In this world I’ve rambled, I’ve seen many crooked men. Some will rob you with a six-gun and some with a fountain pen...Woody Guthrie.

ABSTRACT
Shadowy Banking is financial activity that is engineered to extract implicit subsidies from government safety nets. It substitutes innovative corporate entities and products for activities that could be performed more straightforwardly within a traditional banking firm. The shadows obscure organizational forms and transactions strategies that circumvent regulatory restraints and extract subsidies by regulation-induced innovation. Because government support kicks in when private equity is exhausted, safety nets are implicit contracts that offer loss-absorbing equity capital from taxpayers. Unlike lenders and insurers who assess and absorb risk, taxpayers accept unquantifiable Knightian uncertainty. As coerced equity investors whose liability is unlimited, taxpayers would be better served if information systems and corporate law were revised to give them at least the same safeguards and rights of disclosure that minority shareholders enjoy.

Economists typically define shadow banking as “financial activity occurring outside the regulated banking sector” (Gennaoli, Schleifer, and Vishny, 2013). This paper introduces a broader term “shadowy banking” to focus on the ways in which even regulated banking organizations operate outside the boundaries of existing rules and control procedures.

The paper uses the framework provided by the Regulatory Dialectic (Kane, 1981 and 1983) to argue that shadowy banking is the inevitable yin to regulation’s and taxation’s intended yang. This is because lobbying pressure, privacy protections, and differences in private and governmental

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compensation schemes make it easier and more rewarding for managers of financial institutions to circumvent the rules than for regulators and tax authorities to come to grips with innovative forms of circumvention.

How we characterize an explicit or implicit financial contract has important legal and ethical consequences for its counterparties. A corporation is a contracting mechanism for sharing risks and returns. Safety-net guarantees create an unsustainable disequilibrium between taxpayer and corporate property rights in lightly capitalized firms that are economically, politically or administratively difficult to fail and unwind (DFU). To rebalance these rights requires introducing civil and criminal sanctions that would incentivize managers of DFU firms to give taxpayer-guarantors a fairer deal.

Finding a way to reduce managerial incentives to exploit government guarantees is the problem. To do this, the supervisory process needs to be re-engineered to surface and price material information and actions by private counterparties.

The Dodd-Frank Act and Basel III presume that it is sufficient to place new balance-sheet and reporting constraints on financial firms, without altering DFU firms' legal right to pursue ways of shifting risk to taxpayers through country safety nets. But over time opportunities for industry disinformation, regulatory lags, and supervisory incentive conflict are bound to reduce the effectiveness of capital constraints and scenario-driven stress tests. The paper warns that safety-net subsidies generated by swaps that substitute for traditional financial contracts are especially difficult to monitor in timely and effective fashion. A round of failures in swaps transactions could expand safety nets by threatening the ability of the pension and insurance industries to keep the promises on which their customers rely.

To protect the citizenry from these dangers, governments need to develop ways to identify shadowy arrangements promptly and to limit access to country safety nets more effectively. To generate the information flows and incentives to do this, my analysis indicates that society must impose and enforce explicit fiduciary duties of loyalty, competence, and care to taxpayers on financiers,
politicians, regulators, and credit-rating firms. I believe that the best way to do this is to acknowledge and service the synthetic equity stake that safety nets create for taxpayers in protected firms. The paper explains that this loss-absorbing equity stake may be understood as an implicit compound option: a contract that obligates taxpayers to accept a call that reduces returns on their position in firms when and as their insolvency is cured and a put that uses their resources to keep distressed and even zombie firms in business. The exercise of both options is adversely constrained today by lobbying pressure that makes the managerial norm of maximizing shareholder value inappropriate for difficult-to-fail shadowy institutions.

The paper has eight sections. Sections 1 and 2 explain the term shadowy banking and root its existence in the dialectics of safety-net arbitrage. Section 3 explains swap contracts. The next section reviews the role of safety-net arbitrage in the crisis of 2008. Sections 5 and 6 classify shadowy activities and explain how they relate to financial engineering, swaps, and the pace of technological change. Section 7 discusses the implicit put and call positions that create taxpayers’ synthetic equity stake in whatever firms a country’s safety net protects and explains that post-crisis reforms perpetuate the incentive conflict that tempts financiers to steal taxpayer resources via the safety net. Section 8 lays out some policy implications of the paper.

1. What is Shadowy Banking?

Paul McCulley and Gary Gorton have used the idea of banking in dark places as a clever way to clarify and extend the meaning of the even more puzzling term “nonbank bank.” A shadow bank is an institution or bank-sponsored special-purpose vehicle that has persuaded its customers that its liabilities can be redeemed de facto at par without delay (or can be traded as if they will be executed at par without fail at maturity) even though they are not formally protected by government guarantees. My title adds a “y” and an “ing” to their term to stretch the shadows to include not just firms like money-
market funds and government-sponsored enterprises, but *instruments* such as swaps, repurchase agreements, futures contracts and AAA securitizations that may trade for substantial periods of time as if they carried zero performance risk.

Of course, any instrument can trade this way if it is believed that well-funded national or supranational authorities will be afraid *not* to extend the safety net to absorb all or most of the losses its holders might suffer. The perception of a governmental “rescue propensity” is a key element of shadowy banking. It permits aggressive managements to back risky positions (e.g., in money-market funds) with the *ex ante* value of their firm’s contingent safety-net support (i.e., equity capital extracted from hapless national or foreign taxpayers) rather than stockholder equity.

“Shadowy” is meant to encompass any effort to play upon this propensity to extract implicit (i.e., confidently conjectured) guarantees from a nation’s financial safety net without informing taxpayers about their exposure to loss and without adequately compensating them for the value of the contingent equity support that authorities’ rescue propensity imbeds in the shadowy entity’s liability structure. Although most macroeconomists stubbornly portray the taxpayer side of such claims as an externality, it is more accurately a central part of the industry’s implicit contract for regulatory services: a market-completing “taxpayer put” which the industry understands as a government-enforced obligation for taxpayers to rescue large and politically powerful firms when they are in difficult straits.

Shadowy banking may also be called Safety-Net Arbitrage. It covers any financial organization, product, or transaction strategy that --now or in the future-- can opaquely (i.e., nontransparently) extract subsidized guarantees from national and cross-country safety nets by means of “regulation-induced innovation.” This way of thinking about the safety net clarifies that loss-absorbing equity supplied by taxpayers serves as the net’s buttresses. It also implies that the shadowy sector is a moving target. It consists of whatever entities can issue a worrisomely large volume of financial instruments that, given the boundaries of current laws or control procedures, are either actually or potentially
outside the statutory grip of the several agencies currently charged with monitoring and managing the financial safety net.

Lobbyists for protected firms work hard to convince politicians and regulators that maintaining a regulatory environment that offers blanket support to important financial enterprises is in officials' best interests, if not necessarily those of society as a whole (see, e.g., Brush and Schmidt, 2013). In the words of the late James Q. Wilson (1980), safety-net managers operate “not in an arena of competing interests to which all affected parties have reasonable access, but in a shadowy world of powerful lobbyists, high-priced attorneys, and manipulative ‘experts’” (my italics).

2. Shadowy Banking is Shaped by a Regulatory Dialectic

“Dialectics” is the art of arriving at the truth by becoming aware of contradictions and missing elements in opposing beliefs and overcoming or lessening the contradictions by confronting them with logical analysis or empirical evidence. When used to explain economic competition between differently regulated firms, the Hegelian Dialectical Model seeks to explain institutional change as a process of Incentive-Conflict Generation, Conflict Resolution, and Conflict Renewal. An Hegelian process has three stages: Thesis-Antithesis-Synthesis. In analyzing financial and regulatory competition, the predictive power of this evolutionary model comes from positing that each synthesis establishes an environment that serves as a thesis to be challenged afresh by new ideas and experience.

Regulation generates incentive conflict because it seeks to impose outside rules on another party’s behavior. To the extent that they undesirably limit one’s freedom of action, outside rules impose an unwelcome burden on each intended "regulatee." This is why changes in Regulation beget Avoidance behavior (i.e., inventive ways of getting around the new rules) and, by reframing the conflict, Avoidance behavior begets Regulatory Change (Re-regulation). As in any dialectical process, the interaction of the conflicting forces supports a process of endless action and reaction. Viewed as an
economic game, the alternating sequences of moves impose, escape, and adjust regulatory burdens. As it unfolds, the process reshapes financial institutions, contracting protocols, and markets around the world.

