ABSTRACT

This essay shows that government credit-allocation schemes generate incentive conflicts that undermine the quality of bank supervision and eventually produce banking crisis. For political reasons, most countries establish a regulatory culture that embraces three economically contradictory elements: politically directed subsidies to selected bank borrowers; subsidized provision of explicit or implicit repayment guarantees for the creditors of firms that participate in the credit-allocation scheme; and defective government monitoring and control of the distribution of burdens and subsidies that the other two elements produce. In the years leading up to the panic of 2008, technological change and regulatory competition simultaneously encouraged incentive-conflicted supervisors to outsource much of their due discipline to credit-rating firms and encouraged lenders to securitize their loans in ways that pushed credit risks on poorly underwritten loans into corners of the universe where supervisors and credit-ratings firms would not see them.

KEYWORDS: banking regulation, desupervision, regulatory competition, banking crisis; regulatory culture; regulatory norms.

Perhaps the most intriguing feature of the so-called Global Financial Crisis (GFC) is that it is actually characterized as “global.” While every country experienced adverse financial shocks, crisis events were geographically concentrated. Crisis severity proved far greater in the US and Western Europe than elsewhere.

This Chapter develops a conceptual framework that seeks to tie national differences in crisis severity to a combination of differences in regulatory cultures and differences in taxpayers’ capacity to observe and support costs generated by their country’s safety net. The key insight is that safety nets and regulatory cultures generate and distribute politically determined regulatory burdens and subsidies across the citizenry.
in ways that rob Peter to pay Paul. Financial institutions whose net worth depends on subsidies hidden in a system of implicit and explicit guarantees are bound eventually to be tested from time to time by creditors runs. At such times, the political desirability of the loss-causing subsidy program is apt to be reconsidered.

Lists of countries that have experienced a banking crisis in recent years have been compiled by Caprio and Klingebiel (1996), Honohan and Klingebiel (2003), and Laeven and Valencia (2013). A high proportion of the crises that these authors identify were triggered by losses due to poor investments engendered by government efforts to channel bank credit disproportionately to politically influential sectors and firms. During the GFC in particular, the financial sectors of countries (like the US) that used sizeable government credit-allocation schemes to subsidize homeownership seemed to suffer the most damage.

In their eagerness for votes and campaign contributions, it is not unusual for politicians to promote the goal of homeownership for all citizens. In some countries (such as Canada and Australia), politicians are accountable for the costs of pursuing this goal, because housing subsidies proceed principally through transparent on-budget grants to first-time homeowners. But in most other countries (and especially in the US), housing subsidies are delivered more stealthily. Credit-allocation schemes encourage financial institutions and their regulators to support the activities of builders and realtors in off-budget ways that channel flows of credit to home buyers on favorable terms.

A major attraction of credit-allocation schemes is that they reduce political accountability by postponing the recognition of program costs for many years. This can lead to housing bubbles and crises, especially when the borrowers include an army of
customers that careful loan officers could have identified either as serial flippers of houses or as households that some high-pressure realtor had saddled with more “house” than they could afford to service in the long run.

Until the credit-allocation bubbles began to burst, US and European investment banks were praised for fashioning assembly lines on whose conveyor belts they placed tradable (i.e., “securitized”) instruments that represented trusteed claims to cash flows from pools of inadequately underwritten mortgage loans. To keep the belts moving at a high speed, securitizers pressured credit-rating organizations into over-rating large portions of the mortgage-backed securities being produced. Tranches of allegedly investment grade productswere held by banks to exploit their favorable risk weighting, and by off-balance sheet “structured investment vehicles” (SIV) which issued asset-backed commercial paper supported by credit lines that served as funding guarantees from banking organizations.

These destructive patterns of real-estate investment and finance were sustained – explicitly and implicitly—by shifting the downside risk of widespread defaults onto government safety nets. Though ostensibly meant to protect the savings of ordinary households from the ravages of possible banking crises, modern safety nets have evolved into schemes for rescuing important zombie firms. These rescues benefit financial-institution managers and uninsured creditors at the expense of other taxpayers. Politicians and regulators effected this transition by adopting de facto crisis-management policies that coerce domestic (and often even foreign) taxpayers into guaranteeing the debt of a country’s major financial firms against the consequences of insolvency.
Policymakers’ propensity to absorb the losses of distressed financial firms converts taxpayers into equity investors of last resort in so-called systematically important financial firms. In good times, the costs of contingent governmental rescues seem small, and it is easy for regulators and industry leaders to downplay their relevance. But when asset prices crash, it costs plenty for governments to rescue zombie firms. For this reason, the value of taxpayer guarantees surges in crisis. In countries where the government’s tax-collection capacity is not strong enough to absorb the losses (e.g., in Iceland, Greece, Ireland, Portugal, Italy, Spain, and Cyprus), the resources of international organizations and foreign governments are apt to be brought into the picture.

The body of this Chapter develops two key ideas. First, credit-allocation schemes are part of a regulatory culture that misallocates real resources and redistributes income across time and space in anti-egalitarian ways. To understand this, it is helpful to portray regulation, supervision, and government guarantees as costly economic services that trade within and across countries in politically constrained markets. Operative political constraints are a source of endless negotiation between differently informed and differently empowered politicians, financial regulators, financiers, and ordinary citizens. The second idea is that the force of individual political constraints fluctuates dialectically, depending on whether or not contradictions in egalitarian norms underlying the regulatory cultures of different countries are brought into play by a budgetary or economic crisis.

Different cultures work out their incentive conflicts in different ways and over different time frames. A unified way to look at regulatory evolution is to conceive of the
process of regulatory wealth redistribution as a nonstationary and dialectical game (Kane, 1977, 1981, and 1988). Individual plays consist of infrequently changing patterns of regulation and supervision on the one hand, and correspondingly frequent adaptive changes in the forms of burden avoidance on the other. As financial markets globalize, cross-country regulatory competition intensifies. Firms that suffer prolonged or sudden losses that make doubts about the value of their implicit governmental guarantees or risk management increase greatly come under exit pressure. As this pressure grows, taxpayers in the chartering country (and often in financial-center countries as well) find themselves progressively more exposed. From this perspective, a cross-country crisis is an adverse outcome that political and economic markets for regulatory services have to work through.

This perspective features the possibility of a regulation-induced financial crisis and leads to the view that offshore regulatory competition can either reinforce or attenuate inefficient or antiegalitarian elements in the regulatory schemes of individual countries. Cross-country regulatory competition does this mainly by inducing increases and decreases in the share of financial business a country’s institutions can capture. With technological change intensifying the influence of offshore regulators, local mis-steps promise to come to a boil sooner, but may still have severe and long-lasting effects on the local citizenry.

