

WHY BAIL-IN? AND HOW!

- Financial firm insolvency is very different in kind than the insolvency of ordinary firms.
- The key distinction is that only financial firms are dominated by “financial liabilities” — liabilities whose value is greater than the net present value of their associated income streams.
- The “bail-in” insolvency process respects this distinction, converting the claims of the parent company’s creditors to equity while paying the subsidiaries’ creditors on time and in full.
- Bail-in impairs only the nonfinancial liabilities in the parent and preserves the financial liabilities in the subsidiaries. It therefore preserves the firm’s liquidity and risk-shifting abilities.
- For systemically important financial firms, bail-in averts systemic risk.

1. INTRODUCTION

Bank resolution is a big topic these days.¹ (“Resolution” is a term of art, meaning something like “insolvency process.”) This is especially true for megabanks—large international financial conglomerates.² Most bank regulators are unhappy with standard insolvency law, such as the Bankruptcy Code (Code). They often favor a novel process. The generic term is “bail-in.”³ The Federal Deposit Insurance Corporation (FDIC) has its own version, called “single point of entry.”

This raises two questions. Why should bank regulators dislike standard insolvency law? And why should bail-in make them happy? This article answers these questions.

¹ *E.g.*, citations contained *infra* notes 3, 4 (second paragraph), 8, 28, 34, 48, 56, 61, 65.

² Throughout this discussion, I shall use the terms “megabank,” “large financial firm,” or “large international financial conglomerate” as if they all meant the same thing. I do not use the jargon term “SIFI,” the acronym for “systemically important financial institution.” This article does not need a systemic risk boogeyman, although it helps.

³ D. Wilson Ervin, a banker at Credit Suisse, invented the concept. Paul Calello & Wilson Ervin, *From Bail-Out to Bail-In*, THE ECONOMIST 95 (Jan. 28, 2010). Mr. Ervin told me that he conceived the idea around September 2008.

Joseph H. Sommer is an assistant vice president and counsel at the Federal Reserve Bank of New York.

joseph.sommer@ny.frb.org

The author thanks Barry Adler, Thomas Baxter, Wilson Ervin, Mark Flannery, Charles Gray, Joyce Hansen, HaeRan Kim, Lisa Kraidin, James McAndrews, Hamid Mehran, Donald Morgan, Brian Peters, Michael Schussler, and David Skeel. The views expressed in this article are those of the author and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

My answers are not quick ones. The theory for a quick answer is not there. Few bankruptcy scholars or practitioners know about financial firm insolvency. Unlike bankruptcy, the secondary legal literature on financial firm insolvency is sparse.⁴ Not everybody has read it, and besides, I have a few notions of my own.

The first section of this article therefore discusses megabank insolvency. Ordinary bankruptcy law makes many tacit assumptions as to what a generic firm should be. Many of these assumptions are invalid—or even inverted—for financial firms. The second section defines and discusses bail-in. The third section defines, discusses, and dismisses the alternatives to bail-in.

With this teaser, let us get started.

⁴ I know of one excellent, if ancient, monograph. HIRSCH BRAVER, *LIQUIDATION OF FINANCIAL INSTITUTIONS* (1936). It remains useful for a few technical issues; cf. OFFICE OF THE COMPTROLLER OF THE CURRENCY, *INSTRUCTIONS TO NATIONAL BANK RECEIVERS* (1932). There are three useful modern monographs: DAVID A. SKEEL, *THE NEW FINANCIAL DEAL: UNDERSTANDING THE DODD-FRANK ACT AND ITS (UNINTENDED) CONSEQUENCES* (2011); BANKRUPTCY NOT BAILOUT: A SPECIAL CHAPTER 14 (Kenneth E. Scott & John B. Taylor, eds., 2012) (“*Hoover Institution*”); EVA HÜPKES, *THE LEGAL ASPECTS OF BANK INSOLVENCY: A COMPARATIVE ANALYSIS OF WESTERN EUROPE, THE UNITED STATES AND CANADA* (Kluwer 2000). The law review literature is sparse between the Depression and the 2008 crisis. Robert R. Bliss & George G. Kaufman, *U.S. Corporate and Bank Insolvency Regimes: A Comparison and Evaluation*, 2 VA. L. & BUS. REV. 143 (2007); Thomas C. Baxter, Joyce M. Hansen & Joseph H. Sommer, *Two Cheers for Territoriality*, 78 AM. BANKR. L.J. 57 (2004); David A. Skeel, *The Law and Finance of Bank and Insurance Insolvency*, 76 TEX. L. REV. 723 (1998); Peter B. Swire, *Bank Insolvency Law Now that It Matters Again*, 42 DUKE L.J. 469 (1992); William R. Buck, Jr., Comment, *Bank Insolvency and Depositor Setoff*, 51 U. CHI. L. REV. 188 (1984). See also, e.g., GROUP OF THIRTY, *INTERNATIONAL INSOLVENCIES IN THE FINANCIAL SECTOR* 84 (1998); G-10 Contact Group on the Legal and Institutional Underpinnings of the International Financial System: *Insolvency Arrangements and Contract Enforceability* (September 2002) at <http://www.bis.org/publ/gten06.htm>.

Recently, the topic has become more trendy: e.g., SKEEL, *supra*; Hoover Institute, *supra*; Douglas G. Baird & Edward R. Morrison, *Dodd-Frank for Bankruptcy Lawyers*, 19 AM. BANKR. INST. L. REV. 287 (2011); David A. Skeel & Thomas H. Jackson, *Transaction Consistency and the New Finance in Bankruptcy*, 112 COLUM. L. REV. 152 (2012); Peter Conti-Brown, *Elective Shareholder Liability*, 64 STAN. L. REV. 409 (2012); Randall D. Guynn, *Are Bailouts Inevitable?*, 29 YALE J. REG. 121 (2012); Adam J. Levitin, *In Defense of Bailouts*, 99 GEO. L.J. 435 (2011); JOHN R. BOVENZI, RANDALL D. GUYNN & THOMAS H. JACKSON, *TOO BIG TO FAIL: THE PATH TO A SOLUTION* (Bipartisan Policy Center 2013); Thomas F. Huertas, *Safe to Fail*, 28 BUTTERWORTH’S J. OF INT’L BANKING & FIN. L. 407 (2013); Paul Tucker, *Resolution and Future of Finance* (May 20, 2013) (available at <http://www.bis.org/review/r130606a.pdf?frames=0>) (last visited June 12, 2013); High-Level Expert Group on Reforming the Structure of the E.U. Banking Sector (available at http://ec.europa.eu/internal_market/bank/docs/high-level_expert_group/report_en.pdf) (last visited September 26, 2013).

2. WHY MEGABANKS ARE DIFFERENT

Megabanks are more than big banks. They are more complex; they are more interlocked; they are more global. They also have a peculiar corporate structure and—most importantly—peculiar liabilities. They are atypical firms. As we shall see, they need atypical insolvency law.

This section does four things. It starts with the balance sheet of megabanks. All financial firms have peculiar balance sheets. Megabanks are more peculiar yet. Megabanks are highly leveraged. Their liabilities are generally financial products, often very liquid. Finally, megabanks are conglomerates, with close connections among component entities.

After these balance-sheet concerns, we then look at the business of megabanking. Several traits stand out: personnel, interconnections, and a global reach. These all affect megabank insolvency.

We then look at the nature of bank supervision—including megabank supervision. Supervision is tightly tied to insolvency, much as corporate finance is tied to corporate insolvency. The incentives of local supervisors are a powerful force in cross-border megabank insolvency.

Add all these together, and we have our conclusion: Megabank insolvency is different from that of other businesses.

2.1 The Peculiar Balance Sheet of Megabanks

We begin by looking at the balance sheet of large financial firms. A “financial firm,” for our purposes, has a high degree of leverage. It also has something I call “financial liabilities.” Megabanks also have a conglomerate structure.

We begin with the two traits that megabanks share with other financial firms: leverage and financial liabilities.

Leverage

Almost all financial firms are highly levered. Debt-equity ratios of 1:1 are typical for ordinary firms: the widget maker of the textbook. Financial firms’ debt-equity ratios are much higher: about 15:1-30:1 for banks and securities firms,⁵ and somewhat less for insurers. This leverage has some implications.

⁵ Sebnem Kalemli-Ozcan, Bent Sorensen & Sevcin Yesiltas, *Leverage Across Firms, Banks, and Countries*, 88 J. INT’L ECON. 284 (2012).

First, financial firms maintain good credit despite their high leverage. Before the recent crisis, banks typically got ratings around A- to AA.⁶ This need do no violence to the basic tenets of corporate finance. Financial firm assets are typically much safer (*i.e.*, lower in variance) than the assets of general business firms. They must be. The classical bank asset is somebody else's debt. Debt is paid before profit. A firm that specializes in holding debt will have less risk than firms that must pay the debt.

However, megabanks hold many assets other than simple debt. Some of these other assets are risky indeed. To reduce the variance of these assets, megabanks use diversification and hedging schemes. Diversification and imperfect hedging, of course, rely on historical behavior. Beyond a few standard deviations, history is bunk—so-called “tail risk.” Megabanks are inherently sensitive to tail risk in their models, more so than less sophisticated firms. We have seen this several times in the past few decades: Askin Capital, Long-Term Capital Management, and AIG come to mind. None of these firms had bank charters, but our definition of “megabank” needs no charter.

Second, high leverage is hard to measure. In a highly levered firm, the value of assets is close to the value of liabilities. A small error in measurement can lead to a large error in reported leverage. Measurement is harder in the insurance industry, where the (contingent) liabilities of claims are probably more difficult to measure than asset values. But it is bad enough in banking, and amplified by the greater leverage in the banking industry. This is especially true for megabanks with substantial contingent liabilities in the form of derivatives contracts. Similarly, a small change in the variance of bank assets can lead to a large change in bank risk.

This has some unpleasant implications for governance. As Jensen and Meckling have told us, overleveraged firms may gamble with their creditors' money.⁷ But the leverage and risk of banks is difficult to measure. A small increase in either is hard to verify, and banks traditionally had weak creditors, anyway. This is both a good argument for capital regulation (smaller risk substitutions are more effective in leveraged firms), and for supervision (a creditors' agent argument independent of deposit insurance).

Third, leverage is hard to define, even if it is measurable. The notion of leverage distinguishes between some liabilities called “capital” and other liabilities. This distinction may

still exist in corporate law, but corporate finance theory views it as mere superstition.⁸ There are only classes of risk, with different classes of control appropriate to the risk class. Nonetheless, financial regulators think that it is important to sharply distinguish some kinds of liabilities from others. They do not draw the line at equity. They will also consider some kinds of subordinated debt and preferred stock to be capital. Other kinds of debt—even long-term debt—do not so qualify.

The regulators are right, and the theory is wrong. Not all liabilities are created equal, like beads on a linear string of risk. As we shall see, some liabilities—financial liabilities—are indeed different in kind.

Financial Liabilities

Financial liabilities are a key concept in this article—the key concept of this article. Since induction trumps deduction, a list should precede my definition. Financial liabilities are those that only financial firms are in the business of incurring. They include things like bank deposits, derivative contracts, insurance policies, and repos. Corporate debt or trade credits are not financial liabilities. This is also true of the corporate debt or trade credit of financial firms.

With our intuition set, we should now define the term. We need a definition that makes a difference in insolvency. Two such definitions come to mind.

Perhaps the best definition of a financial liability is one whose value is impaired by the insolvency process. Yes, insolvency does nothing if it does not affect liabilities. But I mean this in a certain special sense, one evoked by an old bankruptcy lawyers' joke: “not only does the food taste awful, but the portions are too small.” This joke is funny because it is true. The portions *must* be too small: insolvency must impair liabilities. Somebody will not get what they bargained for. And the food tastes awful: bankruptcy destroys value. But value destruction is not an inherent trait. An ideal insolvency process can impair liabilities quickly, smoothly, and with no collateral damage. But the Bankruptcy Code, although pretty good, is not an ideal process.

