# Unmet Duties in Managing Financial Safety Nets

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ABSTRACT: Officials must understand why and how the public lost confidence in the federal government's ability to manage financial turmoil. Officials outsourced to private parties responsibility for monitoring and policing the safety-net exposures that were bound to be generated by weaknesses in the securitization process. When the adverse consequences of this imprudent arrangement first emerged, officials claimed for months that the difficulties that short-funded, highly leveraged firms were facing in rolling over debt reflected only a shortage of aggregate liquidity and not individual-firm shortages of economic capital. Then, in September 2008, the president and other officials created an unwise sense of urgency that delays in implementation show to have been greatly exaggerated.

That authorities and financiers violated common-law duties of loyalty, competence, and care they owe to taxpayers indicates a massive incentive breakdown in industry and government. Taxpayers deserve a thorough-going reorientation of: (1) how regulatory agencies report on their regulatory performance and back-room interactions with Congress and the Treasury, and (2) the contract structures and performance measures used by the financial industry and its government overseers.

THE NATURE, FREQUENCY, AND EXTENT of modern financial crises support the hypothesis that changes in the risk-taking technologies available to aggressive financial institutions repeatedly outstrip social controls on the job performance of the private and government supervisors that society asks to control the safety and soundness of interlocking national financial systems. To explore this hypothesis carefully is to reframe two age-old debates: (1) about the extent to which society is better served in financial regulation and supervision by policy rules or by policymaker discretion, and (2) about whether and how moral values can explicitly be introduced into the economic analysis of financial regulation.

This essay uses the incomplete distinction between situationist and principled behavior to provide fresh insight into both issues. It expands on Kane (1989) in arguing that information asymmetries in the flow of safety-net subsidies make policymaker discretion dangerous to taxpayers in pressure-filled situations and that these asymmetries endogenously increase the influence of lobbying pressure during asset bubbles and in crisis circumstances. This unsteadiness in policymaking environments and priorities implies that, to assure the loyal performance of government regulators in and out of crisis, ordinary taxpayers need to do more to protect themselves. In particular, they need to address the corrupting roles played by bureaucratic self-interest, the political clout of large institutions, and the government's failure to develop and publicize estimates of the *ex ante* safety-net subsidies generated by regulation-induced innovation.

To counter these powerful forces and bring safety-net subsidies under better control requires more than a reassignment and extension of *regulatory authority*. It demands

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a complete reworking of supervisory incentives. A good start would be to redesign financial information systems, managerial compensation systems, and public-service oaths of office to clarify and better enforce duties of loyalty, competence, and care that in principle participants in every transactions chain owe to one another.

## I. OPPORTUNISM VERSUS CHARACTER IN ECONOMIC POLICYMAKING

Whenever the US or world economy goes into decline, the Federal Reserve must expect to receive a lion's share of the blame (Kane 1980). With respect to the current crisis, critics blame Fed officials (along with the SEC, the OTS and credit-rating firms) for failing to control the deterioration in financial-institution lending standards and balance sheets that generated the securitization bubble and (along with Treasury Secretaries Paulson and Geithner) for failing to minimize the costs taxpayers incurred from bailing out distressed institutions as the crisis progressed.

Despite the Fed's zealous efforts to defend itself, Gallup Poll data indicate that ordinary citizens are siding with the critics. Exhibit 1 shows that in mid-2009 the percentage of respondents who rated the Federal Reserve Board (FRB) as doing a good or excellent job was the lowest of the nine agencies the poll examined. It is also the only agency whose rating shows a pronounced downward trend. Exhibit 2 contrasts the distribution of survey opinion of FRB performance in 2009 with the more favorable opinions the survey recorded in 2003.

During the initial stages of the crisis, large financial institutions accumulated huge amounts of assistance through the safety net. Kane (2009) argues that this was accomplished by panicking safety-net officials and then advising them through self-interested lobbying activity on how to dispel crisis pressures. To strengthen top regulators' backbone against industry efforts to panic them in future economic slumps, it is necessary to understand the incentives and channels of influence that

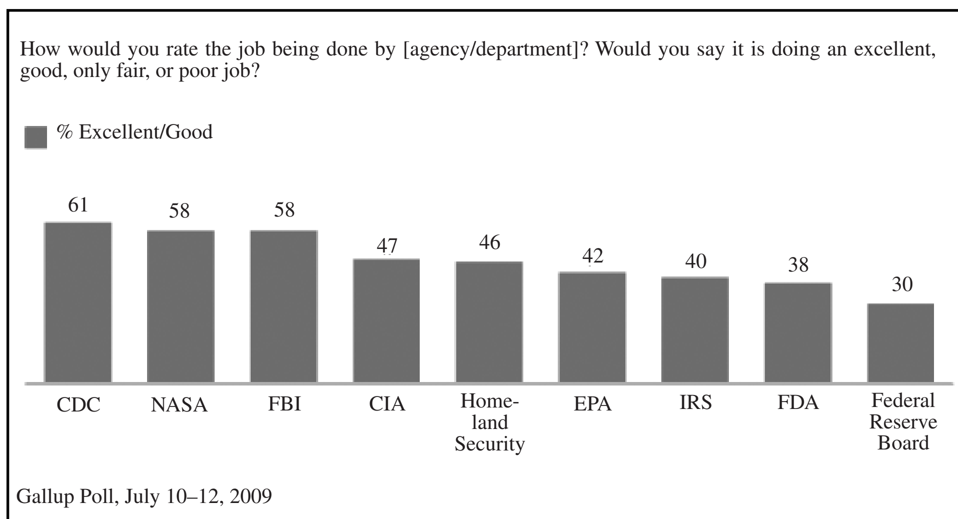


**Exhibit 1**

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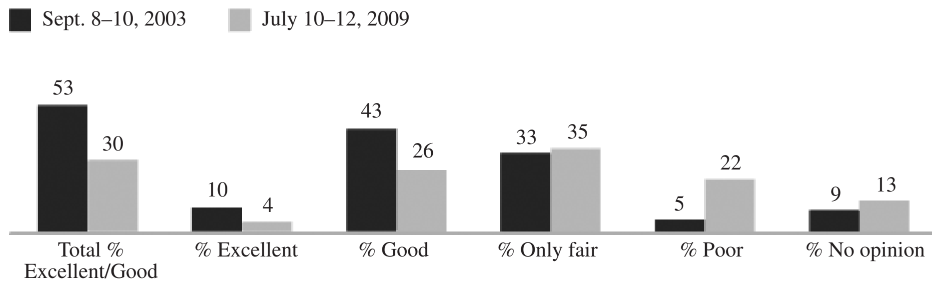


Gallup Poll

**Exhibit 2: Job Ratings for Federal Reserve Board**

might have produced this situation. The fundamental question is whether reworking financial agencies' mission statements and consolidating jurisdictions in the ways Treasury officials and Congressional leaders have proposed should give taxpayers reason to hope for better results the next time around.