This chapter illustrates the adaptive process by analyzing how regulatory competition simultaneously encouraged incentive-conflicted US and EU financial supervisors to outsource much of their due discipline to credit-rating firms and thereby encouraged mortgage securitizers and institutional asset managers to lobby rating firms
for inflated ratings and use the counterfeit ratings to securitize their weakest loans (U.S. Senate Subcommittee on Investigations, 2011). This perverse set of managerial incentives pushed credit risks deliberately into corners of the universe where supervisors and credit-ratings firms could not easily see them and could deny plausibly that assessment lay in their domain of responsibility.

1. **THE ROLE OF INCENTIVE CONFLICTS AND REGULATORY SUBSIDIES IN FINANCIAL FRAGILITY**

   Financial environments and patterns of financial regulation vary greatly from country to country. Financial-institution supervision combines a capacity to observe fluctuations in balance-sheet values (“vision”) with a capacity to influence managerial actions (“control”) and an *incentive system* that governs the pursuit and exercise of these capacities. Even when portfolios and attendant risks are concentrated within a single country, it is difficult to establish a combination of adequate oversight of institutional balance sheets, adequate authority to intervene in timely fashion, and bureaucratic incentives to detect and resolve insolvent institutions in ways that adequately protect taxpayer interests. As a result, individual countries solve this contracting problem in different ways. Although some cross-country commonalities in interests exist, systems for setting and enforcing financial rules are infested with incentive conflict. Even within a country, conflicts exist between and among:

   1. Regulators and the firms they regulate;
   2. Particular regulators and other societal watchdogs;
   3. Regulators and the politicians to whom they must report;
   4. Taxpayers and the politicians and regulators they put in office.
How a country approaches and resolves these conflicts is in part hard-wired into its political and institutional structure. One issue is whether the central bank or another agency supervises banks. The first alternative is more common in Asia than elsewhere. But most EU countries supervise banks separately from other financial institutions. A few European countries [Austria, Denmark, Germany, Sweden, the Netherlands, and the United Kingdom (albeit temporarily)] established agencies that supervise bank and nonbank financial institutions in an integrated way; others have to some degree integrated the oversight of at least their bank and securities sectors (Schüler, 2003). More recently, the Eurozone has been taking steps to build a supervisory union.

Every country relies on its ethical norms, government regulators, and other professional watchdogs to bridge gaps in the bonding, deterrent rights (deterreny), and transparency inherent in its private contracting environment. Over time, the interaction of private and government watchdogs generates a regulatory culture. A culture may be defined as customs, ideas, and attitudes that members of a group share and transmit from generation to generation by systems of subtle and unsubtle rewards and punishments. A regulatory culture constrains the ways in which an uncooperative or even unscrupulous individual managers can be monitored and disciplined. It comprises a matrix of attitudes and beliefs about how regulators should act. These slowly changing attitudes and beliefs often express a distrust of government power that traces back to abuses observed in a possibly distant past when the country was occupied, colonized, or run by a one-party government. The culture’s taboos and traditions define standards for the fair use of government power. Behind these standards are higher-order social norms that underlie a nation’s political and legal environments.
The character of a country’s Regulatory Culture is spanned by six specific components:

- Legal authority and reporting obligations
- Formulation and promulgation of specific rules
- Technology of monitoring for violations & compliance
- Allowable penalties for material violations
- Duties of consultation: To guarantee fairness, regulated parties enjoy a right to procedural due process that specifies burdens of proof that regulators must meet before they can change rules or penalize violators.
- Regulatee rights to judicial review: To bond the fairness guarantee, aggrieved parties have access to inside and outside appeals procedures.

In large part, the details of each component are shaped by:

a. Recognition and response lags generated by the interaction of weakness in the transparency of the nation’s accounting system with bureaucratic incentives and statutory and bureaucratic checks and balances;

b. Regulatory competition brought about by the entry of foreign or differently regulated institutions;

c. Regulatory personnel’s exposure to influence activity from a discipline-resistant firm’s political clout, consultation rights, and appeal privileges;

d. Social norms that protect fraudsters and bumblers against prompt regulatory discipline.

Lobbying activity seeks to reshape the particular norms that officials enforce and to constrain the tradeoffs they make. Within limits set by a country’s regulatory culture,
how particular policy strategies officials adopt actually work is determined by regulatees’ ability to delay or stymie decisive intervention and to find and exploit circumventive loopholes. Some of these loopholes involve the ability to relocate loss exposures that are more closely supervised either by the home country (or by a particular host) to venues that monitor or discipline this kind of risk-taking less effectively.

The regulatory cultures of almost every country in the world today are manifestations in one form or another of three core tactical assumptions:

1. Desirability of Politically-Directed Subsidies to Selected Bank Borrowers:
   The policy framework either explicitly requires—or implicitly rewards—banks for making credit available to selected classes of borrowers at a subsidized interest rate;

2. Feasibility of Subsidies to Bank Risk-Taking: The policy framework commits government officials to providing on subsidized terms explicit or implicit conjectural guarantees of repayment to depositors and other bank creditors;

3. Plausible deniability of Defective Monitoring and Control of the Subsidies:
   The contracting and accounting frameworks used by banks and government officials fail to make anyone directly accountable for reporting or controlling the size of either subsidy in a conscientious or timely fashion.

Taken together, the first two tactical assumptions tempt banks to use the safety net to extract (i.e., to steal) wealth surreptitiously from taxpayers and constrain loan officers to pass some of the benefits to politically favored borrowers [such as builders and would-be homeowners in the US]. Favored borrowers tend to be blocs of voters regularly
courted by candidates for political office and financial supporters or cronies of influential government officials.

The third piece of the underlying framework of shared beliefs minimizes regulators’ exposure to blame when things go wrong. It makes it impossible for outsiders to hold supervisors culpable for violating their ethical duties. It prevents outsiders from readily monitoring the true costs and risks generated by the first two assumptions and interferes with efforts to subject the intersectoral flow of net regulatory benefits to informed debate. This gap exists because corporate and government accounting systems do not report the value of net regulatory benefits or burdens as a separate item on the accounting statements of banks that receive them. In modern accounting systems, the capitalized value of regulatory subsidies is treated instead as an intangible source of value that, if booked at all, is not differentiated from other elements of a bank’s so-called “franchise value.” Of course, some of the subsidy is offset by tangible losses that politically influenced loans eventually force onto financial-institution balance sheets and income statements.