We usually think in terms of destroyed asset value—deadweight losses, such as administrative costs, lost going-concern value, and so on. Value *is* destroyed on the asset side, and modern insolvency law mitigates this destruction. But

⁶ Frank Packer & Nikola Tarashev, *Rating Methodologies for Banks*, BIS QUARTERLY REVIEW 39, 41, 49 (June 2011) (citing Fitch and Moody's ratings). A notch or two of these ratings consisted of government support, but they are still investment grade. *Id.* at 50.

⁷ Michael Jensen & William Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Capital Structure*, 3 J. FIN. ECON. 305 (1976).

⁸ To be fair, some corporate finance theorists are beginning to see the wisdom to this superstition, at least where systemic risk is concerned. Oliver Hart & Luigi Zingales, *A New Capital Regulation for Large Financial Institutions*, 13 AM. L. & ECON. REV. 453, 455-54 (2011). But as we shall see, the issue is a more general one than systemic risk.

some special liabilities—financial liabilities—may also lose value in the insolvency process, beyond any value measured by the net present value of the claim. They, too, suffer a deadweight loss.

Financial liabilities are more than claims to a future stream of income. Yes, they are that, but they are something else, too. Some of them, such as bank deposits, are also sources of liquidity. Others—derivatives or insurance policies—shift risk. These liabilities are also credit instruments. But unlike, say, corporate bonds, their credit nature is incidental to—but inherent in—their liquidity or risk-shifting functions. Liquidity and risk shifting are valuable in themselves—valuable beyond the face value of the financial liability. This is not a conjecture. It is a revealed preference. Insurance policies cost more than their net present value. Liquid debts pay less well than illiquid ones.

This has potent implications in insolvency. If financial liabilities have value that goes beyond their face value, the extra cost of impairing them in insolvency is itself a deadweight loss, exceeding the cost of impairing other liabilities. This cost includes impaired liquidity or risk shifting, as well as an impaired payment stream. This cost is substantial, and it can be enormous if it takes the form of systemic risk.⁹

Good insolvency law would protect these liabilities: preserve their liquidity or risk-shifting functions. This would be at the cost of other liabilities: the familiar Modigliani-Miller seesaw. However, this seesaw has no fixed pivot: priority creates value. The other liabilities are mere streams of income, with no other function. The cost of impairing them is less than the cost of impairing financial liabilities. This leads to the central policy implication of this article: *Financial liabilities deserve priority treatment in insolvency law.* Such priority exists today, ordinal and often temporal. Financial liabilities are often paid first in line and often first in time, before any payments to other creditors. We return to this point below, after a detour through a few of these financial liabilities.

A checking account is a financial liability. People hold these accounts because they are liquid. A delayed insolvency distribution is an illiquid distribution. An illiquid distribution is costly. For an individual, these costs may include bad credit reports, eviction, or delayed medical care. For a firm, these costs may include strained relations with creditors, or even its own insolvency. For a megabank, the costs can extend to chain-reaction illiquidity and insolvency: systemic risk. In a typical bank insolvency, checking accounts are typically paid in full with no delay.

⁹ See *infra* text accompanying note 23.

Bank deposits are not the only financial liability. Insurance policies are another. Consider a term life policy as an example, with an insolvent insurer. To healthy policyholders, the policy is worth little, because it is easy to replace. But consider a person who purchased the policy at a low cost when healthy, has subsequently developed cancer, and has a right to renew. What does it mean for an insolvency distribution to treat all policyholders equally? A quick *pro rata* distribution would be a disaster for the sick policyholder, who will not be able to replace the policy on the market. A future claims estimation process could be a nightmare of litigation. Insurance insolvencies, therefore, are often the opposite of bank insolvencies: very slow, so that all claims may come to fruition. Policyholders are first in line, even if the line moves slowly.

Brokerage accounts are financial liabilities, much like bank deposits. We usually think of them as direct property rights of the customer, with the broker acting as a kind of bailee. But the property law of securities, contained in Uniform Commercial Code (UCC) Article 8, shows that they are generally relationships between the broker and customer, rather than a direct property right of the customer against the issuer.¹⁰ Again, the liquidity of these securities is important. Issuers structure debt as a security rather than a direct loan to enhance its liquidity, either in the distribution process or the secondary market. The Security Investors Protection Act (SIPA) insolvency, as well as Subchapter III of Chapter 7 of the Code, further enhance this liquidity. They rapidly transfer the customer securities of insolvent brokers to another party that can comply with customer orders.

The protected contracts of the Federal Deposit Insurance Act (FDI Act) and Bankruptcy Code can also be financial liabilities. (These liabilities are characteristic of megabanks.) Derivative contracts are intended to shift risk. Insolvency impairs this function. Many securities contracts have a similar function. Many of these transactions hedge portfolios of market risk. Repo creates liquidity.

In other words, financial contracts are contracts in which credit risk is incidental. The creditor in such contracts is not primarily an investor: paying money now to get more later. Instead, it wants liquidity, or insurance, or other kind of risk shifting. It is the *creditor* that is different, not the debtor. To a financial firm, the proceeds of a financial liability are a form of credit, used like any other credit. This suggests a second definition of a financial liability: a *product* of a firm, sold to

¹⁰ Some of the more important pieces of secondary literature: James Steven Rogers, *Policy Perspectives on Revised U.C.C. Article 8*, 43 U.C.L.A. L. REV. 1432 (1996); Kenneth C. Kettering, *Repledge Deconstructed*, 61 U. PITT. L. REV. 45 (1999); Steven L. Schwarcz, *Intermediary Risk in a Global Economy*, 50 DUKE L.J. 1541 (2001).

customers. This definition pretty much overlaps with the first. It is less analytically pleasing, because it does odd things like exclude interdealer derivatives contracts. But it explains much, works well, and is easy on the intuition.

This notion of a financial liability as a product has implications for insolvency law, apart from priorities. Insolvency law assumes that firms often need a breathing spell from their creditors, so that they can pick themselves up, continue operating, and start reorganizing. It therefore places all claims in a collective procedure and places a moratorium on efforts to collect assets. However, financial products are operations of the financial firm. Freezing performance on a financial product, whether by automatic stay or treatment as a claim, is akin to prohibiting a carmaker in Chapter 11 from making and selling cars, or an airline from selling tickets, buying jet fuel, and flying planes.¹¹

Since a financial liability is a product, it contains some goodwill. It is worth more to the issuer than the mere proceeds of other liabilities. Nobody thinks of customer loyalty in the bond market, but it is quite common in the insurance market, or the retail market for bank deposits. In other words, some financial liabilities—*e.g.*, bank deposits or insurance policies—can be firm-specific. They are more valuable if kept with the firm's business than paid off in an insolvency distribution. Therefore, purchasers will assume these liabilities for a discount. They need less than one dollar of assets to assume a dollar's worth of these liabilities.

This turns a standard bankruptcy argument inside out. Bankruptcy scholars argue that reorganizations are generally more efficient than liquidations because reorganizations

preserve the value of firm-specific assets.¹² Financial firms may have fewer firm-specific assets than other firms. But they have firm-specific liabilities. These liabilities also require reorganization of the firm—but no alteration of these liabilities. Other liabilities would bear the brunt.

This article uses the concept of financial liabilities to *define* financial firms. This excludes many firms that have financial assets: *e.g.*, leasing, factoring, lending, or mortgage companies. These firms raise their funds from banks and on the bond market, like any other ordinary business firm. They do not issue financial liabilities. They are not financial firms, for our purposes.

Our definition of financial firms might be narrow, but it accords with U.S. law. The law defines banks by their unique power to issue one financial liability: the deposit. (This power is legally necessary, if not always sufficient.¹³) The Bankruptcy Code treats leasing, factoring, lending, or mortgage companies as ordinary industrial firms. The Code can succeed with these firms, as it did with CIT Group. It only excludes those firms defined by financial liabilities: banks and insurers.

When the Code sees something like a financial liability, it typically feels protective. Financial contracts such as swaps and repos are exempt from the stay and most avoidance provisions. Subchapter III of Chapter 7 transfers customer security positions rapidly, again free of the stay and with limited avoidances. Trade credit is a special case. It is not a financial liability—it is worth no more to the creditor than its net present value. However, paying the trade credit in full is often worth more to the estate than any loss to other creditors, since an angry trade creditor can refuse to deal. So the Code creates a twenty-day priority and a forty-five-day quasi-priority in the form of a right of reclamation.¹⁴

¹² A “liquidation” sells the assets of the firm and distributes the sales proceeds down the priority ladder of creditors. A “reorganization” leaves the assets alone, and readjusts the liabilities by eliminating or reducing junior claims, converting senior claims to junior ones, and lengthening some surviving senior claims. Chapter 11 of the Bankruptcy Code employs both liquidation (usually of bulk business) and reorganizations. See *infra* text accompanying note 68.

Liquidation and reorganization are not the only insolvency law techniques. Bank and insurance insolvency law allows for a transfer of liabilities to a solvent party, compensating the transferee with assets. This is the “bridge bank” and “purchase and assumption” transaction of the FDI Act or the “bridge company” of the Dodd-Frank legislation. As we shall see below, a bridge company can be tantamount to a reorganization. See *infra* text accompanying notes 55-56.

¹³ **Necessary and sufficient:** 12 U.S.C. § 378(a)(1). **Necessary but not sufficient:** 12 U.S.C. § 1841(c)(1)(B) (also needs commercial lending); 12 U.S.C. § 1813(a)(2) (also needs incorporation).

¹⁴ **Financial contract provisions:** 11 U.S.C. §§ 362(b)(6), (7), (17), (27), 546(e)-(g), 555-56, 559-61; **Subchapter III:** 11 U.S.C. §§ 741-52; **Sales priority:** 11 U.S.C. § 503(b)(9); **Right of reclamation:** 11 U.S.C. § 546(c).

¹¹ To express this in more abstract language, firms have both operations and financing. The task of reorganization is to rearrange the claims of financiers, without disturbing operations. However, operations require continuing financing. Insolvency law must separate the two somehow. The Code does this with the automatic stay and post-petition lending. The automatic stay keeps the erstwhile financiers away from the operations; post-petition lending funds ongoing operations. This decomposition is impossible for a financial firm, if there is no distinction between financing and products. Bail-in works by segregating the financial products (and thus the operations) from the nonproduct financing. This segregation requires an insolvency priority for the financial products. The segregation only needs to be good enough, not perfect. Even the Dodd-Frank Act (see Section 3.3 below) has a one-day stay on financial contracts.

Bankruptcy practice expands on these statutory hints with so-called “critical vendor orders.” These orders, awarded at the beginning of the process, grant ordinal and temporal priority to select liabilities. These orders originally protected suppliers, for the reasons discussed above. They now often cover consumers who have paid but have not received value: *e.g.*, warranties or airline tickets.¹⁵ (Since modern critical vendor orders often support non-vendors, I henceforth use an acronym: CVO.) Consumer CVOs preserve the reputation of the firm to its customers: an apparent requisite of successful reorganization.

CVO treatment also applies to true financial liabilities, at least those few liabilities of Code entities that are not already exempted as repo or derivative contracts. Customer securities and commodities positions are financial liabilities. The Code demands their rapid transfer, and regulatory segregation principles usually give them priority. Casinos are financial firms; casino chips are financial liabilities; they pass free of the stay with administrative priority.¹⁶ I know of only one other Code entity with financial liabilities: money transmitters. The liabilities are the payments in transit: funded, but not paid. The Code does not recognize these liabilities as special. State law works around the Code, by pairing these liabilities to segregated assets:¹⁷ a statutory trust.

However, most megabanks have an enormous volume of financial liabilities: far greater than their other liabilities. They do not pair these liabilities to specified assets. The argument for CVOs only works if the favored liabilities are paired with segregated assets, or are few.¹⁸ Therefore, the CVO approach will not work for megabanks.

