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STRUCTURAL CORPORATE DEGRADATION DUE TO TOO-BIG-TO-FAIL FINANCE

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Abstract

Corporate governance incentives at too-big-to-fail financial firms deserve systematic examination. For industrial conglomerates that have grown too large, internal and external corporate structural pressures push to re-size the firm. External activists press it to restructure to raise its stock market value. Inside the firm, boards and managers see that the too-big firm can be more efficient and more profitable if restructured via spin-offs and sales. But for large, too-big-to-fail financial firms (1) if the value captured by being too-big-to-fail lowers the firms' financing costs enough and (2) if a resized firm or the spun-off entities would lose that funding benefit, then a major constraint on industrial firm over-expansion breaks down for too-big-to-fail finance.

Propositions (1) and (2) have both been true and, consequently, a major retardant to industrial firm over-expansion has been missing in the large financial firm. Debt cost savings from the implicit subsidy can amount to a good fraction of the big firms' profits. Directors contemplating spin-offs at a too-big-to-fail financial firm accordingly face the problem that the spun-off, smaller firms would lose access to cheaper too-big-to-fail funding. Hence, they will be relatively more reluctant to push for break-up, for spin-offs, or for slowing expansion. They would get a better managed group of financial firms if their restructuring succeeded, but would lose the too-big-to-fail subsidy embedded in any lowered funding costs. Subtly but pervasively, internal corporate counterpressures that resist excessive bulk, size, and growth degrade.

The recent travails of JPMorgan Chase — including its now well-known $6 billion trading loss after the financial crisis — fit well with this analytic. Analysts initially viewed the trading debacle as cautionary, not one fundamentally implicating regulatory policy. After all, the losses were only a fraction of JPMorgan's $20 billion annual earnings. The setback in much of the conventional wisdom was one for the bank's shareholders and managers and, hence, in one view, an issue for ordinary corporate governance. But by systematically examining the incentives, we can see how such missteps can link to, and follow from, a too-big-to-fail boost from the realities of government financial policy. It's not just that some firms are too-big-to-fail, some are too-big-to-manage, and some are both, but that the two characteristics link together, with any implicit too-big-to-fail subsidy pushing firms to be too-big-to-manage.

These lower financing costs from the too-big-to-fail subsidy are a shadow poison pill — the corporate governance defense that managers and boards have used to ward of unwanted takeovers in the industrial sector. Worse, the shadow financial pill impedes restructurings more strongly than a conventional poison pill. It impedes not just outsiders, as does the conventional pill, but insiders as well — a controlling shareholder where there is one, the board of directors and the CEO where there is no controlling shareholder — even if restructuring the firm would be operationally wise.

The resulting corporate degradation burdens the economy. In addition to the well-known costs of bailouts and economic contraction if major financial firms fail, too-big-to-fail finance degrades financial firm efficiency. The mechanism identified here has policy implications beyond adding to the reasons to reduce too-big-to-fail risks. Most post-crisis financial regulation has been command-and-control rules on capital and activities, but the analytic here points us to unused incentives-based policy tools. Lastly, the corporate degradation analytic has on-the-ground corporate dealmaking implications: if the command-and-control regulation moving forward is succeeding, it should lead to sharp corporate restructurings in financial firms if large financial firms lose their too-big-to-fail boost. I outline the mechanisms and implications.

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INTRODUCTION

Corporate governance controls help to keep firms competitive and efficient. They work imperfectly and at times do not work at all, but overall they push large firms to do better. Persistently poor results induce a firm's board to assess the results and the firm's internal organization to see if it needs restructuring. Shareholders often agitate for change, corporate funding costs rise and limit managers from continuing down an unprofitable path, and, at the limit, corporate activists such as hedge funds agitate for the firm to be broken up into separate, more tightly organized parts.

But these corporate controls deteriorate in large too-big-to-fail financial firms. The most powerful corporate governance control in recent decades has been the corporate takeover and break-up of a too-large industrial firm into its constituent parts, inducing the restructuring of American industrial conglomerates in the 1980s. If financial firms were today subject to such pressure, then firms that became too big would face shareholder efforts for break-up, some of which would succeed. I here first analyze the interaction between financial corporate structure and the break-up takeover — the strongest corporate governance tool, despite its ongoing rarity — as a metric, to see that the strongest tool cannot come out of the corporate governance toolbox, but must remain locked up, unused. The strongest corporate governance controls, as well as most day-to-day corporate pressures and controls for boards to re-size, spin off, and restructure, cannot work well, or at all, in the too-big-to-fail financial firm.

The explanation — that too-big-to-fail finance is restructuring-proof — is not yet integral to the analytics of the too-big-to-fail problem. Its core explanation is as follows. The likelihood that big finance will be bailed out in a crisis lowers the financial firms' cost of funding. These lower financing costs redound to the benefit of the firms' shareholders. This much is commonplace. But the implicit too-big-to-fail subsidy is also a shadow poison pill — the governance defense that managers and boards have used successfully for the past quarter-century to ward off unwanted takeovers in the industrial sector, by diluting the offeror's stock but not others, thereby deterring it from offering to buy the target company. And the implicit pill here is a powerful one, as it builds a strong, conceivably insurmountable barrier to restructuring even a weak and partially broken financial firm that is operating at an inefficient, excessively bulky scale. Worse for corporate governance pressure, it is even stronger in impeding restructuring than a conventional poison pill: The conventional pill impedes outsiders, not insiders. But the too-big-to-fail "pill" *also* impedes insiders — a controlling shareholder where there is one, the board of directors, and the CEO — from restructuring the firm, even if such a restructuring would be operationally wise.

An operationally-successful restructuring of such a too-big-to-fail financial firm

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will increase the firm's (or its spun-off divisions') overall value to the economy, but it will *decrease* the private value of the firm's stock to the extent the restructuring strengthens the constituent firms enough, or makes them small enough, such that they either are no longer too-big-to-fail or are made unlikely-to-fail. If the constituent parts would no longer be too big, then, as long as the expected value of the subsidy lost exceeds that of the restructuring gains, stockholders lack the incentive to restructure the firm and have plenty of reason to oppose even an operationally efficient one that outsiders seek. Corporate governance at the too-big-to-fail financial firm degrades.

This corporate degradation hurts not only the firm but the economy as a whole. Just as a monopolist will invest to protect its monopoly benefits up to the private profit the monopoly gives it, a too-big-to-fail firm will sacrifice its own efficiency, and the financial system's, up to the cost of its subsidy advantage. It need not even be aware that the profitability of a line of business depends on the too-big-to-fail boost. The full size of the too-big-to-fail subsidy — typically estimated in the tens of billions of dollars annually — can be lost to the economy. The too-big-to-fail subsidy allows the firm to take on activities that could be handled more efficiently elsewhere in the economy. Worse, it provides incentives for weak finance that can degrade not just the firm, but the overall economy.

* * *

The roadmap for the article: In Part I, I describe the recent controversy over JPMorgan Chase's London Whale and the bank's $6 billion trading loss, which embarrassed the firm, derailed previously-successful executives' careers, and led to congressional investigations and much media attention. The managerial lapse induced two contrasting classes of responses: One sought more regulation because even America's best-reputed big bank could make a major mistake. The second dismissed the problem as, yes, a huge loss, but one well within both JPMorgan Chase's $20 billion in annual earnings and its $200 billion of bank capital, and, hence, the Whale problem was primarily one for shareholders and managers — a tempest in a teapot, as the bank's CEO called it. Related to the tempest-in-a-teapot response, respected commentators argue that although big finance has become too large to be efficient, market forces will over time induce the too-big financial firms to get themselves right-sized. Although those market processes work crudely and incompletely, the market's incentives will — as it's becoming conventionally thought, but disputed in this article — necessarily push financial firms in the right direction.

In Part II, I analyze the conceptual impact of the too-big-to-fail subsidy on financial firms' cost-of-funding, which operates as a powerful corporate poison pill. It destroys takeover value for a shareholder who would buy up the firm's stock and break up a far-too-big banking conglomerate. Less dramatically, but more importantly, the potential loss of the too-big-to-fail subsidy also reduces the value to shareholders and the organization itself of other day-to-day corporate restructuring strategies that managers and boards at the firm might otherwise pursue. Managers at an orphaned subsidiary might, for example, seek financing to buy those operations out from the financial conglomerate, believing they can run the spun-off operation better than the far-off senior managers at the bank's headquarters. But the buyout's funding would not garner the too-big-to-fail subsidy that the entire financial firm gets. Hence, the

divisional managers and their financial backers face higher financing costs and cannot buy out a division even if the buyout would otherwise be profitable and operationally wise. The too-big-to-fail "pill" degrades both internal and external incentives to build better, stronger corporate structures. Importantly, the firm's senior managers need not seek the too-big-to-fail subsidy, and may even deny to themselves its existence, and it will still drive their fundamental structural decisions.

In Part III, we turn to the empirical side, examining the too-big-to-fail data. We reconfigure the extant data, which measures what the too-big firm saves on its borrowings due to lowered funding costs, into a percentage of shareholder profits. That reconfiguring shows average estimates of the financial crisis leading to the too-big-to-fail subsidy increasing by about one-third of these financial firms' profits. We also examine weaknesses and instabilities in the data: the largest too-big-to-fail firms are even larger now than they were before the 2007–2009 financial crisis, the rating agencies have been showing a widening gap between the banks' standalone quality and their creditworthiness with government backing, and the overall picture is of a subsidy amounting to the size of the takeover premium needed to motivate a takeover. If these levels persist, not only is no takeover economically possible, but, more importantly, operationally efficient internal restructurings to downsize or spin off will often not make economic sense to the firm, its managers, and its shareholders.

In Part IV, we examine related economic concepts, emanating from antitrust analysis of the costs of monopoly. Applying that thinking to financial firms shows how the extended costs of too-big-to-fail reach into organizational integrity and efficiency of the affected firms in ways that can even exceed the size of the subsidy itself.

In Part V, we examine other, parallel degradation due to too-big-to-fail status, including excessive leverage, regulatory degradation, inability (not just unwillingness) to raise new capital, and other social costs. While these risk-based regulatory problems arising from too-big-to-fail finance have been well-examined, the corporate governance problems of boards, break-ups, spin-offs, and the like have not been.

Then in Part VI, we examine the public policy implications, opportunities, and difficulties, focusing on incentive effects and fixes. The ongoing policy efforts fall into two main categories: command-and-control instructions to increase financial firm capital and to limit their riskiest activities; and construction of stronger failure mechanisms, so as to make failure an option for big financial firms. Each category — command-and-control and making failure an option — could, in theory, solve the too-big-to-fail problem. The measures move us closer to the public interest but, critics think, do not yet in practice solve the too-big-to-fail problem. The corporate governance incentive analytics here suggest a further foray that has been largely absent from the policy discussion: policymakers can also seek to alter the internal incentives of the shareholders, boards, and managers to better match the public's, primarily by making risky debt more expensive for the financial firm. I outline how this could be achieved. The finance world could be improved by using all three categories of policy tools. As of now only two categories are being used.

In Part VII, we consider what big finance would look like without the too-big-to-fail subsidy. Firms with shareholder-centered corporate governance did worse in the financial crisis than firms with weak shareholder orientation, and the analytics here

show why that was so and why, without the subsidy, they should have done better. The policy implication of the degradation conceptualized here is not to further unleash shareholders with today's distorted incentives inside big finance but instead to reduce the distortions to better align their incentives with the public's.

And, then we examine the dealmaking impact if the too-big firms' funding costs come to reflect their operations, without the subsidy. Normal corporate processes would press to restructure and down-size the biggest and least efficient. Ending the subsidy, or even cutting back the big increase from the financial crisis, should unleash the usual market mechanisms that facilitate right-sizing of corporations. Board and managerial incentives would better match public goals. If successful regulation slashes a large too-big-to-fail subsidy, then big finance should restructure, sua sponte.

The results could include dramatically forcing a restructuring, but much of the corporate governance effort would over time be internal: new ventures would need a higher hurdle rate to be justified, while some major old ventures would become uncompetitive and then be shifted out and sold. This latter process would not be a dramatic, near-instant restructuring, but a steady, multi-year evolutionary reconstruction of the biggest financial firms that would make the American financial system safer, stronger, and better for the American economy.

I. THE LONDON WHALE AND JPMORGAN'S $6 BILLION TRADING LOSS

A. The Events and the Corporate Governance Failure

The London Whale debacle is now well known in financial circles. JPMorgan Chase, America's largest bank, is reputed to be our best-managed bank, with the widely-respected Jamie Dimon as its chief executive officer. Yet, despite its reputation, mismanaged trades lost the bank $6 billion. (In financial trading markets, as in professional poker, a "whale" is a poor player with a thick wallet.)

The story begins when the economy improved after the 2007–2009 financial crisis, as JPMorgan concluded it was prudent to reduce its exposure to credit derivatives. Because of illiquidity in that market, the JPMorgan traders decided not to sell the positions they had already taken, but instead to buy new, opposite positions, although with different maturities.[1] A JPMorgan trader based in London — the Whale — made many of these trades. However, as credit markets rallied in early 2012, the original positions lost even more value, without the new positions' profits making up for the continuing losses. Worse, the larger portfolio became too big, too complex, and too unwieldy to manage well. JPM owned too much of this market and when management finally decided to unwind the trades (by selling many off), it found that there were no longer enough buyers, as JPM itself had been the primary buyer in many of the underlying markets. The assets could not be sold at good prices.[2]

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[1] Testimony of Ina R. Drew, Former Head of the Chief Investment Office, J.P Morgan Chase & Co., before the U.S. Senate Permanent Subcommittee on Investigations, at 4 (Mar. 15, 2013).

[2] U.S. Sen. Permanent Subcomm. on Investigations, JPMorgan Chase Whale Trades: A Case History of Derivatives Risks and Abuses ["Senate Whale Trade Investigation"], at 90 (Bipartisan Staff Report, Mar. 15, 2013); Gregory Zuckerman & Katy Burne, *London Whale Rattles Debt Market*, WALL ST.

JPM's first public accounting pegged the loss at $2 billion, about one-tenth of the bank's annual profit. Questions immediately arose as to the quality of JPM's risk management team — previously reputed to be stellar — since they had allowed the bank to be cornered with such a large position. If JPM could not handle these risks well, how would less well-managed banks fare? As the story unfolded, JPM's losses mounted. By the time the bank had closed out its position, it had lost $6 billion.