In principle, a tangible reserve for expected losses ought to be set up as part of the process of making a poorly underwritten or deliberately underpriced loan. Not reserving for losses imbedded in a loan’s preferential terms may be conceived as planting a time bomb in the asset and net-worth values shown on conventional bank balance sheets. Over time, the cumulative damage from politically favored loans becomes harder and harder to hide. Between the end of one crisis and the beginning of the next, the amount of government-favored loans grows larger and larger in bank portfolios. Eventually, a shortfall of contractual cash flows makes it harder to gain the financing needed to carry
pools of mispriced and poorly structured loans. This is how poorly documented mortgage-backed securitizations began to come acropper in the US and Europe during the summer of 2007. Although officials resist the idea, creating an enforceable obligation for regulators to estimate in transparent and reproducible ways the ebb and flow of the dual subsidies would empower external watchdog organizations in the private sector to force authorities to explain whether and how these subsidies benefit taxpayers.

Sooner or later, savvy large-denomination creditors come to appreciate the unreported hole that overvalued loans imbed in the opportunity-cost value of their bank’s enterprise-contributed net worth ($NW_E$). By $NW_E$, we mean the value that an informed buyer would pay for the bank if safety-net guarantees did not exist. If a bank’s $NW_E$ declines through zero, it becomes a “zombie” institution. A zombie is an insolvent institution that stays active only because the black magic of government guarantees leaves its creditors with no reason to force it into a corporate grave. A zombie’s ability to renew its deposit funding and other debt depends entirely on the continuing credibility of the explicit and implicit government and central-bank solvency and liquidity guarantees that safety-net managers attach to its obligations.

Accounting loopholes allow a zombie institution to show positive accounting net worth long after its $NW_E$ has turned negative. For example, although we now know that in June 2007 the British mortgage lender Northern Rock PLC was well on its way to becoming a zombie, management was able to post an accounting net worth equal to roughly two percent of its assets.

Systemwide fragility $F$ increases with the number of zombies or near-zombies ($Z$) and with the aggregate size of the losses thought to be imbedded in their economic
balance sheets and the interconnectedness of non-zombies with core, systemically relevant banks that are zombies:

\[ F = F[Z, \sum_{j=1}^{Z} NW_E (j), I_{CZ}]. \]  

Funding problems begin not when a bank becomes a zombie, but when suppliers of large-denomination funds begin to doubt whether officials can or will continue to support its existence. Funding problems for a region’s or country’s banking system are intensified when doubts arise about the adequacy of arrangements for making taxpayers absorb the cost of guaranteeing the area’s potential zombie institutions. The triggering condition is that the upper bound on the uncertain value of implicit and explicit government guarantees \( G \) rises so high that taxpayer resistance threatens to make it hard for authorities to raise the funds needed to pay the bill promptly or in full. Massive withdrawals by sophisticated creditors are sometimes described as “silent runs,” because servicing the demands that a troubled bank receives from large creditors generates far less publicity than the queue of panicked small depositors that impatiently mills about in a conventional run.

However, silent runs greatly weaken bank balance sheets. The deposit and interbank outflows (including repos and commercial paper) that a troubled institution experiences must be financed by selling liquid assets and issuing costly debt. A distressed firm’s first line of defense against a silent run is to arrange loans from government institutions or from relatively well-informed banks with which it has correspondent relationships. Private rescuers usually insist on receiving appropriately high interest rates and demand collateralization and an upside potential for their claims. In deciding to help a correspondent bank in another country to survive a silent run,
foreign banks are apt first to lobby the IMF, the host government, and even their own government for assurances that they will not be stuck with the bill for whatever losses the rescue effort might incur.

Until officials increase the transparency and credibility of their credit support, silent runs on weak institutions tend to escalate. Distressed institutions’ sales of good assets and increasing funding costs reduce future income and make the fragility of their condition apparent to more and more outside observers. When an institution collateralizes its good assets at or below their market value, its undisclosed losses on poorly performing loans become a larger proportion of the assets that remain unpledged. The more funding a troubled bank obtains at high credit spreads, the more severely its future accounting and economic profits are squeezed and the more likely it is to engage in go-for-broke lending and funding activities (“gambling for resurrection”) that severely pressure the profit margins of healthy competitors.

A silent run puts pressure on regulators because it progressively undermines the willingness of taxpayers and stronger banks to tolerate the regulatory status quo. As a silent run unfolds, reduced profit margins spread zombieness and disturbing information is revealed about the size and distribution of taxpayers’ potential involvement. At the same time, net regulatory benefits for weak and strong banks diverge more and more widely. Weak banks receive safety-net subsidies from central-bank loans and government guarantees that stronger banks and general taxpayers eventually have to pay for.

The longer a silent run proceeds, the more deeply supervisory efforts to retard the exit or to delay the formal recapitalization of inefficient and insolvent deposit institutions...
push the net regulatory benefits of other economic sectors into negative territory. The economic and political forces exerted when a large bank suffers open and silent runs are nicely illustrated by the British government’s response to the Northern Rock debacle. In September 2007, an open depositor run on this bank was stopped by the government’s promise to provide emergency funding to the £114 billion institution and to “guarantee all existing deposit arrangements.” However, a silent run persisted. By yearend, emergency loans from the Bank of England reached about £25 billion and Treasury guarantees had been extended to cover most of the bank’s nondeposit obligations as well. Well-publicized efforts to persuade stockholders and outside acquirers to inject private capital into the bank showed little progress. Finally, in February 2008, the bank was “temporarily” nationalized.

2. ETHICS OF SUPERVISION

An institution’s incentive to circumvent or violate a given rule increases with the weight of the burdens that full compliance threatens to impose on its efforts to create value and manage risk. Dutiful enforcement revises bank incentives by rewarding compliance, punishing evasion, and searching out and closing loopholes that regulatees might use to skirt the rules.

Loopholes are gaps in supervisory enforcement that generate an informal set of looser rules. These shadow rules are designed to discourage appeals to higher authority and are at least partially conjectural. For example, although the formal speed limit on a given highway might be posted at (say) 55 miles per hour, drivers confidently expect the limit that police actually enforce to be higher than the posted one and to adapt predictably to exceptional circumstances (such as personal emergencies) as these unfold.
Common law and common-sense ethical theory maintain that, across any contract in which one party delegates authority to one or more others, agents and principals owe one another duties of loyalty, competence, and care. On this hypothesis, financial supervisors owe four key duties to the community that employs them:

1. **A duty of vision**: They should continually adapt their surveillance systems to observe and counter regulatee efforts to disguise or mischaracterize their rulebreaking;

2. **A duty of prompt corrective action**: They should stand ready to discipline rulebreakers whenever a violation is observed;

3. **A duty of efficient operation**: They should produce their services at minimum cost;

4. **A duty of conscientious or loyal representation**: They should be prepared to put the interests of the community they serve ahead of their own.