An Instructive Analogy. Most of us have our first encounter with regulation within our immediate family where we emerge as an inexperienced child regulatee. Our parents set rules and proffer rewards and punishments in hopes of conditioning us to behave according to these rules. Short-term rewards usually take the form of tangible and intangible expressions of approval, while short-term punishments run a gamut of physical and psychological sanctions.

Troublesome kids may be seen in the best of families. Parents’ long-run goal is to develop a well-behaved child who takes pride in living up to the set of parental rules, which is to say a child who has developed a keen sense of shame. When conformance with parental rules becomes a child’s own preferred course of behavior (and ideally a source of self-esteem), enforcement problems melt away. But most parents show a rescue propensity of their own, so that conditioning efforts at least partially backfire. Children who recognize this propensity and refuse to be bound by parental rules may pursue either of two paths: defiant disobedience or creative avoidance. For a given rule, the mixture of compliance, avoidance, and evasion that is chosen depends on the strength of the child’s aversion to the mandated behavior (compliance costs) and on the relative opportunity costs of evasion and avoidance.

Autonomous children that psychologists would label as well-adjusted generate most of their long-run regulatory environment on their own. They fashion their particular ideas of right and wrong and pursue strategies of prudent circumvention that are designed to reconcile their wants and needs with the outer limits of parental rules. Like banks, securities, and insurance firms, they learn to comply with the letter of unwelcome rules while shamelessly abusing their spirit. By learning to find and exploit loopholes, a child relieves himself or herself simultaneously of guilt and unpleasant restraints.
Moreover, the sense of having overcome adversity in an inventive way tends to instill and sustain a positive view of one's own cleverness.

Avoidance differs from outright evasion by respecting the words of a command, even as the intent of the command is at least partially frustrated. The avoider has a lawyerlike or playful perspective on rules that differs from the criminal mindset of the nonupright, undisciplinable child. An evader is unruly. An avoider is a resourceful escape artist who welcomes the challenge of shaking free from externally imposed restraints.

Loopholes as Entitlements. It is costly for regulators to come to grips with avoidance behavior. Parents and government officials are reluctant to search for and eliminate loopholes in advance or to close loopholes until they have taken time to appreciate their effects. However, unlike government regulators in representative democracies, parents are free to discourage circumvention by punishing avoidance ex post as if it were the same as evasion. Children can lobby, but they cannot vote into office a more desirable set of parents. Moreover, because children's regulatory rights are not closely protected by an administrative system of appellate law, the opportunity cost of avoidance behavior is high for children whose parents refuse to acknowledge and honor the legitimacy of searching out loopholes in their rules.

Some readers may find it instructive to view the Regulatory Dialectic as an evolving game that has no stationary equilibrium (Kane, 1981, 1983). It is played repeatedly by differently informed, differently incentivized, and differently skilled players: financiers, regulators, lobbyists, politicians, customers, credit-rating firms, and taxpayers. The timing and space of potential moves cannot be fully known in advance, but individual moves parallel the stages featured in the Hegelian model: (1) Adjustments in Regulation; (2) Burden-Softening Lobbying, Disinformation, and Avoidance (which occur rapidly and creatively); and (3) Re-regulation (which usually takes considerable time to develop). Some of the players (taxpayers and some regulators) are perennial “suckers,” who only occasionally and temporarily realize that the game is rigged against them.
Processes of financial regulation and financial-institution avoidance produce shadows and light at the same time. Loopholes are seen as entitlements that were woven into the rules by skilled and knowledgeable lobbyists who frame problems and potential solutions in a self-interested way. The Dodd-Frank Act of 2010 (DFA) tasked regulators with writing hundreds of rules for the avowed purpose of lessening subsidies to aggressive risk-taking. To appreciate the flaws in this process, one must understand that Congress and industry lobbyists are aware that it is not unusual for regulatory personnel to prefer rules that lessen the enforcement and political problems that stringent restraints place on them.

3. Regulation of Swaps

Swaps and other contracts whose net worths “derive” from referenced instruments are financial derivatives. I believe that precedents established by the AIG and other 2008 rescues suggest that the next round of safety-net arbitrage is likely to be rooted in the difficulty of regulating swaps that, like credit default swaps (CDS), substitute for traditional insurance and pension protections. Swaps are another in a long line of financially engineered substitutes for direct funding from savers to investors. Constructively, a swap agreement is a multiperiod forward contract between two counterparties. In a swap, the parties agree to exchange cash flows from one hypothetical or “notional” instrument at specified settlement dates for the cash flows from a second designated instrument. Either or both of the instruments may—but need not—have a precise cash-market counterpart. The two sides of each swap may be regarded as establishing a synthetic incremental balance sheet that renders each counterparty long a series of claims (known as the “receive half”) and short a series of obligations (the “pay half”). As a balance sheet, the value difference between the two halves is the contract’s net worth.

But the statutory definition of the term “swap” embraces a much wider range of deals than this constructive description accommodates. In particular, it authorizes insurance and reinsurance contracts
to be written as swaps. The statutory concept of a swap includes, in part, any agreement, contract or transaction “that provides for any purchase, sale, payment or delivery (other than a dividend on an equity security) that is dependent on the occurrence, nonoccurrence, or the extent of the occurrence of an event or contingency associated with a potential financial, economic, or commercial consequence.”¹

With respect to taxpayers’ equity position in the safety net, swaps raise two issues. First, the staffs of the federal agencies charged with regulating swap markets—the SEC and CFTC—have developed expertise and tools appropriate for supervising individual and enterprise market conduct rather than systemic risk. Second, industry influence on both agencies has been institutionalized. Neither agency can be consistently counted upon to elevate taxpayers’ interests over those of the industries they simultaneously regulate and represent. In the past, the revolving door between the SEC and the securities industry seems to have been pushed much harder than any of the levers agency personnel have used to fight against corporate fraud and misrepresentation. The revolving door has also helped the derivatives industry to lobby successfully for preferential treatment of swaps and repos in bankruptcy with outright disdain for the way their statutory priority might disadvantage the taxpayer’s equity position in the safety net.

It has been left to state insurance regulators, exchanges, dealers, and brokers to assess contract risk and to use bonding tools (e.g., screening traders’ net worth; establishing margin requirements; and enforcing minimum standards for collateral quality) to assure counterparty performance. The industry’s principal risk-assessment tool is value-at-risk analysis, which specifically excludes the scale of the damage apt to be done by the low-probability events most apt to trigger systemic problems. Moreover, the ease with which MF Global delayed its meltdown in October 2011 by posting almost $900 million of customer funds to cover losses in a UK broker-dealer account suggests that in some jurisdictions the rules governing the re-hypothecation of customer collateral and how margins may be netted across

¹ CEA Section 1a(47)(A)(ii), 7 U.S.C. 1a(47)(A)(ii).
different positions may make posted margins less than fully collectable when a swap participant defaults.  

Historically, most swaps have been arranged with a third-party dealer or market-maker. This trader collects a fee for lessening the due-diligence and search costs that its customers might otherwise face. The fee may be expressed as a spread between the terms offered for taking up one side or the other of a particular swap. As compared with a brokered market, the customer receives immediate execution and the dealer becomes the counterparty for both sides of the deal.

Efficient deal-making generates two types of transactions costs: pre-contract shopping, negotiating, and due-diligence expense and post-contract enforcement and unwinding expense. Whether an individual is a saver or an investor, the opportunity costs encountered in undertaking a swap parallel those met in comparing the benefits and costs of contracting directly with a household or nonfinancial firm against using (say) a bank to intermediate the deal. Prudent savers and investors have to assess the differences in the benefits of contracting indirectly and weigh these benefits against the differences in transaction costs. Most households lack the expertise needed to make direct lending or borrowing the better alternative.

When the two halves are equally valuable, the swap is said to be “at” or “on” the market. Usually, however, the incremental balance sheet of one counterparty will show positive net worth. That party faces a risk that the party with negative net worth will renege on some or all of its obligation. If it were not for this nonperformance risk, one could construct combinations of swap contracts that would reproduce synthetically the exact cash flows generated by any cash-market portfolio or government-chartered financial intermediary. This means that differences in the dangers of nonperformance (known in the trade as “counterparty risk”) lie at the heart of the regulatory problems that swaps and other derivatives pose for society.