Congress and the media excoriated Dimon and JPM's senior management for failing to control the original trades, for failing to wind them down at lower loss levels, for being uninformed about the full extent of JPM's vulnerability on the trades, and for misleading the public and the regulators about the trades' size and embedded loss.[3]

B. The Corporate Governance Conventional Wisdom

Senior management stumbled badly at JPM. The anti-bank critique is that the lapse shows that banks are still taking too many risks for the public good. So, the Senate hearings on the Whale and the loss had senators urging that the Whale debacle justified moving trading out from banks, for fear that future losses could be larger — so large that they could lead to a bailout. As is well known now, big financial firm managers have reason to accept otherwise too-large risks in too-big-to-fail financial firms: If the risk pays off, shareholders gain and managers' get big bonuses. On the other hand, if the risk turns out badly, then shareholders and other financiers of the firm are unhappy at first (and remain unhappy in the firm that is not too-big-to-fail), but the government will bail out many of them, making the downside not as unpleasant as for a typical industrial firm, which would have to file for bankruptcy.

But this risk-taking view has been met by a powerful hands-off rebuttal, that the shareholders bore the brunt of the loss, not the public.

1. A Loss Well Within Shareholders' Equity. Compare the size of the Whale's trading loss to JPM's size. The loss, albeit tremendous, amounted to less than one-third of JPM's 2012 profits and only 3% of JPM's $200 billion of capital.[4] It was well within shareholders' equity and, hence, the bank's defenders assert, is a shareholder problem, not a public problem. "Why should the public be worried," JPM supporters asked, "about the loss in a year of otherwise extraordinary profit for the bank?"[5]

J., Apr. 9, 2012, at 1; Katy Burne, *Making Waves Against the "Whale,"* WALL ST. J., Apr. 11, 2012, at C1 ("J.P. Morgan sold so much of the index swaps ... that the cost of default protection on the basket of companies fell sharply.... [After JPM stopped trading, t]he cost of CDS on the index rose....").

[3] Senate Whale Trade Investigation, supra note 2, at 10; Editorial, *Lessons from the London Whale*, N.Y. TIMES, Jan. 16, 2013; Editorial, *Jamie Dimon Loses Big*, Chicago Tribune, May12, 2012, at 10.

[4] JPMorgan Chase & Co., Annual Report (Form 10-K), at 62 (Feb. 28, 2013).

[5] William Jaenike, *JPMorgan's Trading Loss*, N.Y. TIMES, Mar 23, 2013, at BU5. JPM's former CEO, William B. Harrison said: "It was disappointing to all of us that we had that kind of loss, but the important thing is to put it into perspective, which the market didn't do very well. A lot of people overreacted to it." Dawn Kopecki, *Harrison Says Public Overreacted to JPMorgan's CIO Trading Loss*, BLOOMBERG, Sept. 5, 2012, *available at* http://www.bloomberg.com/news/2012-09-05/harrison-says-public-overreacted-to-jpmorgan-s-cio-trading-loss.htm. Or, consider a financial analyst's view: "The holding company made $29.9 billion in operating income and just over $20 billion in net income for 2011…. [T]he reported losses, in and of themselves, are not likely to have a dramatic impact on J.P. Morgan's long-term financial stability." Gene Kirsch, Senior Banking Analyst, J.P.Morgan Chase: Putting

2. Shareholder and Board-Based Governance Will Remedy. Serious losses can activate shareholder-based corporate governance in industrial firms. Shareholders agitate for boardroom change, boards often replace senior managers, and, in extreme cases, shareholders force the break-up of a too-big-to-manage firm into its constituent business lines. Although such efforts often fail, enough do succeed to make industrial firms more effective than they otherwise would be.

A big industrial firm that is far above its optimal size should attract such attention. Perhaps the same could become a reality for too-big financial firms. Indeed, Henry Kaufmann, long one of Wall Street's leading financial analysts, recently announced that the large American financial conglomerate's heyday was over.[6] Shareholder value would be enhanced by spinoffs, break-ups, and divisional buyouts; and since that kind of restructuring would enhance shareholder value, that's what would happen. Shareholders would make it happen. America's financial conglomerates would be restructured in the 2010s in the same way that America's over-grown industrial conglomerates were restructured in the 1980s. Other mainstream analytics have been similar.[7]

One could extend this corporate analysis. Internal forces can restructure the too-big conglomerate. Managers at financial divisions will buy out their division, if it can be better managed when separated from the firm's core. Boards reviewing the firm's future strategy could conclude that far-off divisions cannot be managed well and should be spun off. Activist shareholders might undertake proxy fights to get new directors to bring about operational changes. Such fights to elect new directors often fail,[8] but then firms eventually implement policies similar to those sought by the shareholder activists. For potential financial losses of the size of JPM's London Whale trading loss, ordinary corporate governance measures could cure the problem. Regulation was needed, in this view, only to handle the chance that the loss would exceed the value of the bank's equity. Only that kind of loss would put the public fisc at risk. Corporate governance is good enough to contain the losses below the level that would invoke the too-big-to-fail de facto guarantees.

* * *

Overall, a plausible analytic for JPM and the $6 billion Whale loss — and one with which reasonable analysts agree — is thus that (1) the problem is one for shareholders and managers, not the public, and (2) the normal forces of corporate governance would press to right-size the big financial firms, if they are indeed operating at too big a scale. That defense of JPM is powerful and, as we've seen, was embedded in its CEO's comment on the loss: "A tempest in a teapot," he said.

Losses in Perspective, Weiss Ratings May 11, 2012, *available at* http://www.weissratings.com/news/articles/jp-morgan-chase-putting-losses-in-perspective/.

[6] Henry Kaufman, *Big Banks Are Not the Future*, WALL ST. J., June 5, 2012.

[7] Lionel Barber, *The Fall of the Universal Bank*, THE ECONOMIST, Nov. 21, 2012 ("The decline of the universal bank will pass unlamented. The … financial supermarket has long been eclipsed by the destruction of shareholder value after the crash.").

[8] Lucian Bebchuk, *The Myth of the Corporate Franchise*, 93 VA. L. REV. 675 (2007); Steven M. Davidoff, Andrew C.W. Lund & Robert Schonlau, Do Outside Directors Face Labor Market Consequences? A Natural Experiment from the Financial Crisis (SSRN working paper, 2013), *available at* http://ssrn.com/abstract=2200552.

II. STRUCTURAL DEGRADATION DUE TO THE IMPACT OF TOO-BIG-TO-FAIL: CONCEPT

We take this standard corporate incentive-for-efficiency story, deepen it, but then see how shareholder, board, and managerial incentives warp under too-big-to-fail pressures, degrading corporate governance, perhaps severely. Some financial firms may become too-big-to-manage (an idea in the literature) and, with the normal corporate governance constraints turned off due to the too-big-to-fail subsidy (an idea that, although not in the literature, is our focus here), the firm is rendered even more susceptible to specific error, such as the $6 billion London Whale failure of senior management to oversee the trading desk properly, and to general error, such as the firm swelling beyond its optimal size and scope because the optimal size would lose the too-big-to-fail subsidy. These latter possibilities of systematic organizational degradation at too-big-to-fail firms are extensive, important, and not yet well-analyzed in the policy discussion as foundational corporate governance fissures.

Thus the thesis here is that the normal shareholder, managerial, and board incentives and pressures to right-size and restructure firms degrade and disappear in too-big-to-fail financial firms. Too-big-to-fail status lowers the firm's cost of capital, and that funding advantage would be lost to the firm in an operationally-sensible restructuring. The threat of losing that value acts like a poison pill in an industrial firm: operational value could be created if a shareholder activist succeeded, but due to the pill, the activist cannot capture that value for itself. Knowing that it cannot capture the value that it will create, the activist desists from activism. Improving the too-big-to-fail organization is not, here, in shareholders' interests. Worse than the pill, the subsidy also eviscerates internal incentives of boards, managers, and any controlling shareholders to right-size their financial firm to be operationally efficient. The private incentives induce the affected firms to be less efficient than they would otherwise be.

A. Too-Big-to-Fail as Poison Pill

A simple poison pill works as follows: The corporate board issues preferred stock to its current shareholders. If a control-altering event (such as a single stockholder accumulating stock in excess of 10% of the firm's common) occurs, then the terms of that preferred stock issue allow each old shareholder to redeem his or her preferred shares for, say, 10 shares of new common for each share of preferred, but the new 10% shareholder-intruder is barred by the terms of the preferred stock from participating. The pill dilutes the activist blockholder's common shares, poisoning its incentives to be active: It would have 10% of the common stock and be ready for action operationally, but would know and fear that if the pill is redeemed it will suffer a massive financial loss, as the pill would dilute the activist down from 10% to only 1% of the target firm's common stock. Anticipating that dilution, the activist shies away from buying up the target firm's stock and looks for other investment opportunities. In other variations, the poison has the target making a large payment to a

supplier, or losing a key supplier, if the control shifts inside the firm.[9]

The too-big-to-fail subsidy works analogously. If the subsidy lowers the financial firm's financing costs, then the activist who is confident that it can fix the target firm must also swallow the "poison" of the firm losing that funding subsidy. The potential subsidy lost for the largest American financial firms has been quite large, as we shall see in Part III. Hence, a restructuring would need to recover this large funding loss before change agents could profit from enhancing the financial firm's corporate efficiency. There have been extremely few takeover efforts in the finance sector.[10]

Worse, the too-big-to-fail subsidy degrades internal incentives to restructure as well. The day-to-day incentives of a board with subsidized debt differ from the day-to-day incentives of a board with higher funding costs, as the next Sections illustrate.

B. Too-Big-to-Fail as Breakup Protection

Consider the weakened incentive for internally-generated spinoffs and break-ups. The financial firm's board judges, say, that one of its businesses does not fit well with the firm's overall strategic plans and that its continuance in the firm is, its initial analysis indicated, holding down its stock price. It plans to sell the business to a nonfinancial firm, or sell it to a smaller financial firm, or spin it off. The financial firm would then plan to retire the debt that it had originally used to finance the misfit.

Standard thinking is that managers and boards are often reluctant to let go of their operations. They want the bigger empire for the associated prestige, power, and oftentimes compensation. For the too-big-to-fail firm, the managers and boards have another powerful reason to be reluctant. As long as their lowered funding costs make up for the shortfall due to degraded operations, the too-big-to-fail firm's board and managers should find it beneficial, in terms of shareholder profit, to hold on to the misfit. The board may explicitly realize that the subsidy and lowered cost of funding has this negative operational impact. Or, they just find that, when they seek to sell the misfit, the investment bankers come back to the board with low bids from firms that are not too-big-to-fail. The bids are low because the potential buyer lacks access to the same cheap, subsidized funding that the too-big-to-fail firm enjoys. The board can conclude the spinoff is a bad deal for them, without having consciously sought to obtain, or retain, or to analyze the too-big-to-fail subsidy.

C. Too-Big-to-Fail as Stymieing the Managerial Divisional Buyout

Managers at an orphaned division commonly buy out their division or

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[9] RONALD J. GILSON & BERNARD S. BLACK, THE LAW AND FINANCE OF CORPORATE ACQUISITIONS 741 (2nd ed. 1995). Even more strongly analogous are structural impediments to takeover, such as lucrative contracts for the target firm that expire upon a change-of-control of the firm. The structural impediment would visit the costs of the change-of-control on all shareholders, as does the loss of the too-big-to-fail funding advantage. The pill visits its costs on the activist, in the first instance.

[10] Hamid Mehran & Lindsay Mollineaux, *Corporate Governance of Financial Institutions*, 4 ANN. REV. FIN. ECON. 215, 223 (2012); Renée Adam & Hamid Mehran, *Is Corporate Governance Different for Bank Holding Companies?*, FRBNY ECON. POLICY REV., Apr. 2003, at 123, 126 ("[D]espite active consolidation in the banking industry, there have been very few hostile takeover bids.").

subsidiary. They borrow considerably, find some equity capital for the buyout, and buy up a division or a subsidiary that they are motivated to run well.

The too-big-to-fail subsidy weakens their incentives, as well as those of the firm's board and shareholders for the buyout. The subsidiary's managers find their funding costs cannot support the buyout. They believe that they will increase the division's profitability by 50% after the spin-off, but their funding costs would be 50% higher than the parent company's. The parent company board will consider the managerial buyout, but they find the price too low. This process could occur without the parent firm's managers or board being aware of the subsidy. They match up funding costs of the buyout with the value of the division and find that the numbers do not match, attributing their cheaper funding to their own superior efficiency.

* * *

Related channels of corporate governance degradation are in play, involving excess leverage, misshapen executive compensation, and how the too-big-to-fail subsidy can incentivize lobbying for poor regulation. We explore this related degradation further in Part VI. But first let us examine the data on too-big-to-fail financial institutions.

III. THE FINANCIAL IMPACT OF BEING TOO-BIG-TO-FAIL: DATA

The data on the too-big-to-fail subsidy comes largely in two major forms: First, rating agencies estimate the difference in quality between the big banks' stand-alone strength and their enhanced strength with the government back-up. The ratings now show a big gap between the two, with that gap still wide after the passage of Dodd-Frank, the law intended to stabilize American financial firms. Second, economists measure the subsidy by comparing funding costs of large and small banks, to estimate how much less expensive the big banks' debt financing costs are. Or they compare the cost of deposits above the insurance limit, with the cost of insured deposits.

These numbers seem at some level small (80 basis points per annum, in some of the larger estimates, or less than a 1% discount on the amount charged to the banks on their borrowings). That leads us to the third, less frequently used measure of the too-big-to-fail subsidy: what is its size as a fraction of big firm profit? We convert all existing estimates into the value to shareholders. Most conversions lead to the size of the too-big-to-fail subsidy amounting to a large fraction, at about half of the big banks' shareholder profits. Losing these sums would be serious setbacks.

A. The Data: Concept

A straightforward example illustrates why relatively small funding savings of, say, one percent per annum on a financial firm's borrowings could have a big impact on its profits and, hence, shareholder value.

Financial firms are heavily leveraged. Take one worth $100 with 10% of its funding coming from stockholders' equity and 90% from debt. (Ignore that insured deposits make up some of that debt.) Posit that equityholders expect a rate-of-return of 20%, at the firm's level of risk. They want a return of $2 each year.

The lenders estimate that while the chance of failure is only one in 100 annually, failure would be a total operational loss were there no bailout. But because the lender anticipates that the government will bail it out and pay them the $90 lent if the firm fails, the lender lowers the interest rate by 1% because the one in 100 chance of failure will not be costly to the lender. (Ignore that small depositors are always paid in a bank failure; that short-term lenders and large depositors have usually been paid; that others, like long-term bond market lenders, are often paid; and that some classes of firms, like large insurers and investment banks are new to the too-big-to-fail arena.) So, the lenders' willingness to lower their charge to the firm reduces the firm's cost of capital by .9% (from 1% of 90), or 90 basis points. That seemingly small amount is nearly half (45%) of the $2 of profit that the heavily-leveraged equityholders seek. The subsidy is vital to shareholder profit. Losing it would be serious indeed.

