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BANK MANAGEMENT BETWEEN SHAREHOLDERS AND REGULATORS

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Société Universitaire Européenne de Recherches Financières
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CIP

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by Christian Harm

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BANK MANAGEMENT BETWEEN SHAREHOLDERS AND REGULATORS

by

Christian Harm
Universität Münster

Abstract

This essay discusses the corporate governance of banks. Bank managers must balance competing demands from shareholders and regulators, which distinguishes banks from most other firms. The essay is structured into three parts. The theoretical section first broadly defines management and its governance as a process with certain built-in ambiguities that defy a strict notion of accountability. Then, a focus on financial stakeholders clarifies the different governance objectives of owners and creditors, and integrates bank regulation into the concept of debt governance. The empirical section surveys the extant literature to derive insights as to which theoretical predictions have so far received more wide-spread support, and in which areas the insights generated by researchers may still be too vague to lend themselves as a basis for policy advice. The third section then spells out a recommendation for a logically consistent regime in which shareholders (equity governance) and regulators (debt governance) can meaningfully coexist in their quest to guide and constrain bank managers.

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Executive Summary

Bank managers live in a more complex environment than their peers in industry due to bank regulation. In addition to the demands placed on them by shareholders, regulators have strong incentives to influence managerial action, and this may be in conflict with shareholder demands. Who receives priority in such situations? How should the banking firm be governed? This paper seeks to address these issues in light of the vast theoretical and empirical literature in the respective scientific areas.

Chapter one serves to lay the theoretical groundwork by motivating general insights on management and governance in general, where it is shown that management appointment and replacement are procedures that defy the usual standards of optimality as employed in economics, and that therefore also 'governance' is a rather crude institution to improve performance. Nonetheless, it is demonstrated that governance interests for debt and equity are different, and some conditions for coexistence of the two interests are derived. Equity governance takes precedence in good times, but is overridden by debt governance interests in times of distress. Debt governance – through its focus on the poor states – also seeks to avoid risk shifts. Bank regulation is then defined as a special case of debt governance, and the illiquidity of bank loans is seen as a pivotal feature of the banking firm to motivate discretionary governance standards also for bank creditors rather than merely contractual safeguards.

After the theoretical introduction, chapter two surveys the only loosely connected streams in the empirical literature of the corporate governance of banks, and bank regulation. The former emphasizes the shareholder manager conflict and performance issues, while the latter appropriately concentrates on the issue of institution risk. Very few studies at this point have addressed the mutual desire to command the attention of bank management. The literature survey is conducted to extract insights of particular relevance for policy makers.

The third chapter is then reserved to assess the body of knowledge in light of the quoted literature to draft an internally consistent regime of bank governance that adequately addresses the concerns of both shareholders and regulators. **The regime proposed here draws on two major themes: bringing more debt governance instincts to market participants, and introducing more access and control of regulators to the governance infrastructure typically reserved for shareholders.**

I. Debt governance for market participants, shareholders and management

a) Instead of government run deposit insurance, government accreditation of privately organized deposit insurance is recommended as a 'first line of defense' primarily against individual institution failure. The private schemes are ideally organized as mutuals owned by participating banks in order to increase incentives for mutual monitoring.
b) Private deposit insurance schemes in many countries will face the problem that few large banks account for the lion's share of insured deposits. I recommend that the 100 to 200 largest banks in the world mutually organize an international deposit insurance fund under the auspices of national regulators as well as the BIS in a process not unlike the current debate over Basle II.
c) The call in the recent literature for the issuance of uninsured subordinated debt by banks is supported, yet not as a mandatory requirement, but by way of a regulatory framework that allows banks to self-select into different regimes. A mandatory requirement risks the contract between bank and regulator to be rendered incomplete when the market would not accept an issue by some bank.
d) Small banks, that are unlikely to tap capital markets in the near future are encouraged to organize a new or join an existing system of small banks structured around a large clearinghouse in the center. The clearinghouse bank provides liquidity to the member banks and obtains substantial governance rights in return. To the regulator, this represents a decentralization of debt governance, and is rewarded with a more 'lenient' regulatory regime similar to that provided for banks that issue uninsured subordinated debt. Again, banks self-select into a regulatory regime.
e) The conflict of interest between shareholders and depositors of a bank can be mitigated by making sure that everyone is both. This is the advantage of cooperatives. I argue that the survival of the cooperative form in banking is so much more pronounced than in other industries, because financial cooperatives address the specific governance dilemma faced by banks. Weakening shareholder instincts seems to be an advantage for the overall performance of banks. However, I do not advocate special support for financial mutuals, but rather call for regulators looking favorably on the cooperatives instead of fighting them for a presumed governance deficit.
f) I join the call by Macey and O'Hara to also transplant creditor interests to the managerial level by extending the concept of fiduciary duty to depositors.