The difference between financial firms and others, then, is one of degree, rather than kind. Financial liabilities dominate the balance sheet of financial firms. Other firms may have some peculiar liabilities. But they do not have enough of them to interfere with formal Code doctrine. CVOs are nonstatutory and limited in scope. Therefore, financial firms require an explicit priority for financial liabilities: one absent from the Code.

¹⁵ The oddest CVO may have been *In re* Marvel Entertainment Group, 209 B.R. 832 (D.Del. 1997) (comic books paid for but not delivered to children). The leading case on CVOs is clearly *In re* Kmart, 359 F.3d 866 (7th Cir. 2004). Judge Easterbrook suggested a statutory basis for this and proposed an economic rationale. *Id.* at 872-73. He argued that the CVO priority is justified when it increases the value of the estate to the other creditors.

¹⁶ *In re* TCI 2 Holdings LLC, 428 B.R. 117, 180 (Bkrtcy. D.N.J. 2010).

¹⁷ Uniform Money Services Act § 701(c) (2004). *Cf.* Ronald Mann, *The Rise of State Bankruptcy-Directed Legislation*, 25 CARDOZO L. REV. 1805 (2004).

¹⁸ See *supra* note 15 and accompanying text. A sufficiently large volume of CVO priorities cannot make the other creditors better off.

Conglomeration

Megabanks are seldom—if ever—single entities. Instead, they are typically conglomerates. The parent is typically a bank or a holding company (in U.S. law, the latter.) Some of the subsidiaries have financial liabilities: banks, insurers, securities dealers, derivatives dealers, or the like. Other subsidiaries do not: mortgage banks, venture capital firms, asset holding companies, various kinds of middlemen, or the like. There are also special purpose vehicles (SPVs), which purport to be bankruptcy-remote, but often operate with megabank resources. Except for the bank and perhaps a reinsurer, there is little cross-border branching: each country (or at least each major country) gets its own set of subsidiaries.

Most of these affiliates are centrally controlled, sharing risk management, personnel, business, reputation, and operations. They also lend to each other. Typically, the parent and bank are the main sources of interaffiliate credit, because they are the most creditworthy entities. The bank is creditworthy because regulators limit its interaffiliate credit exposures.¹⁹ Some other affiliates have their own credit, as standalone business units or SPVs. But most do not. The credit of most megabank entities depends on that of the organization. And conversely. Except for the insurance industry, parent financial firms seldom let their affiliates become insolvent, even when there is no question of legal exposure. This is at least as old as the salad oil swindle of 1963, in which American Express rescued its warehouse company. And we saw it in 2007-08, when parent firms rescued their shadow banks, despite a clear legal separation between them.

The net result is an organization that is hard to decompose in insolvency, even if interaffiliate books were perfect. (“[I]mperfection in intercompany accounting is assuredly not atypical in large, complex company structures.”²⁰) Insolvency law treats the legal entity as the basic unit upon which it operates. Insolvency law acknowledges that affiliation usually calls for unified administration, but otherwise treats the separate entities with great respect.

¹⁹ See 12 U.S.C. §§ 371c & 371c-1; E.U. Conglomerate Directive: Directive 2002/87/EC of the European Parliament and of the Council of 16 December 2002 on the supplementary supervision of credit institutions, insurance undertakings, and investment firms in a financial conglomerate and amending Council Directives 73/239/EEC, 79/267/EEC, 92/49/EEC, 92/96/EEC, 93/6/EEC and 93/22/EEC, and Directives 98/78/EC and 2000/12/EC of the European Parliament and of the Council 2003 O.J. (L 35/1).

²⁰ *In re* Owens-Corning, 419 F.3d 195, 215 (3d Cir. 2005) (Ambro, J.)

Yet megabanks continue to use these affiliated structures, for several reasons.²¹ First, regulators sometimes force them to. A good example of this is the separation between banking and securities underwriting/dealing. This is near mandatory in U.S. law,²² but rare in Europe. Second (although first in the hearts of corporate lawyers) is tax avoidance. Tax avoidance does not increase welfare; credit impairment decreases welfare. Third, securitization relies on separate entities. Fourth, insurance insolvency law is incompatible with other insolvency law. This requires that the insurance business of a firm be in a separate subsidiary. Fifth, insurance companies do not care as much about credit as they care about tail risk. For them, separate subsidiaries reduce tail risk at a reasonable cost to credit. Other reasons doubtless exist—some good and some bad.

Entity proliferation certainly complicates insolvency law. But good or bad, it is a fact. Megabanks are complex and highly interconnected conglomerates. Any megabank resolution scheme must deal with this.

2.2 The Peculiar Ecology of Megabanks

We now turn to a few attributes of megabanks that do not show on their balance sheets, yet do affect their insolvency. First, megabanks have little specific human capital. High-paid individuals and teams can run from the megabank almost as quickly as deposits can. Second, megabanks are interconnected. Third, most megabanks are international, spread across many legal regimes.

The Human Factor

All banks are subject to a run on their liabilities. Megabanks are subject to a run on their personnel.

Most megabanks contain many high-paid sales and trading personnel who are not management: investment bankers,

²¹ Thomas C. Baxter, Jr. & Joseph H. Sommer, *Breaking Up Is Hard to Do: An Essay on Cross-Border Challenges in Resolving Financial Groups*, in *SYSTEMIC FINANCIAL CRISES: RESOLVING LARGE BANK INSOLVENCIES* 175 (Federal Reserve Bank of Chicago 2005); Richard Herring & Jacopo Marcassi, *The Corporate Structure of International Financial Conglomerates: Complexity and Its Implications for Safety and Soundness*, in *THE OXFORD HANDBOOK OF BANKING* (Allen N. Berg, Philip Molyneux & John O. S. Wilson, eds.) (Oxford 2012).

²² The few remaining shards of the Glass-Steagall Act still restrict the equities activities of national banks. But perhaps more significant these days are the Securities and Exchange Commission's capital requirements, which would be prohibitive if applied to a bank's balance sheet.

traders, quantitative analysts. The work that they do is directly linked to the profitability of the firm, so the profit of a business unit or subunit is a reasonable proxy for their performance—and thus their pay. Because these personnel face outward, the top performers have a reputation throughout the industry. This reputation adheres to them (or their team), more than it does the bank that employs them. In other words, they have very little firm-specific human capital: much like superstar athletes or scholars.

Since these personnel have weak ties to their firms, they can easily leave for another megabank. Megabanks are aware of this, and seek to hold their stars with deferred pay packages. However, these packages contain credit or market risk, and are less credible if a megabank appears weak. Hence, if a megabank appears weak, its successful high-paid teams tend to go elsewhere. This run on human capital can parallel a run on more conventional parts of the balance sheet.

Interconnectedness and Systemic Risk

Megabanks are highly interconnected. This implies that a weakness in one megabank can become a weakness in all. The mechanism is unimportant. It could be a pure panic attack, with bad news for one bank imputed to all. Or perhaps a markdown of an asset class by one bank triggers markdowns by all. Or an industry-wide hedging model goes south. Or perhaps one megabank's liabilities are others' assets. Or perhaps a clearinghouse goes bad, blocking liquidity. Leverage and liquidity stress seem to be important.

To make matters worse, the asset side also becomes illiquid in times of general stress. (I make no claims of causal direction here.) Therefore, asset liquidity dries up precisely when a megabank most needs this liquidity. Tradable assets are not naturally liquid; they are only liquid because of legal rules and market conventions. Market liquidity is at best factitious. In times of stress, it may become fictitious.

Megabanks, like any other bank, are subject to runs on their liabilities. Bank transaction deposits are liquid by design: always susceptible to a run.²³ Some megabank liabilities, such as commercial paper or repo, expire very quickly and are also liquid. Bank derivative liabilities are ordinarily illiquid, because derivative contracts commonly remain outstanding for years at a time. However, this illiquidity is illusory; most derivative contracts have hair-trigger closeout provisions, and also demand constant collateral calls. When the bank is under

²³ Douglas W. Diamond & Philip H. Dybvig, *Bank Runs, Deposit Insurance, and Liquidity*, 91 J. POL. ECON. 401 (1983).

stress, the closeout provisions loom large, and the collateral calls generally create greater demands on liquidity.

The mechanism is not important: only the results. Banks are interconnected. Chain-reaction illiquidity or insolvency is possible: the systemic risk boogeyman. Systemic risk events are not common, and seldom trace back to a single cause. But they are frightening. We need not know the etiology of systemic risk—its consequences are enough.

With all this being said, systemic risk events are not the norm, even for megabank insolvency. Megabanks can usually ride out times of financial stress: for example, the 1997 Asian financial crisis, or the 1987 stock market break. Conversely, financial firms often collapse in isolation, even large firms. They still go down quickly, but they go down smoothly. Enron is one example; others are Barings Bank, Drexel Burnham Lambert, Refco, MF Global, and Amaranth Advisors. Some of these firms' failures created stress (Drexel, Barings); others did not (Refco, Enron, Amaranth, MF Global.) These firms mostly went down in relatively good times, often from some kind of fraud. Systemic risk is reserved for times of extreme market stress. But systemic risk inheres in the balance sheets and business practices of megabanks.

Internationality

As a stylized fact, most megabanks are international. There are, of course, some exceptions, but internationality is the norm.

The insolvency of international firms is more complex than that of domestic firms. Cross-border insolvency may entail multiple and competing insolvency administrations of a firm. Each administrator uses its own law to conduct the proceeding (*lex concursus*), although it usually defers to the relevant local law governing assets and liabilities. *Lex concursus* includes process, avoidances, priorities, conflicts of law, and any stays. Setoff and netting may be *lex concursus*, or may be local law.

The basic unit of responsibility is the entity. The emerging norm is that of a central administrator, with other jurisdictions in a supporting role. These other jurisdictions conduct “ancillary proceedings” that assist the main proceeding. In a liquidation, the ancillary proceeding collects assets and distributes them to the central receiver for distribution. In a reorganization, the ancillary jurisdiction enforces the stay and does whatever asset collections are necessary. This cooperation requires a consensus on roles. Who runs the central proceeding? Who assumes the

ancillary role? This consensus is codified in an international instrument: a model law.²⁴

But this norm is limited to entity insolvency. Cooperation on conglomerates is more informal, and not nearly as effective, since the entity is the basic unit of insolvency law. Jurisdictions are not likely to cede their primacy on their local entities. However, most cross-border conglomerate insolvencies still work themselves out, albeit awkwardly and inefficiently. There are some incentives for cooperation. The assets of ordinary firms are typically firm-specific: the justification for the automatic stay. Local liquidations will destroy value, and the automatic stay buys time for cooperation. Industrial insolvencies are common, and large firms are spread over the globe. This supports a norm of reciprocity. A jurisdiction may agree to a subordinate role now, in return for a central role later.

The incentives for cooperation are far weaker in financial firm insolvencies. Financial insolvencies (especially major ones) are more rare, and asset specificity less intense. As we shall see below, parochial regulators weaken these incentives even more. Not only are incentives for cooperation weaker: cooperation is more difficult. To preserve liquidity and confidence, megabank resolutions must be very fast. Certain parts of them are over with almost before they start. And furthermore, megabank insolvencies give very little warning. Cooperation, then, must be *ex ante*. For sovereigns, this is much more difficult than *ex post* cooperation. It involves ceding sovereignty, rather than extending comity.

There is a final problem. International banks, unlike most international firms, tend to use branches rather than subsidiaries. (The bank is typically branched; the rest of the megabank is typically compartmentalized by national subsidiary.) This tends to complicate insolvency law. There is no international consensus on the insolvency of cross-border bank entities.²⁵ Indeed, the Model Law has an express carve-out for bank insolvency. Some jurisdictions (such as the United States) treat branches as if they were separate local juridical entities. Most claim to subject them to conventional ancillary proceedings—at least in theory.