B. The Data

The evidence that larger banks have lower funding costs than smaller banks is extensive.[11] But that does not in itself tell us the source of their funding advantage — efficiency, subsidy, or something else.

Examine Figure 1, based on Moody's recent ratings for the big banks. Moody's rates the quality of loans made to the banks. When it does so, Moody's separately rates the banks on their standalone credit quality and on their full credit quality, which adjusts the standalone value for the likelihood that the government will support the bank if it would fail and otherwise be unable to pay back the lender.

As the graphic shows, most large financial firms in the United States get a substantial credit quality upgrade due to the presence of the de facto government guarantee. Citibank, for example, is rated A3 on an overall basis, or investment grade, while it is rated Baa3 on a stand-alone basis, which makes it near junk-bond quality, meaning there would be a substantial chance that the firm would default on payment during the life of the relevant bonds. This gap is common for the larger banks.

Here is Moody's verbal descriptive of its results:

> The … median senior debt rating for firms with global capital markets operations is A2 (at the operating company level). This is three notches higher than the Baa2 median standalone credit assessment, and reflects the substantial benefit of our assumptions about external support, primarily from governments.
>
> Given their systemic importance [to their economies] … , these [big financial] firms' debt and deposit ratings continue to rank in the upper range of our global universe of rated financial institutions. While we recognize the clear intent of governments around the world to reduce support for creditors, the policy framework in many countries remains supportive for now, not least because of the economic stress currently stemming from the euro area and the potential systemic repercussions of large, disorderly bank failures, and the difficulty of resolving large, complex and interconnected institutions.
>
> Our view that these groups retain access to government support in case of need,

[11] Ata Can Beray, Asli Demirgüç-Kunt & Harry Huizinga, *Do We Need Big Banks? Evidence on Performance, Strategy and Market Discipline*, J. FIN. INTERMEDIATION (forthcoming, 2013) (MS at 26).

at least for now, is consistent with the substantial capital and liquidity support that several of them have received in recent years.

In five cases (JPMorgan Chase, Goldman Sachs, Deutsche Bank, Credit Suisse and Morgan Stanley), the long-term debt ratings declined less than their standalone credit assessments [i.e., the rating strength due to government backup has been increasing, not decreasing].[12]

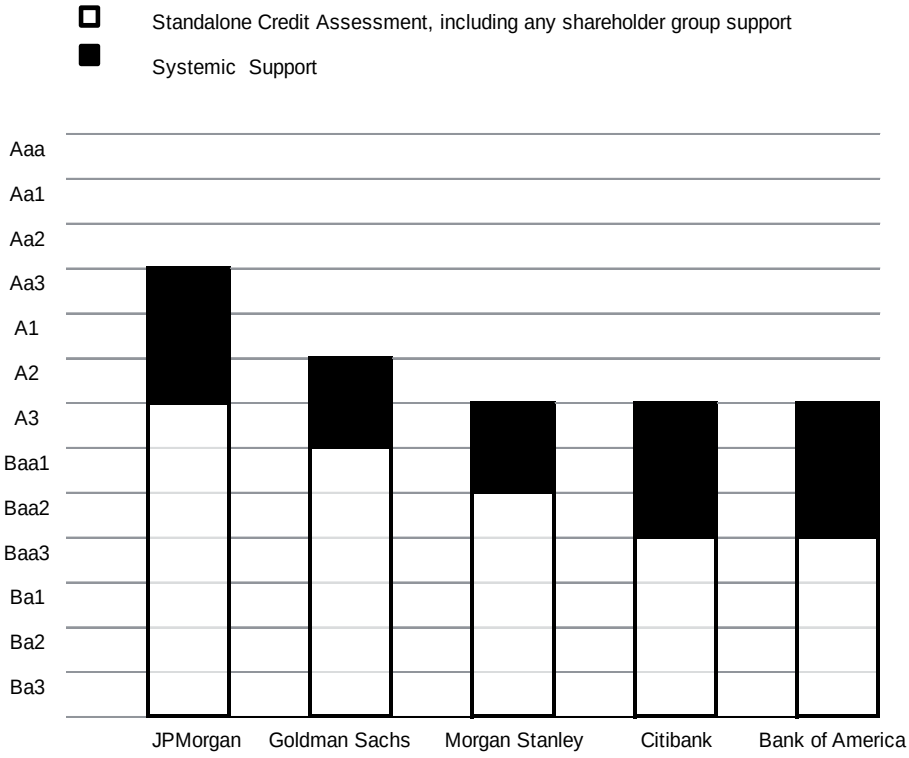

Figure 1. Moody's bank debt ratings, with and without government backing

Ten recent academic and regulatory studies measure the too-big-to-fail subsidy in two ways: the change in its level from before and after the financial crisis, and the ongoing level of the subsidy. The studies, summarized in Tables 1 and 2, have results in the same general range, with a mean increase from pre- to post-crisis amounting to a third of 2009 profits (Table 1) and an ongoing support level exceeding one-half of the averaged 2006, 2009, and 2012 profits (Table 2), with its size spiking in 2009. Some studies convert the rating agencies' judgments in rating differences into a measure of annual subsidy of the firm's debt,[13] others use credit default swaps on bank debt[14] or

[12] Moody's Investors Service, Special Comment, Key Drivers of Rating Actions on Firms with Global Markets Operations, at 3, 13 (June 21, 2012).

[13] Zen Li, Shisheng Qu & Jing Zhang, Moody's Analytics, Quantifying the Value of Implicit Guarantees for Large Financial Institutions (Jan. 2011) (Moody's report).

[14] Id.; Frederic A. Schweikhard & Zoe Tsesmelidakis, The Impact of Government Interventions on CDS and Equity Markets (SSRN working paper, 2011), *available at* http://ssrn.com/abstract=1573377.

different banks' cost of funds.[15] Others measure the different rates on deposits above and below the formally guaranteed amount[16] or differences in bond pricing[17] or stock returns.[18] Although the studies' time periods, studied firms, and techniques differ, their results are remarkably similar, with the size of the increase amounting to a major fraction of large financial firm profits.

Consider one prominent study in more detail, a study associated with the International Monetary Fund in 2011 — "Quantifying the Value of the Subsidy for Systemically Important Financial Institutions," by Kenichi Ueda and Beatrice Weder di Mauro — which has typical results.[19] Using rating agency results from Fitch, one of the major rating agencies, the authors calculate the increase in the support rating before and after the financial crisis, and then translate this into a funding cost advantage based on the difference in interest charges due to ratings quality across the market. They estimate that the funding subsidy increased by 20 basis points (.2% annually) during the financial crisis, presumably because lenders raised their estimate of the government's willingness to bail out a wide range of firms. Because financial firms use so much debt and so little equity to finance themselves (with debt ten or twenty times the size of their equity), saving funding costs of .2% annually on the debt can amount to 15 or 20% of the banks' profits.[20]

Baker and McArthur, authors of another prominent work measuring the size of the too-big-to-fail subsidy, also focus on funding cost changes over time. During the pre-crisis years, from 2000 through 2007, larger banks with more than $100 billion in assets had a funding cost advantage over smaller banks of .29%. This advantage widened during the 2007–2009 financial crisis to .78%, an increase of 49 basis points, presumably because the big banks were seen as likely to be bailed out, while smaller financial firms — MF Global at about $40 billion in assets, for instance — would not be.[21] This increase translates to an annual funding cost advantage for the eighteen large banks of $34 billion, an amount equivalent to half of their combined 2009 profit. The measured post–crisis subsidy increase for the biggest six U.S. banks is commensurate.

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[15] Dean Baker & Travis McArthur, The Value of the "Too Big to Fail" Big Bank Subsidy (Center for Econ. Policy Res. Issue Brief, Sept. 2009), *available at* http://www.cepr.net/documents/publications/too-big-to-fail-2009-09.pdf.

[16] Stefan Jacewitz & Jonathan Pogach, Deposit Rate Advantages at the Largest Banks (SSRN working paper, Sept. 19, 2912), *available a*t http://ssrn.com/abstract=2018474.

[17] A. Joseph Warburton, Deniz Anginer & Viral V. Acharya, The End of Market Discipline? Investor Expectations of Implicit State Guarantees (SSRN working paper 2013), *available at* http://ssrn.com/abstract=1961656.

[18] Priynak Gandhi & Hanno Lustig, Size Anomalies in U.S. Bank Stock Returns: A Fiscal Explanation, J. FIN. (forthcoming, 2013); Elijah Brewer III & Julapa Jagtiani, How Much Did Banks Pay to Become Too-Big-To-Fail and to Become Systemically Important, 43 J. FIN. SERV. RES. 1 (2013).

[19] Kenichi Ueda & Beatrice Weder di Mauro, Quantifying the Value of the Subsidy for Systemically Important Financial Institutions, (IMF working paper, 2012), *available at* http://www.imf.org/external/pubs/ft/wp/2012/wp12128.pdf.

[20] A firm worth $100 with a .2% subsidy on $100 of financing gains $.20 annually. (If only some financing is subsidized, like just debt, or only long-term debt, then the gain is less.) If the firm is leveraged, with $90 of debt and $10 of equity, then a subsidy on all debt would be $.18. If profits are 10% of its $10 of equity, it earns $1 annually, which compares to $.18 of annual subsidy.

[21] Baker & McArthur, supra note 15, at 2.

Study	Implied equity subsidy	Actual data and results				
		Baseline result	Sample	Baseline data	Pre-crisis time period	Post-crisis time period
Dean Baker & Travis McArthur, The Value of the "Too Big to Fail" Big Bank Subsidy	**9% - 50%**	9 - 49 bps difference in funding costs	Institutions with greater than $100 billion in assets in March 2009	Average quarterly cost of funds	Q4, 2008 - Q2, 2009	2001 - 2007
Stefan Jacewitz & Jonathan Pogach, Deposit Rate Advantages at the Largest Banks	**31%**	30 bps difference	Institutions with greater than $200 billion in assets	Deposit interest rates offered to money market deposit accounts	Q4, 2008 - Q3, 2010	Q1, 2005 - Q3, 2010
Kenichi Ueda & Beatrice Weder di Mauro, Quantifying the Value of the Subsidy for Systemically Important Financial Institutions	**20%**	Median difference between 2009 and 2007 of 20 bps	All banks with Fitch support ratings (including international)	Ratings support	End of 2009	End of 2007
Frederic A. Schweikhard & Zoe Tsesmelidakis, The Impact of Government Interventions on CDS and Equity Markets	**61%**	60 bps difference, pre- and post-crisis	Financial institutions with CDS	Credit default swap data	2007 - 2010	Pre-crisis
Li, Z, Qu, S & Zhang, J, Quantifying the value of implicit government guarantees for large financial institutions (Moody's report)	**34%**	33 bp increase in spread between big and small bank credit default spreads	Top 20 banks by assets in 2007	CDS and Moody's Expected Default Frequency / fair-value CDS spreads	Post-crisis	2001 - 2010
Average range change	**33.5%**					

Table 1. Increased too-big-to-fail funding advantage after the financial crisis, as portion of profit.

Table 2 summarizes measured baseline level of the too-big-to-fail advantage to the big financial firms, reconfigured as a portion of profits, and averaged over their 2006, 2009, and 2012 profits. Overall, the data points to a substantial baseline advantage, amounting to a noticeable fraction of financial firm profits, with the size of the advantage increasing noticeably during the financial crisis.

Big banks surely have size-based efficiencies and big firms' bonds are more liquid than small firms' bonds.[22] While most work finds evidence that banks exhaust economies of scale at a level well below the size of the biggest financial firms,[23] not all

[22] Joseph P. Hughes & Loretta J. Mester, Who Said Large Banks Don't Experience Scale Economies? (Fed. Res. Bank Phil. Working paper no. 13-13, 2013), *available at* http://ssrn.com/abstract=2256059.

[23] For reviews of the evidence concluding that big finance is inefficient, see Robert DeYoung & Chao Jiang, Economies of Scale and the Economic Role of Banks (working paper, 2013), *available at* http://www.vgsf.ac.at/fileadmin/user_upload/P/DeYoung_and_Jiang_May_22_2013.pdf; Richard Davies & Belinda Tracey, Too Big to Be Efficient? The Impact of Implicit Funding Subsidies on Scale Economies in Banking (Bank of England working paper, 2012), *available at* http://www.tilburguniversity.edu/research/institutes-and-research-groups/ebc/events/2012/post-crisis/daviestracey.pdf. Cf. Hulusi Inanoglu et al., Analyzing Bank Efficiency: Are "Too-Big-to-Fail" Banks Efficient? (Rice U. working paper, 2012), *available at* http://michaeljacobsjr.com/InanogluJacobsLiuSickles_BankEfficiency_1-7-12.pdf; Asli

do.[24] It is possible that both are in play, with the big banks having some efficiencies from scale economies and substantial too-big-to-fail distortions.

Study	Implied equity subsity	Actual data and results		
		Sample	Baseline data	Time period
Dean Baker & Travis McArthur, The Value of the "Too Big to Fail" Big Bank Subsidy	**75%**	Institutions with greater than $100 billion in assets, compared to those with less	Average quarterly cost of funds, provided by the FDIC	Q4, 2008 - Q2, 2009
Kenichi Ueda & Beatrice Weder di Mauro, Quantifying the Value of the Subsidy for Systemically Important Financial Institutions	**77%**	All banks with Fitch support ratings (including international)	Credit ratings (overall, and with a without support from government or from parent banks)	End of 2009
Viral V. Acharya, Deniz Anginer, & A. Joseph Warburton, The End of Market Discipline? Investor Expectations of Implicit State Guarantees	**27%**	Top 10% (by size) of SIC codes of 60 - 64 with US-issued bonds	Bond pricing data from three separate databases	1990-2010
Priyank Gandhi & Hanno Lustig, Size Anomalies in US Bank Stock Returns: A Fiscal Explanation	**37%**	U.S. incorporated commercial banks, non-depositorty credit institutions, and investment banks	Differences in risk-adjusted returns in bank stocks	1970-2009
Elijah Brewer III & Julapa Jagtiani, How Much Did Banks Pay to Become Too-Big-To-Fail and to Become Systemically Important?	**36%**	8 merger deals that brought organizations to over $100 billion in assets	Pre-merger prices and purchase prices, and asset sizes of target and aquiring firms	1991 - 2004
Bryan Kelly & Hanno Lustig, Too-Systemic-To-Fail: What Option Markets Imply About Sector-wide Government Guarantees	**91%**	US financial institutions (of all sizes) and the financial sector index	Daily option data (nine SPDR sector exchange-traded funds and the S&P500 ETF)	2003-2009
Average:	**57%**			

Table 2: Too-big-to-fail funding advantage levels, averaged over 2006, 2009, and 2012, recalibrated as portion of profits

A large fraction of the funding advantage seems likely to come from the too-big-to-fail subsidy. Table 1's studies measure the increase in funding advantages for big finance after the financial crisis. Since it is highly unlikely that big finance became more efficient due to the crisis, the measured increase seems best attributable to the market seeing too-big-to-fail support as increasingly likely, and the most recent study

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Demirgüç-Kunt & Harry Huizinga, *Are Banks Too Big to Fail or Too Big to Save? International Evidence from Equity Prices and CDS Spreads*, 37 J. BANKING & FIN. 875 (2013); John H. Boyd & Amanda Heitz, The Social Costs and Benefits of Too-Big-to-Fail Banks: A "Bounding" Exercise (2012), *available at* http://casee.asu.edu/upload/TBTF_AER_Final_New_Title.pdf.