II. Regulators and shareholder governance

1. Preventative measures (ex ante)

Regulators must have the ability to prevent arrangements between bank shareholders and their managers that needlessly accentuate rather than attenuate conflicts of interest with regulators. The following elements may be contemplated:

a) Ownership restrictions. Unadulterated equity interests can lead to perverse incentives due to the call option feature of equity. The aggressive pursuit of shareholder value concerns can lead to incentives to 'gamble for resurrection'. Therefore, the most suitable ownership form next to the cooperative for a bank is widely held ownership. Any concentrated form of ownership will more likely turn against regulatory interest in times of distress. To avoid this, ownership restrictions may be desirable from the point of view of regulators. This holds particularly for management ownership shares that are large in percentage terms relative to the banks total capital, but also the manager's total wealth. Due to the sensitivity of ownership regulation in a market economy, an alternative to ownership restrictions would be a more aggressive regulatory regime for banks with concentrated ownership. From a social welfare point of view, what has been said about the cooperative form is true about ownership structure: the reduction of shareholder vigilance is to some extent positive in banks.
b) Management compensation contracts. Also the contract between shareholder and management can lead to excessive incentives to take on risks. In the mainstream corporate governance literature, it is accepted that managerial risk-aversion represents a potential agency problem between shareholders, who are only interested in market risk, and managers, who are interested in firm-specific risk. Management remuneration contracts specifying performance-based awards should stretch the cash flows associated with these awards over time in order to make sure that failed gamble for resurrection strategies are not rewarded. Regulators, who in many countries get to have a say in bank management nominations in the first place, should also be able to ratify payment terms.

2. Protective measures (ex post)

a) Access to the board of directors: I claim in the paper that bank regulation shares characteristics with debt governance as for example practiced between German banks and large firms, where bankers often have a board mandate to step in during times of financial distress. Regulators should not have a permanent board mandate, but in times of deteriorating bank quality, they should be in a position to ratify shareholder initiated restructuring proposals after checking for risk compatibility. This would be akin to the role of creditors in Chapter 11 or out-of-court restructurings.
b) At the beginning signs of trouble, regulators should also be able to propose, later mandate, financial institution mergers to decentralize the restructuring process if necessary.

Finally, I argue that Charter Value is viewed positively by both shareholders and regulators. While bank regulation should not attempt to create charter value, it may contemplate to reward it.

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Introduction

Regulatory reform of financial sectors around the world has triggered a dialectic process of adaptation of financial institutions and regulatory responses in a quest for more efficient financial intermediation. The current negotiating process surrounding "Basle II"[1] bears witness to the complexities regulators face in a shifting environment. Possibly more compelling than the challenges to the regulators, however, are the managerial efforts of reshaping their institutions in an environment of technological change, globalization, and regulatory reform[2].

This paper addresses the issue of competing demands placed on managers of financial institutions by owners, who are interested in efficiency, and regulators, who focus on 'prudence'. This paper views regulation as a part of an overall corporate governance regime of banks. Governance, in turn, deals with the process of mandating some form of accountability from managers. Thus, this study puts (bank) management at the center of the inquiry.

However, economic theory has so far yielded only few insights as to what managers do exactly, and why they are necessary in the first place[3]. Thus, in the first chapter I develop a framework that may fill some gaps in economists' understandings of management. Under the conceptual lens[4] employed there, authority relations arise endogenously as an efficiency adaptation to a communication problem in group decision-making. Yet, even though the authoritative office (the management position) may be desirable, the personnel question on leadership and leadership succession remains ambiguous, and defies traditional optimality criteria.

This characteristic of management influences the nature of governance, which has to be a rather vague concept. In particular, I will define the governance incentives of debt and equity investors in a firm, and demonstrate that the governance policy applied by investors will also defy the application of stringent optimality criteria. While the governance incentives of debt and

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[1] E.g. Karacadag and Taylor (2000) for a discussion of the proposals.

[2] Llewellyn (1999).

[3] Radner (1992).