²⁴ UNCITRAL Model Law on Cross-Border Insolvency, 36 I.L.M. 1386 (1997). The United States adopted this model law in 2005 as Chapter 15 of the Bankruptcy Code.

²⁵ See *infra* notes 31-35 and accompanying text.

2.3 Prudential Supervision

It is impossible to understand financial insolvency law without understanding something about bank supervision. Here we talk about two things: the role of supervisors in ordinary times, and their role and behavior in the neighborhood of insolvency.

What Do Supervisors Do?

Most office workers have a difficult time explaining their jobs to their children. Financial supervisors have it worse—they have a difficult time explaining their job to adults. Here I will try to explain it to you—at least enough to understand their role in financial insolvency.

Any discussion of financial supervision must begin with the distinction between supervision and financial regulation. This distinction is often a fine one, because the same agencies often do both. So let me clarify my terms. Henceforth, I will use “supervision” and “regulation” as if they were distinct categories. A “supervisor” is a person or agency who performs supervision. “Regulator” is an ambiguous term, at least in natural language. I shall respect nature, and use it to refer to the persons or agencies that supervise and/or regulate, with the function left to context.

Financial regulation applies conventional regulatory techniques to financial firms. These techniques are part of the rule-of-law enterprise. A regulator promulgates and enforces rules, and often issues licenses. Rule promulgation is a mixture of policy, prudence, and authority: a mini-legislative function. The product is a rule that has force of law. Licensing can be a more discretionary activity. Nevertheless, it involves some kind of process defined by legal rules and generally subject to judicial review.

Supervision, in contrast, fills a gap somewhere between business and law. Supervisors are invested with legal powers: the power to collect information and typically some enforcement power.²⁶ But law enforcement is only secondary to what they do. Instead, they try to ensure that a financial firm is well run: with good operations, good risk management, good compliance, good management, and a good business plan. This task resembles many other roles, but not the same as any of them. One could view supervisors as agents of the financial firm’s creditors, with a bias toward safe over profitable operation. (Remember that the creditors of financial firms are typically disperse and weak.) Or maybe

²⁶ For the legal status of the examination function, see *Cuomo v. Clearing House Ass’n*, 557 U.S. 519 (2009).

supervisors resemble agents of top management, ensuring compliance with internal policies. Or perhaps a kind of auditor: an independent line of reporting to the board of directors, assessing the effectiveness of top management. Or perhaps supervisors are the bankers’ answer to the agricultural extension service: ensuring that the best practices of good banks spread to the others.

We have two take-home lessons here. The first is that supervisors know quite a bit about banks, which suggests a role in insolvency law. The second is that supervisors traditionally felt protective of the creditors of the firms they supervised. Nowadays, they also seek to protect the financial system as a whole.

How Do Supervisors Behave in the Zone of Insolvency?

As a general rule of corporate finance, the creditors of a firm become increasingly powerful as a firm approaches insolvency.²⁷ However, financial firms are different, because they do not have powerful creditors. The creditors of banks and insurers are widely dispersed, and not in the business of lending money. (This is inherent in the definition of “financial liability.”) They have no covenants that can enable a governance role. Derivatives creditors are less widely dispersed and are professionals. However, derivatives credit exposures are typically collateralized and enjoy favorable insolvency treatment. Derivatives creditors therefore have little incentive to govern.²⁸

The firm’s supervisor typically steps into the gap and is the contingent control party. It becomes more active as the firm’s prospects decline: something formalized in the “Prompt Corrective Action” system, linked to the bank’s capital position.²⁹ In the United States, the supervisor is not the creditor of the bank, unless it is the FDIC, which is subrogated to depositors’ claims. But the supervisor, in whatever jurisdiction, plays the traditional strong creditor role: exerting increasing control over weaker banks. If not a strong creditor itself, the supervisor might be the strong agent of the weak creditors.

Supervisors’ active role with weak financial firms extends to the insolvency of financial firms. Almost invariably, the supervisor has the right to initiate the insolvency procedure.

²⁷ OLIVER HART, *FIRMS, CONTRACTS, AND FINANCIAL STRUCTURE* (1995).

²⁸ Cf. Mark J. Roe, *The Derivatives Players’ Payment Priorities as Financial Crisis Accelerator*, 63 *STAN. L. REV.* 539 (2011).

²⁹ 12 U.S.C. §§ 1831o, 5366.

This pattern is an international one, at least for banks.³⁰ The right of initiation tends to be exclusive in the United States, but is superimposed on ordinary process elsewhere.

In the United States, the role of supervisors goes even further, to the administration of insolvency. They are logical choices for this role. As supervisors, they know about the firm and know the firm's business. However, supervisory administration is not universal. In U.S. banking law, the FDIC, uninsured bank regulators, and state insurance supervisors all administer insolvencies. Securities firm insolvencies are typically administered by the Securities Investor Protection Corporation: an agency with no supervisory role. Overseas, supervisory administration is even less common.

This strong creditor role creates problems for international supervision. Supervisors are national actors, with national incentives. As Ernest Patrikis once put it:³¹

When faced with the prospect of bankruptcy at a multinational bank, it is the solemn duty of each bank supervisor to do all that can possibly be done to ensure that the adverse financial effects fall on no customer or counterparty of the bank. But failing that, they should fall in another jurisdiction.

Because supervisors are national, they take a partial view: particularly host-country supervisors. They want to protect customers of the host entity and are not inclined to sacrifice their wards to global interests. This affects their supervision of troubled firms and insolvency law. Effective supervisors prefer to supervise and liquidate their local branches as if these branches were separate juridical entities. The branches of effective supervisors will pay their creditors (defined by territory, not nationality) in full. This preference may be inefficient (at least *ex post*), and even unfair, according to the equal treatment norm. But strong local supervisors are more interested in the welfare of the creditors of their firms than they are interested in a globally efficient proceeding.

This policy is codified into U.S. banking law, which treats the insolvent local branches of foreign banks as if they were separate juridical entities.³² International insolvency standards acknowledge this approach. The UNCITRAL Model Law—

³⁰ HÜPKES, *supra* note 4, at 80. Hüpkes' study was limited to the United States, Canada, and E.U. jurisdictions, but I believe that the conclusion applies almost anywhere.

³¹ GROUP OF THIRTY, INTERNATIONAL INSOLVENCIES IN THE FINANCIAL SECTOR 84 (1998).

³² See 12 U.S.C. § 3106(j); N.Y. Banking L. § 606. The federal and other state statutes are modeled after the New York statute.

which favors integrated proceedings—exempts financial entities.³³ Even where not codified in law, it is often part of practice. The United Kingdom is ordinarily a devout believer in cooperative insolvency. This belief did not apply to the insolvency of the Icelandic banks (which had U.K. branches) or the administration of the London brokerage of Lehman Brothers. The E.U. Recovery and Resolution Directive aspires to collective action within the European Union. However, it retains a local resolution option for local supervisors who dislike collective action.³⁴

This policy interferes with megabank insolvency. As stated above, megabanks—despite their complex structure and international operations—are tightly integrated firms. But when megabanks get weak, supervisors work for the creditors of the entities they supervise. Aggressive local supervisors will move assets to their jurisdictions or liabilities from their jurisdiction, thus making home country resolution more difficult.³⁵ Home and host-country supervisors become less cooperative, precisely when cooperation is most needed. If it comes down to insolvency, they may become territorial. These foreign jurisdictions, if successful in grabbing enough assets, have no incentive to do anything but liquidate, destroying value.

2.4 Summary

Things look grim for megabank insolvency. As complex international conglomerate firms, megabanks seem doomed to piecemeal competitive procedures: the worst kind. Their key personnel are likely to run, along with their liquid liabilities. Both assets and financial liabilities are likely to be impaired by any insolvency process—assuming that they can be sorted out across affiliate lines. Small asset impairments in these highly leveraged organizations translate to large equity impairments. All this without even bothering to invoke the boogymen of interconnectedness and systemic risk!

Fortunately, the cavalry is coming.

³³ 36 I.L.M., *supra* note 24, at 1389 art. 1(2).

³⁴ See Article 83(6), 83a(4) (local E.U. authorities may go their own way if they articulate a reasoned dissent to their fellow E.U. authorities.) This right is even more explicit with non-E.U. insolvency authorities. See Articles 86-87. This document is still in preparation. A recent draft can be found at <http://register.consilium.europa.eu/pdf/en/13/st11/st11148-re01.en13.pdf> (last visited Aug. 26, 2013.)

³⁵ Baxter *et al.*, *supra* note 4, at 77.

3. BAIL-IN

It is time to answer the two questions I posed at the beginning. Why do bank regulators like bail-in? And why do they dislike other modes of resolution? We start with bail-in: the topic of this section.

To analyze bail-in, we must describe it. But which bail-in to describe? Bail-in is a work in progress, not tested law like the Code. The FDIC is working on its “single point of entry” concept. But the FDIC has not released all the details yet, so I will take the do-it-yourself approach. The first subsection is an idealized description of one possible bail-in scheme, inspired by the theory of Section 2 and some imagination. The second subsection puts this description in a broader context and engenders a bit more theory. Finally, I will look at the FDIC’s current plans.

3.1 The Mechanics of Bail-In

Bail-in is a stripped-down form of reorganization³⁶ working at warp speed. As we have seen, financial liabilities lose additional value if reorganized to other debt. But other liabilities only lose net present value: let us call them “bonded debt.” Bail-in subordinates bonded debt and reorganizes only it into equity—mostly overnight. If there is enough bonded debt, the financial liabilities are untouched: ordinal and temporal priority. The bail-in process should create a well-capitalized firm the next morning, before the financial liabilities have had a chance to run. The hope is that this process works as smoothly as a recapitalization with government money—with no government money at risk. The bonded debt bails out the financial liabilities: hence the sobriquet “bail-in.”

I have just been a bit too glib. Debt subordination is an old trick in financial insolvency law,³⁷ but it is not enough. “Subordination” is an entity concept. Megabanks are conglomerates, not unitary entities. How, then, to instantly reorganize the nonfinancial debt of conglomerates, without touching the financial debt? Such debt might exist in many

³⁶ See *supra* note 12.

³⁷ Insurance policies are priority debts in insurance law. Bank insolvency law has inconsistent priority rules. Compare *Jennings v. U.S. Fidel. & Guar. Co.*, 294 U.S. 216 (1935) (priority debts abhorrent to the National Bank Act); 12 U.S.C. § 5390(b) (priorities in Dodd-Frank Act which do not privilege financial liabilities) with 12 U.S.C. § 1821(d)(11) (depositor priority); UCC § 4-216 (priority for checks in collection); *Merrill Lynch Mortgage Capital, Inc. v. Federal Deposit Insurance Corp.*, 293 F.Supp.2d 98 (D.D.C. 2003) (priority for special deposits).

entities, in many jurisdictions. The creditors might be affiliates. Overnight reorganization of such debt requires a tremendous amount of information and jurisdictional coordination. This task is an impossible one.

Fortunately, this is not the task of bail-in. By a stroke of luck, the Bank Holding Company Act encourages the parent entity of a financial firm to be pretty much a pure holding company.³⁸ *This means that the parent entity does not rely on financial liabilities.* Furthermore, the parent is the cheapest source of funding in the organization. Therefore, the parent can downstream this cheap debt to the subsidiaries.³⁹ *This means that the third-party liabilities of the subsidiaries are mostly financial.* Because of limited liability, the debt of the parent is “structurally subordinated” to the debt of its subsidiaries. The creditors of a solvent subsidiary are paid in full, even if the parent is insolvent. And finally, a parent reorganization involves only one entity. Only one jurisdiction is responsible for the parent’s insolvency: one set of rules, one set of acts, and one set of incentives. International insolvency law works better for single entities than conglomerates.