In principle, supervisors committed to the fourth duty would bond themselves to disclose enough information about their decisionmaking to enable the community to hold them accountable for neglecting or abusing these responsibilities. But in credit-allocation schemes, institutional arrangements do not hold supervisors strongly accountable for inefficiencies and adverse distributional effects generated by their performance. To the contrary and in country after country, politicians check only whether credit is flowing on favorable terms to privileged economic sectors. To obtain a *quid pro quo*, a lender’s or securitizer’s stakeholders expect its position in favored loans to be supervised with a lighter hand, especially in times of financial turmoil (Kane, 1989).
3. IMPERFECTION IN THE MARKET FOR REGULATORY SERVICES

Traditionally, supervisory duties have been exercised locally and—in a narrow and formal sense—schemes for regulating and supervising financial firms are still shaped and administered on a nation-by-nation basis. For compelling historical, cultural, economic, and political reasons, these definitions vary across countries—often greatly (Barth, Caprio, and Levine, 2006, 2012, 2013).

Differences in rules and enforcement create opportunities for regulatory arbitrage. Savvy managers are aware that different suppliers of regulatory services offer different frameworks of advantages and constraints. Just as managers might investigate alternative suppliers for any service that they wish to outsource, financiers sort through alternative regulatory schemes to ascertain the particular jurisdiction that offers them the best mix of costs and benefits for the various pieces of their product lines. In the absence of switching costs, each firm would design an array of substitute asset, liability, and hedging instruments and negotiate with alternative suppliers so that each deal they write could be booked in the most favorable jurisdiction.

Today, national regulatory schemes and resulting regulatee burdens are increasingly influenced by competition from cross-border guarantees available from foreign regulatory systems. In world markets, movements of financial capital and changing asset values overlay onto the domestic policy scene a series of unfamiliar political, economic, and reputational pressures that individual-country regulatory decisionmakers must take into account. Arguably, these pressures have persuaded authorities in financial-center countries to supplement the resources of foreign safety nets
and to acquiesce in loophole-ridden agreements (Basel I, II, and III) for coordinating cross-country supervision (see Goodhart, 2011).

To sort out cross-country and cross-product differences in the quality and offering prices of different suppliers of regulatory and safety-net services, it is helpful to think of a market in which supplier competition is constrained by each supplier’s resources and incentive-conflicted regulatory culture. The observable details that constitute a particular regulatory scheme consist of a particular set of goals and policy instruments.

Although a large literature treats financial regulation as if it were simply a tax on bank income, industry executives understand that regulation is better conceived as a back-office financial service that, for participants in financial markets, generates benefits as well as costs. Its benefits lie in three realms: improving customer confidence, improving customer convenience, and supporting or resisting an institution’s efforts to accumulate and exercise market power. Because regulation and supervision require resources to produce, authorities can both produce them more or less efficiently and finance their production more or less fairly. Whether or not the costs of producing regulatory services are minimized, political activity allocates their production costs across society and determines their level and visibility.

Regulation is supplied competitively and accepted voluntarily to the extent that entry and exit opportunities exist for regulated firms willing to incur the transaction costs of switching all or part of their regulatory business to another supplier. Hence, although a regulator’s clientele is fixed in the very short run, the jurisdictions in which a regulatee operates are voluntary over longer periods. Jurisdictional overlaps in the global market
for financial regulatory services have expanded as entry and exit costs for foreign financial institutions have declined around the world.

This price an entity pays for regulatory services corresponds to the difference between the benefits that firm or household receives from regulation and the costs that regulation imposes on it. Depending on whether the difference is positive or negative, we can describe this price as a entity’s “net regulatory benefit (or burden) from financial regulation,” or NRB.

Rules and enforcement systems are continually tested and reshaped by changes in the net regulatory benefits that other jurisdictions offer. Nevertheless, jurisdictional competition for most financial products is inherently imperfect. An incumbent regulator may be said to have market power in any line in which it can lower the NRB it offers clients without completely surrendering its clientele to another regulator. Alternatively, we might say that the leaders of a regulatory agency have market power whenever the various labor, capital, and political markets from which they draw economic resources cannot hold them (and the elected politicians who appoint and sustain them) accountable for policy decisions that simultaneously lower net regulatory burdens for their clientele of lenders and borrowers and increase them for other important economic sectors.

The vigor of regulatory competition is enhanced by technological change and diminished by information asymmetries, leadership turnover, and various sources of principal-agent conflict that are inherent in governmental decision-making. Regulators routinely adopt reporting systems that make it difficult for citizens to gather information either about subsidiary goals that policymakers might be pursuing or about sectoral, bureaucratic, or personal benefits that regulatory activity might generate. As ongoing
debates over the details of the Dodd-Frank Act and Basel III show, when evidence of
discriminatory or inefficient performance surfaces, it is difficult to isolate its root causes
and even harder to correct the incentive defects responsible for it.

The value of regulatory competition lies in supplying indirect economic checks on
the even-handedness and efficiency of net regulatory burdens. On the demand side,
competition encourages parties that feel overburdened by their government’s system of
regulation to reconfigure their business to slide it into the jurisdiction of a more-
advantageous supplier of regulatory services. It does not matter whether the new supplier
is a domestic agency or a foreign one. What matters is that the regulatees gain relief, the
new regulator gains budgetary resources, and the old regulator loses them. The lower the
transition costs of moving to a less burdensome regulatory supplier, the more complete
the demand-side check becomes.

On the supply side, entry and exit costs confer competitive advantages on
incumbent regulators. In competing with private regulatory enterprises such as securities
and futures exchanges, government entities are advantaged by the financial strength
imparted to them by the extent to which they can assign catastrophic losses to taxpayers
and by their ready access to the coercive power of the state. To a nontraditional supplier,
the costs of actively gearing up to oversee a new category of financial deal-making can
be substantial. The existence of these costs means that the number of potential new
entrants that can economically supply regulatory services to financial firms in a given
country is relatively limited in the short run.

Successful entry requires more than a capacity for exercising disciplinary power.
To displace a seasoned regulator, would-be entrants need specific skills, a source of
moral authority, and substantial financial and reputational capital. Entrants must be able to promise credibly that they can fairly and efficiently produce regulatory services and that they are willing and able to sustain this promise for a long while. They must be able to manipulate a system of rewards and punishments whose force seems strong enough to improve the behavior of potential regulatees.

In brief, the inherited market structure for regulatory services and opportunities for entry are distorted by market power that the law freely gives to government enterprises and by reputational advantages enjoyed by incumbent private regulators. On the one hand, representative democracy confers renewable monopoly power on elected politicians and the regulatory leaders they appoint. Because policymaking authority may be canceled by voters or limited *ex post* by the courts, this authority becomes all the stronger, the more confidently incumbent politicians may count on holding power and the more that top bureaucrats may count on holding onto their offices and avoiding vigorous prosecution or public censure for questionable acts.