[4] The conceptual lens most similar to the one followed throughout this paper that has been applied to the problem of bank regulation and governance is found in Sarcinelli (1997).

equity investors are different to some degree, their governance policies will share many characteristics, and are best summarized as *satisficing* behavior in the sense of Herbert Simon (1978).

The general ideas on governance – especially debt governance – are then applied to the principles of bank regulation and supervision to yield a theoretical framework that merges thoughts on corporate governance and bank regulation into a unified body that defines an overall governance regime. However, the vagueness of the "governance" concept defies attempts at optimizing the regime by fine-tuning its components. **Rather, success should be defined as installing an internally consistent regime, in which the individual components would complement rather than contradict each other.**

Chapter two will discuss the available empirical literature on the governance and regulation of the banking firm to establish what we know about the governance of financial firms at this point. This will provide guidance as to which elements of the governance and regulation of banks are less controversial, and thereby lend themselves better for the shaping of policy recommendations.

Chapter three uses the previously developed theories as well as empirical insights to propose an internally consistent regime for the governance and regulation of banks. Major elements of the proposed regime are: a self-selection mechanism of regulatory regimes for different banks; more reliance on mutual monitoring among large as well as small banks; regulatory authority over equity governance mechanisms prone to accentuate rather than limit the conflict of interest between debt and equity; and access for regulators to the governance infrastructure of banks with deteriorating financial conditions. The last chapter serves to summarize and conclude.

One caveat regarding the applicability of the proposed regime has to be mentioned here: the cornerstone of the arguments regarding bank regulation is that the public choice mechanism in a democracy endows regulators with a mandate to defend depositor interests. Thus, the regulatory mandate in weak democracies or outright dictatorships may respond to a very different set of incentives[5]. This, in turn, would question the wisdom of a governance regime of banks that is structured around a properly incentivized regulator. A political

[5] Charap and Harm (2000).

regime less connected to the electorate would also imply the possibility of questionable incentives given to government owned banks, which are prevalent in the developing world[6], but not very successful[7].

Also, the often rather concentrated ownership structure found in developing countries[8] may extend to privately owned banks[9], which – next to the obvious problem of 'connected lending' – is likely to accentuate the governance conflict between shareholders and regulators, as I will argue further below. If in addition the economic elite is well-connected to the political elite of a country, possibly because it is part of a 'crony capitalism' patronage network as described by Charap and Harm (2000), then the issue of regulatory capture almost becomes a foregone conclusion.

Then, for all countries, which suffer weak political institutions in combination with government or very concentrated private ownership of banks, the suggestions derived in this paper are less applicable. In all likelihood, policy makers in such an environment will have a much more constrained choice set, and the optimal decisions in that environment may deviate largely from the recommendations developed here.

To be sure, problems of influence peddling, regulatory capture, and various forms of corruption including monetary rewards or future employment promises are not unheard of in countries with more solid democratic institutions. Yet, this paper abstracts from political economy problems, and considers regulators to be properly incentivized through a democratic mechanism. It proposes an 'ideal form' for a governance and regulatory regime for financial institutions in functioning democracies.

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[6] E.g.: Caprio and Levine (2002).

[7] LaPorta et al. (2002).

[8] See Claessens et al. (2000) for documentation of concentrated ownership in East Asia.

[9] Caprio and Levine (2002).

1 Theoretical Perspectives on Management, Governance, and Finance

1.1 A theory of management

Zingales (2000) called for a better understanding of the firm, and authority relations within the firm, to improve our knowledge of the nature of the relationship between the firm and the providers of its financial resources. This chapter addresses precisely this concern.

To be sure, there exists an economic theory of the firm[10]. When opportunistic and boundedly rational agents contemplate relationship-specific investments, *ex ante* vertical integration represents a solution to *ex post* renegotiation and appropriation of quasi-rents. Yet, the solution is driven by the pooling of residual claims, which eliminates the incentives for renegotiation efforts[11]. The necessity for – and nature of – the authority relationship between human actors is left indeterminate.

In this chapter, I will derive the necessity for the authority relationship through recourse to another problem: imperfect communication in mutual decision-making situations. It is – of course – of central importance to assume that a group of people finds itself in a task where joint action is perceived to yield larger gains than solitary labor.

1.1.1 Subjective knowledge and communication costs

In the following, I will sketch a model of man, in which subjectively held beliefs are highly idiosyncratic, and communication can only imperfectly align agents' 'views of the world'. Moreover, these 'views of the world' are sticky, and two individuals can see their contradicting beliefs confirmed[12] by observing the same event.