This all looks a bit too pat. The problem of megabank insolvency is too hard, and bail-in seems too easy. Let us slow down and look at the details of bail-in, starting with its sequence.

The Sequence

Bail-in begins before it begins. The regulator must prepare for the bail-in well in advance. There are two pre-initiation processes: fast and slow. The slow process is one of discourse with clearinghouses and foreign regulators. The goal is not agreement, but the formation of reciprocal expectations. The clearinghouses and foreign regulators expect the parent regulator to rescue all relevant subsidiaries, at the expense of the parent. The parent’s regulator expects cooperation in return. These expectations are not mutual obligations. There are no obligations until the parent regulator decides to rescue the subsidiaries. Only then do the reciprocal expectations crystallize into reciprocal obligations.

³⁸ 12 U.S.C. § 1841 *et seq.* The holding company can do anything that its nonbank subsidiaries can do, so financial liabilities are possible. However, there is no need to keep these liabilities in the parent. They are not very common in practice and can be moved out of the parent without much cost. This trick—limiting parents to nonfinancial liabilities—does not work for all jurisdictions, some of which have the bank as a top-tier parent. Such jurisdictions must rely on explicit subordination, whether by priority or contract.

³⁹ The bank subsidiary is an exception to this, since it, too, is a cheap source of funding. However, Sections 23A and 23B of the Federal Reserve Act restrict the bank’s ability to fund its affiliates. 12 U.S.C. §§ 371c, 371c-1.

The fast process is fast indeed: days or even hours, if necessary. At this point, we shall call the official actor the “receiver,” likely the regulator in another guise. The receiver must assess the situation as best it can and make two key decisions: whether to support the subsidiaries, and the amount of the debt haircut at the parent level. The receiver will probably want to recapitalize all subsidiaries. (There are complexities to this, discussed below.)

Initiation has four immediate consequences. First, the receiver’s second decision becomes action. The receiver selects parent debt. In doing so, it climbs up the liability stack as far as it needs: certainly equity and preferred stock, then subordinated debt on up to senior debt, if needed. Each class but one is either untouched or fully selected. One class may be partially selected: the one sandwiched between the untouched and fully converted classes. Any unselected debt is paid according to contract. The selected debt becomes new equity, to be distributed later. The result is a parent with much less debt, and substantial equity. The proper debt-equity conversion is the most difficult decision that the regulator must make. Too small a conversion, and the reorganization will not be credible. An overlarge conversion unnecessarily disrupts creditor expectations. (The risks are asymmetric.)

The second consequence of initiation is that the receiver can (but need not) exercise classical receiver powers for some time. It may replace management (if necessary), do some early transactions, and possibly alter the governance of the firm. The active part of the receivership could be over as soon as reliable private governance is in place: a few weeks. Or it could persist longer.

The third consequence of initiation is an automatic *ipso facto* provision that invalidates cross-default clauses keyed to the parent. Since the subsidiaries will likely be solvent in bail-in (see below), any invocation of these cross-default clauses would be opportunistic behavior of counterparties. Enforcement of this stay requires some measure of cross-border cooperation: either through harmonized insolvency law, or changes in industry-standard documentation, or changes in regulation.

The fourth consequence of initiation is the recapitalization of the subsidiaries, probably by debt relief. The parent can afford to relieve its subsidiaries’ debt, because it has very little debt service itself. Presto! All affiliates that relied on parental funding are now reasonably capitalized. There will probably not be much private liquidity in times of stress, even though the bail-in creates an extremely well capitalized megabank. However, government liquidity to the parent will serve temporarily and can also recapitalize any subsidiaries that did not rely on parental credit. There is not much risk in lending to the now-well-capitalized parent.

The fast work is all done. Only one operation on the balance sheet remains, but this takes some time. Who gets the new equity? It is operationally easy to relegate debt to equity—just name a number. This number can be arbitrary, if the process respects debt priority. True, the relegated debt holders lose their old debt. But they are compensated in new equity. As long as debt priority is respected, the aggregate value of the new equity should have precisely the same value as the old debt aggregate. This is true notwithstanding the amount of relegated debt.

The problem, of course, is that only the *aggregate* value is preserved. There will likely be several classes of claimant, each insisting that it is entitled to plenty of new equity. These claims are harder to resolve. Any resolution would require some rules and a few months of time. They may require the imprimatur of an Article III court, or at least plenary review by an Article III court.⁴⁰ The entire process of equity distribution would have to do the following:

Handle claims. Most of this is fast and mechanical, as the claims will typically be those of bondholders. Therefore, the process is simply that of identifying bondholders and their assignees.

Compute new equity to the claimants. This is not mechanical. Even the simplest form is complex: valuation of the firm, and equity distribution following the priority ladder of claims. The Code follows another path: a negotiation process that culminates in a plan. Such a process gives more voice to claimants and thus may be more legitimate than a judicial valuation. However, it encourages strategic claimant behavior, runs the risk of delay, and requires judicial review.⁴¹ Note that a bail-in negotiation process would be more limited than the one in the Code. The Code negotiation process chooses which debt to impair, as well as the conversion of impaired debt to equity. In contrast, bail-in impairs parent debt at the very beginning of the process, to create confidence at the subsidiary level.

Distribute new equity to the claimants. This is relatively mechanical, but time-consuming. The distribution itself is fast enough, but the antecedent securities law disclosures take time.

This process could be compressed into a few months, with appropriate procedures. Time is significant, but not of the essence. This process has a limited role: who gets

⁴⁰ *United States v. Raddatz*, 447 U.S. 667 (1980).

⁴¹ There is a third way: giving junior classes an option to buy out the senior classes at face value. See, e.g., Lucian Bebchuk, *A New Approach to Corporate Reorganizations*, 101 HARV. L. REV. 775 (1988); Philippe Aghion, Oliver Hart & John Moore, *The Economics of Bankruptcy Reform*, 8 J.L. ECON. & ORG. 523 (1992). However, this approach presumes a working capital market, which is unlikely during a financial crisis.

TABLE 1

Timeline of the Integrated Bail-In Process

| Prior Steps | | Bail-In | | | Restructuring |
|--|--|-------------------------------|-------------------|--------------------------------|-----------------------------------|
| Years | Days | Overnight | Days to Weeks | Months | Long Term |
| <i>Talk to:</i> Foreign regulators, clearinghouses | Value firm | Debt to equity | Liquidity support | Restructure business | Restructure business |
| | <i>Deal with:</i> Foreign regulators, clearinghouses | Subsidiary debt swap | New governance | Access to public liquidity | Add parent debt or shrink bank |
| | | Receiver takes over | | New securities registration | Pay dividends |
| | | <i>Ipsa facto</i> relief | | New securities distribution | |
| | | Foreign regulator approval | | Receivership ends | |

Source: Tabular summary of text.

how many shares in the reborn enterprise. This role is especially limited because the market for corporate control of financial firms is a tightly regulated one that favors widely distributed shareholdings.

This is the only slow part of bail-in. The rest is fast. Financial liabilities are unaffected, and the firm's operations are unscathed.

The distribution of equity is the end of the legal process, but not the end. The reorganized bank will have a strong balance sheet, but may not have a strong business. The megabank probably became troubled in the first place because its operations were insufficiently profitable, or perhaps too risky. The megabank will have to shed its bad operations. This is not a primary task for the bail-in, which apart from installing new management and maybe governance, works mostly on the balance sheet. Rather, it is a task for the restructuring stage, although there will be some overlap with the earlier process. A timeline of the integrated bail-in process is shown in Table 1.

Bail-in requires two things to succeed in full. First, there must be enough debt at the parent to credibly fill the consolidated capital shortfall, and the receiver must be willing to haircut it accordingly. This requires regulation, as discussed below. Second, bail-in must inspire confidence. For this, adequate capital is necessary, but not sufficient. A sufficient liquidity backstop is also necessary, as is the cooperation of foreign regulators. But even these are not sufficient. An adequately capitalized firm might still not engender enough confidence to survive as a going concern.

However, even such a failure would be a success. The firm will still survive as an orderly liquidating organization, if not as a business unit. The liquidity backstop assures that it will not need to dump its assets on the market. Such a failure will internalize credit risk on the bondholders, and not destroy asset or liability values.

The Guarantee Problem

Guarantees pose a technical problem for bail-in. Guarantees, for our purposes, include anything that pierces the corporate veil of affiliates: straight guarantees, collateral, or keep-well agreements, for instance. The guarantee can run from parent to subsidiary, or cross-stream, or even upstream. This definition does not include guarantees of unaffiliated organizations.

Guarantees preclude the receiver's option to abandon a subsidiary. A guaranteed subsidiary is welded to its guarantor. This sounds like little loss; bail-in will usually recapitalize all the subsidiaries. However, this is the *ex post* fallacy: ignoring incentives. The option of abandoning a subsidiary is credit risk for its creditors and regulators. This risk is an incentive to monitor subsidiaries.⁴² An ideal bail-in would be time-inconsistent: *ex ante* putting the subsidiaries at risk and *ex post* bailing them out. Time-inconsistent

⁴² Cf. Baxter *et al.*, *supra* note 4 (context of branching: the rationale for territorial branch liquidations); Roe, *supra* note 28 (derivatives).

policies do not work in a frictionless world. But frictions exist aplenty: notably uncertainty about regulatory action and the credit risk aversion of financial product counterparties.

If the receiver does not have the *ex post* option to abandon a subsidiary, the parent regulator has no *ex ante* bargaining position with foreign regulators. In other words, foreign regulators will have less incentive to cooperate with parent regulators, because they know that their local subsidiary will leave no creditor behind. This is not an insolvency problem. Instead, it is a regulatory problem, encouraging local regulators—who have local knowledge and power—to free ride off the parent regulator, who does not.

This analysis of guarantees is incomplete, and at most establishes a *prima facie* case. But it is enough to serve my purpose. Guarantees are a significant issue in bail-in, and one without an easy solution.

If regulation of guarantees is useful, the bail-in process itself can regulate, by subordinating parental guarantees. A subordinated guarantee remains fully effective against a healthy parent. It therefore assures subsidiary creditors that the healthy parent will not walk away from the subsidiary. But subordinated guarantees do not protect the subsidiaries of an insolvent parent. Therefore, subordinated guarantees preserve the receiver's freedom of action in the event of insolvency.

The Regulations

Bail-in assumes a bank supervisory process, *e.g.*, monitoring a weakening business and restructuring the bailed-in firm. Bail-in also requires some adjunct regulation. Fortunately, this regulation is neither extensive in scope nor difficult to draft:

Mandatory debt. Bail-in requires an adequate level of parental debt: enough to recapitalize the largest foreseeable shortfall. Market forces may not provide enough of such debt, since firms may prefer to issue liabilities through the subsidiaries, as profitable financial products. This argues for minimum mandatory debt at the parental level.⁴³ A mandatory debt regulation is easy to draft and comply with. The amount of debt could key off Basel risk-weighted methodology or the value of the financial liabilities, held by third parties with the subsidiaries.

Cross-affiliate guarantee. The insolvency process can subordinate parental guarantees, but it cannot affect

⁴³ Such mandatory parent debt is current regulatory policy, although not yet implemented. <http://federalreserve.gov/newsevents/speech/tarullo20131018a.htm> (last visited November 12, 2013.) For a more sophisticated argument, see James McAndrews, Donald P. Morgan, João Santos & Tanju Yorulmazer, *What Makes Large Bank Failures So Messy and What to Do about It?*, 20 FRBNY ECON. POL. REV., 229 (2014).

cross-affiliate guarantees, because bail-in will put few, if any, subsidiaries into insolvency. A holding company might be tempted to use these guarantees to deny the receiver the ability to abandon a particular subsidiary.⁴⁴ Similar to guarantees are other close relationships, such as service agreements, cross-stream debt, common names, and the like.

This problem is not a fatal one, but it is not easy to fix in insolvency law. It suggests a regulatory approach.