[24] Hughes & Mester, supra note 22; David C. Wheelock & Paul W. Wilson, *Do Large Banks Have Lower Costs? New Estimates of Returns to Scale for U.S. Banks*, 44 J. MONEY, CREDIT & BANKING 171 (2012); JP Morgan Europe Equity Research**,** Global Banks — Too Big to Fail? Big Can (Also) Be Beautiful (2010), *available at* http://www.docin.com/p-44748761.html.

on the subject, from the Bank of England, so concludes.[25] Several studies have long attributed financial firm mergers to the desire to obtain the too-big-to-fail funding benefits[26] and, the biggest American financial firms are bigger today than they were pre–Dodd-Frank. JP Morgan Chase, Bank of America, and Citigroup, are 15% larger than they were in 2007.[27]

One recent study from the financial industry deserves further comment. It defended the industry, minimized the size of the subsidy, and attracted financial media attention. The Goldman Sachs authors concluded that over recent years, the big banks had a funding advantage over smaller banks of only 31 basis points (.31%) and that the advantage has been narrowing or disappearing recently.[28] But seeing the numbers in basis points can be misleading when evaluating incentives: While small as a fraction of the debt, a long-run subsidy of .31% annually on a leveraged firm's debt can readily account for 25% or 30% of the firm's profits. Moreover, given that small banks in the United States have been the most failure prone, the Goldman report is correct in refocusing subsidy and bailout attention on small banks as well large ones. But by doing so, their report facilitates the mistaken inference that the big firms' 31 basis funding advantage is a standalone amount, when it's an amount on top of any small banks' too-big-to-fail subsidy.

Nevertheless, too-big-to-fail is a variable, not a constant. If big finance shrinks, or become more stable and less-interconnected, or better regulated, the too-big-to-fail subsidy can decrease. Below, I address the possibility that this decline is occurring and, if it is, the sharp corporate governance consequences one should observe.[29]

Finally, note that most studies focus on deposits and long-term debt rates to derive a too-big-to-fail subsidy. But for the biggest too-big-to-fail banks, much of their funding and operations are in non-deposit, short-term debt — the famous derivatives (usually short-term bets on movements of interest rates, currencies, and other financial items) and repos (short-term, often overnight repurchase agreements). Derivatives and repo contracts are effectively prioritized over bonds if the bank fails.[30] Because small

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[25] Davies & Tracey, supra note 23; ANAT ADMATI & MARTIN HELLWIG, THE BANKERS' NEW CLOTHES 89 (2013) ("incentives for banks to become large through mergers can be partly attributed to cost advantages from implicit subsidies they obtain by becoming too big to fail").

[26] George Benston et al., Motivations for bank mergers and acquisitions: enhancing the deposit insurance put option versus earnings diversification, 27 J. MONEY, CREDIT & BANKING 777 (1995); Edward J. Kane, Incentives for banking megamergers: what motives might regulators infer from event-study evidence? 32 J. MONEY, CREDIT & BANKING 671 (2000). See generally Michael Keeley, Deposit Insurance, Risk and Market Power in Banking, 80 AM. ECON. REV. 1183 (199)).

[27] Bank growth is based on asset size, as reported by the banks. Bank of America Annual Reports, *available at* http://investor.bankofamerica.com/phoenix.zhtml?c=71595&p=irol-reportsannual#fbid=btuXJHoa2Bx; JPMorgan Chase's Annual Reports, *available at* http://investor.shareholder.com/jpmorganchase/annual.cfm; Citigroup's 2007 Annual Report, *available* at http://www.citigroup.com/citi/fin/data/k07c.pdf; Citigroup's 2011 Annual Report, *available* at http://www.citigroup.com/citi/investor/quarterly/2012/ar11c_en.pdf.

[28] Goldman Sachs Global Markets Institute, Measuring the TBTF Effect on Bond Pricing (May 22, 2013), *available at* http://www.goldmansachs.com/our-thinking/public-policy/regulatory-reform/measuring-tbtf.html

[29] See infra Part VII.B.

[30] Mark J. Roe, The Derivatives Players' Payments Priorities as Financial Crisis Accelerator, 63 STAN. L. REV. 539 (2011). See also Franklin Edwards & Edward Morrison, Derivatives and the Bankruptcy Code: Why the Special Treatment?, 21 YALE J. REG. 91 (2005).

banks do not use these types of short-term debt, the big banks' long-term debt is, all else equal, riskier (because it gets paid after the short-term debt) and accordingly costs more than the smaller banks' long-term debt. If it does not cost more than small bank long-term debt, that indicates an offsetting benefit, such as a too-big-to-fail subsidy. Similarly, counterparties to too-big-to-fail firms should be more willing to do business with them than with firms that need to stand on their own. This preference will translate into better contracting terms for the too-big-to-fail firm, or greater business volume, or both. This too-big-to-fail benefit may well be large and is not captured in traditional measures of the benefit.

C. The Instability of the Too-Big-to-Fail Subsidy

The size of a too-big-to-fail subsidy is not stable but changes. Regulation gets better, or worse. Financial transactions change. The economy improves, making failure unlikely, or degrades, making failure more likely. Bank defenders could respond that the subsidy was once there, but has disappeared, or is disappearing. Or the big increase in the too-big-to-fail subsidy detected during and after the financial crisis will subside, in this view, as the economy stabilizes, as financiers learn from mistakes, and as regulators reconstruct the rules. This possibility of a declining subsidy leads to two reactions, one a view of cautious skepticism, which I outline next, and another of the transactional consequences, which are quite substantial, if and when the subsidy disappears, which I save for the end of this Article, for Part VII.

First, some skepticism. Big picture pressures can induce the policy consensus to too quickly see the too-big-to-fail problem as resolved. The interests of the regulated in minimizing a too-big-to-fail problem are obvious and need not be detailed. And regulators also have reason to move on. They are acting via new legislation, new regulation, or new vigor in applying long-standing principles. For them to indicate that the too-big-to-fail problem today is not yet substantially under control would be to admit that their actions were insufficient, poorly constructed, or poorly executed. Moreover, a regulatory system can only be on high-alert, tensed up, for so long.

And, most simply, but quite realistically, a strong economy makes financial failure less likely than a weak economy. Too-big-to-fail benefits rise and fall with the economy, even if policies and firms' operational risks stay constant, because in a healthy economy they will not fail and in a weak economy they are more likely to. Policymakers and opinion-makers may readily confuse an improved economy — and it usually does improve after a crisis — for a permanent fix to the too-big-to-fail problem, rather than a real but temporary respite. The data suggests a big boost in the subsidy during the crisis, which might subside,[31] but one should not ignore that the data also points to longstanding, substantial, albeit lower, subsidy levels outside of the

[31] Peter Eavis, *Moody's Threatens to Cut Credit Ratings of Banks*, N.Y. TIMES, Aug. 23, 2013, at B3 (ratings agencies believe regulators would let long-term debt default under Dodd-Frank's wind-down approach and, with long-term debt bailout of this debt less likely, the rating agencies plan to cut the banks' credit ratings). Whether the rating agencies end up captured by those they rate, which was a problem in the run-up to the financial crisis, would need to be considered. Cf. id. ("Paul Volcker, a former chairman of the Federal Reserve, expressed skepticism about Dodd-Frank's wind-down approach. 'No one in the market believes it,' he said.").

crisis.[32]

Pre–Dodd-Frank regulatory opinion shows how easy it is to consider the financial mission to have been accomplished. Failures such as that of Continental Illinois and Long-Term Capital Management had induced regulators to reassess failure possibilities. A former Federal Reserve Board governor opined in a prominent, intelligently-done essay that "[t]he evidence does not support a worsening of the too-big-to-fail problem. To the contrary, the evidence seems to support that [due to banking reforms, new legislation, and new regulation,] there has been substantial improvement on this score."[33] New legislation and better regulation, in his view, had induced "a sea-change in the industry," as bank capital was up, banks were managing risk better, and the Basel accords were taking effect.[34] Moreover, market yields showed no excessively large too-big-to-fail bounce in long-term bank bonds, as there once had been[35] and relative yields between large (too-big-to-fail) banks and small banks narrowed or disappeared. This view was unexceptional at the time among the financial cognoscenti[36] and regulators.[37] Yet it was a view expressed in 2006, one year before the financial crisis began and AIG, Bear, and Lehman failed.

* * *

Nevertheless, the financial circumstances could change, and could change due to Dodd-Frank, which sought to bring more regulatory discipline to American banking. The too-big-to-fail feature of American finance is over time a variable, not a constant, with its likelihood and its extent rising and falling, expanding and contracting, and moving from one geographic region and financial sector to another, and from small institutions to large ones, and back again.

Thus, if one is skeptical of the post–Dodd-Frank importance of the too-big-to-fail subsidy, this article serves to analyze what the corporate governance situation in the big banks will look like *if* new subsidy data turns out to be consistent with the data we now have, which indicates a major too-big-to-fail uplift. It analyzes the corporate governance channels that too-big-to-fail distortions ultimately degrade. It also leads to

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[32] Consider regulators who says more needs to be done to end the too big to fail problem. Jesse Hamilton, *Bernanke Says Too-Big-to-Fail Banks May Face New Capital Demands*, BLOOMBERG, July 18, 2013, *available at* http://www.bloomberg.com/news/2013-07-18/bernanke-says-too-big-to-fail-banks-may-face-new-capital-demands.html.

[33] Frederic S. Mishkin, *How Big a Problem Is Too Big to Fail?*, 44 J. ECON. LIT. 988, 996 (2006).

[34] Id. at 997 ("By 2004, the largest banks have more than doubled their capital ratios and are now well capitalized…. Furthermore, they no longer have less capital than smaller banks…. The higher capital ratios … suggest that they are no longer as willing to take on risk. This could reflect the fact that their counterparties perceive that the large banks are less likely to be bailed out….").

[35] Id. at 996-98 ("bond yields … reflect a bank's [actual] riskiness [and the narrowing rate difference] suggests that the too-big-to-fail problem is not as bad as it once was.").

[36] A well-respected British banking regulator opined that "reducing the possibility of the disruptive failure of a [large and complex financial institution] is a central preoccupation of public policy. The good news is that the likelihood of such an eventuality is remote." Andrew Crockett, *Dealing with Stress at Large and Complex Financial Institutions*, SYSTEMIC FINANCIAL CRISES: RESOLVING LARGE BANK INSOLVENCIES (Douglas D. Evanoff & George G. Kaufman eds., 2005), at 18.

[37] Larry D. Wall, *Too-Big-To-Fail after FDICIA*, FED. RES. BK. ATLANTA, ECON REV., Feb. 1993, at 1, 18. ("FDICIA should … reduce interbank risk substantially. The prompt corrective action provisions and the increase in market discipline … constrain bank risk taking…. *[T]hese factors should almost eliminate the risk that one bank's failure would cause insolvency at other banks*.") (emphasis supplied).

substantial dealmaking predictions, outlined at the end of this Article, if the too-big-to-fail subsidy increase of the past half-dozen years narrows or disappears. And, for optimists, the analysis provides added reason to be thankful that the problem is under control. But if one concludes that post–Dodd-Frank risk-setting in big finance is insufficiently changed from the pre-crisis setting, or that the too-big-to-fail problems, even if temporarily under control, could return, as they have before, then this Article serves to analyze the corporate governance consequences, to which we now return.

D. The Required Takeover Premium

Consider now the extreme corporate governance restructuring initiative of a takeover. Reducing the chance of a takeover is not the most important degradation due to subsidy — hostile takeovers are rare now and the most important incentive degradation occurs inside the firm, not outside. But examining the antitakeover incentives vividly shows us what the too-big-to-fail subsidy takes off the table as transactionally possible.

Historically the premium needed to make a takeover happen was an offer that was 50% above the pre-takeover price of the target firm's stock.[38] Compare the needed premium to the rough estimate that the subsidy amounts to 33% of the core too-big-to-fail banks' profits.[39] As such, the firm's operations would earn, say, $2, but the bank's profits would be $3, due to the subsidy. If the bank lost that subsidy in degraded operations, putting the profit-level back to $2, then a takeover activist would find a takeover unprofitable, even though it believed it could raise the firm's profitability (and, presumably its stock value) by 50%, back to the pre-takeover $3.

Examine this problem in more detail. If the financial firm's profitability were $2 per annum, and the stock price $20, then the takeover entrepreneur who believed it could make the firm worth $30 (because it could raise the firm's annual operating income to $3 or could break it up into parts worth $30 in the aggregate), could offer up to a 50% premium over the ongoing price of $20. A deal is doable between the market price of $20 per share and the takeover activist's assessment that the firm can be turned into a $30 per share firm.

But if the financial firm's stock price is already trading at $30 and earning $3 per share annually, due to the subsidy, then the takeover entrepreneur comes to understand that it could not make the firm worth (say) $40. Yes, it could add $1 per share to the overall annual operating earnings by restructuring the firm. But the restructuring, if it induced the bank to lose its too-big-to-fail status and, hence, the extra $1 per share, would yield a firm still worth $30 per share, not $40 per share.

The takeover activist, after running these numbers, would withdraw, desisting from agitating for a takeover and break-up of the target firm, even if it were confident that the target could be put on a sounder operational foundation. This too-big-to-fail firm has become takeover-proof.

Incentives for boards to restructure on behalf of shareholders are similar: the too-big-to-fail subsidy would dilute, reduce, and quite plausibly eliminate their

[38] Gilson & Black, supra note 9, at 600.

[39] See Table I, supra.

incentives to proceed with even operationally very profitable restructurings, if the restructuring would put the too big-to-fail subsidy at risk. Even a controlling shareholder would desist, unlike an efficiency-minded controller of a large but not too-big-to-fail industrial firm. Even a board's simple decision to raise new equity will be impeded, because more equity reduces the probability of bailout, which reduces the value of the too-big-to-fail subsidy.