Situationist psychology offers a discouraging answer to this question. It "claims that the situation a human being inhabits, or takes to inhabit, better predicts and explains her behavior than putative traits of character" (Upton 2009: 104). Upton goes on to summarize a series of prominent behavioral experiments that indicate how situational change can produce "morally inappropriate, dubious, or even appalling behavior" (Upton 2009: 105). In one well-known experiment, subjects cast randomly in the role of prison guards subjected participants cast as prisoners to vile and degrading punishments (Zimbardo 2007). In another, participants followed orders to deliver what they believed to be escalating electrical shocks to persons that were screaming in agony (Milgram 1974).

A particularly important "situation" concerns fulfilling the demands of organizational leadership in a long-lived enterprise. The moral standards espoused by *elitism* hold that persons in authority (i.e., business and government executives) have a duty to compromise their pursuit of individual virtue if and when this will promote their organization's idea of the greater good. The philosophy underlying this ethical principle is called casuistry (Drucker 1981). Though popular in the age of monarchy, this philosophy has fallen so far out of favor today that its name has developed a secondary meaning as a synonym for specious reasoning.

What I call Commonsense Ethics has its origins in Platonic and Aristotelian ethics of virtue. Commonsense Ethics denies that leaders can or should put aside the demands of ordinary morality (Hoffman and Moore 1982). It locates the key to getting better regulatory performance in identifying and enforcing better principles of safety-net management. Virtue ethics is an ethics of self-discipline. The term derives from the Latin word for man, *vir*. In this context, *vir* is used in the same sense as the Yiddish word *mensch*: to indicate someone who sincerely espouses the moral standards of an upright person and cultivates the character traits that these standards imply. Once inculcated into one's conscience, character traits are presumed to be relatively stable and—within limits imposed by outside restraints and the inner emotions that situationists stress—to govern a person's choices in a wide range of

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situations. An implication of virtue ethics is that, before and after the fact, principled persons care about the morality of their actions (Smith 1759). They pride themselves on behaving honorably and sincerely regret behavior that proves inconsistent with accepted standards of prudence, honesty, loyalty, or compassion for others.

One's moral principles are expressed through and in one's many activities. In practice, a dual hallmark of good character is a willingness to label one's ethical lapses, irrespective of the personal or organizational benefits they might engender, as mistakes and an aspiration to make amends and to avoid similar lapses going forward. This makes principled persons genuinely responsive to outside criticism and concerned with avoiding even the appearance of impropriety.

Virtuous leaders strive to impart virtue to the organizations they run (Nielsen 1996, Moore and Beadle 2006). It is important not to let a concern for their reputations and status trump their concern for building and sustaining character. Otherwise, others may manipulate them by selectively condemning behaviors the others dislike and praising behaviors they favor (Kaplow and Shavell 2007). This opportunity helps to explain why, in the face of growing popular criticism, key industry spokespersons continued to applaud—and authorities continued to frame—chaotic shifts in U.S. and European bailout strategies as if they were part of a coherent strategy of avoiding another great depression.

So far, the blueprints for financial reform that Congress and the European Union are considering ignore the temptations of office and simply assume that in pressure-filled environments government supervisors (unlike industry executives) always behave in character-driven ways. This untested assumption makes it vital to determine the extent to which recent risk control and crisis management behavior appears to show an elitist foundation instead. Either approach allows that, in difficult situations, society may benefit from temporarily suspending policymakers' obligation to explain their policies fully and from allowing them to pay special attention to the complaints of distressed sectors. But a testable difference exists. Normatively, Smith (1759) and Montesquieu (1949) both stress that the principled statesman should be prepared to subordinate his personal welfare—but not his virtue—to the interests of *ordinary* citizens. In contrast, to form an alliance that protects its bureaucratic interests, an elitist regulator needs to shape its organizational environment and shade its actions to favor the industries it regulates.

Economic analysis can discriminate between principled and elitist policymaking. It can do this by examining the adequacy of the information released to the public and the attitude that particular leaders or agencies strike toward restraints on their powers. Do they frankly acknowledge that embarrassing information and limits on their authority contribute to the goal of enforcing faithful service or do they frame disclosure requirements and other limits as unwelcome hindrances that the financial industry would "rightly" expect and enthusiastically urge them to overcome? Agency elitism can be inferred from the extent to which its leaders use crises to establish interpretations and precedents that cover up its mistakes, beat down its critics, inflate its powers, expand its discretion, and extend its jurisdiction. By this standard, Fed and Treasury efforts to use the crisis as a platform for self-congratulation and for extracting new authority from Congress are distressingly opportunistic. Their

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reluctance to admit important mistakes and to underscore the lessons that society might learn from them sidetracks rather than promotes effective reform.

Kydland and Prescott (1977) use control theory to show that limits on managerial discretion can improve policy outcomes, but the moral issue is not that safety-net officials chose to cast off a series of time-tested restraints on their behavior. The problem is that they saw no need to root these actions in a set of consistent moral principles. As we argue in section IV, safety-net officials chose a sequence of chaotic, present-obsessed behaviors and sought to justify the chaos by misframing what was a spreading insolvency crisis as a shortage of aggregate liquidity and by whipping up unreasonable fears of an impending financial meltdown. Although Chairman Bernanke has expressed a distaste for bailing out giant firms that were "taking wild bets," his agency has yet to offer taxpayers a documented and reproducible analysis of the costs and benefits each bailout produced.

Forward-looking principled behavior shows a concern for reducing regret. The next section benchmarks a series of ethically defensible restraints (i.e., duties of public stewardship) that in theory a perfectly virtuous supervisor or crisis manager would embrace to assure time-consistency. Section III explains that the multiperiod nature of crisis resolution demands time-consistent strategies of crisis management. Section IV goes on to document several major ways in which US officials failed to acknowledge (let alone to fulfill) these hypothetical duties of public stewardship either before or during the current crisis. These unmet duties are interpreted as evidence that Fed and Treasury officials allowed themselves and their agencies to lapse into an elitist mindset.

## II. DUTIES OF STEWARDSHIP IMPLIED BY CONSCIENTIOUS STRATEGIES OF REGULATING AND SUPERVISING FINANCIAL INSTITUTIONS

Economic theory presumes that, period by period, decisionmakers examine an evolving opportunity set and choose a sequence of behaviors that maximizes a personal or organizational objective function. Rules and governments come into existence as a way for a community of individuals to protect itself from what economists call externalities and from harm that might be caused by weaknesses in members' or outsiders' foresight or ethical standards. Individuals must be regulated and supervised when—and to the extent that—their objective functions tempt them to disobey either the spirit or the letter of legitimate rules. To constrain the choices that self-interested individuals make, rules must be backed up by surveillance and enforcement. Enforcement rewards compliance, punishes evasion, and identifies loopholes. Loopholes may be defined as gaps in a rule's enforceability that make its impact softer and more ambiguous in practice than it might seem on paper.

The modern theory of regulation stresses the endogeneity of rulemaking and enforcement activities. It traces changes in rules and duties to the interplay of economic events with governmental goals and with the waxing and waning of industry pressure to relax burdensome rules or to control disruptive behaviors. Kane (1981) describes regulation as a dialectical process in which regulation-induced innovation slowly engenders regulatory adjustments and these regulatory adjustments (termed

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re-regulation) rapidly engender new forms of regulatee avoidance. This dialectical theory portrays managers of financial institutions as maximizing stockholder value and envisions private and governmental regulators and supervisors as watchdog organizations that maximize idiosyncratic objective functions that adapt to a set of shifting and conflicting pressures and goals. Whether public or private in nature, a watchdog organization is subject to clientele pressures that modify its goals and complicate their implementation. In the context of safety-net management, these pressures typically seek to influence enforcement and rulemaking activity to generate safety-net benefits for client sectors at taxpayer expense.