Claims trading. Valuation is one of the slower parts of bail-in. During its pendency, the ultimate value of the claims will be uncertain. This valuation uncertainty is likely to create an active market in claims, along with the invariable portfolio repositioning of debt-holders who may not (want to) hold equity. There is nothing wrong with this; it is part of every modern Code reorganization.

However, this trading is likely to concentrate the claims, which will concentrate the ultimate equity holdings. U.S. bank regulation is chary of concentrated equity holdings. A concentrated equity holder might itself become a bank holding company, which is illegal without a license.⁴⁵ There will probably be some need to reconcile the claims trading process with the ownership limitations of the Bank Holding Company Act.

Parent liabilities. Bail-in works best when the parent has no financial liabilities. This might imply some reinterpretation of the Bank Holding Company Act, to prohibit the few financial liabilities that a modern holding company parent might have. It might go a bit further. Some nonfinancial liabilities are typically subject to a CVO (*e.g.*, trade credit) or a bankruptcy priority, such as employee compensation. From the perspective of bail-in, the best holding company is a pure shell, without any operations or even a building lease or telephone bill.

3.2 The Meaning of Bail-In

Now that we have discussed the mechanics of bail-in, it is time to put this technique into context, with three brief essays. I shall first discuss why this technique works. I then discuss the implications of bail-in for the notion of bank capital. I conclude with a few words on the limits of this technique.

⁴⁴ See *supra* text accompanying note 42.

⁴⁵ 12 U.S.C. §§ 1844(a), 1847.

TABLE 2

Balance Sheet Data of Selected Large Banks in 2006

| | Consolidated Liabilities (L) (Trillions of dollars) | Equity (E) (Trillions of dollars) | Long Liabilities (LL) (Trillions of dollars) | E/L (Percent) | LL/E (Percent) | LL/L (Percent) | (LL+E)/L (Percent) |
|-----------------|--|--------------------------------------|---|------------------|-------------------|-------------------|-----------------------|
| JPMorgan Chase | 1.24 | 116 | 145 | 9.4 | 1.25 | 11.7 | 21.0 |
| Lehman Brothers | 0.53 | 18 | 82 | 3.4 | 4.55 | 15.5 | 18.8 |
| Citibank | 1.88 | 119 | 290 | 6.3 | 2.44 | 10.1 | 16.4 |
| Goldman Sachs | 0.80 | 34 | 126 | 4.2 | 3.71 | 15.8 | 20.0 |

Source: Securities and Exchange Commission Form 10-K consolidated balance sheets filed in 2007.

Notes: The long-term debt is consolidated, and thus may count long-term third-party debt at the subsidiaries. However, most of this subsidiary debt (if it exists) can be cheaply moved to the parent, so it is useful for bail-in. I would dearly love to argue that Table 2 proves that the 2006 levels of long-term debt were sufficient to avert the disaster of 2008, if only bail-in had been around. I am not certain that this is true.

Why Bail-In Works

Parent-level bail-in is quick and simple, compared with the alternatives. Since everything happens at the parent level, the complexity of the conglomerate matters little, if subsidiaries are safe and everybody cooperates. Parent-level bail-in is strongest at the crisis stage—the beginning. Compared with the alternatives, it economizes on information, planning, and implementation when time is short and the stakes are high. The early stages of bail-in are operationally tractable, even with the time constraints. The debt haircut may be a difficult judgment call, but is operationally easy. The subsidiary debt forgiveness and liquidity provision are conceptually simple, and operationally straightforward. With some luck, they can restore confidence in the firm, preserving its going-concern value. At worst, bail-in creates an orderly liquidation.

International cooperation is the most complex of the early steps. But fortunately, the scope of the cooperation is limited. The foreign regulator must keep its subsidiaries out of local insolvency proceedings, perhaps provide liquidity, and discourage declarations of default. Clearinghouses must not close their members out. Fortunately, bail-in aligns the cross-border incentives, at least if all the subsidiaries are safe. For the foreign regulators, bail-in shifts all the pain to the home country, at least if we assume that foreign regulators care no more about their bondholders than they do about domestic bondholders in nonfinancial firms. The home country also wants bail-in, because it is likeliest to preserve the financial firm.

The process creates few perverse incentives, because the parent creditors cannot expect the public to assume their

credit risk. It does not concentrate the industry further. It may encourage a shift of liabilities to the subsidiary. But the fix for this is easy: mandatory debt at the parent level. It may encourage inappropriate downstream and cross-stream guarantees, but there are fixes to this, too.⁴⁶ There will be some tail risk. But this is not a significant problem. There is plenty of bail-in ammunition in most large banks' balance sheets, and the banks can afford it. As Table 2 shows, there is nothing unnatural about the kind of balance sheet that supports bail-in. Most large banks in 2006 had substantially more long-term liabilities than equity capital. And these liabilities *understate* the bail-in-able debt, because the parent also had substantial short-term liabilities.

The New Meaning of Capital

Our core insight is that only financial firms have financial liabilities. Bail-in succeeds because it subordinates and separates the nonfinancial liabilities from the financial liabilities. This transforms our understanding of bank capital.

Capital regulation presupposes that junior liabilities should protect senior liabilities. This makes no sense in ordinary corporate finance theory, because nobody needs protection. Every voluntary investor assumes its risk, compensated by the pricing and contractual terms it bargained for.

⁴⁶ See *supra* text accompanying notes 42-44.

Why protect it from its bargain? (We ignore nonadjusting creditors and strategic behavior.) But this article does not use ordinary corporate finance theory. This article extends corporate finance theory to include financial products as well as ordinary debt, held for investment. Holders of financial products lose more in insolvency than the net present value of the difference between their claim and their share. An efficient contract gives them priority regardless of their bargain, averting deadweight loss.

Bail-in transforms the meaning of capital. In bail-in, parental debt does exactly the same thing as equity: it protects financial liabilities from a degradation of value. If this is the function of capital, we may conclude that *with bail-in, all nonfinancial liabilities are capital!* It also means that in a bail-in regime, megabanks currently hold much more capital than we thought they did.⁴⁷ But with poor insolvency law, there is no access to it.

Not all capital is created equal. But it is hard to say which forms of capital are better. Debt might provide better protection than equity. It is easier to measure. It disciplines management,⁴⁸ especially if continuously issued. From a supervisor's perspective, it provides superior information to equity. The price of debt reflects only downside risk: the supervisor's main concern. Finally, a debt-heavy structure ensures plenty of bail-in ammunition.⁴⁹

Proponents of equity structures have their argument, too. Inadequate equity encourages excessive risk-taking.⁵⁰ Also, low-equity structures enter insolvency more often than high-equity structures. Insolvency is costly. The cost of insolvency argues for more equity—a lower probability of default.

The term structure of parent debt also makes a difference. Short tenors are more sensitive than long tenors, because the primary market constantly assesses them. Alternatively, long-term debt protects a firm from transient market sentiment. Banks arguably need such protection more than commercial firms, because they do not have commercial

paper backstops. Then again, banks have a fair amount of liquid assets; hence less need for something like a commercial paper backstop.

I do not seek to optimize parental debt and equity. It is enough to say that they both serve as capital in a workable bail-in regime.

Bail-In and Systemic Risk

I cannot stress the point enough: the case for bail-in does not need the systemic risk boogeyman. The boogeyman is real and scary enough, but also a rare beast. Bail-in works well for isolated megabank insolvencies, which are far more common.⁵¹ If there is enough debt in the parent, the worst result is pretty good: an orderly liquidation that does not impair financial liabilities, dissipate asset values, or put public funds at risk. And bail-in has a good chance of preserving the firm as a going concern.

Bail-in should also mitigate systemic risk. I have been agnostic on the causes and mechanisms of systemic risk,⁵² but liquidity and leverage have a lot to do with it. Bail-in eliminates the leverage problem: the bonded debt of the parent protects the subsidiaries' creditors. Liquidity support is credible. If the government can print money and does not assume substantial credit risk (bonded debt again), public liquidity has no real cost, even before public benefits are considered. Furthermore, bail-in can work as quickly as systemic risk can materialize. Since the early stages of bail-in are administratively simple, it also scales well. It can work on many firms at the same time, if necessary.

Bail-in will probably create its own stresses. A bailed-in firm will likely mark many of its assets down. These asset markdowns might force other firms to do the same, adding to the systemic risk of multiple bail-ins. However, I believe that this particular risk may be a chimera. Bail-in is scalable. It is a reorganization, needing no outside resources, apart from liquidity and regulatory attention. These resources are not scarce, at least in the United States, as we have seen in 2008. A contrarian could even argue that multiple bail-ins are less stressful than single ones. Bail-in may be stigmatizing, but multiple bail-in stigmatizes an industry, not a firm. This may decrease the risk of soft failure. Counterparties can avoid a stigmatized firm, but have a harder time avoiding a stigmatized industry.

⁴⁷ See Table 2: compare E/L column to (LL+E)/L column. This is directly contrary to the Admati-Hellwig hypothesis: that the low levels of Basel Tier I capital imply that banks are severely undercapitalized. ANAT ADMATI & MARTIN HELLWIG, *THE BANKERS' NEW CLOTHES: WHAT'S WRONG WITH BANKING AND WHAT TO DO ABOUT IT* (2013). If bail-in works as I expect it to, their apparently radical recommendation of 20-30 percent equity is pretty close to a plea for the *status quo*. The Admati-Hellwig thesis tacitly assumes that these debt liabilities are irrelevant: *i.e.*, bail-in does not work.

⁴⁸ Michael C. Jensen, *Agency Cost of Free Cash Flow, Corporate Finance, and Takeovers*, 76 AM. ECON. REV. 323 (1986).

⁴⁹ Some of these arguments are made more analytically in McAndrews *et al.*, *supra* note 43.

⁵⁰ See *supra* note 7.

⁵¹ For a short list, see *supra* Section 2.2.

⁵² See *supra* text accompanying note 23.

Limits on Bail-In

Bail-in has at least five limits: maybe a sixth if you are worried about multiple bail-ins. Here we discuss the five.

First, bail-ins can only marshal limited resources: the nonfinancial liabilities of the parent. This would have been plenty for the crisis of 2008. But it is not enough for any imaginable crisis. Since megabanks are in the business of financial liabilities, they can afford to issue only so many nonfinancial liabilities. For a sufficiently large shock, systemic risk will remain. Nor will breaking up megabanks eliminate the systemic risk problem, even with bail-in. The failure of a small bank may not endanger the system. But systemic dangers—such as asset collapses—will systemically endanger even small banks.

This is reminiscent of the catastrophic risk problem of the insurance industry. Capital markets, no matter how ingeniously organized, can only handle so much risk. Leviathan must always lurk at the far end of the risk tail. All we can do is stretch the tail a little longer, further away from our workaday world.

Bail-in must also muster another resource: governmental liquidity. With enough parental liabilities to bear the risk, governmental liquidity is a free good, at least in principle—but maybe not always in practice. Liquidity is only free if the government debt market is deep enough. This is almost certainly true in jurisdictions like the United States, where financial panics increase government liquidity, as investors rush to public debt. But, as Iceland has shown, it is possible for a jurisdiction to be smaller than its banks. Bail-in might have operational problems in such a jurisdiction.

Third, as discussed above, bail-in has a soft failure mode. Counterparties may not have enough confidence in the firm to stick with it, even if they know they will be repaid in full. If so, bail-in ceases to be a reorganization, and becomes a kind of controlled wind-down. Such a failure is a successful one: this bug is really a feature. Financial creditors get paid in full, at the expense of nonfinancial creditors. This both averts systemic risk and imposes market discipline on nonfinancial creditors. But it does destroy the business.