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Swaps Regulation Under the Dodd-Frank Act. Because banking, securities and insurance products have existed for hundreds of years, the dimensions of their regulatory environments have been nailed down in important ways. But because swap contracts are less than a half-century old, their regulatory environment is much more fluid. Cross-country issues and the volume of interagency rule-making to be completed under the Dodd-Frank Act of 2010 make the toolkits and architecture of future swaps regulation particularly swampy today.

Data on the size of potential imbalances in dealer positions are not readily available. But the major dealers are giant banking institutions that benefit from the perception that they would not be allowed to fail. In hopes of pushing swaps trading out of the shadows and beyond the protections of the safety net, the Dodd-Frank Act asks the Securities and Exchange Commission (SEC) and the Commodities Futures Trading Commission (CFTC) to set rules whose intent is threefold.

First, the Act calls for real-time reporting of swaps transactions to be installed as soon as this becomes technologically practicable. Unlike many DFA assignments, SEC and CFTC real-time reporting rules have been finalized. US swaps dealers and clearing organizations are required to report their trades to a swaps data repository (SDR). As the word “repository” suggests, SDRs merely store data. So far, three SDRs are operating in the US: the Depository Trust & Clearing Corporation (which is owned by a consortium of financial services firms); the CME Group; and the Intercontinental Exchange (ICE).

The second and third goals are to force high-volume swap instruments to be standardized as far as possible and to move trading in such instruments onto futures exchanges and swaps execution facilities where it is hoped that positions might be monitored and supervised more effectively. On an exchange, the search function is undertaken jointly by brokers who transmit customer bids and offers to the exchange and by the exchange which clears (i.e., novates) the trades and guarantees that execution will occur on the trading date.
Performance guarantees on an exchange are backed up formally by broker and exchange due-diligence, collateral assessment, and margining procedures. At both the exchange and broker levels, margin and net-worth requirements are set relative to the perceived volume and character of a counterparty’s trading. Brokers protect themselves by screening customers and margining the value of short sales and pending trades. Exchanges support contract performance further by screening brokers for reputation, competence, and net worth and by holding margin accounts posted by brokers. If a customer or broker fails to deliver its half of the trade on the execution date, the exchange’s clearing corporation or partnership is obliged to complete the trade.

But dictating exchange trading for standardized swaps is different from eliminating the possibility of safety-net arbitrage in swaps markets. First, forcing unwilling dealers to shift the bulk of their market-making activity onto an exchange is much easier said than done. Because standardized swaps carry more basis risk than customized ones, many customers will continue to prefer customized terms, all the more so since giant dealer banks will be smart enough to protect their dominant positions by stressing the value of customization and adopting pricing policies that shift a portion of their safety-net subsidy forward. Second, the more important swaps trading on a particular exchange might become, the better its clearing members will see that adopting a holding-company form (as many have already done) will limit their individual and joint liability in crises and would help them if the exchange itself should ever become insolvent to whip up the financial, political and administrative fear necessary to trigger officials’ bailout propensity.

Early Form of Regulation-Induced Innovation. The DFA expressly exempted futures contracts from the swap definition. This opens the door for any futures exchange that wants to trade an innovative swap-like product to self-certify the proposed instrument as a futures contract and to request that the new contract be placed under the CFTC’s jurisdiction. In fact, emerging regulatory arbitrage is taking the form of exchange-traded swaps futures contracts that substitute for traditional
swap contracts. The new contracts may either settle in cash or settle into swaps contracts with the futures exchange at the expiration date. The convenience and favorable margin treatment of these contracts threatens to shrink the OTC deal flow available to swaps dealers and other clearing organizations. Information on these trades is likely to be routed to the exchange’s affiliated data repository from which genuinely informative trade data might be packaged with analysis and sold at a profit to private parties.

**Cross-Country Issues.** The costs and benefits of expanding a financial firm’s geographic footprint have regulatory dimensions. The extraterritorial application of the DFA is expressly (if vaguely) limited to foreign transactions that "have a direct and significant connection with activities, or effect on, commerce in the United States"[7U.S.C. 2(i)]. How this limitation is interpreted by different agencies will affect opportunities for competition and regulatory arbitrage between domestic and foreign regulators. Regulators must think deeply about competition between established central clearing parties (CCPs) and other swaps platforms located in Europe, Canada, and Asia. The Chicago Mercantile Exchange has already made it possible for its clients to book a few of its foreign-exchange and interest-rate contracts with a London affiliate and London-based exchanges could return the favor by registering a swaps CCP as a Swaps Execution Facility with the CFTC and let it book a selection of high-volume contracts in the US. ³

Evolving US derivatives rules are further along and arguably more onerous than those of other countries and impose reporting obligations on trades that cannot easily be reconciled with other countries' privacy laws. British, EU, and other foreign regulators have expressed concern that applying CFTC and SEC registration, capital, and collateral requirements to foreign branches, affiliates, or

subsidiaries of US institutions may affect other regulators’ freedom to tailor rules for foreign and domestic firms operating in their own jurisdictions.

Without acknowledging the extent to which their actions can shift tail risk onto the US safety net, bank lobbyists and pressure from foreign regulators managed to persuade the SEC and CFTC—in a spirit of cooperation—to write into their final rules a generous framework of “substituted compliance.” 4 Substituted compliance was supposed to mean that foreign affiliates would be regulated by the country in which they are domiciled as long as the country enforces rules sufficiently comparable (i.e., similar) to those of the US. In its Proposed Final Guidance, the CFTC used the phrase “rules comparable and comprehensive to relevant Dodd-Frank requirements,” but enforcement of this proposal was delayed.

In July, 2013, the CFTC issued guidance interpreting the DFA as classifying for regulatory purposes the overseas arms of US banking organizations as “US persons,” if their US parent explicitly guarantees their liabilities. 6 Although the CFTC authorized some exceptions, interpreting the DFA in this way threatened to expand the territorial reach of CFTC scrutiny so that some swaps that US persons execute abroad would not be regulated any differently from those they execute in the US.

Even though parent companies could (as many eventually did) free foreign subs from CFTC oversight by substituting implicit guarantees for explicit ones, the CFTC’s interpretations were challenged by foreign regulators. Moreover, their challenge found a sympathetic ear at the SEC. In an April 19, 2013 letter, officials from Germany, France, the UK, Japan and the European Commission recommended that substituted compliance be made available to all market participants for all


5 CFTC Press Release PR6293-12 (June 29, 2012).

Less than two weeks later, the SEC formally proposed to permit overseas-based firms in securities-based swaps to adhere to their foreign jurisdiction’s rules in deals with US firms so long as the foreign rules are “broadly comparable” to US requirements. The SEC’s proposal emphasized that comparability would be assessed by examining regulatory outcomes instead of comparing rules. The lag in observing a palpable difference in outcomes opens a another broad path for blunting the extraterritorial reach of US swaps regulators. Three crucial issues are who in the US will determine when one set of rules is apt to produce outcomes or rules comparable to those of the US, how they would do this, and how to verify the adequacy of the enforcement of acceptability on a continuing basis.

At least for the time being, the CFTC has acceded to undocumented industry claims that multiple disclosure, reporting, and record-keeping requirements would create more compliance costs than safety-net benefits. On August 13, 2013, the CFTC adopted a rule that granted substituted compliance to the SEC for registered investment companies (CFTC Release: PR 6663-13). Then, on December 13, 2013, it granted substituted compliance to regulatory authorities in Australia, the EU, Hong Kong, Japan, and Switzerland (CFTC Release: PR 6802-13) and to various Canadian exchanges a few months later. One can only hope that accountability for substituted-compliance decisions can be established before the next crisis.

Why do the definitions and tests entailed in substituted compliance raise issues of shadowy banking? Given the worldwide threat of regulatory capture, the result that is both to be feared and to be expected is that sooner or later some major foreign regulators will be encouraged by politicians and financial-sector lobbyists to substitute for US standards inadequate rules or enforcement procedures. This will attract trading volume to these jurisdictions and poses a risk that in crisis circumstances foreign

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governments will be able as in 2008-2009 to shift market-crippling losses onto the US safety net. Although the DFA forbids the Fed from targeting credit to individual institutions specifically, it allows Fed officials to design generalized programs of currency swaps and market-stabilizing emergency credit.