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[10] Coase (1937), Klein, Crawford, and Alchian (1978), Williamson (1985).

[11] Alchian and Demsetz (1972), and Holmstrøm (1982).

[12] In terms of a simple hypothesis test, this would be trivial in that beliefs are not rejected by the same evidence observed by actors with different beliefs. 'Confirmation' here stands for the possibility that agents with contradicting beliefs would have *expected* the observed event.

A thus defined belief structure retains the problems associated with asymmetrically distributed information and contract incompleteness due to bounded rationality, but adds an additional layer of complexity through the introduction of communication costs.

1.1.2 The problem of group decision-making

With communication costs, group decision-making represents a non-trivial problem. Compare the situation developed by Alchian and Demsetz (1972). There, all participants in a group effort know and agree on the theoretically optimal actions, but are side-tracked by a shirking externality when individual contributions to social output are not perfectly measurable. In the following, I wish to abstract from the shirking problem, and derive a necessity for authority structures due to communications costs alone.

1.1.2.1 Consensus

In a world, where agents hold heterogeneous and mutually contradictive beliefs, honest disagreement will result in a group decision-making impasse. In the best situation, agents can debate the issue sufficiently to learn from each other, revise their 'views of the world', and generate a decision superior to what each individual could have achieved. However, such learning process may take time, which renders two cost implications: the normal opportunity costs of time, but also the possibility that the group finds itself in a dynamic equilibrium of continuously diminishing welfare. It may be better to 'go somewhere' rather than 'going nowhere'.

A less beneficial outcome of the group decision-making process is that individuals achieve a bargained compromise that is not internally consistent[13]. Such a 'foul compromise' may be worse than decisions rendered by an individual, but may nevertheless be suitable to end a downward spiraling process: it may be a preferable decision, but it may not be 'first-best'.

Finally, the group can establish 'irreconcilable differences', and no decision is taken, which destroys the assumed gains that had brought the group together in the first place. Thus, the consensus procedure always entails the

[13] Similarities to parliamentary decision-making procedures in democracies are not co-incidental, but intended.

costs associated with time, and may in addition yield inferior bargained compromises.

1.1.2.2 Authority

If the costs associated with time, inferior bargained compromises, or group dissolution are perceived significant enough, an authority position may be superior: a leader performs the task of economic planning not only for himself, but for everyone in the group inasmuch as decisions of relevance to the group are contemplated[14].

Yet, the authority position is created due to the problems of disagreement, which will continue to exist after the position is created. Therefore, the holder of an authoritative office must be endowed with power to ensure that his or her decisions are obeyed.

This, in turn, leads to contradictions when leadership succession is contemplated. If the outcome of the group effort is judged 'inferior' by the group, but cannot be uniquely attributed to the leader's (wrong?) decisions, the question of leadership termination becomes indeterminate. Inasmuch as disagreement is invoked for the leadership position *ex ante*, it is invoked against the leader *ex post*. I call this the 'fundamental paradox' of all authority positions: there is no clear-cut answer, as to when there is 'enough' disagreement with the leader to motivate leadership succession. Note, that at this point I have not invoked the concept of opportunism, but only 'honest disagreement'.

In a sense, the management definition favored here is compatible with the notion of a 'Schumpeterian entrepreneur'. There, the idiosyncratic knowledge of the entrepreneur lies at the core of his success. Creative destruction always carries the notion of implementation of actions that had not been conceived of by anyone before. Barriers to efficient communication would achieve such distribution of information.

In this regime, the question of award and termination of a management position defies standard optimality criteria. By its very definition, the management position is clouded by a certain vagueness and ambiguity: is dissent evidence for the necessity of the management position, or is it evidence against the holder of the position? When standards for management

[14] This arguably comes closest to the concept of management as defined by Coase (1937).

succession are vague, the power that the management office is endowed with leads to a certain stickiness of the position. On the other hand, the often hostile arguments invoked against management in an agency theoretic framework may be exaggerating, since honest disagreement can be a substitute explanation for phenomena typically attributed to opportunism[15].