The fourth limit does not exist in principle, but may be a significant problem in practice. Megabanks are international firms. Bail-in requires a fair degree of *ex ante* legal harmonization and *ex post* cooperation. This is no problem in principle: both the *ex ante* and *ex post* incentives are strong, as argued above. But legal harmonization derogates from sovereignty. The history of insolvency treaties has not been a good one. *Ex post* cooperation has had some success, but cooperation is hardest in times of panic. As a political matter, can a home-country receiver promise to make good on a

massive hole in a foreign subsidiary? As an economic matter, can it afford not to? Can a host-country official (be seen to) rely on the kindness of strangers?

There are, however, some grounds for optimism. Since most of the action takes place at the parent, the necessary harmonization is narrow in scope. I can only think of two major issues (there may be more.) Creditors of the parent may seek to enforce their claims against parental assets overseas—the stock and upstream debt of the subsidiaries. And we have already mentioned, in Section 3.1, that bail-in requires that jurisdictions not enforce *ipso facto* cross-default clauses. The first problem was solved—or at least addressed—over a decade ago by recognition of main and ancillary proceedings.⁵³ If a bail-in follows the established rules of the road, the parent creditors will have no recourse outside the main proceeding. The *ipso facto* problem might also be tractable. Legal harmonization might require super-sovereignty, but banking law contains super-sovereign forces. The Basel process, for instance, encouraged enforcement of *ipso facto* clauses in derivatives contracts. The ISDA model agreement could remove or modify these clauses, and ISDA seems to have done so.

There is one other limit to the bail-in concept. It is limited to financial firms. Bail-in cannot replace the Code. Bail-in buys speed at the cost of flexibility. This speed is needed for the financial liabilities that define financial firms, but other liabilities can survive the automatic stay. Bail-in presupposes a certain corporate structure. It also presupposes prudentially regulated firms, and requires a capital regulatory scheme. It is a specialist: good for the peculiar world of financial firms, but not exportable elsewhere.

3.3 The FDIC and Bail-In

Title II of the Dodd-Frank Act empowers the FDIC to resolve financial conglomerates.⁵⁴ The FDIC formally adopted the single point of entry (SPOE) approach to implement Title II in a December 2013 release that is currently out for comment.⁵⁵ This release does not contain all the details, such as: the details of the valuation and equity distribution, or the criteria for recapitalizing subsidiaries. But the outline is good enough. SPOE is a form of bail-in at the parent. Instead of

⁵³ See *supra* text accompanying note 24. But see *supra* notes 32-34.

⁵⁴ 12 U.S.C. § 5381 *et seq.*

⁵⁵ “Resolution of Systemically Important Financial Institutions: The Single Point of Entry Strategy,” 78 Fed. Reg. 76614 (Dec. 18, 2013).

working directly on the parent entity, it uses an intermediate “bridge company.”⁵⁶ The FDIC will transfer all or most of the assets of the holding company parent to a bridge company, retaining many or all of the parent liabilities in the estate. It will then issue the stock of the bridge company to estate claimants in satisfaction of their claims. This liquidating distribution in kind is almost identical to a classical reorganization, although it entails a *de novo* entity.

Their approach should work, if there is enough debt in the parent. (This task is the Federal Reserve’s.) Bail-in requires liquidity support, but the Dodd-Frank Act provides it, through the FDIC and the Treasury.

SPOE relies on Title II, and Title II is drafted as an insolvency process of last resort. The entity must be on the eve of insolvency (defined broadly), the insolvency must have systemic consequences, and there must be no good alternative to Title II resolution. The procedural barriers are high, as well: a recommendation by the Board of Governors of the Federal Reserve System and another agency; a determination by the Secretary of the Treasury (in consultation with the President), and either approval by a district court or the acquiescence of the firm’s board of directors.

This hard trigger has its downside. Bail-in works well, even when systemic risk is not on the table. With the appropriate parental capital structure, bail-in improves the balance sheet, preserves going-concern value, does not result in concentration, and displaces poor management. Bail-in is not an inherently desperate measure. It should not be reserved for desperate times.

The hard trigger is not only too narrow; it also harms the bail-in process. The hard trigger means that there will be no SPOE practice emerging from experience in low-stakes cases. This is troublesome. “The life of the law has not been logic; it has been experience.”⁵⁷ (Chapter 11 is a good illustration of this maxim, as is the administration of the FDI Act.⁵⁸) The Title II hard trigger does not allow for experience. The FDIC will have to get it right the first time, with high stakes and no latitude for error. Fortunately, however, bail-in is a simple and robust idea. We may never get the experience with SPOE that we have with Chapter 11. But we will not need as much of it.

There is a second problem, complementary to the first. People are more confident with well-tested procedures. Bail-in may not require confidence to provide an orderly liquidation or avert systemic risk: enough capital and liquidity support should do the trick. However, it does require confidence to

⁵⁶ See *supra* note 12.

⁵⁷ OLIVER WENDELL HOLMES, JR., *THE COMMON LAW* 1 (1881).

⁵⁸ DAVID A. SKEEL, JR. *DEBT’S DOMINION: A HISTORY OF BANKRUPTCY LAW IN AMERICA* (2003). A similar history of bank insolvency has not been published.

preserve the bailed-in entity as a business concern. Such confidence relies on practice and custom: “an instinctive confidence based on use and years.”⁵⁹ This is the same confidence by which customers buy airline tickets from airlines in Chapter 11.

4. ALTERNATIVES TO BAIL-IN

This section answers the other question posed at the beginning: why are regulators unhappy with the alternatives to bail-in? It examines three alternatives: fast asset sales, Chapter 11, and private law. It concludes that they are all worse than bail-in. Some may not work at all.

None of these comparative arguments requires systemic risk. Bail-in is better for any megabank failure—even localized failures.

4.1 Fast Asset Sales

The asset sale proposal of Melaschenko and Reynolds⁶⁰ looks attractive. It takes place at the parent level. All the assets and some of the liabilities of the parent go into a temporary holding company, which operates for a few months, until a buyer emerges. The proceeds of the sale pay off the creditors, much like the sale of a business in bankruptcy.

The proposal looks much like bail-in, and should be about as quick. It has the further virtue of placing a market value on the firm. It may even work. But even if it works, it will work worse than bail-in. It assumes too much: a competitive market for corporate control, and no antitrust problems. Bail-in suffers from neither problem. Let us review the bidding, starting with the market for corporate control.

Market for Corporate Control

In a perfect market for corporate control, the sale price would be the best measure of firm value. Real-world markets for corporate control are not perfect, but they are far better than the forced asset sale of a megabank.

⁵⁹ WALTER BAGEHOT, *LOMBARD STREET: A DESCRIPTION OF THE MONEY MARKET* 33 (Richard D. Irwin 1972) (1873).

⁶⁰ Paul Melaschenko & Noel Reynolds, *A Template for Recapitalising Too-Big-to-Fail Banks*, *BIS QUARTERLY REV.* 25 (June 2013).

To begin with, the market would be thin. Thanks to the Bank Holding Company Act, bidders would be few. Only megabanks—or organizations willing to become megabanks—can buy megabanks. Not all of them would necessarily be bidding. In times of financial panic, many banks might prefer to avoid the action. And the best offer would not necessarily win. It may come from the weakest bidder.

The market would be thinner because it would likely be lumpy: of the whole bank. Units could be sold, in principle, just the same way that any functioning megabank could sell a business unit. But in practice, things are a bit more difficult, because the buyer is not certain that the seller would remain as a going concern. (Sales of business units usually feature warranties and service contracts.) And the more pieces that are sold, the more skittish the financial liability holders of the unsold pieces would be, and the less the unsold pieces would be worth.

The assets would also be a bit lemony, as well as lumpy. It takes a lot of due diligence to purchase a very large bank. This is especially true for a megabank known to have weak business units—especially in a time of financial panic when asset prices are unmoored from asset values.

Not only are the assets lemony and lumpy, they are also volatile. There will be some time between bidding and closing. This is time that the subsidiary's creditors could decide that they do not like the bidder, and disappear, taking the value of the firm with it. The same is true for others. A temporary entity with a “for-sale” sign around its neck might have more problems retaining customers and key employees.

An impaired market for corporate control is still a market for corporate control. If the regulator is determined to sell the megabank cheaply, some buyer will probably emerge—maybe even in a financial panic. The buyer will probably get a very good deal. This is precisely the problem. The creditors would do better in bail-in, which does not require a functioning market for corporate control.

Competition

Despite their problems, we know that fast asset sales or mergers of megabanks can work if the acquiring megabank is strong and/or if the acquisition is assisted. We have seen them work in 2008. JPMorgan Chase Bank acquired Bear Stearns and Washington Mutual Bank. Wells Fargo Bank acquired Wachovia Bank. Bank of America acquired Merrill Lynch. These are successes; they averted target insolvency. Transaction flow was smooth; financial liabilities were unimpaired. The Washington Mutual transaction created

some angry creditors of the parent (which was not sold), but the parent had no financial liabilities.

But they are only partial successes. Each sale replaced a sick megabank with a bigger megabank. This is poor competition policy.⁶¹ There are not that many megabanks: the industry is concentrated. Only a megabank can acquire another megabank, so mergers concentrate the industry further.

Bail-in is clearly superior in this regard. A successful bail-in has only a marginal effect on competition; an unsuccessful bail-in only eliminates a competitor, without creating a bigger one.

4.2 The Bankruptcy Code

Bail-in is a form of reorganization. The Chapter 11 reorganization is the jewel in the crown of the Code. Why can't megabanks just use Chapter 11, on a parent-only basis? A parent-only Chapter 11 would be similar to bail-in: protecting the financial liabilities at the expense of the parent's bonded debt.

This question has a consensus answer: “Chapter 11 will not work.” This is true even though Chapter 11 is better than SPOE in some respects. It has a much lower initiation trigger than Title II,⁶² and it does not require a separate bridge entity.⁶³ Despite some early support for unvarnished Chapter 11,⁶⁴ most Code proponents now say that Chapter 11 needs some improvements.⁶⁵ This is a good place to examine the weaknesses of Chapter 11 in financial insolvency. We start with a very brief introduction to Chapter 11. We then discuss the flaws of Chapter 11.

⁶¹ This is so at least in the eyes of Congress. See 12 U.S.C. §§ 1852, 5363 (limiting acquisitions of large financial firms.)

⁶² See *supra* text accompanying notes 56-59.

⁶³ See *supra* text accompanying notes 55-56.

⁶⁴ E.g., Kenneth Ayotte & David A. Skeel, *Bankruptcy or Bailouts?*, 35 J. CORP. L. 469 (2009); Stephen J. Lubben, *Systemic Risk and Chapter 11*, 82 TEMP. L. REV. 433 (2009); SKEEL, *supra* note 4; Baird & Morrison, *supra* note 4 (more-or-less equating Code to FDI Act process).

⁶⁵ See *Hoover Institution*, *supra* note 4 (“Chapter 14”); BOVENZI, GUYNN & JACKSON, *supra* note 4.

A Quick Tour of Chapter 11

I implore readers with any knowledge of the Chapter 11 process to skip this short section. I wrote it only for a hypothetical reader who is new to the topic and does not know how grossly I simplify.

The Chapter 11 process begins with a petition filed in court, generally by the debtor. No judicial action is needed; filing alone is effective and creates an “estate” in the entity that filed. After filing, the incumbent management typically continues to operate the estate, although a court may select other management. Management serves as a fiduciary for the estate, supervised by the courts. As fiduciary for the estate, it is responsible only for the estate, not third parties such as employees or financial counterparties of subsidiaries.

Filing creates an immediate stay on all debt-collection efforts. Nevertheless, debtors typically need liquidity for their continuing operations, and financial firms definitely need liquidity. The Code lets a post-petition debtor borrow on a priority basis: so-called “DIP financing.”⁶⁶ At this stage, the Chapter 11 process bifurcates. In one path, the court—at the behest of management or the creditors—sells the bulk of the business as an operating concern. This so-called “Section 363” path is favored these days, because it is much faster (weeks to months) than the alternative path: a true reorganization.⁶⁷ The reorganization seeks the same end-state as a bail-in: a new capital structure. However, its process is completely different.