A financial institution's incentive to disobey, circumvent or lobby against a particular rule increases with the opportunity cost of compliance. This means that, to sort out the welfare consequences of any regulatory program, we must assess not only the costs and benefits of compliance, but include the costs and benefits of circumvention as well.

### *II.A. What Duties Would a Perfectly Virtuous Safety-Net Manager Embrace?*

Virtue ethics and Kant's second imperative (which forbids treating persons merely as means to an end) insist that, across every chain of contracts in which principals delegate authority to one or more agents, agents and principals owe one another reciprocal duties of loyalty, competence, and care. Neither principals nor agents should tempt one another to shortchange their duties. To clarify the concrete obligations these abstract duties might entail, we ask the reader to imagine the existence of a perfectly virtuous supervisor (*PV supervisor*).

A PV supervisor would be expected to determine its obligations explicitly and to perform them selflessly and conscientiously. To benchmark the performance of real-world supervisors, this paper posits a list of duties that PV supervisors might putatively agree that they owe to the community that employs them. To the extent that others agree with these hypothetical benchmarks, some or all of these duties might ultimately be incorporated into the oaths of office that future safety-net officials agree to implement. In any case, spelling out these duties can help us not only to identify weaknesses in recent crisis management, but can also be used to explore deficiencies in the supervision of the securitization process to determine how PV safety-net managers might have handled them better during the bubble period.

The fluidity of the financial environment means that a dutiful regulator must conceive of its policing function as a dynamic and proactive process. For this process to correct itself at an optimal speed, obstacles that hinder efficient adaptation must be regularly cleared out of the way. To identify these obstacles, it is helpful to draw an analogy between financial supervisors and referees in a sporting contest. In sports, bad calls arise both as errors of commission and errors of omission. Errors occur for one of four reasons. Referees may fail to equip themselves with eyeglasses or other vision aids (such as replay cameras) needed to see the play; they may fail to move themselves into position to see the play; they may misunderstand or misapply the rules; or they may let themselves be influenced either by the reaction of the crowd or by unseen side payments. Referees are agents for spectators, players, and whatever

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league might employ them. Principal-agent theory suggests that, to minimize bad calls, PV supervisors should acknowledge four corresponding duties:

1. *A duty of vision*: Supervisors should continually adapt their surveillance systems to discover and neutralize regulatee efforts to disguise their rule breaking;
2. *A duty of prompt corrective action*: Supervisors should stand ready to propose new rules and to discipline violators effectively as soon as a problem is observed;
3. *A duty of efficient operation*: Supervisors should strive to produce appropriate insurance, loss-detection, and loss-resolution services at minimum opportunity cost; and
4. *A duty of conscientious representation*: Supervisors should be prepared to put the interest of the community they serve ahead of their own.

### *II.B. Importance of Establishing Accountability*

In principle, the commitment to incentive compatibility embodied in the fourth duty implies an overarching fifth duty of *accountability*. By definition, if real-world supervisors were perfectly virtuous, they would disclose enough information about their decisionmaking to make themselves politically accountable (and perhaps even accept compensation structures that made them answerable financially) for the ways in which they exercise their discretion.[1] PV supervisors would fearlessly bond themselves to disclose enough information about their decisionmaking to allow the community or interested outsiders to determine whether and how badly they neglect, abuse, or mishandle their responsibilities.

In a representative democracy, accountability is a moral imperative. As a practical matter, it exists only to the extent that the contracts taxpayers write with government officials are conditioned on observable information. Observability requires either the immediate or eventual release of the information that policymakers actually review when a controversial decision is made. Pursuing this level of accountability would correct popular misperceptions (Chari, Christiano, and Kehoe 2008). Most importantly, it would sharpen post-mortem analysis. The desirability of conducting meaningful policy post-mortems forms the logical foundation for The Freedom of Information Act.

In practice, safety-net officials battle against accountability. They fashion reporting norms that do not require them to document either the efficiency costs or the distributional effects of decisions they make in controlling risk-taking or managing crises. In country after country, safety-net officials actively resist *ex post* liability for shortfalls in loyalty, competence, and care. In particular, formally independent central banks are allowed to offer inflated and undocumented claims about the size and nature of the hypothetical disasters that their decisions served to avoid (i.e., the counterfactual "bullets" they dodged) and to withhold or mischaracterize the information that was available to them when controversial decisions were being made (e.g., about AIG and its counterparties).

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Moreover, while markets and institutions have been globalizing, national regulators have guarded their regulatory turf. Supervisory responsibility continues to be assigned locally. In particular, schemes for shifting commercial and investment bank losses to individual taxpayers are still shaped and administered on a nation-by-nation basis. This gap in cross-country accountability might be tolerated for any or all of three reasons. First, misaligning responsibility for regulating global firms appears to serve the bureaucratic interests of national regulators by reducing their accountability for undersupervising national-champion firms. Second, it sustains opportunities for rent-seeking by these same institutions. It allows important firms to extract relief from their own and other governments when they fall into trouble. Third, it incentivizes national safety-net managers to subsidize the expansion of globalizing firms by adopting prudential regulatory standards and enforcement procedures that promote the international competitiveness of the firms under their aegis.

During the securitization bubble, national regulatory behavior and clientele benefits were increasingly exposed to competition from foreign regulators. In world markets, movements of financial capital and asset values across counties carry into the domestic policy space political, economic, and reputational pressures that individual-country policymakers cannot afford to neglect. It is hard to resist the hypothesis that these pressures disposed authorities in financial-center countries to expand safety-net subsidies by blessing dodgy methods of moving risks off financial-institution balance sheet and to acquiesce in loophole-ridden agreements for coordinating cross-country banking supervision (i.e., Basel I and II).

## III. BENCHMARKING PRINCIPLES OF EFFICIENT CRISIS MANAGEMENT

Economists make considerable use of the artifice of perfect competition. This section seeks to develop a similar paradigm for time-consistent crisis management. This paradigm indicates that, during the current crisis, supervisors in most countries followed a myopic playbook.

The difficulties these policies were apt to cause could have been inferred from studying closely the methods that officials in different countries have used to contain and resolve crises in the past. Different outcomes have ensued when different methods were used to distribute responsibility for absorbing losses across banks, borrowers, depositors, current taxpayers, and future taxpayers. Fiscal costs, macroeconomic damage, and the degree to which financial restructuring was left unfinished have varied both with the precise mix of crisis-containment and loss-redistribution strategies a country adopts and with differences in the economic circumstances and contracting environments of the countries adopting them (Laeven and Valencia 2008; Honohan and Klingebiel 2003; Hovakimian, Kane, and Laeven 2003; Laeven 2004).