IV. THE EXTENDED SOCIAL COSTS

The too-big-to-fail bailouts at public expense during the 2007–2009 financial crisis were a source of public anger, inducing the Dodd-Frank Act, Congress's major reaction to the financial crisis and the bailouts, to have "no more bailouts!" as an organizing rationale. But as we argued thus far, the cost of too-big-to-fail finance is not just in bailouts, and not just in the more important financial disruption that major financial failure brings to the rest of the economy. In addition, the financial firm degrades organizationally. The costs are direct — the financial firm contributes less to the economy — and indirect, because the structural degradation increases the chance that the firm will fail in a crisis. In this Part, we extend the analytics of these social costs and see how they resemble those of the monopolist.

A. The Monopolist's Rectangle

Antitrust analysts have examined the social costs of monopoly and oligopoly. The classic costs come first from the monopolist raising its selling price above its own full costs. Consumers pay more, the monopolist gets richer.

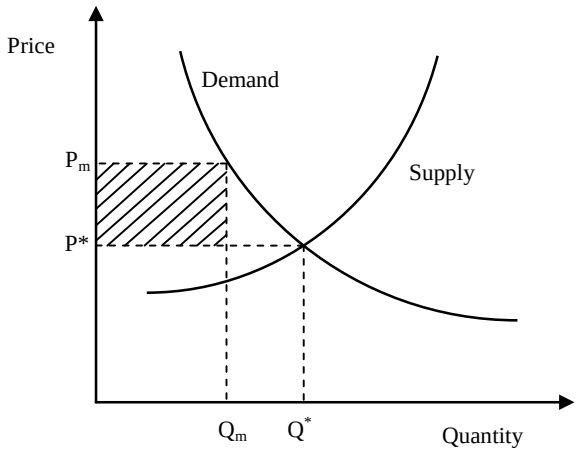

Figure 2. The social costs of the monopolist's rectangle.

As it raises its price, some consumers who would have purchased at a lower competitive price decide not to buy at the higher price. Only the high-value users continue to buy. The monopolist restricts production, so that it sells only to high-value consumers, letting sales to ordinary consumers fall by the wayside. The loss from the

restricted production is represented by the small triangular shape in the middle of Figure 2, often called the "deadweight costs" of monopoly.[40]

That standard view was transformed in the 1970s, in ways relevant to too-big-to-fail corporate degradation.[41] The monopolist's profit is represented by the rectangle in Figure 2, seen until then as a transfer from consumers to monopolist.

The value of this gain to the monopolist induces it to defend that gain. The monopolist protects its monopoly and that rectangle of profits from attack — from upstart competitors, from regulators and other lawmakers, or from technological change that could displace the monopolist's business. Its investments in self-protection are social costs, deadweight damage to the economy as egregious as the lost production of the monopoly triangle. The monopolist will invest in this socially costly monopoly protection in an amount up to the value of that rectangle.

Worse, the monopolist's organizational strength weakens. Managers can run through some of the value in that rectangle and still give the firm's owners more than the ordinary competitive profits they expect. There is considerable evidence of organizational degradation in publicly-owned firms with market power.[42] With the monopoly profits coming into the firm, boards and senior managers can dissipate some of that value and still provide the firm's shareholders a good return.

B. The Subsidy as Analogous to the Monopolist's Rectangle

The too-big-to-fail problem is analogous. The immediately visible cost of too-big-to-fail banks is that they will be bailed out in a financial crisis, at government expense. This potential is well known.

The too-big-to-fail phenomenon degrades corporate performance as well. Begin with Figure 3, which illustrates banks' supply and demand curves for funding in a fully competitive, nonsubsidized environment. (We introduce the subsidy in Figure 4.) The sector seeks funding for their projects. The x-axis represents the quantity of funding sought, with the y-axis representing the cost of funding. The first projects are highly profitable, so the sector is willing to pay much to finance them. Later projects are less profitable, so the sector will not pay as much. The demand curve slopes downward, as is typical. The supply curve is flat here, showing a single interest rate being charged to the firm. Where the supply and demand curves meet represents the price that clears the market, at the intersection of P* and Q*. Q* could also be taken to represent the size of the sector: funding is demanded for what the sector can implement profitably.

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[40] Oligopoly has analogous "deadweight costs", if a small group of firms coordinates a price above their own costs. And, in fact, the too-big-to-fail financial sector more resembles the oligopoly context than the monopoly one. But the social costs of monopoly are easier to illustrate graphically than the oligopoly structure, and nothing is lost conceptually by using monopoly instead of oligopoly.

[41] Richard A. Posner, *The Social Costs of Monopoly and Regulation*, 83 J. POL. ECON. 807 (1975); Gordon Tullock, *The Welfare Costs of Tariffs, Monopolies and Theft*, 5 WESTERN ECON. J. 224 (1967).

[42] For the bank-based literature here, see Franklin R. Edwards, *Managerial Objectives in Regulated Industries: Expense-Preference Behavior in Banking*, 85 J. POL. ECON. 147 (1977); Timothy H. Hannan & Ferdinand Mavinga, *Expense Preference and Managerial Control: The Case of the Banking Firm*, 11 BELL J. ECON. 671 (1980) (finding office expenses and employment levels rise in banks in concentrated markets).

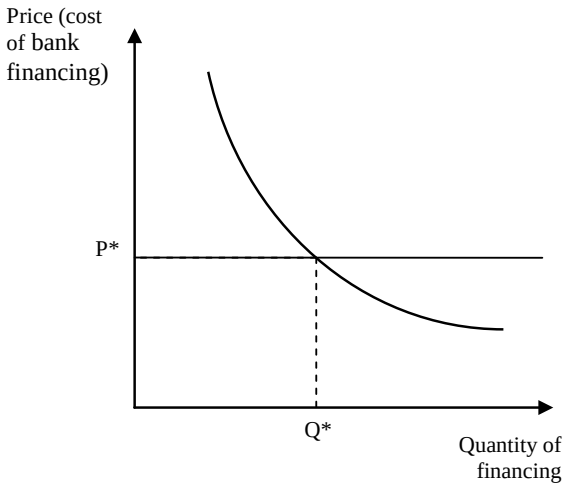

Figure 3. Supply and demand for funding an unsubsidized too-big-to-fail sector.

Next, introduce the too-big-to-fail subsidy. Because financiers to the too-big-to-fail sector believe they are likely to be repaid even if the financial firm fails, they charge less interest than if the firm's failure would surely be visited upon the lender. Lenders are willing to lend more cheaply to the too-big-to-fail sector. This willingness is represented by the supply curve moving downward, as in Figure 4.

If the too-big-to-fail financial firms and their managements only pocketed the subsidy, production would stay at Q*. The cost of the debt would be lower at P_S, yielding the firms savings in their cost of capital at the difference between the competitive cost of funds, P*, and the subsidized cost, P_S. If the financial firm did nothing further, it would enjoy subsidized extra profits represented by the rectangle in Figure 4, amounting in size to (P*- P_S) x Q*. Eventually one of the financial firms would fail and be bailed out. The predicted cost to the government would be the sum of the rectangles through time, paid to the financial firm's creditors.

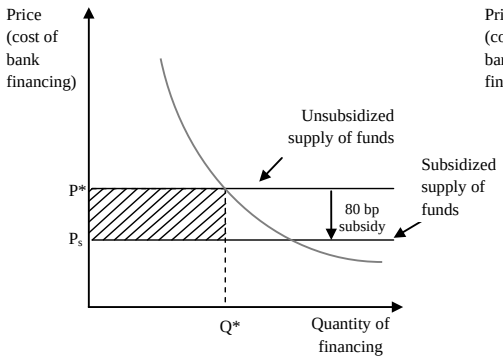

Figure 4. The too-big-to-fail sector's rectangle of potential corporate degradation.

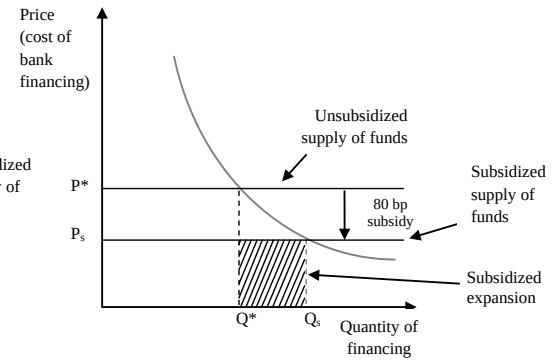

Figure 5. The too-big-to-fail sector's economically unwarranted expansion.

These then are the well perceived costs of the system having too-big-to-fail firms.[43] Consider next the added corporate degradation.

The organizations degrade, due to the presence of that rectangle. The firms' managers are not as careful, because they have the extra profits from the subsidy to cushion them, and the normal corporate controls on major corporate degradation are gone: break-ups and some takeovers, and indeed any improvement that makes the firm unsinkable, would cause the firm to lose the subsidy, represented by the rectangle in Figure 4. The entire rectangle can potentially be lost to the economy.[44] These are not yet well-perceived costs of the system having too-big-to-fail firms.

The subsidy initially makes shareholders in the too-big-to-fail sector richer. But then the too-big-to-fail sector can go down another path. First, big finance has reason to expand the scale and scope of its activities. With the new cost of funding to the sector at the lower P_S, the sector can take on new activities with the new, cheaper finance available to it. It can move its funding size and activity scale out to Q_S. These added activities, represented by the shaded area in Figure 5, would be more efficiently handled elsewhere in the economy, with the too-big-to-fail sector only able to encompass them because they obtain, while others do not, the subsidized, low-cost funding. The too-big-to-fail sector becomes bigger and more unwieldy.

C. The Degradation as Another Channel to Financial Crisis

Failures of financial institutions can be costly to the economy, as we learned again during the 2007–2009 financial crisis. Financial institutions fail, they shrink, and they withdraw from lending, leading to the economy weakening. Unemployment increases, financial markets deteriorate, the economy degrades. These are the well-known costs of financial failure.

The corporate governance degradation channel here leads to two other channels of economic deterioration. The first has the too-big-to-fail subsidy degrading the quality of major financial institutions. The consequence is that the economy suffers because major financial institutions at the hub of the economy work less well than they could work. This has been the primary cost we have examined in this article.

A second cost emanates from this problem. The degraded financial institution is

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[43] E.g., Christy Romero, Office of the Special Inspector General for the Troubled Asset Relief Program, Special Inspector General's Quarterly Report to Congress at 6 (Apr. 25, 2012). http://www.sigtarp.gov/Quarterly%20Reports/April_25_2012_Report_to_Congress.pdf ("A significant legacy of TARP is increased moral hazard and potentially disastrous consequences associated with institutions deemed 'too big to fail.'"); Richard Fisher, Monetary Policy and Too Big To Fail (Feb. 27, 2013) (comments of President, Federal Reserve Bank of Dallas), *available at* http://www.dallasfed.org/news/speeches/fisher/2013/fs130227.cfm ("[F]irms capture the financial upside of their actions but largely avoid payment—bankruptcy and closure—for actions gone wrong…. Such firms enjoy implicit subsidies relative to their non-TBTF competitors."); Sherrod Brown, Senator from Ohio, Ensuring Ohio Taxpayers Don't Pay for Wall Street's Failure (Mar. 4 2013), *available at* http://www.brown.senate.gov/newsroom/newsletters/ensuring-ohio-taxpayers-dont-pay-for-wall-streets-failures ("[T]he same Wall Street megabanks which received bailouts from taxpayers in 2009 also receive taxpayer-funded advantages today simply because of their 'too big to fail' status.").

[44] Competition inside the too-big-to-fail sector needs to be accounted for. We do so in the next Part, where we see that the too-big-to-fail subsidy distorts the competitive arena in the sector.

weaker, due to corporate governance degradation. That weakness induces further financial failure during a crisis, exacerbating and deepening the basic economic costs of a financial crisis. Figure 6 illustrates.

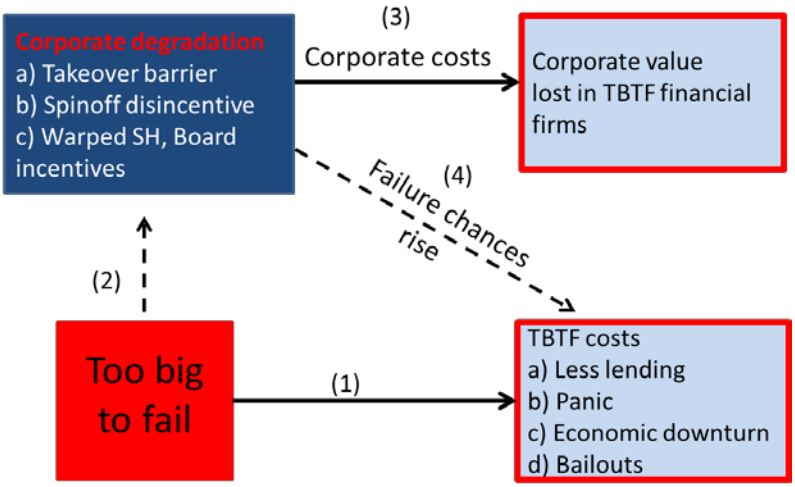

Figure 6. The Too-Big-to-Fail Corporate Degradation Channels

The basic too-big-to-fail costs are at the bottom of Figure 6, embedded primarily in arrow (1), representing the known standard problems: if a big financial firm collapses, it will be less able to lend, could induce financial panic, and, hence, the government will typically bail the firm out. But the too-big-to-fail problem also moves through a corporate governance channel. The too-big-to-fail subsidy degrades the corporate quality of the subject financial firms, via arrow (2). The degraded firms are costly for the economy, because they do not function as well as they could, leaving too many big financial firms at the upper right corner of Figure 6, via arrow (3). And then, lastly, arrow (4) shows that the degraded financial firms have a greater chance of failing, due to the too-big-to-fail corporate degradation, further degrading the financial system and the economy.

V. Further Corporate Degradation

Although the less-than-fully-visible ways corporate governance degrades in too-big-to-fail financial firms have not previously been examined, related degradation channels outside the core corporate governance institutions of boards and shareholders have been observed. The corporate governance degradation problem I have analyzed here widens several of these known channels. First, the subsidy perniciously induces affected firms to increase their overhanging risky debt, which distorts corporate strategy. Second, the best shareholder-oriented compensation mechanisms — mechanisms that make boards and managers loyal to shareholders — can be good for General Motors. But for big finance, shareholder-oriented compensation incentivizes boards and managers to use more of the too-big-to-fail subsidy and to avoid structures that use less, further degrading the firm's value to the economy. Third, the subsidy distorts the competitive arena for the too-big-to-fail sector, such that competition, which elsewhere can reverse corporate governance degradation, can further debase corporate structure. Fourth, while managerial fear of criminal sanctions and similar governmental enforcement can induce managers to do the right thing, the too-big-to-

fail firm distorts prosecutors' and regulators' actions as well. Finally, there is a class of takeover firms that will not be deterred by the fragility of the too-big-to-fail subsidy from buying up a large, poorly managed too-big-to-fail firm — namely, other too-big-to-fail firms. The financial players' unwillingness to lose the too-big-to-fail subsidy impels them to larger, more unwieldy firms, which is worse for the economy.

