attempt to isolate the local subsidiaries of a multinational financial group ("ringfencing") to minimize the impact on the domestic economy.¹⁸⁰ By conducting stress tests at the subsidiary level, regulators can understand the impact of the ringfencing scenario and the capital and liquidity problems facing each subsidiary if a financial group fails to provide support because of legal and market conditions.

Of course, the biggest downside of conducting subsidiary-level stress tests would be the cost. As highlighted in Part III, systemically important financial institutions tend to have a large number of subsidiaries; JPMorgan Chase, for example, has more than five hundred.¹⁸¹ Conducting stress tests on every one of those subsidiaries would be nearly impossible. Instead, regulators could adopt a middle-ground approach, mandating stress tests on a certain number of a financial group's largest subsidiaries. Such a middle-ground approach would not give regulators a microscopic view of a financial group's conditions but would shrink the scope of stress testing to a manageable one and balance the costs and benefits of subsidiary-level testing.

CONCLUSION

This Note has sought to assess the weaknesses of the Orderly Liquidation Authority under the Dodd-Frank Act and the FDIC's Single Point of Entry strategy for implementing the OLA, with particular emphasis on the corporate group structure of these financial institutions. First and foremost, the losses imposed on the parent creditors amount to an ex post subsidy from the parent creditors to the subsidiary creditors. Foreseeing this subsidy, the parent's creditors would adjust the interest rate they charge and increase their monitoring activity, somewhat offsetting the lower cost of credit and decreased monitoring incentives of the subsidiary creditors. But that adjustment still would not fully counter the point that the parent creditors cannot monitor the financial group's risk-taking activities as well as the subsidiary creditors can, leading to a moral hazard problem.

^{179.} See Eugenio Cerutti & Christian Schmieder, The Need for "Un-Consolidating" Consolidated Banks' Stress Tests 16 (IMF Working Paper No. WP/12/288, 2012), https://www.imf.org /external/pubs/ft/wp/2012/wp12288.pdf [https://perma.cc/7KXY-U22F].

^{180.} Even the United States effectively ringfences domestic operations of foreign banking organizations by requiring an intermediate holding company (IHC) structure for foreign banking organizations (FBOs) and mandating stress-tests, a capital-plan rule, and liquidity requirements for U.S. IHCs. Enhanced Prudential Standards and Early Remediation Requirements for Foreign Banking Organizations and Foreign Nonbank Financial Companies, 77 Fed. Reg. 76,628 (proposed Dec. 28, 2012) (to be codified at 12 C.F.R. pt. 252).

^{181.} See JPMorgan Chase & Co., supra note 84, at 365-73.

As a corollary to the fact that the SPOE approach in effect provides for a subsidy from parent creditors to subsidiary creditors, financial groups may engage in liability-shifting, changing their capital structures such that there is less debt at the parent level. Such a change would undermine the OLA, forcing a bailout in times of crisis. Increased probability of a bailout, in turn, would create an even greater incentive to engage in liability-shifting, leading to a self-reinforcing cycle that would put financial groups beyond the capabilities of the SPOE approach.

In addition to these effects on incentives, this Note has pointed out issues regarding the implementation of the SPOE strategy. The strategy requires a clear division of assets and liabilities among the constituent companies of a financial group, and there is evidence that some financial groups do not have such clear asset segregation. Without asset segregation, the whole financial group may be dragged into resolution, which would have devastating consequences. The uncertainty associated with such a nightmare scenario would be enough to kill a financial group and produce spillover effects.

Resolving these problems can be complicated for two reasons. With multiple goals, a solution that fixes one problem can aggravate another, as exemplified in the tradeoff between imposing discipline and preventing runs on subsidiaries. Moreover, because of systemic risk concerns, failed financial institutions must be addressed more carefully than bankrupt non-financial firms, precluding the use of blunt tools such as substantive consolidation.

The package of solutions presented in this Note represents the first step in reconciling these conflicts. Given the complications in the resolution of financial institutions, these solutions rest on two main principles. First, if government rescues are anticipated and may be necessary under certain circumstances, then policymakers can offset the rescues' side effects by imposing appropriate costs on the beneficiaries. The real source of the problems often associated with government rescues is that they are provided at little cost to the beneficiaries, effectively subsidizing those institutions. By imposing appropriate costs on the beneficiaries, however, the government is simply selling insurance to systemically important financial institutions at a fair price. A government backstop system, coupled with assessments on systemically important financial institutions and direct regulation to allay monitoring issues, can mitigate moral hazard concerns without leading to debilitating runs.

Second, if the SPOE approach separates the parent and the subsidiaries, other regulations under Dodd-Frank must address the subsidiaries as well. Various provisions of the Dodd-Frank Act are interconnected and complement each other. For instance, the information submitted as part of a living will (a prepackaged bankruptcy plan mandated by Title I of the Dodd-Frank Act) can

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help the FDIC form a resolution plan under Title II.¹⁸² As such, this Note supports expanding stress tests to major subsidiaries in order to remedy the asset segregation problem, provide regulators with more information about potential sources of negative shocks, and ensure that there is enough debt at the parent level to make the SPOE strategy possible.

These two principles represent a response to the complexities identified earlier: embracing government rescues resolves the inherent conflict between liquidity and moral hazard concerns, and expanding stress tests to the subsidiary level aims to achieve greater precision in resolution policy, facilitating a smoother implementation of the SPOE strategy.

182. See supra note 156.