Even in the private sector, market power is conferred in lasting fashion on a successful regulatory enterprise. It is interesting that in recent years a number of traditionally hard-to-dislodge private regulators (including several major stock and commodities exchanges) experienced cross-country takeovers of their franchise. It may be unfortunate that, for key regulatory bureaus, central banks, and ministries of finance, takeover discipline cannot be so direct.

4. EXCULPATORY NORMS IN THE CULTURE OF CRISIS MANAGEMENT
Capital requirements are based on the idea that an overleveraged financial system is an accident waiting to happen. A regulation-induced accident occurs when misfortune impacts a financial system whose regulators have incentivized their institutions to leave themselves vulnerable to this amount and type of bad luck.

Figure One breaks the evolution of a regulation-induced financial crisis into five stages or crisis generation and regulatory response. The 2007-08 breakdown of arrangements for financing for structured securitizations in the US and Europe, and the lesser banking crises that rolled through Latin America, Japan, Korea, the Philippines, Malaysia, Indonesia, Thailand, and Russia during 1997-1998 passed through the first three and one-half stages of this model of crisis generation and response.

Crises often hang up in the stopgap partial recapitalization stage (stage 4A). Since the GFC began in 2007, German, British, and American authorities have shown again and again a reluctance to move beyond this stage. As long as the weakness of an institution’s or government’s financial situation can be covered up, outsiders cannot easily distinguish a wave of financial-institution insolvencies from a transitory shortage of aggregate liquidity. In either circumstance, a group of economically significant firms find it exceedingly difficult to roll over their liabilities privately on profitable terms. Standard first-response practice for central bankers and other regulators is to provide liquidity to distressed institutions as a way to buy time for supervisory staff to investigate the extent to which irreparable insolvency might underlie the distress. This time-buying strategy is supported ethically by three norms whose exculpatory force intensifies in
times of political, market, or institutional turmoil: a mercy norm; a nationalistic norm; and a nonescalation norm.

The mercy norm holds that it is bad policy and unacceptably cruel behavior for regulators to abandon the employees, creditors, and stockholders of institutions they oversee before and unless they can convincingly establish that the distress is too deep to be remedied by subsidized loans. This norm gives regulators the discretion (if not the duty) to alleviate the initial pains of any client institution that experiences a silent run.

The nationalistic norm presupposes that regulators should help domestic institutions and marketmakers to cope with foreign competition. In practice, this norm is reinforced by community resistance to foreign control of national credit decisions and by lobbying pressure from politically favored sectors who suspect that foreign firms will not serve their interests very well.

The nonescalation norm allows authorities to lend on subsidized terms to distressed institutions as long as they can popularize the view that doing anything else would invite a national or global financial disaster. In order to invoke this norm, officials must first spread fear. They must argue three things: (1) that, without a large injection of subsidized funds, markets will set prices for troubled assets that are unreasonably low; (2) that prices for private emergency credit to institutions that hold distressed assets are unreasonably high; and (3) that these further price movements would sweep strong and healthy institutions into the turmoil.

It is dangerous for government officials either to exaggerate the depth of a crisis or to understate the size of the increasingly transparent flow of subsidies that partial recapitalization entails. For high-ranking regulators to keep churning out safety-net
subsides, two further conditions must hold. First, they must be able to control the flow of information, so as to keep taxpayers and the press from convincingly assessing either the magnitude of the implicit capital transfer and the anti-egalitarian character of the subsidization scheme industry lobbyists hope to keep going. Second, the self-interest of top regulators must be continually nourished by praise and other forms of tribute from the financiers, borrowers, and investors whose losses are being shifted to other parties.

Authorities are reluctant to move to full recapitalization unless evidence of overwhelming losses keep bubbling up in the form of resurging crisis pressures. The longer the game goes on, the greater the risk that the reputations of incoming policymakers and the particular politicians that appoint them will be saddled unfairly with the sins of their predecessors. Although it is unwise to draw inferences from small samples, the U.S. savings-and-loan mess and various Argentine crises cast some light on how costs are allocated during the final stages of the life cycle of a regulation-induced crisis.

A Formal Model. To think about this formally, we may analyze continuation and breakdown in the burden-shifting process as the two states of an evolutionary Markov process. Though small on any given day, the probability (p) of a breakdown during an incentive-conflicted regulator’s term in office increases with the fragility of the system for making good on the safety net’s implicit and explicit safety-net guarantees. It is convenient to represent the value of government credit support as G and the cumulative size of the taxpaying community’s hidden responsibility for supporting the liabilities of troubled institutions as (T). T and G increase with system fragility (F). In turn, whenever F grows, p also rises. During the early stages of an incipient crisis, increments in the
probability of breakdown depend on the informativeness (A) of the accounting principles that banks and safety-net officials use to report losses and loss exposures:

\[ p = p[G,T,F;A] . \] (2)

During these early stages, banks and their regulators are tempted to seek and provide incremental “accounting relief.” However, once market participants begin to recognize partial recapitalizations and accounting coverups as half-measures, weaknesses in A compound the problem and improvements in A become a critical part of a genuine crisis-resolution process.

**Costs of Modern Crises.** Rolling and incompletely resolved crises sound at least three alarms. First, the frequency and geographic extent of financial crises convincingly demonstrate that, around the world, numerous institutions have found it reasonable to book potentially ruinous risks. Looking at the period 1977-1995, Caprio and Klingebiel (1996) cite 58 countries in which the net worth of the banking system was almost or entirely eliminated. Second, in country after country, domestic (and sometimes foreign) taxpayers have been billed to bail out banks, depositors, and deposit-insurance funds. Honohan and Klingebiel (2003) confirm that, in modern crises, taxpayers’ bill for making good on implicit and explicit guarantees typically ran between 1 and 10 percent of GDP. The size of these bailouts establishes that, at least in crisis countries, banks managed to put large bets on the table and were able to shift a substantial amount of the downside of these bets to taxpayers. In many cases, authorities were eventually blamed for the size of the bills taxpayers were asked to pay. Officials were seen to have shirked their duties to expose and stop loss-causing patterns of credit allocation and to have compounded the
damage from credit losses by not addressing individual-bank insolvencies until their situation had deteriorated disastrously.

In times of financial turmoil, crisis-management norms and weaknesses in ethical controls on the job performance of government regulators responsible for protecting the safety and soundness of financial institutions encourage regulatory forbearance. The high cost of modern crises indicates how far the risk-taking preferences of officials responsible for managing taxpayer risk exposures diverge from those of large-denomination creditors in private financial markets. Although institutional mechanisms for financing safety-net loans and guarantees differ across countries, poor information flows and incentive conflict in government policymaking complicate the treatment of banking crises everywhere (Calomiris and Haber, 2014).