Realistically, every government-managed program of disaster relief is a strongly lobbied and nontransparent tax-transfer scheme for redistributing wealth to and shifting risk away from the disaster's immediate victims. A financial crisis externalizes—in margin and other collateral calls, in depositor runs, and in bank and borrower pleas for government assistance—a political and economic struggle over

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when and how losses accumulated in corporate balance sheets and in the portfolios of insolvent financial institutions are to be unwound and reallocated across society. At the same time, insolvent firms and government rescuers share a common interest in mischaracterizing the size and nature of the redistribution so as to minimize taxpayer unrest.

In principle, lenders and investors that voluntarily assume real and financial risks should reap the gains and bear the losses their risk exposures generate. However, in crises, losers pressure government officials to rescue them and to induce other parties to share their pain. Loans to insolvent zombie firms are not "loans" at all.[2] They are investments. When government rescuers offer loans and credit lines on concessionary terms, taxpayers are supplying equity capital to the institutions being rescued. Unless the government requires these firms to compensate it fully for the capital it provides, *ex ante* wealth is transferred from taxpayers to the stockholders and creditors of recipient firms. PV policymakers would report and analyze honestly any and all wealth transfers that their policies entailed, but real-world policymakers seldom do this.

### *III.A Preparing for Crises*

Regulation and supervision seek to avoid systemic crises by detecting and curtailing inappropriate risk taking before it can harm customers and taxpayers. Conscientious policy makers should recognize that financial crises will occur from time to time and prepare their agencies to manage the several stages of future crises efficiently. Managing a systemic crisis is a multiperiod optimization problem that unfolds in three phases: immediate damage containment, medium-term industry restructuring, and an aftermath in which recovery takes place (Kane and Klingebiel 2004; Claessens, Klingebiel, and Laeven 2005).

Experience indicates that the damage a crisis works on a country's taxpayers and on its real economy is lessened by following a bankruptcy-like strategy of estimating and allocating losses during the first stage of a crisis (Kane and Klingebiel 2004, Laeven and Valencia 2008). This is because supplying government or central bank credit support and guarantees to distressed institutions absorbs future fiscal resources. For implicit and explicit expenditures on containment strategies to be optimal across all three phases, authorities must look beyond the net social benefits these expenditures yield during the containment phase. They must also estimate whether some of the resources they transfer to distressed firms might be better used to increase the discounted value of restructuring and other benefits achievable during the restructuring and recovery phases.

Kane and Klingebiel model future benefits as a portfolio of policy options that are either preserved, opened, or closed by the containment policies employed. The value of future options depends to a first approximation on the value of the fiscal resources available to be spent on them and on the volatility of the post-containment financial environment. Assuming counterfactually that authorities' decisionmaking horizon extends across all three phases, a time-consistent containment strategy

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would maximize a multiperiod social welfare function subject to a cross-period budget restraint.

This multiperiod perspective makes it clear that it is imprudent and deceptive for officials currently in office to use a reporting system that fails to record and budget for the future costs that rescue strategies generate from constraining future policy options (Phaup 2009). Unless authorities estimate the present value of the incremental taxpayer liabilities that rescue policies create and pass this opportunity cost through agency budgets and balance sheets, rescue strategies cannot be intertemporally optimal. Kane and Klingebiel maintain that promptly subjecting important institutions to meaningful tests of their ability to recover in the face of continued adversity is the key to fair and efficient crisis management. The immediate goal should be to assure taxpayers that authorities can and will separate hopelessly insolvent institutions from potentially viable ones and go on to provide guarantees, liquidity support, and counterparty haircuts in ways that protect taxpayer wealth and avoid subsidizing insolvent and undercapitalized institutions' long-shot gambles for resurrection.

### *III.B. Why Triage Should Occur Before Rescue*

A financial crisis resembles a battlefield. Loss-generating institutions wounded by collateral calls and deposit runs are the casualties. Supervisory personnel resemble emergency medical personnel ("paramedics") required to administer first aid to wounded institutions under continuing hostile fire. Containment strategy, like battlefield medicine, seeks to locate the wounded, alleviate their suffering, and temporarily stabilize their condition. The sooner and more accurately authorities can identify moribund institutions, the better. Ideally, to stop an emerging crisis from escalating, emergency response teams ought to have been assembled in advance of actual crisis and trained on a standby basis (Kane 2001). In country after country, taxpayers have paid a high price for asking emergency response teams to master the financial equivalent of heart monitors and CPR techniques on the fly.

Restructuring entails careful diagnosis and a prioritized queuing for conclusive treatment. Restructurers use sophisticated methods to estimate asset values and employ well-reasoned methods for restoring and sharing in salvageable institutions' profitability and reputation. Their task is to identify, clean up, and consolidate the portfolios of insolvent institutions and to see that the capital positions of the reconstituted firms are adequately patched up by financial and managerial surgery.

Containment treatments consist of standstill requirements, loans, credit lines, and guarantees. Standstills put the claims of an institution's creditors on at least a partial hold for a specified period of time. Other treatments create immediate or deferred government obligations. The credibility of these obligations depends on the government's ability to service them. This fiscal capacity depends in turn on officials' ability to scale back other planned expenditures and to collect new taxes.

Government loans provide funds that can service customer demands for immediate liquidity. Credit lines and guarantees serve to curtail these immediate demands, by committing the government to provide future liquidity support as needed. Long-lasting

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commitments make it reasonable for customers to believe that they can successfully extract funds from troubled institutions at any time in the future that a better use arises.

*III.C. Requirements for Time Consistency*

Failing to strike an optimal balance between expenditures on triage and credit support during the containment phase is myopic. Deferring triage activity to the restructuring phase not only reduces future restructuring options, it threatens to increase resolution costs in later periods. Unless officials step in to haircut creditors and control outlandish risk-taking, managers of insolvent firms are led to invest government credit support in high-stakes gambles for resurrection that have negative present value. Optimal containment policy balances the opportunity costs and benefits of shifting the last dollar of intertemporal rescue resources between triage, emergency credit support, and restructuring expenditures.

Blindly issuing blanket guarantees violates this condition and ultimately explodes the intertemporal budget restraint. Taking the time to prepare a program of limited guarantees and to write down insolvent firms' liabilities to values that their earning assets can genuinely cover is the essence of prudent containment. Getting this time entails using governmental power to impose standstill requirements. The simplest standstill requirement is a brief timeout taken to allow government forensic analysts and private auditors to assess the depth and character of a troubled institution's financial wounds. The purpose of this kind of stress testing is to allow supervisory medics time to diagnose the extent of individual insolvencies and to recommend and impose preliminary haircuts on formally uninsured depositors and other counterparties before these parties can liquidate or collateralize their loss exposures.

Accountable and time-consistent crisis-containment strategies cannot easily be devised amidst the turmoil and conflict experienced during an actual crisis. Because the occurrence of a crisis strongly threatens the survivability of a country's incumbent government, it tends to shorten authorities' policymaking horizon. Officials are tempted to adopt containment policies that favor their supporters and to assign insufficient weight to how these policies distort the policy options available to decision makers in the second and third phase of the crisis.