4. Reinterpreting The Role of Swaps in the Panic of 2008

It has become customary to characterize the bankruptcy of Lehman Brothers as triggering the panic of September 2008. However, I believe that public confidence in the competence and fairness of the government's regulatory leadership and the reliability of private performance guarantees was destroyed by the combination of a yet to-be fully explained double U-turn in bailout policy (of which Lehman was only the smallest part) and unwise Presidential fear-mongering in support of a panicky blank-check program known as TARP.\(^9\) Within the space of a few weeks, federal officials moved from contributing over $100 billion to creditors of Fannie and Freddie, to making underrcollateralized creditors of Lehman take their lumps in bankruptcy, then to committing roughly $180 billion to bailing out the creditors and swap counterparties of the American International Group (AIG) and demanding that Congress appropriate $700 billion to buy up distressed assets from other troubled firms at inflated prices.\(^10\) The AIG rescue broke new ground because it represented the first time that federal support was extended to an insolvent US insurance firm whose unfulfilled obligations had exceeded the value of state guaranty schemes and because it dispensed with opportunities to haircut the firm's creditors.

Two things made AIG different from other insurance insolvencies. First, at the time of its implosion AIG had $1.06 trillion in assets and operated 246 separate insurance and other financial-
services companies. This made it by far the largest “insurance firm” in the country. Second, although AIG's traditional life, casualty, and retirement business was supervised by state officials in traditional ways, various “insurance-related activities” had morphed out of the jurisdiction of state regulatory regimes via swap contracts and into the purview of the relatively clueless Office of Thrift Supervision.

AIG offered its counterparties two forms of security: AIG’s “reputation” and the right to call for collateral if its credit rating fell below AAA. These transactions were booked in opaque subsidiary corporations that transacted in convenient foreign jurisdictions (especially London) with a large number of foreign counterparties. To clarify the regulatory arbitrage this entails, consider the advantages of using a swap to guarantee payments due on a bond. In the US, a bond insurance contract would have had to be written by a state-regulated entity. This underwriter would explicitly have to estimate and reserve for the loss exposures generated by its guarantee, establish the existence of an insurable interest on the part of the counterparty (i.e., a long position in the bond), and counterparty claims would be settled over time by assuming the string of future payments specified by the bond contract. Although Dodd-Frank rulemaking might change this in the future, credit default swaps dispensed with these restrictions. Over-the-counter CDS market makers like AIG could write contracts with counterparties that had no insurable interest, did not have to document how they reserved for losses, and at settlement would usually be required to make a single lump-sum payment.

The highly concentrated risks that AIG took in swap and securities-lending activities in London were inconsistent with state commissioners’ traditional concern for protecting policyholder interests and the New York commission would have stopped them if they had had authority for overseeing foreign subsidiaries. Some state officials took what turned out to be cold comfort from the fact that AIG subsidiaries and the firm as a whole were supervised at a consolidated level as a thrift-institution

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12 Ibid.
13 Ibid.
holding company by the Office of Thrift Supervision (OTS). Fortunately, AIG management knew all too well that this regulator lacked the expertise, the windows into foreign jurisdictions, and the incentives to monitor and control the leverage and volatility inherent in AIG’s burgeoning derivatives and securities-lending businesses. A useful way to understand the AIG debacle is to think of one of its divisions as a "booking bureau" whose task was to place derivatives business in shadowy subsidiaries and foreign markets which rendered its potential regulators severely overmatched.

AIG illustrates the maxim that firms—like people—are born simple, but die of complications. Corporate complications are both structural and contractual. Table 1, which is taken from Sjostrum (2009), shows how AIG partitioned its activities and that the profitability of AIG’s financial-services subsidiaries declined steeply in 2007 and 2008. These losses triggered cash flows and collateral calls in credit default swaps (CDS) and securities lending that AIG proved unable to sustain.

One alleged benefit of segregating different product lines within a holding-company structure is to use contractual firewalls to stop losses in one unit from spreading in bankruptcy proceedings to other units of the firm. Another is that this arrangement can facilitate a voluntary restructuring of the firm if and when it falls into distress. However, neither of these benefits was realized in the AIG debacle. Because top management decisions were not being closely monitored, AIG officials had to be tempted to offer implicit cross-guarantees from its insurance units to persuade counterparties to lessen the collateral requirements they might impose or to increase the fees collected on deals with swap and securities-lending counterparties. In the absence of explicit inter-affiliate guarantees and in states where such guarantees might prove unenforceable, the profits of the insurance units would have stayed positive because counterparties could not have used the threat of bankruptcy to force the parent to use these units to honor claims written against loss-making affiliates. At least arguably, the doctrine of

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corporate separateness would have allowed the claims of derivatives counterparties to be separated from the insurance units in a prepackaged bankruptcy and given appropriate haircuts.

Both at the Treasury and the Fed, the initial justification for rescuing AIG and keeping its many counterparties whole was not protecting the firm’s policyholder and pension-plan reserves, but “unusual and exigent circumstances” in banking, commercial-paper, and derivatives markets. It was the fear that “a disorderly failure of AIG could add to already significant levels of financial market fragility and lead to substantially higher borrowing costs, reduced household wealth, and materially weaker economic performance” (9/16/08 Federal Reserve Press Release cited by Sjostrum, p. 977). The irony is that dire events along the lines of those described happened anyway. Forcing AIG’s counterparties to take some lumps in a hastily negotiated bankruptcy settlement would at least have shown an explicit concern for taxpayer costs. Because blanket guarantees typically finance negative-value gambles for resurrection, Kane (2009) argues that keeping zombie institutions like AIG16 in play without subjecting their asset and funding structures to triage prolongs and intensifies—rather than mitigates—the adverse effects that gambles by these firms exert on the real economy.

Figure 1 shows that AIG’s stock price fell sharply during the panic, but remained well above zero through the end of 2008. The continued decline in this price and in indices of consumer and business confidence in October and November 2008 (e.g., the Indexes shown in Figures 3 and 4) support my belief that the $700 Billion TARP rescue and the lack of checks and balances envisaged in the Emergency Economic Stabilization Act combined with poorly explained differences in the extravagance of government assistance across the chain of 2008 bailouts to lead much of the citizenry to lose faith in the competence and economic priorities of the nation’s top economic officials. Unlike Santa Claus, the Fed and Treasury seemed determined to give gifts only to people and firms that had behaved badly.

16 A zombie institution is a firm that has an economic net worth of less than zero, but continues to operate because its ability to repay and service its debts is shored up by implicit or explicit government credit support.
An authoritative account has yet to emerge of which officials knew what and when they knew it. But as a minimum, state and federal regulators must have noticed that profitability of AIG’s financial-services units had been declining for several years at a rate that, thanks to implicit and explicit cross-guarantees, threatened AIG’s ability to pay policyholder and pension claims in its traditional and retirement insurance businesses. The breakdown in supervision was not just that state and OTS personnel failed to curb AIG’s growing losses and loss exposures, but that the Fed, the SEC, and foreign counterpart agencies failed either to see or to do anything about the nonperformance risk that was building up in banking and securities firms that held the other side of AIG’s deals. The depth and breadth of the cross-country regulatory failure suggest to me that an unspoken reason for completely bailing out AIG’s creditors and counterparties was bureaucratic blame avoidance. In the US in particular, Figure 4 and numerous other political polls show that the Bush Administration became increasingly unpopular over the final years of its span in office. Top officials could not reasonably expect to hold office beyond January 20, 2009. The rescue’s generous treatment of AIG creditors and counterparties converted what would have been immediate industry criticism for being asleep at the wheel into applause for the Treasury’s fast action and political bravery and shifted the unpopular task of explicitly funding the rescue forward onto the Fed and succeeding administrations.

5. Classification of Shadowy Firms and Practices

The safety-net arbitrage seen in the AIG case may be characterized as theft by safety net. Such theft seeks to identify and exploit gaps in a nation’s or region’s framework of financial regulation and supervision, gaps that allow the arbitrageur to extract safety-net benefits from conjectural guarantees without compensating taxpayers for their full cost of production. It is a dynamic and creative form of purposively self-interested behavior. Inevitable differences in the information and contracting opportunities available to institutions, regulators, and taxpayers mean that, whatever changes in the fabric of regulation financial authorities make, they will soon find themselves outcoached, outgunned,
and playing from behind. This is why shadowy banking can never be completely eliminated. Still, the damage that crises create might be lessened if voters could be made to understand the extent of regulatory arbitrage.