Special problems of accountability and incentive conflict arise in managing cross-country risk exposures. Financial regulators subject foreign banks and the foreign operations of domestic banks to patterns of regulation that differ in two important ways from those that apply to strictly domestic banking operations. First, most developed countries are willing to allow their domestic banks to book a wider range of risks in foreign subsidiaries than they are prepared to tolerate in home-country offices. This is because relationships with internationally active customers are a geographically footloose part of the banking business and because government officials don’t expect to confront responsibility for foreign banking losses in domestic political arenas. This creates incentives for offshore banks to “overlend” into foreign markets. Second, though greatly weakened by technological change and outside political pressure, obstacles to the entry of foreign financial firms in most banking markets still exist.
5. GLOBALIZATION AND SECURITIZATION OF BANK FUNDING OPPORTUNITIES

Contemporary theories of industrial organization seek to explain that a product’s market structure evolves through time to permit efficient firms and efficient contracting instruments to reshape or displace relatively less-efficient alternatives. The force of these theories is particularly easy to grasp when we focus on hypothetical markets that meet a set of ideal conditions that Baumol, Panzar, and Willig (1986) call “perfect contestability.”

A market is perfectly contestable when entry and exit costs are each zero and incumbent firms exit quickly whenever they find themselves faced with negative profits. In perfectly contestable markets, low-cost firms readily displace high-cost firms and incumbent competitors are prevented from setting monopoly prices by the threat of hit-and-run entry by other equally-efficient firms.

Of course, financial markets are never perfectly contestable. New entrants must adapt and expand their information systems before they can safely expand their customer base. Incumbents cannot easily abandon the pipeline of loan commitments they have promised to customers and the regulatory foundations on which inherently nontransparent financial markets must be built are burdened with inescapable entry and exit costs.

During the last forty years, particularly in wholesale banking markets, technological change has steadily lowered entry costs for foreign and nontraditional competitors. Most of these firms undertook banking activities in innovative ways, making creative use of substitute products, substitute organizational forms, and substitute offshore locations. In some countries, the viability of a new entrant’s business plan was
temporarily enhanced by longstanding restrictions on how banks could compete domestically.

Chief among the innovative methods of doing business was structured securitization. With help from investment banks, credit-rating agencies, mortgage insurers, and hedge funds, banks sliced and securitized titles to the cash flows from their loans in ways that assigned the slicing (or “tranching”), reslicing, and servicing of flows of interest and principal to separately capitalized conduit vehicles. By placing important tranches of their loans through and with foreign and nonbank firms, banks greatly complicated the job of financial supervision by creating new links in their domestic funding chains and extending the geographic span of their funding arrangements.

Innovative funding technologies benefited borrowers by integrating bank loan pricing within and across countries. However, outsourcing the funding side of a bank’s balance sheet lessened its staff members’ due diligence by weakening the link between the income a lender could make from originating securitizable loans and the quality of its system for underwriting the loans it originated. Investors in a securitized pool of loans did not rely on either the lender’s or their own due diligence. Instead, they expected credit-rating agencies to assess the risks in the positions investors were offered and they expected investment banks and mortgage insurers to make sure that the returns offered would respond appropriately to differences in loan quality. Unfortunately, the naïveté with which these expectations were held undermined agents’ incentives to meet them. Compensation for rating and pricing individual securities was collected as soon as the securities were floated, with little exposure to ex post blowback for personnel that might later be shown to have made a serious rating or pricing mistake. With supervisors closing
their eyes to the erosion of this chain of agents’ contractual incentives to execute faithfully their duties of loyalty, competence, and care, investors presumed that they were purchasing titles to well-rated and well-priced securities.

Securitization also brought firms that were supervised in different regulatory cultures and jurisdictions into sharper competition with one another. This mutual invasion of traditional markets by institutions headquartered in different regulatory cultures put pressure on particular regulatory enterprises (especially at enterprises whose leaders’ remaining terms in office promised to be short) to relax vigilance as a way of defending their bureaucratic turf. In retrospect, it is clear that banking supervisors did this by regularizing and legitimating cutting-edge ways to hide or transfer risk without fully vetting the threats that these complex new contracting structures imposed on individual country safety nets.

Whenever a regulator acquiesced in innovative entry by a foreign or nontraditional firm, it had to relax restraints that might make it hard for its traditional clients to compete with the new entrants. Institutions pressed politicians to make this happen sooner rather than later.

Authorities’ accommodating response to this competitive pressure has been labeled financial deregulation, but our ethical perspective makes it clear that the response is better described as desupervision. In most countries, regulatory competition and defects in accountability led banking supervisors to assess the risks of innovative instruments of risk transfer with less watchfulness than these instruments deserved. With respect to structured securitizations, banking supervisors and mortgage-insurance firms outsourced their duty of vision to accountants and credit-rating agencies without adequately bonding
the obligations they were asking them to perform. They did this despite these firms’ obvious conflicts in goals and outsized delays in downgrading distressed securities in past downturns (Portes, 2008).

The contestability of financial markets is greatly reduced by the political clout that domestic banks and securities firms enjoy and by the ability of supervisory entities to bill government safety nets for the losses their heedlessness might engender. In crises, safety-net subsidies disadvantage less-subsidized competitors and unreasonably sustain the operations of decapitalized firms. The contestable-markets portrayal of market-structure evolution helps us to understand that in most countries deregulation focused on unblocking entry without addressing supervisory incentives to resist the exit of important domestic banks. Bank and supervisory exit resistance attenuates the benefits to society that entry relaxation would otherwise produce. Banking crises teach foreign and nontraditional competitors the need to estimate the extent of supervisor-supported exit resistance. By standing ready to absorb the losses of unprofitable clients, a regulator (especially a central bank) can prevent low-cost entrants from earning the profits needed to justify hit-and-run entry.

6. DIALECTICS OF A REGULATION-INDUCED BANKING CRISIS

For any policymaker, a crisis may be described as a time of upheaval that generates strong pressure for decisive changes in policy strategy. Figure Two portrays a regulation-induced banking crisis as an evolutionary process that is driven in Hegelian fashion by dialectical collisions of irreconcilable market and regulatory adjustments.

[PLACE FIGURE TWO NEAR HERE]
For any regulated institution, change – not rest – represents the path of profit-making equilibrium. The Hegelian model of regulation assumes that the conflict between regulated parties and their regulators can never be completely eliminated. The contradictory forces at work in each round of adjustments are labeled the “thesis” and the “antithesis.” Every sequence of adjustment and response produces a temporary “synthesis” that serves in turn as the “thesis” for a new round of action and response.