In the face of widespread insolvency, issuing blanket guarantees can make sense to a unpopular government that is nearing the end of its term, but it should never make sense to an incoming administration or to an independent central bank. The liabilities of mortally wounded institutions are worthy at best of tightly conditioned forms of government support. Whatever political and administrative benefits blanket guarantees may generate, allowing moribund institutions on life support to invest freely is bound to generate excess costs over the time span of the crisis as a whole. Moreover, on average, taxpayer losses will increase the longer poorly conditioned guarantees remain in place. A policy of supporting zombie institutions cedes control over the size of future restructuring costs to the machinations of the country's weakest institutions. It also spreads weakness and insolvency across the industry by undercutting the profit margins that healthy institutions can command.

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As the industry's aggregate insolvency deepens, authorities may find it increasingly difficult to convince creditors of zombie firms that the government has the political will and fiscal capacity to make good on its guarantees. But there is another way in which extended credit support tends to compound a mess. As long as an insolvent institution remains open, savvy counterparties can cut their losses by reversing or collateralizing their claims. These actions decrease the "haircut" that authorities can impose on them when the zombie's insolvency is finally resolved. For this reason, governments would be well advised to insist that collateral posted or deposits withdrawn during a zombie institution's last few days or weeks of independent operation could be reversed or haircut when its insolvency is formally resolved.

Officials face three follow-on challenges in the aftermath of bailout support: to control the amount of new debt that wounded institutions load onto the balance sheet of future taxpayers, to make sure that guaranteed institutions do not misinvest the funds they can now command, and to cut back or eliminate the guarantees as the restructuring process goes forward. Assuming government guarantees remain credible, firms whose credit is fully guaranteed can issue the functional equivalent of new government debt as long as they remain open. This tempts managers of insolvent firms to abuse their access to government assistance by financing inordinately high-risk projects. Even though abusive "gambles for resurrection" reduce the nation's capital stock, they make great sense to owners and managers of insolvent institutions. This is why, in full knowledge of their role in deepening their firms' insolvency, executives of zombie institutions such as AIG and Citigroup feel entitled to collect large bonuses. Government agencies that guarantee a zombie's debt accept the full downside of its future losses and, at least in the short run, these agencies are entitled to capture all but the most outsized positive returns. In contrast, a prompt round of creditor haircuts curtails perverse risk-taking incentives by writing down the firm's debts to values it can be expected to service. Policies that force creditor recapitalization protect taxpayers by lessening the extent to which a ruined firm's counterparties can escape their pre-existing contractual commitments to absorb losses.

## IV. DUTY BY DUTY, HOW HAS US SAFETY MANAGEMENT SHAPED UP?

The ethics of regulation concerns conscientious efforts to set and enforce boundaries on individual behavior to promote community welfare. The political economy of regulation focuses on efforts to overstep such boundaries or to re-establish appropriate limits when existing rules and procedures have broken down.

PV safety-net managers would make themselves accountable for gaps in their expertise and proceed to repair them. Authorities knew or should have known that the difficulty of shutting down financial institutions and unwinding their booked and unbooked positions grows with their size, complexity, and political clout. Increases in measures of size and complexity were plainly visible. Not analyzing their consequences was not simply a mistake in judgment. The financial regulatory community either closed its eyes to their safety-net consequences or actively wished them away. The first interpretation implies a breach in regulators' duty of vision, while the second locates the breach in their duties of efficiency and prompt corrective action.

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### *IV.A. Defects in Vision*

By mid-2007, evidence of a developing foreclosure crisis for mortgage lenders and securitizers had been gathering for months (Tatom 2008, Barth 2009). When credit spreads finally surged in August 2007 and stayed high thereafter, risky assets lost value and lenders' capacity to service their debts declined. Federal Reserve Press Releases and speeches by the Fed Chairman and New York Bank President repeatedly misframed the nature of the financing difficulties that highly leveraged and short-funded mortgage lenders, Structured Investment Vehicles (SIVs), and some hedge funds were experiencing.

Such a firm's insolvency risk resembles that of an old-fashioned savings and loan association. Counterparties could easily assess its exposure to increased credit spreads by constructing a back-of-the-envelope guess at the duration of their net worth. High and rising credit spreads raised legitimate doubts about most SIVs' ability to service their debts. Regulators and counterparties had a duty to adopt a statistical-testing point of view. The resulting confidence intervals would have shown it to be increasingly doubtful that the problems highly leveraged firms were encountering in rolling over their debts or meeting collateral calls traced to a shortage of *aggregate* market liquidity. Until mid-September, financial distress focused mainly on markets for mortgages and asset-backed securities and was experienced predominantly by institutions (such as Countrywide Financial) whose pipeline of substandard loans or securitizations had backed up on them.

As institutions became more wary of one another, Fed spokespersons stubbornly ignored the undeniable fact that sharply rising credit spreads either pushed or threatened to push the value of many firms' risky assets below the value of the liabilities that were supporting them. Irrespective of the time path of aggregate liquidity, doubts about the survivability of leveraged institutions underlay collateral calls and difficulties in rolling over asset-backed debt.

A second violation of duty can be seen in Treasury plans to recapitalize insolvent firms and increase bank lending by buying up a subset of the industry's worst-performing assets at a subsidized price. A PV supervisor would concern itself with identifying zombie institutions and resolving their insolvencies efficiently. Proposing to subsidize strong and weak firms alike by letting them unload assets deemed to be "toxic" on to the government is an absurd idea. A dutiful strategy would have sought to move difficult-to-manage assets into expert private hands at minimum taxpayer cost. No matter how hard the industry might press for this self-serving strategy, a PV supervisor would recognize that toxic-asset purchase plans were poorly targeted and could not possibly offer taxpayers a fair return on the funds they were being asked to provide.

### *IV.B. Duty of Prompt Corrective Action*

Assuming that data available to Fed personnel in August 2007 could not yet strongly contradict its liquidity-shortage hypothesis, the government's efforts to support securities markets (see Exhibit 3, p. 14) at that time can be characterized as prompt and well-targeted. However, the liquidity-shortage diagnosis should have been regarded as a tenuous working hypothesis and been abandoned when credit spreads did not narrow

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| Program Title | Type | Nominal Amount | Cash | Target Beneficiary | Risk Holder | Type of Assets | Recourse[a] |
|---|---|---|---|---|---|---|---|
| **Troubled Asset Relief Program (TARP)** | Mixed | $700bn | $700bn | Banks, Insurance Companies | Treasury | Various | |
| **Term Asset-Backed Securities Loan Facility (TALF)** | Loan (via SPV) | $200bn | $20bn | Banks, Insurance Companies | Treasury ($20bn) Fed ($180) | Consumer credit (student loans, credit cards) | No |
| **GSE direct purchases** | Purchases | $600bn | $600bn | Fannie Mae, Freddie Mac, Federal Home Loan Banks, Banks, Insurance Companies | Federal Reserve | Home loans (GSE backed) | |
| **Money Market Investor Funding Facility (MMIFF)** | Loan (via SPV) | $540bn | $0 | Banks, Insurance Companies | Federal Reserve | Commercial paper | No |
| **Commercial Paper Funding Facility (CPFF)** | Loan (via SPV) | ?? | $0 | Banks, Insurance Companies | Federal Reserve | Commercial paper | No |
| **Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF)** | Loan | ?? | $0 | Banks, Insurance Companies (for purchase of assets from money market funds) | Federal Reserve | Asset-Backed Commercial Paper | No |
| **Citigroup bailout** | Equity and guarantees | ~$250bn | | Citigroup | Federal Reserve, Treasury, FDIC | ALL | Various |
| **AIG bailout** | Equity, loans, and guarantees | ~$150bn | $92.50 | AIG | Federal Reserve / Treasury | Various ‘distressed’ securities, ALL | |
| **Bear Stearns bailout** | | $29bn | | JP Morgan | Federal Reserve | | |
| **Fannie / Freddie bailout** | Equity and unlimited guarantee | ~$1.5tn | $200bn | Fannie/ Freddie (now taxpayers following takeover) | Treasury | | |
| **- additional** | Purchases | ~$150bn | | Fannie/ Freddie (now taxpayers following takeover) | $600bn | MBS (purchases by Fannie under Treasury direction) | |
| **Discount Window** | | ~$300bn | | | | | |
| **Currency Swap Lines at ECB and others** | | ~$165bn | | | | | |