Four distinct kinds of regulatory and tax avoidance take place within the shadowy sector. The first and most obvious is that of regulatory capture, in which regulated parties rig rules or enforcement in their favor. But shadowy banking also includes strategies for developing financial products or chartering firms in which regulators may or may not be complicit. These involve financial-engineering strategies that:

1) Do not fall under the rubric of existing laws (i.e., exploit statutory gaps);

2) Are deliberately designed to fall outside the span of control defined by existing regulatory practices (i.e., exploit procedural gaps);

3) Can be redesigned to exploit either or both types of gaps once the benefits of escaping burdensome regulations or oversight become great enough to overcome implementation costs (i.e., will take advantage of gaps that have not yet been exploited).

Managers of large financial institutions have made intensive use of all four strategies. At yearend 2011, Table 2 contrasts the number of domestic bank, domestic nonbank, and foreign subsidiaries at the largest US bank holding companies (BHCs) with a selection of smaller BHCs. Figure 4 shows that the extraordinary structural complexity of the largest and most politically powerful US bank holding companies (three of which were investment banks and insurance companies that were only conjecturally connected to the formal safety net prior to 2008) developed only after 1989 when the S&L mess clarified the extent to which the largest firms in the industry might count on taxpayer support to help them survive crisis circumstances. Criss-crossing lines of authority within such organizations makes them difficult to control from the top down. For this reason, it seems very likely (as in the AIG case) that
one attraction of a complicated network of subsidiaries is to place activities in jurisdictions in which it is hard for government officials to supervise them.

As we have indicated, large US institutions can derive benefits from exploiting statutory or procedural gaps in local and global statutory and control frameworks. Subsidiary corporations can book selected business in less heavily regulated parts of the US financial sector or perform activities in foreign countries that are outlawed or more closely regulated in their home country. Table 3 shows that quantitatively US BHCs’ nonbank subsidiaries more or less split their organizations' high-value structured securitization business with their more closely monitored banking subsidiaries.

It is also true that any bank can circumvent the FDIC’s statutory limits on account coverage by writing bilateral swap contracts through the Promontory International Network. Although it operates as a swaps broker, Promontory is not itself federally regulated,\(^\text{17}\) even though (and perhaps because) its founders include a former Comptroller of the Currency and a former Governor of the Federal Reserve System. This firm offers a funds placement service that is equivalent to an OTC swap product. Placing funds across the network allows a single depositor to push its FDIC coverage from $250,000 per depositor envisioned in the FDIC Act to as much as $50 million.\(^\text{18}\) Promontory named this product the “Certificate of Deposit Account Registry Service” (CDARS). CDARS acts as a clearinghouse. It re-books balances in excess of FDIC limits (i.e., statutorily uninsured deposits) from one institution as below-the-limit increments in deposits that are \textit{swapped} into other institutions. The injustice of the arbitrage is that Promontory collects fees for re-booking these deposits, while the FDIC incurs the costs of providing the over-line coverage. It seems likely that during crisis years deposits supplied through CDARS helped to sustain the life of more than a few zombie banks.

The lessons inherent in the CDARS program generalize to the broader swaps market. Almost anything that carries an explicit or implicit government guarantee can be swapped in great volume and

\(^\text{17}\) \url{www.cdars.com/howcdarsworks/default.aspt}.

\(^\text{18}\) \textit{Id.}
achieving high volume establishes the equivalent of a squatters right. This is because authorities are reluctant to roll back innovations once they have achieved widespread use. CDARS shows that *swaps* designed to arbitrage the safety net can easily go viral if authorities do not intervene. At this writing, approximately 3,000 financial institutions belonged to the CDARS deposit-swapping network. Like sponsors of the first retail money-market funds, the sponsors of CDARS extended the effective reach of the US safety net and dared authorities to do something about it.

6. **Why Shadowy Banking Generates Disadvantaged Taxpayer Equity**

The more policy debates I examine, the better I understand Friedrich Nietzsche's claim that "There are no facts, only interpretations."\(^{19}\) Almost all forms of financial engineering and shadowy banking offer some benefits to society. This is because at the same time that financiers use emerging technologies to extract safety-net subsidies, they create new, better, or cheaper services for their customers. This favorable dimension of innovation is apt to be overstressed, especially in the narratives that sponsors of shadowy instruments offer regulators and the public to justify their existence. As an example, consider the half-true content of the pleas to spare money-market funds (MMFs) from further restrictions that former Comptroller Hawke (2012a and b) published on the *American Banker's Bank Think* website.\(^{20}\) Hawke disputes the contention that MMFs deserve to be called shadow banks. He denies that they are exploiting any statutory or procedural gaps because they are in fact supervised by the SEC. He denies that MMFs face an “appreciable threat of future runs”\(^{21}\) (assuming away the danger of asset-concentration risk) and frames his presentation to indicate that the temporary liquidity facilities


\(^{21}\) Id.
put in place to save the industry in September 2008 did not explicitly cost a “single penny of public money.”

Regulatory arbitrage can generate safety-net benefits for particular firms, politicians, regulators, and categories of customers. Statutory and procedural gaps offer legal, but inherently unethical opportunities for different parties to exploit and corrupt one another. Corruption deepens as the stakes rise and when incentive conflict tempts other players to join in a coalition to exploit taxpayers. As an old English proverb tells us, opportunity makes the thief.

Central bankers’ rescue propensity leaves taxpayers holding the short side of an implicit regulatory contract. This contract allows elite financial firms: (1) to put ruinous losses onto government safety nets if and when creditors refuse to roll over their debts and derivatives at “reasonable” (i.e., low) cost and (2) to exercise a call on the government’s position if and when the debt overhang has been eliminated. That exploiting taxpayers through the safety net is touted as evidence of managerial proficiency without also being worn as a badge of shame signals the extent of the moral vacuum that has overtaken the debate over bailout policies.

Safety-net arbitrage is at heart a form of theft. One way to see this is to think of difficult-to-fail institutions as using a gun to force Uncle Sam or John Bull to extract money from the wallets of hapless taxpayers. We can think of the bullets in the gun as disinformation, fear, campaign contributions, and post-government jobs.

Genuine reform has to embrace and enforce the common-sense notion that managers of DFU firms owe fiduciary duties to taxpayers. This is because authorities’ demonstrated propensity to rescue them turns taxpayers into disadvantaged equity investors in such firms. The current system of shareholder lawsuits compounds rather than limits taxpayer loss exposure. The simplest approach would be to amend corporate law to assign taxpayers an actionable equitable interest in all firms that

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22 Id.
accept protection from the safety net. Pushing the idea one step further, Kane (2012) argues for establishing single-purpose trusteeships at so-called systemically important financial firms (SIFIs) and requiring each trusteeship to make sure that each SIFI's managers do three things: measure regularly, report honestly, and pay a fair return on the evolving value of taxpayers' equity stake in their enterprise.

Kane offers two justifications for taking this responsibility away from unaccountable government regulators and supervisors and establishing an enforceable system of fiduciary duties at the firm level instead. The first is a legal argument: the idea that, because taxpayers are de facto equity investors, corporate law should be broadened to accord taxpayers the same informational and fiduciary rights to prudent stewardship that the law gives to a SIFI's explicit shareholders. This would make explicit duties that conscientious managers should have recognized at least implicitly all along. In German, the phrase for violating a fiduciary duty can be translated as "acting despite better knowledge and conscience." The second is a moral argument based on Kant's Second Imperative. Kant’s second imperative maintains that exploitation of others is intrinsically wrong.23 Kant argues that one may not rightfully use other parties—as financiers operating in and out of the shadows have used federal taxpayers—only as means to benefit oneself.

In the US, each trusteeship might be governed by three trustees recruited for character and financial expertise by the Office of Financial Research. The OFR could use the same techniques for soliciting and screening candidates that it employed in 2011-12 to staff its own advisory board.24 Terms of service might be fixed for 3-to-5 years and permanently staggered to assure the presence at all times of experienced hands on the tiller.

A critical feature is that trustees could be sued personally if they fail to enforce taxpayer interests. This would not make trustees capture-proof. But it would make them less incentive-

conflicted than government policymakers are now and subject them to outside discipline from underwriters of director and officer liability insurance. The trustees at different SIFIs could be expected to organize a standard-setting association, consult with one another on emerging problems, and to hire sufficient staff to double-check and be ready to challenge publically bank and regulator estimates of the dividends taxpayers are due each quarter.