In the US, policies designed to promote homeownership encouraged borrowers and lenders alike to operate with a “perilously high degree of leverage” (Shadow Financial Regulatory Committee, 2008). For borrowers, the value of the subsidies that they could derive both from tax deductions for mortgage interest and from federal programs supporting mortgage credit increased with the amount they borrowed. For lenders, federal programs supported the securitization of home mortgages by offering cheap guarantees and by making it possible for banks to avoid capital requirements on mortgages that they chose to securitize. Supervisors did not require banks or securities firms either to estimate or to hold capital against the implicit obligations that structured securitization vehicles passed through to a sponsor’s net worth. The high degree of leverage on borrower positions meant that, if and when housing prices declined by more than a few percent, marginal borrowers would be unable to service their obligations. Once a sharp increase in delinquencies and foreclosures by subprime borrowers occurred, savvy investors revalued and cut back their positions in securitized mortgage pools. When this revaluation wiped out the equity of mortgage securitization conduits, reputational concerns persuaded bank sponsors to move a good portion of conduit losses back onto their balance sheets. Besides being billed for conduit losses, banks that had
been heavily involved in originating mortgages for sale to conduits were stuck with losses on pipelines of ongoing mortgage commitments that they could no longer profitably securitize. Inevitably, silent runs on these banks tested the ability of safety-net managers to manage a spreading crisis.

The appropriate policy response to crisis pressures depends on the nature of the policy contradictions that occasioned the crisis. A perennial issue is to assess the potential insolvency of troubled banks and to determine how rapidly their net worth is being undermined by falling prices on crisis-creating loans. Asset-price meltdowns are most likely to occur when incentives for overlending by domestic and offshore institutions confront a host-country policy regime that offers incentives for overborrowing at domestic households and firms. In such cases, pressure on asset prices is apt to generate a crisis-intensifying run from claims issued by the insolvent borrowers and lenders.

It is superficial to conceive of the silent runs that triggered the US securitization crisis as manifestations of an underprovision of aggregate “liquidity.” In fact, the central bank has for many years accommodated overspending in the housing sector and also financed a long run of current-account deficits. A central bank can prolong a payments deficit by letting its currency decline and by drawing down the country’s foreign-exchange reserves and foreign lines of credit. In any consumption-driven currency devaluation, the need to rebuild the central banks’ currency reserves may or may not be urgent. If it is, authorities can shrink the current-account deficit in two complementary ways: (1) by allowing the exchange rate to decline even further and (2) by tightening their mix of fiscal and monetary policies.
But when a money-center country is experiencing a banking crisis, this prescription is unattractive. These policies would impose a sizeable opportunity loss on foreign and domestic holders of the country’s financial assets. The currency-adjustment half of this strategy would put inflationary pressure on domestic prices. To pile on the tight-money half of the prescription would induce a decline in aggregate economic demand, whose effects would reduce the real value of a country’s financial assets in general and the net worth of its banking system in particular. This would further undermine asset values by raising prospective rates of default and delinquency on troubled assets. In crisis circumstances, it is politically impossible for authorities to ignore the effects that these adjustments would have on safety-net loss exposures.

In a financial center country, authorities face a Three-Way Policy Dilemma about how to control a silent run:

1. **Choice One**: Try to finance the runs with minimal adjustment in the loss-causing parts of the policy mix. We may describe this strategy as gambling for resurrection. As in the US, authorities may temporarily nationalize one or more insolvent giants (such as Fannie Mae and Freddie Mac), resolve a few others, and deny that any other significant zombies exist. They may expand the central bank’s balance sheet (see Figure Three) and possibly soften the potential decline in their exchange rate by drawing down reserves or borrowing from private and official foreign sources.

   ![PLACE FIGURE THREE NEAR HERE]

2. **Choice Two**: Rebalance the policy mix to make it more sustainable, but perhaps only with respect to a narrowly defined window of time (e.g., until
after the next election). Authorities may resolve or strengthen some of the weakest institutions and may slow monetary growth. We have described this as a strategy of “partial recapitalization.”

3. **Choice Three** (unlikely to be chosen unless prior efforts to use one or both of the other strategies have failed dramatically): Face up to and eliminate the most obvious contradictions in the policy mix. The new policy regime would aim for a full cleanup of insolvent institutions and to establish a more incentive-compatible supervisory system going forward.

Leaving bank and corporate insolvencies partly unresolved fosters further malinvestment and enhances the likelihood that a deeper crisis will re-emerge down the line. The other side of the incentive conflict is that it is dangerous to acknowledge and resolve corporate and banking insolvencies in the midst of a national recession. In crisis circumstances, politicians are strongly tempted to reflate demand and to strengthen the credibility of safety-net guarantees, without doing much to resolve the incentive distortions that widespread insolvency creates.

### 7. THE ROLE OF REGULATORY COMPETITION IN BANKING CRISES

Contradictory policies misallocate capital in the household, financial, corporate, and government-planning sectors. The result is that asset values and industry net worth become overstated. Had asset values either been supported by a sustainable expansion in productive capacity or been written down promptly as unfavorable information surfaced, silent runs would not have become large enough to test the safety nets of financial-center countries.
The seeds of the 2007-2008 securitization crisis were sown over many decades. They did not flower into a crisis until doubts began to surface about authorities’ willingness and ability to measure and absorb the losses and loss exposures confronting a suddenly decapitalized banking system. Measurement is important. As in the 1980s savings-and-loan mess, crisis costs were intensified by stubbornly delaying loss recognition at loss-making institutions.

What the press describes as a sudden “financial crisis” may be more accurately described as the surfacing of tensions caused by the longstanding efforts of loss-making institutions to force the rest of society to accept responsibility for their unpaid bills for making bad loans. In US mortgage markets, long-lived systems for subsidizing poorly underwritten loans to builders and overleveraged households imposed undisclosed losses on depository and securities firms and on taxpayer-financed safety nets.

Around the world, financial institutions and markets are supported by regulatory systems that show numerous country-specific features (Wilson, 1986; Dermine, 2003; Barth, et al., 2006, 2012). Differences in patterns of financial regulation address differences that exist in the various economic, political, and bureaucratic deficiencies and inefficiencies that each country’s regulatory system is overtly or covertly expected to correct (Garcia and Nieto, 2006; Herring and Schuermann, 2006).

However, the survival of differences in regulatory patterns is limited by the tendency of funding and loan-making opportunities to flow to markets and institutions that offer their customers the best deal. The extent to which net regulatory burdens on financial markets and institutions differ across countries is narrowed by the regulatory arbitrage that interjurisdictional deal flows entail. When and as technological change in
information processing and telecommunications lowers the cost of transacting with foreign entities, adverse flows of capital and financial dealmaking help to persuade a nation’s authorities to lower the net burdens that their regulatory framework imposes on the savers and investors that book deals in its financial markets.