**Exhibit 3: Prominent Government Facilities** (Source: Cohen-Cole 2009)
[a]Indicates recourse of the facility or Fed/Treasury to the beneficiary of the loan or guarantee. In all cases where an SPV has been established, the Fed loans to the SPV are recourse.

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in response to massive Fed support. The diagnosis was undermined even further when credit downgrades, adverse earnings reports, and asset writedowns spread across the industry as reported in Exhibit 4 (pp. 16–17). Basing rescue policies into March 2008 entirely on the liquidity-shortage hypothesis is a mistake that perfectly virtuous officials would admit and go on to report scrupulously on what went wrong and why.

Another doubtful hypothesis—put forward to justify the massive Troubled Asset Relief Program—holds that allowing Lehman Brothers to impose losses on its creditors by taking itself into bankruptcy was an overwhelming policy mistake. Exhibits 5 and 6 (p. 18) show that the behavior of measures of investor, business and consumer confidence in the fourth quarter of 2008 does not support the bailout-excusing claim that the government's one-off failure to rescue Lehman Brothers is the over-riding cause of the decline in public confidence. Although confidence recovered slightly in summer 2008, the decline was in fact of long standing and aggravated by two further events: the decision not to impose haircuts on the counterparties of massively insolvent AIG and President Bush's frightening TV speech of September 24th.

What the events of mid-September did accomplish was to reignite the decline and inject fear into the real economy. The VIX Index, the Michigan Index of Consumer Confidence, and the National Federation of Independent Business (NFIB) Small Business Confidence Index continued to deteriorate for weeks after the Lehman event. Exhibit 7 (p. 19) shows that consumption and investment expenditure declined sharply during the next two calendar quarters.

Exhibit 4 shows that much more than the Lehman event was influencing investor expectations. The daily VIX index jumped again with the AIG bailout. The index's continued surge appears to have been intensified by numerous clumsily explained policy moves, including President Bush's television address and the inequities and inefficiencies that surfaced in the allegedly vital bailout program whose adoption his speech had assured. After mid-October, movements in the three indexes are consistent with the hypothesis that hopes and fears that events projected onto the incoming administration sometimes boosted and sometimes undermined public confidence. The VIX index did not settle into a firm downward trend until early March, when a coherent and potentially time-consistent program of comprehensive stress testing was formally incorporated into the policy mix.

### *IV.C. Duty of Efficient Operation*

As late as the week before Bear Stearns collapsed, the New York Fed President described the industry's problems as "liquidity and funding challenges." Cohen-Cole (2009) explains in detail how in 2007 and early 2008 a policy of relaxing the Fed's collateral requirements to pump liquidity into distressed banks and markets wasted opportunities to contain the damage. Providing generous liquidity support to distressed banks and securities dealers did almost nothing to stimulate the real economy and unwisely extended the financial safety net. The safety net expanded because this policy encouraged sponsors of off-balance-sheet vehicles to protect their brand names by pulling risks that they had cleverly parked elsewhere back onto their own balance sheets. Institutions that adopted this strategy undermined their capital positions and stretched the safety net in

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2007

| | |
|---|---|
| 2 Apr | New Century Files for Bankruptcy |
| 3 May | Dillon Read hedge fund closes ($125M in losses) |
| 15 Jun | 131 ABS downgraded (Moodys); 250 on review for downgrade |
| 20 Jun | Two Bear Stearns hedge funds are close to failing. Merrill Lynch seizes collateral and auctions it. |
| 10 Jul | $7.3B worth of 2006 ABSs placed on negative watch by S&P |
| 12 Jul | $5B worth of subprime bonds downgraded by Moodys |
| 24 Jul | Countrywide Financial Corp reports drop in earnings |
| 26 Jul | NAHB reports >6% fall in new home sales |
| 6 Aug | BNP Paribas freezes redemptions for 3 funds |
| 9 Aug | ECB injects £95B of liquidity into interbank market |
| 10 Aug | Fed conducts three auctions of overnight funds and injects $38B into interbank market |
| 15 Aug | Goldman Sachs supports GEO hedge fund with >$4B |
| 16 Aug | 691 subprime bonds downgraded by Moodys |
| 17 Aug | Fed drops discount rate 50bp |
| 13 Sep | Bank of England provides emergency support to Northern Rock |
| 18 Sep | Fed drops target rate 50bp |
| 11 Oct | 2,500 subprime mortgage bonds worth $80B in face value downgraded |
| 15 Oct | Citigroup, Bank of America, and JPMorgan Chase set up $80B fund named Master Liquidity Enhancement Conduit (MLEC) to support ABCP market |
| 23 Oct | 590 ABS CDOs on negative watch 262 tranches of CDOs downgraded |
| 11 Dec | Fed drops target rate 25bp |
| 12 Dec | Federal Reserve, ECB, Bank of England, Bank of Canada, and Swiss National Bank announce coordinated measures to make end-of-year funding available |
| 19 Dec | ACA downgraded from A to CCC by S&P, triggering collateral calls from its counterparties. |
| 19 Dec | Morgan Stanley announces $4.7B in subprime-related writedowns in November |
| 21 Dec | The ABCP rescue fund plan (MLEC) is abandoned by its sponsors |

2008

| | |
|---|---|
| 14 Jan | The Fed, ECB, Bank of England, and Swiss National bank conduct more long-term funding operations |
| 15 Jan | Citigroup announces $18B in subprime-related writedowns |
| 21 Jan | Fed drops target rate 75bp |
| 28 Jan | Fed drops target rate 50bp |
| 13 Feb | President Bush announces economic stimulus package. |
| 13 Feb | AIG increases loss estimates by $4B |
| 19 Feb | Credit Suisse writes off $2.8B |
| 16 Mar | Bear Stearns fails; JP Morgan buys for $2 a share. Fed covers $30bn in losses |
| 5 Jun | B of A takeover of Countrywide announced |
| 11 Jul | IndyMac fails |
| 30 Jul | Housing and Economic Recovery Act signed; promises some relief for subprime borrowers |
| 7 Sep | Fannie Mae and Freddie Mac put into government conservatorship. |
| 14 Sep | Bank of America buys Merrill Lynch |
| 15 Sep | Lehman Brothers files for bankruptcy |
| 16 Sep | AIG's credit ratings downgraded by Moody's and S&P; Fed announces $85B bailout loan to AIG; Reserve Primary Money Fund breaks the buck |
| 17 Sep | SEC bans short selling of Financial Stocks |
| 19 Sep | Paulson's Rescue Plan unveiled |
| 25 Sep | $307B Washington Mutual fails & is acquired by Morgan Chase |