Trustees would be independent of the boards of the firms they oversee. Their primary responsibility would be to set a fair quarterly dividend and to see that dividends are collected and transmitted to the Treasury in a timely manner. To assure payment in difficult circumstances, they might be granted a limited right to sell out-of-the-money puts on the firm’s shares and to cover losses on these puts from treasury stock (i.e., to dilute shareholder positions immediately) if one of several specified adverse events were to occur. The essence of the plan is not only to privatize, but to extend the monitoring functions that in-house government examiners have fulfilled at very large US banks for years.

7. How Incentive Conflict Expands Systemic Risk and the Financial Safety Net\textsuperscript{25}

Suppose the government allowed your banker to send you monthly statements in a format that was so complicated that he could be sure that you would not be able to figure out whether your account balanced or not. Then, taking advantage of your ignorance, he goes on to transfer money out of your account each month and dares incentive-conflicted bank examiners to uncover and publicize his thefts.

While abusive financial engineering is more subtle than this, the crime of expropriating taxpayer resources through the safety net proceeds in more or less the same way. To disincentivize this behavior, reformers must improve the accounting framework to make the crooked funds transfers easier to see and strengthen examiner incentives to publicize and punish expropriation when they see it. That is what

\textsuperscript{25} This discussion draws explicitly on Kane (2007, 2012).
my proposal to re-engineer the supervision of systematically important financial institutions (SIFIs) aims to do.

Financial engineering becomes abusive when—as the Regulatory Dialectic predicts it will—managers use technological innovations to exploit a country’s taxpayers in hard-to-observe ways and personal culpability for safety-net abuse is eliminated by regulatory lags and regulatory capture. The resulting risk-taking destructively sows the seeds of future insolvencies and financial crisis.

As noted earlier, taxpayers hold a disadvantaged compound option on protected firms’ profits and losses. The put assigns them without limitation the deep downside of firm losses, while the call cuts off taxpayer claims on future profits if and when the firm returns to robust health. Contingent-claims analysis can estimate the value of a protected firm’s side of the put and call. It also tells us that this value increases both with the volatility of a firm’s asset holdings and with the fragility of its funding structure. Empirical research I have conducted with various colleagues26 shows that periodic dividends due on taxpayers’ equity stake in politically or administratively difficult-to-fail firms can be defined and measured as the value of the warranted return on an individual firm’s contribution to the financial sector’s aggregate portfolio of taxpayer puts and calls. By reinforcing authorities’ rescue propensity, a firm can further disadvantage taxpayers by building up its political clout, size, and complexity. Each of these attributes enhance management’s ability to delay or avoid regulatory punishments and to use the resulting period of grace to neutralize regulatory restraints and to gamble for resurrection.

Operational Weaknesses of Capital Requirements. Before, after, and during the crisis, capital requirements have served as the major instrument for containing shadowy banking practices. Capital requirements seek to limit safety-net subsidies not by improving banking ethics, but by setting

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boundaries on the extent to which regulated institutions can leverage their accounting balance sheets. The plan is to keep losses from spilling beyond a firm’s internal capacity to bear losses by aligning its ownership capital with its exposure to economic loss.

The linchpin of the Basel system of capital requirements is to measure loss exposure by the sum of risk-weighted assets (RWA). The weights employed in the first two accords were fixed at arbitrary levels and gave a bank virtually no credit for the extent to which it might have diversified or hedged the risks in its loan portfolio. Weighting formulas took inadequate account of operational or interest-rate risks. Finally, although Basel II authorized tying some weights to credit ratings, none of the accords has linked the system of risk weights it applies to a benchmark set of assets or to movements in the average or marginal risk premiums that one could observe in loan or swap markets.27

These disconnects artificially distort bank risk-transfer activity by creating opportunities for clever banks to capture safety-net subsidies by arbitraging the weighting system. The first principal loophole came from large institutions’ success in persuading Credit Rating Organizations (CROs) to help them to game the Basel system by overrating shadowy packages of securitized loans. (This and ISDA’s reluctance to keep credit default swaps on Greece from paying off as the price of Greek debt declined exemplify how shadowy institutions tend to corrupt one another). A second avenue of avoidance was that, when regulatory demands for capital first began to generate a compliance burden at a particular bank, its managers found it temptingly easy to book counterfeit increments in regulatory capital by manipulating its loan-loss reserves and by selling or securitizing a sufficient amount of its least-risky assets.

Prior to the crisis, regulators did not seem very worried about the size and perversity of various accounting, securitization, swap, and loan-sales loopholes. Even after the crisis ensued, practical people more or less turned a blind eye toward the accounting loopholes in the Basel system. The fact that

27 The Basel Committee on Banking Supervision (BCBS) is beginning to question the risk-weighting methods (see BCBS, 2013).
during the crisis even obviously distressed banks continued to post a capital position far in excess of Basel standards suggests that Basel’s minimum standards were easy to game. Despite efforts by U.S. and foreign regulators to increase the granularity of the risk categories by which capital standards were set in previous years, risk-weighted capital proved of no help in predicting what banks would and would not need to be rescued (Demirgüç-Kunt, Detragiache, and Merrouche, 2011).

In the forum in which Basel III and its successors are being crafted today (the Basel Committee on Banking Supervision, BCBS), reform plans continue to mischaracterize capital as an accounting-generated number and to misweight risk in response to political concerns. Although one would hope they know better, negotiators act as if it is okay to temper the fiduciary duties that this paper associates with monitoring the size of, and collecting a fair return on, taxpayer contributions to bank equity. They content themselves with aligning a banking organization’s accounting leverage with politically distorted conceptions of its exposure to risk. In Basel III, regulators have decided to downplay Basel II’s emphasis on risk-weighting and to force protected institutions to accept a marked increase in their equilibrium ratio of accounting net worth to total assets. But leeway inherent in reporting loan-loss reserves and other discretionary items makes accounting net worth a shadowy concept whose value need not reliably reflect an institution’s ability to absorb losses generated by its appetite for risk. In practice, a firm whose books make a show of high capital is often more risky than a firm whose books show less (Koehn and Santomero, 1980; Diamond and Rajan, 2000).

Hence, the preventive leg of the Basel policy prognosis relies on overly hopeful assumptions that are not supported by empirical research. Financial crises are a fact of life. Where data exist, they show that every country’s financial sector passes through a succession of three-stage sequences: a pre-crisis bubble in credit, an actual crisis, and a post-crisis period of creative destruction and healthy recovery (Kindleberger, 1978; Reinhart and Rogoff, 2009). Of course, the durations of the different stages vary
across countries and across time, and transitions from one stage to another become clear only in retrospect.

But bubbles and crises can be amplified by weaknesses in insolvency detection and by subsidies to risk that zombie firms generate as they battle for bailouts. The Regulatory Dialectic portrays crises and subsidies as generated in large part by path-dependent collisions between (1) efforts by regulators and supervisors to control leverage and other forms of risk-taking and (2) disruptive efforts by regulated and “shadowy” financial institutions to expand risks in nontransparent ways and to shift responsibility for ruinous outcomes onto creditors and national safety nets.

In the presence of a safety net, bank managers face a threefold avoidance incentive: to lobby for lenient standards, to hide and understate risk exposures, and to overstate accounting net worth. This set of incentives makes risk and stockholder-contributed net worth hard to measure accurately and reliable standards by which to judge improvements in incentive alignment difficult to set and enforce.

Undone by the Regulatory Dialectic. Because regulators have relatively short terms in office, they are attracted to temporary, rather than lasting fixes. The costs and benefits of capital requirements extend far into the future and are by no means fixed or exogenous. Regulatees search tirelessly for ways to reduce the burdens of regulation. Value maximization leads bankers to devise progressively lower-cost ways to exercise political clout, to adjust and misreport asset values and funding structures, and to choose favorable jurisdictions in which to book particular pieces of business.

This kind of financial engineering resembles what happens on a “makeover” television show. Top managers deploy the equivalents of fashionistas, cosmeticians, and hairdressers to revamp their firm’s external appearance without changing the underlying character of the risk exposures that they expect taxpayers to support.

Can Basel Save Us? The endogeneity of regulatory burdens should lead one to view: (1) ongoing negotiations in the Basel Committee on Banking Supervision that seek to establish global risk-based
capital rules and (2) disruptive bank objections to—and circumvention of—emerging rules as conflicting forces in a dialectical evolutionary process that I model as a rigged game.  