A. The Subsidy as Debt Overhang

Thus far we have seen how the too-big-to-fail subsidy destroys basic corporate governance incentives. It also distorts capital structure decisions.

It is well known that capital structure choices can influence the firm's choice of investments and can enhance, or can degrade, managerial decision-making.[45] Too much debt induces managers, if loyal to their shareholders, to accept excessive risks that the creditors pay for if the risks turn out badly, but which the shareholders profit from if that excessive risk-taking yields good results.[46] Moreover, a shareholder-oriented firm with much risky debt may forgo profitable projects, because the benefits go disproportionately to the overhanging risky debt. Too little debt, on the other hand, and managers could forgo extra effort because there are no creditors to challenge them if the managers forgo a few dollars of extra operational income. Hence, in the normal science of capital structure, there's a trade-off to be made.

The too-big-to-fail subsidy affects the relative cost of debt and equity. Typically the government does not bail out stockholders of the too-big-to-fail firm, only creditors.[47] Hence, the difference in the cost of equity funding and debt funding is larger for the too-big-to-fail firm, pushing its board and shareholders to favor yet more debt in the firm, all else equal. The firm will be over-indebted, motivated to forgo solid opportunities for riskier ones.[48] The long-run corporate governance interest of the depositors' guarantor diverges from that of the shareholders.[49]

Excess leverage degrades the firm. Worse yet, the firm will have more reason to fight sound regulation that would lead to more safely capitalized firms. Since the subsidized debt is cheaper, but equity financing is not, financial firms' incentives are to challenge or side-step capital requirements that would reduce their too-big-to-fail subsidy. To get the too-big-to-fail subsidy, the banks must leverage themselves up. The negative risk-taking effects arise even in leveraged firms run by single entrepreneurs. In contrast, the effects analyzed in this paper come from degradation of core corporate governance institutions — board functionality, board motivation for more size and fewer spinoffs, and the reduced capacity of capital costs, shareholder pressure, and

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[45] Michael C. Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeover*s, 76 AM. ECON. REV. PAPERS & PROC. 323 (1986).

[46] Stewart C. Myers, *Determinants of Corporate Borrowing*, 5 J. FIN. ECON. 147 (1977).

[47] Bear Stearns was an exception, in that the banking authorities managed to merge Bear into JPMorgan, with the Bear stockholders receiving some value.

[48] Admati & Hellwig, supra note 25. Excess leverage of the too-big-to-fail bank is an important corporate governance problem induced by the too-big-to-fail subsidy. In this article, I instead examine the general corporate governance costs of structural distortion that the too-big-to-fail subsidy induces.

[49] Peter O. Mülbert, Corporate Governance of Banks after the Financial Crisis: Theory, Evidence, Reforms (April 2010), *available at* www.ssrn.com/abstract=1448118.

even takeover threats to induce better internal corporate decision-making.

Prior work has shown how leveraged firms incentivize stockholders to take higher risk, because the risk is borne disproportionately by the firms' preexisting creditors, while stockholders disproportionately benefit from the upside of risk-taking. The concept in this paper is related, but different. Even risk-preferring stockholders should want the firm to be well managed. But most standard corporate mechanisms by which they would achieve that better managed bank are less sensible for shareholders of the too-big-to-fail firm to pursue in their own interest.

B. The Executive Compensation Distortions

Managerial compensation issues for the too-big-to-fail firm are important.[50] Bank leaders seek to maximize the return on bank equity. Their doing so furthers the structures we examine here, and proposals to have the bankers compensated with more of their banks' debt could improve managerial incentives.

These analytics are important and the reform proposals in general are promising. But managerial compensation restructuring could not alone well resolve the corporate degradation problems identified here, for several reasons. First, managers have agency cost reasons to pursue large firms, irrespective of the extent that their financial compensation is tied to equity returns. Once their ordinary size preference leads to bigger finance, the too-big-to-fail distortions then kick in. Second, regardless of how managers are compensated, the shareholder-oriented analytics of the paper would persist, unchanged. As long as boards are responsive to shareholders, the too-big-to-fail subsidy would induce the distortions and degradations outlined here.

C. Competitive Failure and Market-wide Degradation

Competitive capital markets incentivize industrial firms to be more efficient than otherwise. For financial firms, the same process could be at work. Financial firms compete for capital and seek the least expensive capital. The resulting equilibrium could be presumed to represent the most efficient capital structure for the firm.[51]

But in the presence of a major too-big-to-fail subsidy for debt, competition's impact is ambiguous, and potentially negative, for overall economic efficiency. To corral the private benefit of the subsidy, firms that can get the subsidy have reason to compete to maximize it.[52] But maximizing this private benefit then insulates the firm

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[50] Lucian A. Bebchuk & Holger Spamann, *Regulating Bankers' Pay*, 98 GEO. L.J. 247 (2010); Sallie Krawcheck, *Four Ways to Fix Banks*, 90 HARV. BUS. REV. 107, 109 (2012); Frederick Tung, *Pay for Banker Performance: Structuring Executive Compensation for Risk Regulation*, 105 NW. U. L. REV. 1205 (2011); Hamid Mehran, Enhancing Bank Risk-Management: (Inside) Contingent Capital as Employee Compensation (Fed. Res. Bank NY Res & Stat. Group working paper, July 12, 2010).

[51] Samuel G. Hanson, Anil K. Kashyap & Jeremy C. Stein, *A Macroprudential Approach to Financial Regulation*, 25 J. ECON. PERSP. 3 (2011) (considering the possibility).

[52] Cf. Anat R. Admati, Peter M. DeMarzo, Martin F. Hellwig & Paul Pfleiderer, Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity Is Not Expensive, at 39-40 (SSRN working paper, 2011), *available at* http://ssrn.com/abstract=1669704.

from useful corporate governance incentives. As long as the private benefit exceeds the expected value of the corporate governance incentives, competition's impact is to maximize the private pluses, not the overall pluses for the economy.

Moreover, competition in the too-big-to-fail sector need not be on matters that are in the public interest. Too-big-to-fail institutions may shift their businesses from markets in which they compete primarily with one another, such as the market for major loans, into markets where major competitors do not get the too-big-to-fail subsidy. They prefer, for example, derivatives trading in which their balance sheet strength and implicit support makes them more desirable trading partners than smaller hedge funds. The latter might fail, the too-big-to-fail firms cannot.

Or, the competition can be in innovative ways to obtain, expand, and use the too-big-to-fail subsidy, not to better service the economy. For example, credit default swaps were one of the major innovations in big finance in recent decades, originally pioneered at JPMorgan. Their original purpose was to reduce regulatory requirements on bank loans. When a bank makes a loan that might be uncollectable, regulators require the bank to have capital to back up the loan. For some bank loans — such as loans to the United States via bank purchase of Treasury securities or loans to highly-rated AAA credits — the regulators do not require the bank to keep extra capital.[53]

The credit default swap innovation at JPMorgan was for the bank to agree with an AAA investment-grade firm that in the event of a default on the underlying loan, the bank and the AAA–rated firm would swap the bank's loan for the AAA firm's cash. In effect, the AAA firm guaranteed the loan. Regulators treated such swap-guaranteed loans as equivalent to the lending to an AAA rated firm, so they did not require more capital to back up the loan. With the AAA backstop, the loan could not contribute to the bank's failure, it was thought. Many of these credit default swaps were written by AIG, the huge, once-investment-grade insurer, whose failure, partly due to its over-exposure in the credit default swap market, was a key event in the financial crisis. In effect, innovation maneuvered the financial system to obtain more too-big-to-fail low-cost financing than it would have otherwise. This innovation was a competitive advantage to JPMorgan.[54] Competition in the too-big-to-fail sector, hence, is not necessarily on matters that benefit the American economy.

D. Too-Big-to-Jail

Managers and boards about to undertake seriously dangerous activity, as opposed to just making honest mistakes, rightly fear that government prosecutors may

[53] In the terms we are using in this Article, when the bank loan is risky, the bank cannot fund the loan entirely from too-big-to-fail financing. Rather, it must fund the loan partly out of its own capital, which is typically not saved even when a too-big-to-fail bank fails.

[54] GILLIAN TETT, FOOL'S GOLD 64 (2009). Tett analyzes how collateralized default swaps developed to beat pre-crisis regulatory capital requirements. For the ongoing persistence of bank effort to beat the capital requirements and the resulting regulatory pushback, see Brooke Master et al., *Basel Tightens CDS Capital Rules*, FIN. TIMES, Mar. 25, 2013.

punish them with regulatory restriction or, at the limit, criminal prosecution.[55] The individual manager's fear of prosecution could keep him or her well away from activity that could damage the firm.

But prosecutors are wary of putting too-big-to-fail firms or their managers on trial. "As Attorney General Eric Holder admitted to the Senate … , when banks are considered too big to fail it is 'difficult to prosecute them.... [I]f we do bring a criminal charge, it will have a negative impact on the national economy.'"[56] One further discipline on managers of the too-big-to-fail firm weakens.

E. Who Can Buy the Too-Big-to-Fail Financial Firm?

The too-big-to-fail de facto poison pill does not deter every corporate governance pressure. Shareholders may embarrass or replace the CEO or restructure the board, without breaking up the firm.[57] Some shareholders tried this at JPMorgan Chase following the London Whale fiasco.[58] Nonetheless, like corporate governance free-rider problems generally, activists cannot capture the full measure of improvements they induce. And too too-big-to-fail status extends this free-rider problem, as activist shareholders would share gains not only with other shareholders and financial creditors, but also with the government and the overall economy.

Moreover, large banks expand and they may expand so much that the degradation costs approach the subsidy benefit. That degree of over-expansion can induce restructuring. A too-big-to-fail subsidy pushes large financial firms to a new size frontier, which they may pass at their peril.[59] More on this in Part VII.

There is another strong corporate activity that the subsidy hardly deters. Takeovers, even unfriendly ones, can proceed nicely — but only if the offering firm is another too-big-to-fail firm. The offering firm gets the subsidy and the purchase does not eviscerate the target's too-big-to-fail subsidy. Hence, the subsidy does not directly deter the takeover by another too-big-to-fail financial firm.

The result, however, is an even larger too-big-to-fail firm. The too-big-to-fail offeror can outbid those not too-big-to-fail, because the big firm would not lose the

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[55] Jonathan M. Karpoff, D. Scott Lee & Gerald S. Martin, *The Consequences to Managers for Financial Misrepresentation*, 88 J. FIN. ECON. 193 (2008); Jonathan M. Karpoff, D. Scott Lee & Gerald S. Martin, *The Cost to Firms of Cooking the Books*, 43 J. FIN. & QUANT. ANAL. 581 (2008).

[56] Richard W. Fisher & Harvey Rosenblum, *How to Shrink the "Too-Big-to-Fail" Banks*, WALL ST. J., Mar. 11, 2013, at A17. That is, jailing the senior manager would negatively affect the too-big-to-fail financial firm and thereby negatively affect the American economy.

[57] Cf. Susanne Craig & Jessica Silver-Greenberg, *JPMorgan Campaigns to Keep Dimon in 2 Top Jobs*, N.Y. TIMES, Apr. 6, 2013.

[58] Susanne Craig & Jessica Silver-Greenberg, *Small Firm Could Turn the Vote on Dimon*, N.Y. TIMES, May 7, 2013, at C1.

[59] Large financial firms do sometimes divest. Peter Lattman, *JPMorgan to Spin Out Its Private Equity Unit*, N.Y. TIMES, (June 14, 2013, 12:42 PM), http://dealbook.nytimes.com/2013/06/14/jpmorgan-to-spin-out-its-private-equity-unit/; Steven Marlin, *Citigroup Sells Travelers Unit To MetLife For $11.5 Billion*, BANKTECH.COM (Jan. 31, 2005), http://www.banktech.com/citigroup-sells-travelers-unit-to-metlif/59300242.

subsidy, as most others would.[60] The recent history of Bank of America taking over Merrill Lynch and of JPMorgan taking over Bear Stearns is consistent.

VI. WHAT CAN BE DONE: COMMAND-AND-CONTROL VS. INCENTIVE-BASED POLICIES?

To say that we have analyzed an underexamined cost of too-big-to-fail finance does not mean that we have an obvious, easy-to-implement solution to reverse the cost. But the analytic does throw new light on policymaking paths. First, it fits with several existing policy initiatives, justifying them further; second, it shows how the financial industry's incentives to resist these initiatives might be changed; third, it points to new initiatives to better stabilize finance; and, fourth, it reveals corporate governance consequences of successful regulation that diminishes the too-big-to-fail subsidy.

The broadest and most effective policy would be to deny the large financial firms too-big-to-fail status, either by regulators making them indestructible or by making their failure tolerable. If no longer too-big-to-fail, and if perceived as such, then the too-big-to-fail subsidy would diminish, funding costs for big finance would be at stand-alone market rates, and the incentives toward corporate structural degradation would decline. Regulators are making such efforts, and these efforts continue. Major efforts to increase bank capital have been in play and more have been proposed.[61] Risky activities are being denied some banks. Mechanisms to resolve banks without government support are moving forward. Thus far, the rating agency indications are that the efforts have not yet succeeded, as we have seen.[62] But they may in the future.

Current banking regulation is one of the barriers to bank restructuring, and regulators could be more open to a change in control at a financial firm.[63] That is, banking rules now require regulatory approval of a change in control of the bank[64] and many analysts see these regulations as the barrier to financial changes in control,[65] because regulators are wary of control changes that could introduce more risk into the firm (or because they tend to protect industry incumbents).

The thinking in this article suggests why shareholders have not been pushing regulators to ease the regulatory barrier here, although they have been pushing the

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[60] The too-big offeror might be deterred if its projected profit negatively correlates with the target's expected profits, which would reduce the total too-big-to-fail subsidy post-merger.

[61] See especially Admati & Hellwig, supra note 25.

[62] See supra Figure 1.

[63] Cf. Peter Wallison & Kenneth Scott, Questions About Brown-Vitter, Shadow Financial Regulatory Committee Statement No. 341, May 13, 2013, *available at* http://www.aei.org/files/2013/05/13/-statement-no-341-questions-about-brownvitter_12514055289.pdf (recommending enhanced segment reporting to facilitate buyouts of bank holding company divisions).

[64] Bank Holding Company Act of 1956, § 2(g), 12 U.S.C. § 1841(g) (2011); Reg. Y of the Board of Governors of the Federal Reserve System, 12 C.F.R. §§ 225.2(e), 225.31(d), 225.41(c) (2012); Change in Bank Control Act, 12 U.S.C. § 1817(j) (2011).