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| | |
|---|---|
| 1 Oct | Troubled Assets Relief Program (TARP) created |
| 6 Oct | Fed announces plan to provide $900B in short-term cash loans to banks |
| 7 Oct | Fed makes emergency move to lend $1.3 Trillion directly to companies |
| 8 Oct | Central banks in USA, England, China, Canada, Sweden, Switzerland, and ECB coordinate rate cut |
| 8 Oct | Fed reduces emergency lending rate to 1.75% |
| 12 Oct | Wells Fargo approved to acquire Wachovia |
| 14 Oct | US announces uses $250B of TARP funds for equity position in banks that participate |
| 21 Oct | Fed plans to spend $540B to purchase short-term debt from MMMF |
| 28 Oct | Bank of England says world's financial firms lost $2.8 trillion during crisis; first $125B of TARP funds but into 9 of largest US banks |
| 12 Nov | Paulson stops using TARP to buy assets; remaining $410B to be spent recapitalizing banks |
| 25 Nov | Fed commits $800B: Purchases $600B of GSE debt; $200B for consumer and small-business loans |
| 19 Dec | Treasury authorizes up to $17.4B in loans to GM and Chrysler; terms and conditions of TALF program relaxed; more TARP funds released |
| 24 Dec | GMAC allowed to become bank holding company |
| 29 Dec | Treasury to purchase $5B in equity from GMAC and to lend $1B more to GM |

**Exhibit 4: Sequence of crisis events**
Source: Cohen-Cole (2009) and Federal Reserve Bank of St. Louis website: Timeline of the Financial Crisis

two ways: by having to support the increase in assets being booked and by carrying the losses and loss exposures attached to these assets back into plain sight. These emerging deficiencies in sponsor capital converted *de facto* SIV insolvencies into *de facto* commercial and investment bank insolvencies. Then, encouraged by the administrative and political difficulty of failing and unwinding large and complex firms, supervisory forbearance shifted the bill for financial-institution insolvencies onto taxpayers.

### *IV.D. Duty of Conscientious Representation*

Few taxpayers, journalists, and academic economists truly understand regulatory recruitment and decisionmaking processes. These processes are dominated in subtle (and sometimes unsubtle) ways by institutions that are too politically connected to fail and unwind (TPFU firms). The importance of political, bureaucratic, and career interests in regulatory decisionmaking enhances the ability of TPFU firms to extract rents by influencing regulatory appointments and decisions *ex ante* and *ex post*. Within each agency, the discomfort that dissenting staffmembers experience from being treated as troublemakers is reinforced by the lure of the career benefits that talented conformists can gain through internal advancement or the industry's revolving door. All this tempts agency lawyers and economists to look for models and data that strongly support rather than strongly challenge an agency's consensus policies or plans for mission creep.

### *IV.E. Duty of Accountability*

A PV regulator would encourage and conscientiously investigate dissenting policy analysis. Its goal would be to uncover and admit its mistakes and, going forward, to help society and its successors to learn from them. Instead, TPFU institutions and Fed spokespersons seem to be uniting in a campaign to convince the world to take their word that, however chaotic and costly Fed and Treasury policies may have

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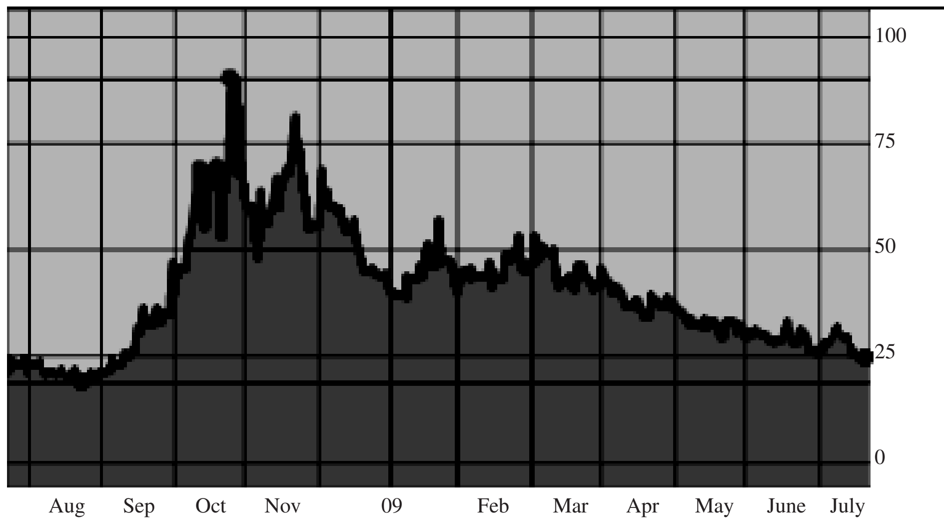


**Exhibit 5: VIX Index.**
Note: The VIX index measures the implied volatility of CBOE-traded options on the S&P 500 index using a 30-day horizon. The VIX is quoted in percentage points. Other things equal, the value of VIX increases with market uncertainty. For that reason, it is frequently characterized as a "fear index."

seemed, they merit our admiration because they avoided another Great Depression. If this campaign succeeds, the Fed will win new authority and new turf and TPFU firms will wield even more influence the next time around.

## V. IMPLICATIONS FOR REGULATORY REFORM

Financial and regulatory relationships are layered with incentive conflict. To control this incentive conflict, society looks to law, international agreements, professional

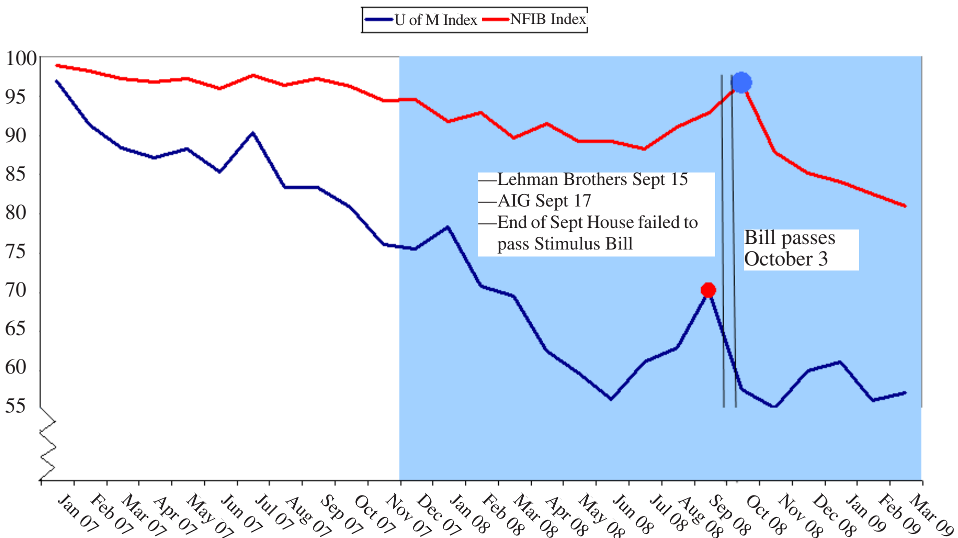


**Exhibit 6: University of Michigan Index of Consumer Confidence and NFIB Index of Small Business Optimism, January 2007–March 2009.**
Note: Both indices show that sentiment was on the decline until mid-2008 and that the fall 2008 panic arrested what had been only a few months of improvement.