A Chapter 11 reorganization is a negotiating process. To oversimplify, creditors form committees of similar claims. The debtor and committees negotiate among themselves and come up with a “plan” that reorganizes the liabilities of the firm in a more sustainable fashion: transforming senior debt into junior classes (or even equity), and short-term debt into long-term debt. This often takes a year or more. Dissenters complain to the court. If the court deems the plan fair, it “confirms” the plan, over the dissenters’ objections. If not, the negotiation cycles again. Upon confirmation, the firm is reorganized, with a more sustainable capital structure.

Note that this negotiation process conflates two processes distinct in bail-in: the relegation of old debt, and the distribution of new instruments. In bail-in, the first process occurs at the beginning. The second process occurs at the end, with the valuation of the firm. In Chapter 11, both processes occur synchronously, with the plan confirmation at the end.

⁶⁶ “DIP” is an acronym for “debtor in possession”: *i.e.*, the incumbent management, which usually continues operating the firm, subject to judicial supervision. “DIP financing” is a term of art; it applies to any post-petition financing, regardless of who is running the firm.

⁶⁷ See *supra* note 12 for more on reorganizations.

Problems of Chapter 11: A Checklist

This section is a list of Chapter 11 elements that may impede a megabank resolution. Again, we assume a parent-only Chapter 11, much like bail-in, but using the Code. Chapter 11 reform advocates have noted and addressed some of these elements, but not all. Some of these elements are easy to fix, at least conceptually. But some go to the very structure of Chapter 11.

This list could be a useful checklist for Chapter 11 reform advocates.

Adjudication and compensation. Chapter 11 has no concept of *ex post* compensation; it relies on *ex ante* adjudication. This must be so—a court has no fund with which to compensate claimants for its errors. But this also limits the speed of the process. If compensation is impossible, any significant decision must be adjudicated, which entails due process. Bankruptcy courts can be very quick—for courts. But the faster they act, the less legitimate their process—a point that emerged from the Chrysler and General Motors (GM) reorganizations. And the faster they must act, the more meaningless the appellate review, in which the appellate court is asked to unscramble an omelet prepared by the bankruptcy court. In contrast, Dodd-Frank contemplates errors and provides for their *ex post* compensation.⁶⁸ This places far less strain on due process.

Bank Holding Company Act. Claims trading is common in modern bankruptcy practice. Active investors seek a stake in the firm that will give them the best possible position in negotiations. Typically, this position translates to a controlling equity stake. However, the Bank Holding Company Act limits control. Claims trading without regulatory approval, then, may lead to illegal control. This problem exists in bail-in as well as Chapter 11.

Capital regulation. Chapter 11 does not regulate the *ex ante* capital structure of an enterprise. It reorganizes the capital structure it is given. As we have seen, this is not enough: the parent needs enough bonded debt to bail out all the financial liabilities. A regulatory fix is necessary.

Capital structure (shape). Chapter 11 tends to produce a thin capital structure *ex post*: an outcome of the negotiation process. The capital structure may also have some optionality. Neither is reassuring to creditors at the subsidiary level who can run during the pendency of the process. And both may be the subject of regulatory displeasure.

Capital structure (timing). Chapter 11 produces a capital structure at the end of the process, not the beginning. Even if this capital is adequate, it may be too late. Financial creditors

⁶⁸ 12 U.S.C. § 5390(d)(2)(B). For the quantum of compensation, see *infra* text accompanying notes 70-72.

need the most assurance at the beginning of the process. They are more likely to run if they do not immediately see a hefty capital cushion. There is a bit of time-inconsistency here; more ordinary amounts of capital may placate these creditors at the end of the process. But this time-inconsistency does not connote a logical inconsistency. Asset values are more questionable at the beginning: imperfect information.

It is worth noting that the successful bankruptcy reorganization of CIT did not suffer from this timing problem. CIT was an insolvent lending company with a very solvent bank subsidiary (segregated and insured, to boot.) The lending company was funded like an ordinary industrial corporation, with bonded debt. The only protected financial liabilities at the bank subsidiary did not run; the nonfinancial liabilities were trapped in the process and could not run. This provided enough time for Chapter 11 to work on the nonfinancial liabilities.

Derivatives and repo closeout. Chapter 11 permits unrestricted closeout of derivatives and repo transactions. All Chapter 11 advocates have recognized this problem and have proposed fixes. In the context of a parent-level bail-in, this problem is in the cross-default clause of the subsidiaries' contracts, discussed above. The solution for Chapter 11 would be the same as that for bail-in: a stay on derivative closeouts triggered by parental filing.

Governance. Chapter 11 has a complex governance structure, not suited to fast resolution. For consequential decisions, everybody has a say, with the court's word as the final one. This works because the automatic stay buys the necessary time. But the automatic stay buys no time in a financial insolvency, and the most consequential decisions are on the first day. The first day is the day to flash the most money: "shock-and-awe" DIP financing must be in place. The financial creditors will run on the first day, unless they are assured by subsidiary recapitalization and a thick layer of reorganized parent equity. Clearinghouses and foreign regulators also need assurance on the first day—preferably earlier. There is no way the court can do this all on the first day and provide ordinary bankruptcy due process.

Initiation. As a practical matter, the debtor initiates Chapter 11. Since unsecured creditors traditionally receive low recoveries, it is hard to avoid concluding that Chapter 11 begins later than it should. Most Chapter 11 reform advocates have proposed a regulatory role in initiation, to supplement the debtor's role.

Liquidity. Chapter 11 has no public liquidity provider. Normally, the private sector suffices; DIP loans are profitable. However, megabanks need far more liquidity than most industrial firms. Also, megabank insolvency often occurs during a financial panic, when liquidity lending dries up.

Most Chapter 11 reform advocates have discussed a public liquidity provider, generally assigning it the role of a DIP lender. But DIP lenders generally play a very strong role in a Chapter 11 process, which contradicts the general belief among these advocates that the executive branch should have limited discretionary power in Code bankruptcies. The governmental DIP role was controversial in the GM and Chrysler bankruptcies and should be more so in a megabank bankruptcy.

Planning. Bankruptcy planning is part of modern Chapter 11 practice: creditors need notice, and the court must approve the ordinary operations and DIP financing of the debtor. Much of this planning is not necessary for a financial reorganization at the parent level. The operations are contained in the subsidiaries, unaffected by the parent's filing. However, financial firms require one unique form of planning that does not lend itself well to Chapter 11. They must extend and obtain many pairs of credible conditional reciprocal promises: that the parent will recapitalize its subsidiaries and in consideration, that the subsidiaries' regulators and clearinghouses will let them live. Bankruptcy judges are generally realistic and businesslike, but no judge can engage in extended secret *ex parte* communications in advance of a filing.

Limits of structural subordination. Bail-in only operates on the parent. Bail-in protects the subsidiaries' creditors with structural subordination: only the parent liability holders bear losses. This is true regardless of the implementation of bail-in: the FDIC's SPOE approach, or Chapter 11. This protection is complete if only the parent is insolvent. Structural subordination does not necessarily protect the creditors of insolvent subsidiaries. It can only work if the insolvent parent recapitalizes the insolvent subsidiary.

This is more difficult to do in Chapter 11 than in something like SPOE, even if there is adequate parental debt. The problem lies in two key elements of Code ideology. First, the Code looks no further than the welfare of the insolvent entity. This ignores externalities—including those related to affiliates or systemic risk. Second, the Code views the welfare of the entity as consisting solely of maximum recovery for creditors, consistent with the Code's priority scheme.⁶⁹ Therefore, Code ideology demands that any recapitalization of a subsidiary by an insolvent parent must benefit the creditors of the parent. This is easy if the subsidiary is solvent. Every dollar that flows from the parent's creditors to the solvent subsidiary will increase the value of the subsidiary by at least a dollar.

⁶⁹ This is the logic of Judge Easterbrook's defense of CVO priority. See *supra* note 15. He argues that CVO priority is justified *only* if it enhances the aggregate recovery of the creditors not given the CVO priority.

But justification is harder if the subsidiary is insolvent. Any value that the parent injects into the subsidiary will first go to the creditors of the subsidiary, not the equity of the subsidiary. Such a capital injection will only benefit the parent if we make some special assumptions.

These special assumptions can be plausible. But they are contestable, and they must convince a bankruptcy judge. Judges may be willing to fudge close cases, mumbling “going-concern value,” or the like. But many judges fully buy into the ideology and might not want to fudge. And there are limits on what even heterodox judges can do. The chief of these limits is time. The subsidiaries must be recapitalized on the first day of the process. Can a judge do this with any semblance of due process? And putting due process aside, can the judge possibly have enough information or time to make a sound decision?⁷⁰

Consider, for example, a megabank with one deeply indebted, but highly systemic, subsidiary and a number of other subsidiaries that are doing well. If the parent has not guaranteed this subsidiary, a bankruptcy judge would have a hard time recapitalizing it. Or consider the contrary case: a foreign non-systemic subsidiary with a very uncooperative supervisor. The home country supervisor might want to let it go: to encourage cooperation in the future. A bankruptcy court might not. Or as a final case, consider the Section 363 sale of a major subsidiary to another large financial firm. This may be in the best interest of the creditors, but might create an excessively large firm.

No bail-in scheme can ignore the plight of the parent’s creditors. The Constitution requires some solicitude: creditors must do at least as well as they would in liquidation.⁷¹ Dodd-Frank and the FDI Act meet this standard, if not the higher standard of the Code. This guarantee is denominated in monetary terms, so the FDIC can act now and compensate later, if necessary.

⁷⁰ Judge Peck, who presided over the Lehman case, was very frank on the difficulties of adjudicating the first few days. *In re Lehman Brothers Holdings*, 445 B.R. 143 (Bkrtcy S.D.N.Y. 2011).

⁷¹ *Neblett v. Carpenter*, 305 U.S. 297 (1938); *cf. Doty v. Love*, 295 U.S. 64 (1935). The Code has a similar standard for distributions among classes of creditors. 11 U.S.C. § 1129(a)(7)(A)(ii). However, the Code maximizes the value of the entity as a whole.

4.3 PRIVATE LAW

The Dodd-Frank Act mandated consideration of contingent convertible debt as a source of bank capital: perhaps a substitute for equity. Can this idea be extended? Is contingent convertible debt a plausible private-law substitute for bail-in? This would resemble Professor Adler’s “chameleon equity” proposal for corporate restructuring, which converts old debt to new equity upon a trigger event.⁷²

A private law insolvency process would require a contractual formula for debt conversion. In a megabank, there is no time to wait for arbitration or adjudication. It is difficult to imagine a trigger that does not contain either basis or manipulation risk: possibly both. Management can control reported capital levels; market participants can affect bond prices. Both indexes also contain basis risk. Capital levels vary with the macroeconomy: bond prices with the term structure of interest rates.

Furthermore, the amount of convertible debt would have to be large: as large as the amount of bail-in debt. And this debt would have to convert to something. The something could be equity. If so, the dilution will be very large: probably exceeding standard shareholder protections entrenched in the corporate certificate of the parent. This problem goes away if the something is nothing: a fixed-income instrument *junior* to equity. But what creditor would trust a debtor with this kind of incentive to default?

Finally, contractual bail-in is still bail-in. It is hard to see how it would work without public law: a stay on *ipso facto* provisions, official-sector liquidity support, international negotiations among public officials and clearinghouses, and the like.

⁷² *Cf. Barry Adler, Financial and Political Theories of American Corporate Bankruptcy*, 45 STAN. L. REV. 311 (1993).

The views expressed are those of the author and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System. The Federal Reserve Bank of New York provides no warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability, or fitness for any particular purpose of any information contained in documents produced and provided by the Federal Reserve Bank of New York in any form or manner whatsoever.