[65] Admati & Hellwig, supra note 25; Amar Bhide, The Hidden Costs of Debt Market Liquidity (SSRN working paper, 2013), *available at* http://ssrn.com/abstract=2206996. Cf. Wallison & Scott, supra note 63.

Securities and Exchange Commission for other kinds of shareholder influence.[66] Profit-oriented shareholders now have little incentive to induce a restructuring that improves the too-big-to-fail financial firm but that loses the subsidy. Indeed, although shareholder unwillingness to restructure is the problem, inviting them to restructure, without any other change, is decidedly not a solution, because their incentives do not match the public's in reducing corporate degradation. Unless the shareholders' incentive structure changes, takeovers alone are no solution. Better policy initiatives are needed to align private incentives with public goals.

A. Severe Command-and-Control: Mimicking the Takeover and Break-up Market

The corporate governance analytic here resonates with three policy efforts, two of which are mainstays of regulatory thinking, and one of which is not.

One obvious mainstay is for government to break up the big banks — a favorite among severe anti-bank critics.[67] Systemic risk reduction and bailout avoidance are standard rationales for break-up; severe corporate structural inefficiency is another. Government would complete the corporate restructuring in big finance that the poison pill quality of the subsidy impedes.

But a break-up policy has strong countervailing costs. Government is poorly suited to formulate and implement a break-up plan well. Years of litigation and politicking, due to the banks' vociferous resistance to a break-up, could cost more than the cure. And big finance is heterogeneous: Some firms will be obvious candidates for break-up (separating Bank of America from Merrill Lynch, Citigroup overall), in that they would never have arrived at, nor could they survive at, their scale and scope without the too-big-to-fail subsidy. But once decisions become more nuanced, government will be ill suited to reconstruct the financial industry, because some too-big-to-fail financial firms may be efficiently-sized. We can be confident from the corporate degradation analytic that we have a serious problem, and we can be just as confident that the government could not precisely sort out the efficient from the inefficient.

A counterweight arises. Even if the government could engineer a swift, efficient break-up — not a salutary result that we should expect — the government will *still* have egg on its face. The private value of the constituent firms when broken apart would be less than their value in the financial conglomerate, with the subsidy. The government officials who engineered the break-up would have destroyed private value

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[66] E.g., Submission to the SEC from the Council of Institutional Investors, Release Nos. 33-9086, 34-61161, SEC File No. S7-10-09.

[67] From the left and the right. Compare William Reich, *Bank-Buster Brown*, 296 THE NATION 8, 9 (2013) (Senator Sherrod Brown seeks "break-up of the largest U.S. financial service companies."); with James Pethokoukis, *Too Big to Fail is Too Good to Resist*, NAT'L REV. ONLINE, Mar. 25, 2013, *available at* http://www.aei.org/article/economics/financial-services/too-big-to-fail-is-too-good-to-resist/?utm_source=today&utm_medium=web&utm_campaign=032613. Cf. Richard W. Fisher & Harvey Rosenblum, *How to Shrink the "Too-Big-to-Fail" Bank*, WALL ST. J., Mar. 10, 2013; Boyd & Heitz, supra note 25 (our results indicate that "the potential benefits to economies of scale are unlikely to ever exceed the potential costs due to increased risk of financial crisis").

and would have trouble showing why that was socially worthwhile. That the lost subsidy was not a loss to the economy would be hard to explain.

B. Mainstream Command–and–Control: More Equity, Restricted Activities

One prime policy response to the financial crisis from regulators and analysts has been to require increased bank equity.[68] Post-crisis, the Basel III accord pushes for banks to have 8 to 10% of their risk-adjusted value in equity. A controversial but vivid Senatorial bill, the Brown-Vitter bill, moves the capital target up from the regulatory mainstream, by seeking 15% equity.[69] And in a widely-known study, the authors push for equity of up to 30% in the bigger financial institutions.[70] American regulators are pushing up bank capital and lowering debt.[71]

Increased bank equity would lessen the likelihood of bank failure. If the once-subsidized bank were made to have enough equity such that it could not fail, then the too-big-to-fail subsidy would be eliminated and normal corporate governance pressures and incentives would be back in play.

Similarly, activity restrictions have long been a mainstay of financial regulation. Restricting the big banks' riskiest activities appropriately would lower their probability of failure and, hence, that would reduce the too-big-to-fail subsidy.

The analytic here simultaneously suggests why such efforts are important and why they suffer: the incentives inside the firms will be to defeat, elude, and over-ride the equity increases, to get too-big-to-fail subsidies back into the firm, and to find ways around limits to risky activities if the rules are promulgated despite the opposition. The financial firms reacted to the Brown-Vitter 15% capital proposal quickly and negatively.[72] And, as soon as regulators announced tougher capital rules in July 2013, the media reported that the firms were already finding ways to avoid the rule's impact.[73] If regulators could simultaneously realign financial firms' incentives — not easy, to be sure — they might do better with the regulation now on the table.

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[68] E.g., Michael R. Crittenden & Victoria McGrane, *Fed Officials Back Higher Capital*, WALL ST. J., Apr. 18, 2013, at C3; Hal Scott, *The Reduction of Systemic Risk in the United States Financial System*, 33 HARV. J.L. & PUB. POLICY 633, 670-685 (2010).

[69] Terminating Bailouts for Taxpayer Fairness Act of 2013, 111th Cong., 1st Sess. (2013) (an act "[t]o address equity capital requirements for financial institutions"); Cheyenne Hopkins, *Senators Draft Higher Capital Requirement for Biggest Banks*, BLOOMBERG, Apr. 6, 2013, *available at* http://www.bloomberg.com/news/2013-04-05/senators-to-propose-higher-capital-for-banks-over-400-billion.html (Senators Brown and Vitter seek to require banks with more than $400 billion in assets have a required capital surcharge of 5% above the banking 10% capital baseline); Jesse Eisinger, *In Brown-Vitter Bill, a Bank Overhaul with Possible Teeth*, N.Y. TIMES, May 2, 2013, at B4.

[70] Admati & Hellwig, supra note 25.

[71] Michael R. Crittenden, Regulators Propose Leverage-Ratio Increase for Big Banks: Capital Raise Aimed at 'Too Big to Fail' Companies, WALL ST. J., July 9, 2013.

[72] DavisPolk, Brown-Vitter Bill (Apr. 30, 2013), *available at* http://www.davispolk.com/files/Publication/4664ec91-6233-48ed-8645-00db44eeb9fe/Presentation/PublicationAttachment/b9d7cae5-07e9-4ccb-8884-011abbf0b823/043013_Brown_Vitter_Commentary_Analysis.pdf.

[73] Tom Braithwaite, Tracy Alloway & Dan McCrum, *US Banks to Shuffle Assets over Leverage Rules*, FIN. TIMES, July 10, 2013.

C. Aligning Incentives: Fees to Bring the Cost of Funding to Competitive Levels

Government could charge the too-big-to-fail financial firms a fee for being too big, tying the size-based fee roughly to the size of the subsidy. Corporate restructuring would result, but not via government mandate. Boards and CEOs would on their own decide that a restructured, down-sized, and broken up firm would be better for shareholders, if the new entities lost the too-big-to-fail fee charges.

The fee could change corporate governance incentives. Right now, the uplift from the subsidy lowers large financial firms' cost of capital, but if a fee offset the too-big-to-fail subsidy, then large financial firms would have less reason to stay large just to collect that silent subsidy.

Some firms would pay the fee but stay mis-sized and mis-directed. For others, normal corporate governance would function. Firms would have less reason to fight regulators raising required equity. (Or, they would have to defeat both to make it worthwhile for them to defeat either.) Firms would have less reason to find transactional means to defeat the equity requirements, because having less equity and more debt would not be as profitable as it had been, due to the fee.

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Implementing such a fee initiative would face obstacles. First, regulators would need to determine its size. This would neither be easy nor would the financial industry let it go uncontested, with bankers, their lawyers, and their lobbyists presenting evidence that the subsidy is much less than the government says, or that it is in fact zero.[74] Even if there once were a subsidy, it is gone, opponents would argue. Indeed, media commentary on the subsidy provoked strong industry response, some of it specious, some of it appropriately critical.[75] The structure of the fee (more for firms with more debt? higher on short-term securities?) would be hard to determine.[76]

Second, a fee would need another level of regulatory policing, which might work poorly. And, third, the industry would argue that government creates a large fraction of the problem, asserting, say, that government policy in the housing market or in bank activity regulation creates systemic risk and, hence, the need to bail out failed large banks.[77] If government were smarter, failures would be fewer, and bailouts

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[74] Cf. Financial Services Forum, Financial Industry Addresses Alleged Large Bank Subsidy (memo, Mar. 11, 2013), *available at* http://www.financialservicesforum.org/index.php/news/press-releases/1406-logo; Goldman Report, supra note 28.

[75] Bloomberg, Editorial, *Bank Lobbyists Dispute $83 Billion Subsidy. They're Wrong*, BLOOMBERG NEWS, Mar. 12, 2013, *available at* http://www.bloomberg.com/news/2013-03-12/lobbyists-dispute-our-83-billion-argument-they-re-wrong.html.

[76] The Gutierrez amendment to Dodd-Frank shifted the FDIC's insurance base from deposits to assets, thereby pushing weakly in this direction. Dodd-Frank Wall Street Reform and Consumer Protection Act, § 331(b). The fee change was too small to much affect organizational incentives, amounting to $1 billion more in fees spread over all big banks, when JPM alone pays $6 billion in income tax. Jim Fuchs & Andrew P. Meyer, *Most Community Banks Will Pay Lower Premiums under FDIC Assessment Rules*, FED. RES. BANK. ST. LOUIS CENTRAL BANKER, Spr. 2011, at 1. The fee neither adjusts the tax subsidy to bank debt nor relieves the banks of equity-depressing corporate taxation. See Part VII.D., next.

[77] Cf. John B. Taylor, Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis, xi–xii (2009); Peter J. Wallison, *The True Origins of This*

would never happen. Banks and their shareholders, in this view, should not be made to pay for government error.

The fourth and last major difficulty is subtle but pernicious and, in my view, a showstopper. The fee would readily turn into an insurance premium. That is, while big finance is usually bailed out, usually is not always. In the last crisis, AIG, Bear Stearns, the money market industry, and, indirectly, Citibank and the other big banks were bailed out. But Lehman Brothers was famously allowed to fail. And shortly after the worst of the crisis was over, MF Global was allowed to fail. Two decades ago, a failing Drexel Burnham's pleas to the Fed to be saved went unheeded. Bailout is probable but not guaranteed. If there were a fee, failed financial firms would assert in the next crisis that it was their insurance payment, one that would then make it unfair not to bail them out. If a fee turned into an assured future bailout, it would steeply degrade the financial system further.[78]

D. Aligning Incentives: Taxing Financial Firms' Debt

Switch our frame of reference from fees to taxes.

Today policymakers seek to increase bank equity and, concomitantly, lower the banks' debt level. Yet, other arms of government push hard in the opposite direction. First off, and conventionally, equity is taxed unfavorably, compared to debt: interest on the firm's debt is deductible from the tax bill, but dividend payments and returns on equity generally are not.

Although this is standard knowledge, applicable to both financial and industrial firms,[79] the distortive impact is greater for financial firms. Because financial firms are more heavily leveraged than industrial firms, their debt-to-equity taxation imbalance is more severe. Debt amounts to about 90% of the average financial firm's capital structure, while less than 50% for nonfinancials. And we subsidize debt *twice* for financial firms: they obtain the standard tax deduction for interest, which, given their capital structure, is a very high tax distortion. And then we subsidize debt again for the big financials with the too-big-to-fail subsidy.

Notice the contradiction and the distorted incentives. Regulators properly instruct financial firms that they must hold more equity. Then we tax profits on that

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Financial Crisis, Am. Enterprise Inst. For Pub. Pol'y Res. 1 (Feb. 2009) ("government policy over many years … underlies the current crisis").

[78] The Obama Administration's proposed crisis recovery fee never moved forward. Office of the Press Secretary for the White House, *President Obama Proposes Financial Crisis Responsibility Fee to Recoup Every Last Penny for American Taxpayers* (Jan. 14, 2010), *available at* http://www.whitehouse.gov/the-press-office/president-obama-proposes-financial-crisis-responsibility-fee-recoup-every-last-penn; Richard T. Page, *Foolish Revenge or Shrewd Regulation? Financial-Industry Tax Law Reforms Proposed in the Wake of the Financial Crisis?* 85 TUL. L. REV. 191, 197-98, 205-14 (2010).

The rationale for that January 2010 proposal differed from the one here. It was not justified as reversing destabilizing corporate degradation to make the economy more stable, but to recover funds used to bail out the banks and, it seems, to punish them. Office of the Press Secretary, supra note 78. The title ("… to Recoup Every Last Penny for American Taxpayers") conveys the justification.

[79] Franco Modigliani & Merton Miller, *Corporate Income Taxes and the Cost of Capital: A Correction*, 53 AM. ECON. REV. 433 (1963); RICHARD BREALEY, STEWART MYERS & FRANKLIN ALLEN, PRINCIPLES OF CORPORATE FINANCE 472-90 (9th ed. 2008).

equity, but reduce those taxes if the financial firm pays a return to its funds providers in the form of interest, incentivizing the firm to do the opposite of the get-more-equity regulatory command. And then via the too-big-to-fail subsidy we further facilitate financial firms to use more debt and less equity. These debt-based incentives give financial firms strong reason to defeat regulators' equity requirements in multiple forums: in lobbying, first, and then in transactional workarounds if they cannot formally defeat the equity-increasing regulation.

These policies should be rethought. First, current equity-increasing regulation may not work well if the twin debt subsidies stay in place. It is a command-and-control regulatory effort that runs into a wall of the financial firms' high incentives to defeat the regulation, directly or indirectly. To make it work, more might be needed, such as pointing regulatory and tax policy in the same direction. Instead of taxing the corporate financial entity based on its profitability, which discourages it from using more equity, tax it on its level of debt, which would instead encourage it to decrease its debt level and increase its equity level.

Second, a rebalanced tax policy could do more than buttress other regulation. It could become a separate channel to reducing systemic risk of too-big-to-fail finance. If tax policy no longer subsidized debt and taxed equity, large financial firms would have more reason to adopt systemically sound capital structures and to incentivize executives accordingly, and would do so even without being hounded by the regulators to increase their capital levels.

* * *

My purpose here is not to detail a financial firm tax policy with precision, nor is it to show how to overcome the policy and political impediments that it would face. Rather, I show first how the too-big-to-fail subsidy degrades organizational quality at the too-big-to-fail firms and, second, that the degradation analytic points to new policy initiatives to offset too-big-to-fail's negative incentives, namely, a revamped tax structure for financial firms. I outline here, without detail, two possible tax mechanisms.