Weaknesses in the way US and EU regulators chose to implement Basel II standards created differences in the costs of loophole mining that help to explain why the crisis hit their financial systems harder than those of Canada, Asia, Latin America, and Oceania [see Shadow Financial Committee Report (2011), posted at aei.org]. Although Basel II tied risk weights for sovereign debt to credit ratings, it permitted national authorities to go below those weights for central-government debt (or debt guaranteed by a central government) as long as it was issued and funded in the currency of the country in question. For political reasons, US regulators assigned unrealistically low weights to mortgage-backed securities and EU officials set zero risk weights for member-state debt. Until well into 2012, the European Central Bank (ECB) contributed to the process by accepting the sovereign debt of all Eurozone countries at par value when posted as collateral for ECB loans. The EU and ECB fueled speculators’ demand for the debt of the “GIPSI” nations of Greece, Ireland, Portugal, Spain and Italy by not imposing “haircuts” on these countries’ increasingly risky securities as soon as the interest rates on their debt began to soar above those paid by other Eurozone countries.

These delays were part of a larger strategy of cross-country denial and concealment of financial-sector risk exposure. EU stress tests and Basel’s risk-weighted capital ratios (Demirgüç-Kunt, Detragiache, and Merrouche, 2011) failed demonstrably to distinguish between failing and viable banks. The fundamental weakness in Basel I, II, and III is their lack of enforcement procedures. Basel accords fail to make credit-rating organizations and individual-country regulators accountable either to the Basel Committee as a whole or to banking regulators in other member countries.

In the absence of an enforceable duty to disclose and service taxpayers’ equity stake, accounting loopholes make the idea of balance-sheet transparency a sham. Politicians’ and lobbyists’

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28 Although this model can be formalized, only a narrative form is presented here.
disinformational claim that tougher capital requirements will make banks pass up profitable, but socially risky financial opportunities seems distressingly dishonest. Accounting ratios are not difficult to overstate and financial firms do not accept proposed regulatory burdens passively. Other things equal, higher capital requirements lead difficult-to-fail banks to choose riskier strategies and, both individually and collectively, to conceal the resulting loss exposures from regulators and other outsiders so as to minimize adverse effects on bank profits and stock prices. In the US, the Occupy Movement very briefly energized a few ordinary citizens into expressing rage about the game that regulators and regulatees were playing on them. But these few rebellious sheep have had little lasting influence.

8. **Policy Implications:** The need for profound changes both in the nature of information flows and in the contractual relationships linking taxpayers to protected firms.

   It is factually and legally misleading to characterize credit support for zombie institutions as a lending program and financial safety nets as a source of casualty insurance. Loans to zombies and safety-net support are in fact sources of loss-absorbing equity funding to protected firms. Neither Basel nor the DFA imposes the fiduciary duties of loyalty, competence, and care on regulators and managers of difficult-to-fail institutions that the taxpayer's equity position deserves.

   Two related weaknesses continue to plague the US and global regulatory systems: (1) accounting ratios remain easy to manipulate and even ruinous risks are easy to hide and/or to misrepresent legally and (2) authorities are willing to exaggerate the "comfort" taxpayers should take from loan-loss reserves, credit-rating firms, liquidity swaps, and sympathetically graded stress tests. The root problem is that corporate law allows financial-institution managers to aim at the mere appearance of regulatory compliance. Managers and regulators act as if they are playing an amusing game of hide and seek. Managers feel legally justified in hiding risks from regulators and denying repeatedly the existence and extent of safety-net subsidies.
The root problem is incentive conflict intensified by disinformation, industry lobbying pressure, and post-government job opportunities. Both in the US and in Europe, ongoing negotiations between different regulators show a willingness to paper over incentive distortions in the web of safety-net supervision and to postpone the resolution of important issues in ways that intensify rather than dispel the uncertainty and lack of trust that have bedeviled wholesale financial markets since the crisis began. The DFA doled out the task of implementing its most controversial features as a homework assignment for various regulatory agencies. Three years after its passage, many important issues remain unsettled, including: risk retention in securitization; how to establish accountability for credit rating organizations; variation in cross-country derivatives trading rules; limitations on proprietary trading; and restrictions on compensation, dividends, and stock buybacks. Delay in resolving these issues prolongs rulemakers' exposure to further rounds of shadowy lobbying pressures and accommodates potentially toxic safety-net abuse in the interim.

Governments develop regulatory institutions to compensate for imperfections in counterparty transparency and in the enforceability of contractual rights by private counterparties. To be efficient, the design and operation of a country’s safety net must not only respond to country-specific weaknesses in the transparency and disciplinary rights offered by financial contracts between private parties. It must more importantly recognize and repair longstanding weaknesses in the social contracts that taxpayers are forced to write with manager of firms that the safety net protects. Regulators and the financial sector have foisted defects in the transparency of-- and lines of responsibility for--safety-net benefits and costs on the rest of society. Whether and how proposed changes in rules improve the government’s contracting environment ought to be the benchmark by which we judge financial reforms. The more shadowy the regulatory environment remains, the more likely it is that governments' rescue propensities and the conjectural governmental guarantees these propensities generate will undermine financial stability and misdirect a portion of a country’s scarce savings into wasteful investments.
To reduce destructive incentive conflict, society must go beyond tightening capital restraints. It must explore ways to make financiers help regulators to identify shadowy arrangements promptly and to narrow their access to the safety net more effectively (cf. Schwarcz, 2012). To my mind, this requires society to find ways to impose and enforce fiduciary duties to taxpayers on unwilling financiers, politicians, regulators, and credit-rating firms (Kane, 2010a and b). The paper stresses that safety-net subsidies generated by swap contracts have not been adequately addressed. Swap transactions need to be monitored in a more timely and effective fashion if only because failures to perform in swaps markets could create great social unrest by globalizing the guarantees embodied in the US safety net and undermining promises made in the pension and insurance industries.

To begin to reclaim an effective role in the politics of financial regulation, taxpayers need a way to oversee and bypass the system of client-centered regulation that has developed at the banking agencies and at the SEC and CFTC. As equity investors, taxpayers deserve to receive regular and unbiased estimates of the value of their equity position in government-protected firms and to be assured that protected institutions will pay a fair dividend on the equity that political forces make taxpayers take on. I believe societies around the world would be better off if each country were to establish a well-funded Office of Financial Research (OFR) and give the OFR the budgetary independence that central banks have long enjoyed. To be free to measure and report on systemic risk, an OFR desperately needs the freedom to resist short-term budgetary interference.

Precisely because the benefits of shadowy arrangements are deliberately overpraised by their proponents, taxpayers need to force individual SIFIs -- backed up by an OFR-- to identify tail risk and safety-net consequences hidden in instruments and structural arrangements that substitute for standard financial contracts. One approach would be to require that trusteeships and individual-country OFRs be notified by SIFIs and other major market participants to undertake tail-risk analyses whenever the volume of trading being booked in a particular derivative contract surpasses a specified size
threshold. To enlist alerts from trade associations for institutions losing business to new firms and instruments, OFRs ought have the right to examine the business of unusually fast-growing financial firms, especially firms that pioneer an unconventional asset or funding structure.