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ethics, compensation structures, and evidence of personal character. The importance of character as a condition for the proper exercise of political and executive power is the primary focus of this essay.

Smith (1759: 263) attributes a large proportion of the "disorders of human life" not to gaps in our ethical standards, but to a "veil of self-delusion" that prevents us from perceiving ethical weaknesses in our own conduct. To overcome the temptations offered by elitism, self-discipline becomes more important as an executive's authority and autonomy increase. Coupled with the suppression of dissent, Smith's hypothesis helps to explain the stubborn survival of contradictory elements in safety-net design.

Successive regulatory reforms (e.g., Basel I and II) prove inadequate because they are based on comforting, but delusory perceptions of the problems they are supposed to correct. If the financial industry truly wanted to curtail the pursuit of safety-net subsidies, recruitment and training procedures, compensation structures, information systems, credit-rating procedures, and lobbying pressure would long ago been marshaled to achieve this result. During the last two years, Federal Reserve spokespersons and industry lobbyists have helped Treasury officials to embrace the delusion that deregulation—i.e., the relaxation of inherited rules—caused safety-net subsidies to expand. This delusion leads would-be reformers to presume that some well-chosen reallocation and extension of regulatory authority will produce an equilibrium set of rules that can reliably curtail the pursuit of safety-net subsidies in the future.

Fixed rules lose their bite over time. This is both because regulation-induced innovation creates and widens loopholes and because it engenders and exploits conflicts in supervisory incentives. Complex structured securitizations overexpanded not as a way to take advantage of an *absence* of rules, but as a way to respond optimally to subsidy-generating rules whose circumvention could generate subsidies (Kane 2009). The market and government failures that produced the crisis can be more

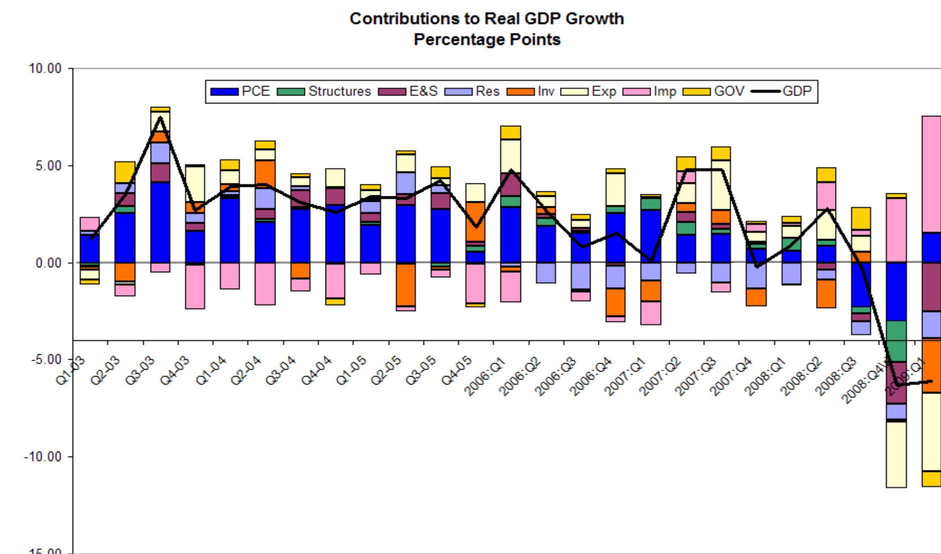


**Exhibit 7**

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accurately described as "desupervision": a widespread weakening of agents' incentives to fulfill their commonsense duty of protecting principals and counterparties against loss. Devising a way to prescribe what James Buchanan (2003) terms "a goodly dose of ethics" for financial supervisors would be a direct way of addressing this incentive breakdown.

Whatever its other benefits, securitization spawned chains of transactions that, expanded federal subsidies to homeownership, construction and housing finance and shared them widely. Across the links of each such chain, the subsidies encouraged private financiers to disguise loss exposures and encouraged private and governmental supervisors responsible for measuring and controlling these loss exposures to shortcut and outsource an unacceptably large portion of the due diligence that they owed to other parties in the chain. Empowering stockholder-controlled government-sponsored enterprises (i.e., Fannie and Freddie) to extract safety-net subsidies in exchange for supporting a market for privately sponsored securitizations of affordable-housing loans greatly intensified these incentive conflicts (Barth 2009, Kane 2009).

Innovators can move more freely and are bound to understand an innovation's safety-net consequences better and more quickly than regulators can. The result is that any and all static regulatory and supervisory strategies tend to lose effectiveness over time. Rules that block specified ways of extracting subsidies encourage financial entrepreneurs to develop clever instruments and procedures able to innovate around the blockages. This is why it makes little sense for Congress and the Administration to ignore the role of political clout and focus instead on reassigning jurisdiction and working out putative strategies of bright-line rulemaking that are challenging to enforce. The urgent and unsolved problem is to develop ways of contracting with regulatory and supervisory personnel that incorporate taxpayer-based duties of loyalty, competence, care, and accountability into their oaths of office, compensation structures, and reporting protocols.

The dialectical perspective on the evolution of rules and enforcement activity makes it clear that the Fed and The European Central Bank have repositioned themselves as the Western world's paramount guardians of financial stability. Statutory efforts to confirm or reverse these institutions' newfound authority will not help future taxpayers much unless they are accompanied by supporting changes in regulatory and supervisory incentives and ideals. In the wake of the current subsidy-induced crisis, the first goal of reform should be to require and to incentivize financial firms and their supervisors to work together to build information systems that can identify promptly and globally the safety-net consequences of financial innovations. This is not easy and can at best only lessen—not eliminate—safety-net subsidies. The first step is to search for reliable and accountable ways to task TPFU firms and government regulators with conscientiously estimating, disclosing, and responding to changes in the flow of *de facto* safety-net subsidies (Phaup 2009; Caprio, Demirgüç-Kunt, and Kane 2010; Kane 2009).

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## NOTES

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1. It is ironic that Fed officials who are now tasked with designing compensation structures to encourage better risk management in the private sector—i.e., to lengthen payout periods and to claw back compensation based on short-term results—show no interest in adjusting their own compensation in similar ways.

2. Kane (1989) defines a zombie firm as a firm whose assets have sunk so far under water that creditors would put them into a corporate grave if their resources were not backed up by the black magic of government credit support. Their best hope of becoming profitable again is to invest new funds in long-shot ventures whose discounted present value may well be negative.

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