The financial firm's net operating income would be taxed, presumably at a rate closer to 10% than its current 34%. That is, the corporate tax base for banks would be as it is now, but there would be no deduction for interest paid. By eliminating the interest deduction while lowering the rate, the tax result would take the same bite out of the firm, but would take it out of debt rather than equity.[80] By making it revenue neutral, the tax's resemblance to an insurance fee should dissipate since the policy initiative would have a quid and a quo.[81]

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[80] Michael Tröge, *Andere Steuern für Banken*, FIN. TIMES DEUTSCHLAND, Mar. 30, 2010.

[81] For the U.S. Treasury's generalized proposal on the issue, see U.S. Dept. of the Treasury, Integration of the Individual and Corporate Tax Systems (1992), available at http://www.treasury.gov/resource-center/tax-policy/Pages/integration-paper.aspx; Michael J. Graetz & Alvin C. Warren, Jr., Integration of the U.S. Corporate and Individual Taxes: The Treasury Department and American Law Institute Reports 10, 119-62 (1998). For further application to banks, proposing more extensive tax deductions for bank equity, see Hilary J. Allen, Let's Talk About Tax: Fixing Bank Incentives to Sabotage Stability 1 (SSRN working paper, Feb. 20, 2013), *available at* www.ssrn.com/abstract =2190999 ("banks' reluctance to fund themselves with larger cushions of common equity is, in large part, a tax problem.").

This tax change would not be problem-free. First, its size would not be precisely tied to the size of any too-big-to-fail guarantee or to the size of the damage that major bank failures do to the rest of the economy. Second, the size of the tax would vary with the level of interest rates, a varying result that may not be good policy. Third, as with any tax, the parties will game it — some financial operations will move into the financial firm if taxed less there, and vice versa.

A second incentive-realigning tax structure would be an excise tax on debt. All financial firm non-deposit liabilities above, say, $100 billion would be taxed at, say, 50 basis points, one-half of one percent. The tax would also be revenue-neutral overall because the tax authorities would reduce or eliminate the corporate income tax rate for financial firms.

Tax avoidance would arise. Debts would be hidden; characterization of transactions as debt would be contested. But by raising the tax on debt levels, financial firms would find debt more costly than before. We would then have regulatory incentives — command-and-control capital requirements and tax incidence — both pointing in the same direction. JPMorgan Chase, for example, most recently paid about $6 billion in annual income tax on its approximately $20 billion of profit.[82] That tax made equity less attractive to JPM, its shareholders, its board, and its senior executives. A reverse tax structure of taxing debt, not equity, would lead to shareholders, boards, and senior managers finding themselves with less reason, in their own interest, to use so much debt. Incentives would work in tandem with command-and-control rules.

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A consistent tax policy should also help sort our efficient big firms from inefficient ones. Those financial firms that could not use their subsidized liabilities efficiently would have reason to reduce their liabilities. Those that were efficient operationally would persist. Looking at the financial landscape today, one would expect that JPMorgan Chase and Goldman Sachs would persist, more or less intact. Bank of America and Citigroup would not.

Nevertheless, we should not be under the illusion that a major change in the way that financial firms are taxed would be easy to implement. My effort here is not to resolve the many technical, conceptual, public choice, and policy problems such a shift would entail. Rather, the effort here is to show that the corporate degradation analytic points in a policy direction that is not now in view, that the analytic shows why current initiatives will have strong transactional and policy pushback, and that the analytic points to the peculiarity of government using command-and-control regulation to force large financial firms to raise their equity level while simultaneously incentivizing firms to suppress equity. The policies should be better aligned. Regulation by instruction should be buttressed with regulation of incentives.

The impact on financial firms and financial markets from such a reconstruction would be long-term and substantial, and not a dramatically immediate restructuring, nor a difficult-to-engineer, unwieldy, unstable, and perhaps misguided government breakup. Rather, the firm, its board, its CEO, and its shareholders would feel steady

[82] JP Morgan Chase Annual Report, see supra note 4.

pressure to right-size the firm. Acquisitions would be more costly. A spinoff to divisional managers of a division that once looked deeply integrated with the firm's other product lines would look attractive to a buyer when the firm's financing no longer was artificially cheaper. New ventures would need a higher hurdle rate to be justified, more old ventures would become uncompetitive and be shifted and sold. This process would be not be a dramatic, once-and-for-all restructuring, but a steady, multi-year evolutionary reconstruction of the country's biggest financial firms. But it would steadily make the financial system and the economy stronger than it is now.

VII. THE STRUCTURAL OUTLOOK FOR BIG FINANCE WITHOUT A TOO-BIG-TO-FAIL SUBSIDY

A. Reducing the Systemic Cost of Shareholder–Oriented Governance

One might mistakenly think that the thesis here grates against the substantial and important findings that shareholder-oriented corporate governance was detrimental to financial stability during the financial crisis. But it does not.

The basis for questioning the value of shareholder-oriented financial firm governance is straightforward: As long as there is a strong too-big-to-fail subsidy, shareholder interests will find it profitable to take heavy risks, because some significant fraction of the risk is borne by the government or by the overall economy, not by the firm and its shareholders. Financial firms that were more shareholder-oriented,[83] firms that had managers compensated more with equity than with debt-like obligations,[84] and banks in countries that favored shareholder governance all did worse in the financial crisis than their opposites.

All this is true. But these are reasons why the incentives-based corporate governance analytic here is in play. Our problem is to understand how shareholder-oriented corporate governance today degrades financial firms. It degrades them because the too-big-to-fail subsidy distorts corporate governance incentives. If we reduced or eliminated that distortion, then shareholder corporate governance could work better than it does now. Today we get shareholder-oriented American financial firms that have strong private incentives to have thin equity layers that offload risk to the authorities and to the financial system, and to build unwieldy, misshapen corporate structures. What we should want is to straighten those incentives out by taking away the too-big-to-fail subsidy, or if we cannot eliminate the subsidy directly, find a way to offset it, so that incentives inside the big firms change for the better.

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[83] Andrea Beltratti & Rene M. Stulz, *The Credit Crisis Around the Globe: Why Did Some Banks Perform Better?* 105 J. FIN. ECON. 1 (2012); Tom Kirchmaier & Edmund Schuster, Shareholder Empowerment and Bank Bailouts (SSRN working paper, May 2013), *available at* http://ssrn.com/abstract-2170382; Christophe Moussu & Arthur Petit-Romec, ROE in Banks: Myth and Reality (ESCP Europe working paper, Feb. 2013).

[84] Rüdiger Fahlenbrach & Rene Stulz, *Bank CEO Incentives and the Credit Crisis*, 99 J. FIN. ECON. 11 (2011); Sugato Bhattacharyya & Amiyatosh K. Purnanandam, Risk-Taking by Banks: What Did We Know and When Did We Know It? (SSRN working paper, 2011), *available at* http://ssrn.com/abstract=1619472.

B. The Dealmaking Impact of Successful Regulation

We have here considered the corporate governance impact of the too-big-to-fail subsidy, in causing misshapen, too-large organizations that lack basic incentives to restructure. The subsidy acts like a traditional poison pill, deterring outsiders and insiders from improving the organization's structure. We have also seen that there is substantial evidence that the too-big-to-fail subsidy has been large and that it increased sharply during the financial crisis.

Regulators are doing much to raise financial firm capital, restrict their riskiest activities, and make resolution thinkable. Some regulatory and industry players believe they have already succeeded and, even if not, they shall in due course. "Treasury Secretary Jack Lew is arguing that the battle against too-big-to-fail financial institutions is largely won."[85] The ratings agencies are coming around to that view.[86] And new data suggests plausibility.[87] The organizational analytics here point to a corporate governance consequence if these efforts succeed, or if the improving economy makes financial failure less likely to occur (and, hence, reduces the implicit subsidy). If higher capital requirements, improved resolution structures, and activity restrictions push down the too-big-to-fail subsidy back to its lower, pre-crisis baseline, then corporate restructurings in big finance that were once not viable, should become profitable. Pressures to reverse the increase in the biggest financial firms' size should rise. As the subsidy disappears, the misshapen financial firms' distortions will become more obvious and their costs no longer largely or fully offset by the subsidy. As that happens, internal incentives of boards and senior managers will change, and activists would be able to enter the arena to push to restructure the distorted financial firms. The evidence is that the too-big-to-fail subsidy rose sharply in the past half-dozen years, accompanied with a major increase in the size of the country's largest financial institutions. If the rise in the subsidy has reversed, or if it reverses soon, then the analytics here point, all else equal, to the increase in firm size reversing as well.

While the financial industry and some regulators are increasingly happy to announce that the too-big-to-fail problem has been beat — just as several had announced before the financial crisis — the deal-making, activist environment is inconsistent. Although some restructuring has occurred,[88] the mega-banks have not yet been heavily involved, and even activism is minor: "Although the 2012 and 2013

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[85] Neil Irwin, *Did Dodd-Frank End Too Big to Fail?*, WASH. POST, Dec. 6, 2013http://www.washingtonpost.com/blogs/wonkblog/wp/2013/12/06/did-dodd-frank-end-too-big-to-fail-it-depends-what-you-mean-by-end/?print=1; Michael R. Crittenden, *Treasury's Lew: Dodd-Frank Ended 'Too Big To Fail,'* WALL ST. J., July 17, 2013. For strongly skeptical reaction, see Jesse Eisinger, *Soothing Words on 'Too Big to Fail,' but With Little Meaning*, N.Y. TIMES, Dec. 11, 2013; Simon Johnson, *Celebrations of Too Big to Fail's Demise Are Premature*, BLOOMBERG, Dec. 9, 2013, *available at* www.bloomberg.com/news/print/2013/12/08/ celebrations-of-too-big-to-fail-are-premature.

[86] Peter Eavis, Moody's Threatens to Cut Credit Ratings of Banks, N.Y. TIMES, Aug. 23, 2013, at B3.

[87] Alexander Schäfer, Isabel Schnabel & Beatrice Weder di Mauro, Financial Sector Reform After the Crisis: Has Anything Happened? (SSRN working paper, May 24, 2013), *available at* http://papers.ssrn.com/abstract=2274044.

[88] Robert Barba, Divestitures on Rise in M&A as Banks Decide Less is More, AM. BANKER, Sept. 23, 2013.

proxy seasons saw increased … shareholder activism across a range of industries, that trend has not yet made its way to the U.S. banking industry."[89]

CONCLUSION

JPMorgan Chase's $6 billion trading loss highlighted organizational fragility at the country's too-big-to-fail banks and, as we have seen, starts us on understanding the mechanisms of corporate governance degradation in big finance.

Defenders of the bank, its CEO, and its senior managers saw JPM's loss as massive and regrettable, but well within the bank's earnings, its huge equity capital, and its more-than-trillion-dollar asset base. Hence, the problem, they claimed, is one for the bank's shareholders, its managers, and its board, not one for extended regulatory concern. Public funds were never at risk.

But the proper analysis of JPM's London Whale trades, as the $6 billion loss came to be known, differs. Shareholder-based corporate governance will not work when there is a large too-big-to-fail subsidy. Shareholder activists who would takeover a less-than-well-run bank to break it up, or divisional heads who would seek to buy out an orphaned division, would find themselves handicapped in the break-up or buy-out. Not only would they have to make the efficiencies and restructuring work — which is hard enough — but they would lose the too-big-to-fail subsidy. The broken up, or spun-off, entity would no longer be too-big-to-fail and its cost of funding would rise. Activist shareholders would have to overcome a high hurdle, one akin to a corporate transactor's poison pill.

Firms grow too large for multiple reasons. Managerial error in projecting economies-of-scale that turn out to be evanescent is one of the most benign. Random variation is another. Managerial empire-building is common, and a third. The push from the too-big-to-fail subsidy is a powerful fourth. Whatever the reason for the excessive growth, normal corporate structural pushback is absent or degraded in the too-big-to-fail financial firm. Boards that might second-guess expansion have less reason to doubt its profitability, when that expansion is financed with the boost from a too-big-to-fail subsidy. They need not even be aware of the subsidy; they only need to notice its effects — that funding costs are lower — and attribute their good fortune solely to their own perspicacity.

Measures of the too-big-to-fail subsidy are typically cast as discounts on the banks' borrowing rate, with the discount measuring on the high side at 80 basis points, or less than 1% per annum. This number may seem small. But, when converted into shareholder profits, it amounts to a noticeable portion of bank profit, on average about one-third of shareholder profits. This is not a small number. Losing one-third of the profit of the financial firm would be a serious setback. Since the sharpest tools for corporate governance must cut through this large profit loss before reaching corporate operations, the sharpest tools for corporate governance are blunted or broken in the large, too-big-to-fail financial firm.

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[89] William Sweet, Shareholder Activism in the US Banking Industry, Harvard Law School Forum on Corporate Governance and Financial Regulation, Dec. 3, 2013, *available at* www.blogs.law.harvard.edu/corpgov/2013/12/02/shareholder-activism-in-the-us-bankring-industry/.

This destruction of the sharpest tools of corporate governance burdens the economy, revealing a second major cost of too-big-to-fail banking. The first set is well-known, namely, the government paying to bail out the failed entity and the economic setbacks that financial failure deepens. But the second set of costs is also serious and pervasive: the degradation of financial firm efficiency even without an actual bailout. The core financial firms are run less well due to the subsidy and are more likely to fail.

There are potential cures. The problem emanates from a subsidy that distorts organizational incentives, making reversing that subsidy one promising direction for regulatory reform. The analytics here can be interpreted as an added rationale for the current regulatory efforts to increase bank capital, restrict risky activities, and make financial firm failure possible. The analytics also point to how to make the current regulatory forays more effective. Instead of relying overwhelmingly on command-and-control regulation that financial firms have large incentives to resist, reverse, and sidestep, policymakers should now also focus on the internal corporate governance organizational incentives. They can, and they should, make the financial firm's debt more expensive for its managers, board, and shareholders, while making equity less expensive. Command-and-control orders to increase financial capital and reduce risky activities are properly the first regulatory responses, but regulatory styles have diminishing marginal returns just like other economic activities. The corporate governance analysis here shows how and why another policy channel based on organizational incentives could be opened. It is not on the current policy agenda, but needs to get there.

Regardless of whether we can cure the problem, I have here analyzed in depth how the too-big-to-fail subsidy degrades the standard, core corporate structural tools — from the sharpest tool of the takeover, to the incentives for spin-offs, to the incentives for well-directed shareholder structural initiatives. The corporate governance tools that help to right-size, stabilize, and make efficient industrial firms, crude and imperfect though they might be, all weaken or disappear in large-scale American finance.