To guard its political independence, I would recommend that the OFR engage in informational and analytical activities, but be denied the authority to sanction private firms directly. In the US, authority to disallow contracts or institutions or to adjust deal-making parameters that the OFR finds to be dangerous could be routed through the Systemic Risk Oversight Council or assigned directly to various federal agencies. But the OFR must have authority—and even the duty—to demand information from and to criticize other supervisory agencies. In particular, the OFR should be empowered to insist that agencies responsible for monitoring and reserving for loss exposures that the OFR determines to be worrisome have established reliable systems of oversight and control.
TABLE 1

SOURCES OF AIG PROFIT AND LOSS, 2005 THROUGH SEPTEMBER 30, 2008

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>Revenues</strong></td>
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<td></td>
</tr>
<tr>
<td>General Insurance</td>
<td>$35,854</td>
<td>$51,708</td>
<td>$49,206</td>
<td>$45,174</td>
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<tr>
<td>Life Insurance &amp;</td>
<td>14,271</td>
<td>53,570</td>
<td>50,878</td>
<td>48,020</td>
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<tr>
<td>Retirement</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Services</td>
<td>(16,016)</td>
<td>(1,309)</td>
<td>7,777</td>
<td>10,677</td>
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<tr>
<td>Asset Management</td>
<td>658</td>
<td>5,625</td>
<td>4,543</td>
<td>4,582</td>
</tr>
<tr>
<td>Other</td>
<td>531</td>
<td>457</td>
<td>483</td>
<td>344</td>
</tr>
<tr>
<td>Consolidation &amp;</td>
<td>(436)</td>
<td>13</td>
<td>500</td>
<td>(16)</td>
</tr>
<tr>
<td>Eliminations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$34,862</td>
<td>$110,064</td>
<td>$113,387</td>
<td>$108,781</td>
</tr>
<tr>
<td><strong>Operating Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Loss)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Insurance</td>
<td>$(393)</td>
<td>$10,562</td>
<td>$10,412</td>
<td>$2,315</td>
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<td>Life Insurance &amp;</td>
<td>(19,561)</td>
<td>8,186</td>
<td>10,121</td>
<td>8,965</td>
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<tr>
<td>Retirement</td>
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<tr>
<td>Financial Services</td>
<td>(22,880)</td>
<td>(9,515)</td>
<td>383</td>
<td>4,424</td>
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<tr>
<td>Asset Management</td>
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<td>1,164</td>
<td>1,538</td>
<td>1,963</td>
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<td>Other</td>
<td>(2,899)</td>
<td>(2,140)</td>
<td>(1,435)</td>
<td>(2,765)</td>
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<tr>
<td>Consolidation &amp;</td>
<td>237</td>
<td>722</td>
<td>668</td>
<td>311</td>
</tr>
<tr>
<td>Eliminations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$(48,205)</td>
<td>$8,943</td>
<td>$21,687</td>
<td>$15,213</td>
</tr>
</tbody>
</table>

### TABLE 2

NUMBER AND DISTRIBUTION OF SUBSIDIARIES: SELECTED TOP FIFTY BANK HOLDING COMPANIES

<table>
<thead>
<tr>
<th>BHC Rank</th>
<th>Name</th>
<th>Commercial Bank</th>
<th>Other</th>
<th>Foreign</th>
<th>Total</th>
<th>Domestic Commercial Bank (Percentage of Y-9C Assets)</th>
<th>Consolidated Total Assets (Y-9C) (Billions of U.S. Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>JPMorgan Chase &amp; Company</td>
<td>4</td>
<td>2,936</td>
<td>451</td>
<td>3,391</td>
<td>86.1</td>
<td>2,265.8</td>
</tr>
<tr>
<td>2</td>
<td>Bank of America Corporation</td>
<td>5</td>
<td>1,541</td>
<td>473</td>
<td>2,019</td>
<td>77.9</td>
<td>2,136.6</td>
</tr>
<tr>
<td>3</td>
<td>Citigroup Incorporated</td>
<td>2</td>
<td>935</td>
<td>708</td>
<td>1,645</td>
<td>68.8</td>
<td>1,873.9</td>
</tr>
<tr>
<td>4</td>
<td>Wells Fargo &amp; Company</td>
<td>5</td>
<td>1,270</td>
<td>91</td>
<td>1,366</td>
<td>92.5</td>
<td>1,313.9</td>
</tr>
<tr>
<td>5</td>
<td>Goldman Sachs Group, Incorporated</td>
<td>1</td>
<td>1,444</td>
<td>1,670</td>
<td>3,115</td>
<td>11.2</td>
<td>923.7</td>
</tr>
<tr>
<td>6</td>
<td>MetLife, Inc.</td>
<td>1</td>
<td>39</td>
<td>123</td>
<td>163</td>
<td>3.2</td>
<td>799.6</td>
</tr>
<tr>
<td>7</td>
<td>Morgan Stanley</td>
<td>2</td>
<td>1,593</td>
<td>1,289</td>
<td>2,884</td>
<td>10.5</td>
<td>749.9</td>
</tr>
<tr>
<td>10</td>
<td>The Bank of New York Mellon</td>
<td>3</td>
<td>211</td>
<td>146</td>
<td>360</td>
<td>83.2</td>
<td>325.8</td>
</tr>
<tr>
<td>20</td>
<td>Regions Financial Corporation</td>
<td>1</td>
<td>35</td>
<td>4</td>
<td>40</td>
<td>97.1</td>
<td>127.0</td>
</tr>
<tr>
<td>30</td>
<td>Comerica Incorporated</td>
<td>2</td>
<td>72</td>
<td>2</td>
<td>76</td>
<td>99.8</td>
<td>61.1</td>
</tr>
<tr>
<td>40</td>
<td>First Horizon National Corporation</td>
<td>1</td>
<td>35</td>
<td>1</td>
<td>37</td>
<td>99.1</td>
<td>24.8</td>
</tr>
<tr>
<td>50</td>
<td>Webster Financial Corporation</td>
<td>1</td>
<td>21</td>
<td>0</td>
<td>22</td>
<td>99.8</td>
<td>18.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>86</strong></td>
<td><strong>13,670</strong></td>
<td><strong>5,847</strong></td>
<td><strong>19,603</strong></td>
<td><strong>70.4</strong></td>
<td><strong>14,359.1</strong></td>
</tr>
</tbody>
</table>

Source: Constructed by Avraham, Selvaggi, and Vickery (2012) from National Information Center: FR Y releases and FFIEC data.

Notes: Structure data are as of February 20, 2012. Financial data are from fourth-quarter 2011. The number of subsidiaries of each bank holding company (BHC) is determined based on the Regulation Y definition of control. Asset data include approximately 3,700 of the more than 19,000 subsidiaries belonging to the top fifty BHCs that meet particular reporting threshold criteria. Authors have an online appendix that provides more detail.
TABLE 3
EVIDENCE ON THE EXTENT OF BANKS’ NONCREDIT ACTIVITY ALONG
THE CHAIN OF STRUCTURED FINANCE

<table>
<thead>
<tr>
<th></th>
<th>Top 50 ABS Deals</th>
<th></th>
<th>Top 50 ABCP Conduits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Deals</td>
<td>Amount (Billions of</td>
<td>Number of Deals</td>
<td>Amount (Billions of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dollars)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banks</td>
<td>40</td>
<td>250.60</td>
<td>29</td>
<td>111.44</td>
</tr>
<tr>
<td>Nonbank affiliates</td>
<td>44</td>
<td>261.95</td>
<td>26</td>
<td>92.29</td>
</tr>
<tr>
<td>Other</td>
<td>42</td>
<td>78.61</td>
<td>4</td>
<td>12.41</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>272.09</td>
<td></td>
<td>180.12</td>
</tr>
</tbody>
</table>

Source: Constructed by Cetorelli, Mandel, and Mollineaux (2012) from data on fee income published by Moody’s covering securities services other than credit enhancement (as issuers, underwriters, servicers, and trustees).

Note: ABS stands for asset-backed securities; ABCP represents asset-backed commercial paper.
FIGURE 2

NFIB Small Business Optimism Index
Based on 10 Survey Indicators, Seasonally Adjusted 1986 = 100
January 1986 - October 2013, Quarterly

Index Value (1986=100)

YEAR
75 77 79 81 83 85 87 89 91 93 95 97 99 01 03 05 07 09 11 13
nfib.com/sbet

NFIB
The Voice of Small Business
FIGURE 3

*Americans' Confidence in Federal Government's Handling of Domestic Problems*

How much trust and confidence do you have in our federal government in Washington when it comes to handling domestic problems -- a great deal, a fair amount, not very much, or none at all?

- A great deal/A fair amount

Source: This chart comes from Gallup's annual Governance survey, conducted Sept. 5-8, 2013, while Congress was debating the use of military force in Syria, but prior to President Barack Obama's nationally televised address on Syria, and Russia's proposal to avert U.S. military action.

FIGURE 4

ORGANIZATIONAL NONTRANSPARENCY AND INTERNATIONAL REACH
OF LARGE U.S. BANK HOLDING COMPANIES


Note: Data are as of February 20, 2012, and December 31, 1990, and include the top fifty bank holding companies (BHCs) at each of these dates. Authors have an online appendix that provides more detail.
REFERENCES


(ftp://www.americanbanker.com/bankthink)

(ftp://www.americanbanker.com/bankthink)


McCulley, Paul, 2007. Teton Reflections: PIMCO Global Central Bank focus PIMCO (Sept.),