In recent years, rolling banking and currency crises have become frequent for three reasons. First, advances in information and communications technology have simultaneously globalized private financial markets and markets for government guarantees. Second, the globalization of markets for funding and guarantee services has made it less costly for domestic corporations and wealthy investors to mount silent runs on a country’s zombie banks. Third, lenders, securitizers, credit-rating organizations, and supervisory authorities are not compensated in ways that make them accountable for the slow-developing but inevitable losses that their policies engender.

In 1997-1998, crises in Korea, Indonesia, Malaysia, the Philippines, and Thailand were hastened by the technologically driven absorption of these countries into an international market for loanable funds that allowed large depositors to protect themselves against the burdens of inefficient or discriminatory patterns of national regulation. Globalization put the costs and benefits of banking regulation in these countries into closer competition with the regulatory systems of offshore financial centers.

Exploitive regulation drives sophisticated depositors, unsubsidized borrowers, and other bank stakeholders to book at least some of their business elsewhere: either abroad or in informal or differently regulated domestic markets. Such regulatory arbitrage limits the extent to which politicians can promote a distribution of regulatory burdens that
arbitrarily narrows opportunities for important sectors of a national economy to accumulate and manage their wealth.

Offshore banking competition shortened in two ways the crisis-gestation period featured in traditional crisis models (such as Krugman, 1979). First, even limited entry by outside banks expanded the stock of well-priced domestically available substitutes for deposits that local citizens had previously held in host-country banks. This lowered the cost to Asian depositors of participating in a silent run on domestic banks. Second, the relative safety of foreign-bank deposit substitutes demonstrated the greater reliability of the performance guarantees written for each offshore entrant by the regulatory systems of its homeland.

The normative goal of financial reform should be to induce nondiscriminatory and efficient patterns of regulation and supervision (Barth, Caprio, and Levine, 2012). Regulators should be made accountable not just for producing a stable financial economy, but for providing this stability fairly and at minimum long-run cost to society. In practice, this means establishing contractual incentives that would lead authorities to follow market-mimicking standards of supervisory performance. In the absence of explicit or implicit government guarantees, markets would insist that any institution that experiences a spate of opportunity-cost losses do one or more of three things: shrink, raise more equity capital, or pay higher interest rates for its debt. The public policy problem is to design employment contracts that would make it in regulators’ and supervisors’ self-interest to invoke “market-mimicking” disciplines when and as a country’s important institutions weaken.
Officials understand that reworking financier incentives and strengthening bank supervision and corporate governance lie at the heart of genuine crisis resolution (Laeven and Levine, 2009). But authorities remain reluctant to isolate and repair the behavioral norms and incentive structures that made a crisis country’s and firm’s supervision weak in the first place. They have proved willing to experiment with regulations for higher capital requirements, expanded resolution authority, living wills (Goodhart, 2010), and contingent convertible debt (Calomiris and Herring, 2013), and are considering the possibility of regulatory size limits for too-big-to-unwind institutions. What authorities in the US and EU have not done is to delve into public-service and financial-institution contracting and information-disclosure regulatory reforms that would directly attack financiers’ incentives to game the safety net and take steps to make their strategies of supervision not just tougher, but more efficient.

For any regime, the size of tolerable deviations from a fair and efficient distribution of net regulatory burdens increases with the opportunity costs its citizens face in engaging in capital flight. In turn, the benefits and costs of capital flight evolve with information technology, the volatility of the real economy, and the fluidity of the political environment. The information revolution that is underway in finance today makes it short-sighted and inequitable to adopt credit-allocation schemes that inexorably eat away at the capital of a country’s financial institutions and that require taxpayers to subsidize weak megabanks and politically driven patterns of real investment. Credit-rating agencies and the Basel Committee on Banking Supervision would be well-advised to abandon sampling procedures that give little weight to adverse tail events and models that presume that asset risks are relatively stationary over time. They should focus also on
finding ways both to bond the scrupulousness with which staff members perform their supervisory duties and to enlist forward-looking stock and derivatives markets to help them track the changing odds of defaults in individual countries and industries (Kane, 2003).
FIGURE ONE
FIVE STAGES OF A REGULATION-INDUCED BANKING CRISIS

1. Rent-Seeking Generates Aggressive Loss Exposures at Highly Leveraged Institutions
   - Pursuit of Safety-Net Subsidies Tied to Government-Promoted Forms of Lending
   - Pursuit of Subsidies Tied to Other Kinds of Leveraged Risk-Taking

2. Adverse Events and Industry Problems Upset Financial Markets
   - Banks and Regulators Keep Losses from Registering on Bank Books by Accounting Trickery and Coverup
   - Large-Denomination Creditors Test the Strength of the Safety Net
   - Fragility of System Rises as Good Assets are Collateralized and Endgame Incentives Induce Go-For-Broke Gambling
   - Threat of Shortages in Safety-Net Funding Rises Over Time

3. Supplementation of Traditional Safety-Net Support Mechanisms
   - Loans from Central-Bank Discount Window Can’t Carry the Load
   - Inventive Accounting Loopholes and Forms of Public Credit Expand

4. Recapitalization of Troubled Banks and Safety-Net Institutions
   A. Stopgap Partial Recapitalizations: Half-Measures Move the Financial Sector Back into Stage Two of the Cycle
   B. Transformation of Bank Losses into Explicit Taxpayer Obligations or Explicit Nationalization of Zombie Banks

5. Final Clean-Up of the Mess
   - Reprivatization of Zombie Institutions
   - Blame Heaped on Designated Scapegoats
   - Credible Safety-Net Reforms are Adopted
FIGURE TWO
DIALECTICS OF A REGULATION-INDUCED CRISIS

**THESIS:** UNSUSTAINABLE POLICY MIX
- Expansionary Monetary Policy and Loss-Causing Credit-Allocation Scheme (“politically sabotaged loans”) vs. Adverse Effects of Desupervising Risks on the Costs of Providing Safety-Net Support for Loss-Making Banks

**ANTITHESIS:** SKEPTICAL INVESTORS AND DEPOSITORS TEST GOVERNMENTS’ ABILITY TO MANAGE THE EXPANDING COSTS OF NATIONAL SAFETY NETS
- In a Banking Crisis, Market Tests consist of Silent Runs (Symptomized by a Generalized Flight to Quality and Simplicity)
- The probability of a deepening crisis rises the longer authorities refuse to contain the damage and continue to help zombie institutions to stay in play

**SYNTHESIS:** REFORM OCCURS WHEN AUTHORITIES CAN NO LONGER QUELL MARKET DOUBTS ABOUT THEIR ABILITY TO SUSTAIN THE CONTRADICTORY POLICY MIX.
- Credit-allocation scheme unravels
- Costs of sustaining decapitalized institutions become manifest
REFERENCES


This essay extends and refocuses analysis first presented in Kane (1998). For helpful comments, the author wishes to thank Gerard Caprio, Robert Dickler, and John Wilson.