1.1.2.3 Autonomy

Yet, the stickiness inherent in authoritative office does tie group members to potentially fallible leaders. It is then mandatory for society to restrict the reign of authoritative offices, and leave the exit option open for group members[16]. Hayek (1945) argued that the market gave incentives to individuals with superior 'knowledge of time and place' to contribute to social welfare by translating such knowledge into monetary gains. I maintain that this is equally true for his 'knowledge of general principles'. The exit option maintains a welfare enhancing marketplace of ideas. The pluralistic society is not just a moral good, it is also practical.

1.1.2.4 Opportunistic authority

If we now add the assumption of opportunism to the leadership problem, the inherent contradictions in authoritative offices are merely accentuated, but not fundamentally changed. A leader can misuse the necessary power the office is endowed with in an opportunistic sense. Then, it becomes even more necessary to settle the question of management succession *ex ante*[17]. Yet, the challengers of a leader may themselves be opportunistically motivated[18], which in turn enhances the need for power in the authoritative office. The introduction of opportunism provides additional arguments against the holders of authoritative offices, but doesn't change the *ex ante* desirability of

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[15] Witness the analysis by Franks and Mayer (1996), where they interpret the UK takeover evidence as differing *ex ante* expectations between management teams rather than *ex post* failure of one.

[16] The problem is illustrated by the success of Ross Perot's EDS in the USA, and SAP software company in Germany. Both companies tie their origins to the fact that the founders were rebuffed by their former IBM employers with the idea that IBM should enter the software market. They subsequently chose to exit IBM, and develop their ideas into rather profitable businesses.

[17] Arrow (1974) concludes his essay on 'The Limits of Organization' with the observation: "Authority is undoubtedly necessary for the achievement of an organization's goals, but it will have to be responsible either to some form of constitutionally planned review and exposure or to irregular and fluctuating tides of disobedience."

[18] A relevant part of the wider governance literature would be Pound (1991), who described that one reason the SEC tried to monopolize all communication between investors, management, and potential challengers was because of self-interested challenges to management from outsiders.

the office itself: also 'strategic bargaining behavior' in the consensus procedure may be opportunistically motivated, which introduces additional costs on that regime.

1.2 Governance and Finance: debt vs. equity

Governance of the firm represents the institutions that select, motivate, control, and dismiss managers. With this definition, governance institutions bear the brunt of the ambiguities inherent in leadership positions, which calls the existence of an optimal governance regime into doubt. In the following, I will derive the *governance incentives* inherent in equity and debt investments, and verify the limitations of *governance policy*.

In the following, I will reintegrate the assumption of opportunism into the analysis, and argue first of all in the spirit of Transactions Cost Economics or incomplete contracting theory, since I maintain that the assumptions on economic agents sketched above encompass potential for *ex post* renegotiation. While Williamson (1988) assumes certain governance structures associated with debt and equity, I will here try to derive them using his logic.

First of all, however, one could ask why the providers of financial resources are the relevant group to associate with corporate governance. Zingales (2000) further develops an argument by Welch (1997) that residual control should rest with the most powerful group in order to minimize *ex post* conflict. In firms, where human capital is the key contribution to the production process, this group may well be employees and managers. Yet, as Zingales shows at the example of Saatchi and Saatchi, such firms should have problems raising external capital. Thus, we will focus here on firms with significant needs for external funds.

Then, the providers of financial resources have arguably committed the most specific asset to the production process. Workers can take much of their human capital to the next employer, while financial contributions are almost entirely expropriable by ill-spirited management. Investors would thus face the most severe problems of renegotiation. With that, governance policy emerges endogenously from the structure of financial contracts. Thus, a number of arguments presented below are compatible with similar thoughts voiced in the incomplete contracting literature[19].

[19] Zender (1991), Aghion and Bolton (1992), or Dewatripont and Tirole (1994).

Here, I will motivate the governance rights of investors dependent on the cash flow characteristics of the returns they negotiate: profit share or fixed remuneration.

1.2.1 Equity

The typical starting point is a situation where there are only entrepreneurs without cash, and investors without ideas. If the two meet, let us assume that the investor negotiates a profit share as a return on investment. This investor has a theoretical stake in the quality of even marginal managerial decisions, since the return is immediately influenced. At the same time, the manager has the potential to expropriate wealth from the investor as a consequence of an incomplete contracting environment. I will focus on small and large firms in turn.

1.2.1.1 Equity investments in small firms

Investor and entrepreneur first need to negotiate, what kind of contract should define their relationship. The reputation-only solution in an equilibrium as described by Klein and Leffler (1981) is here deemed too fragile, as the experience with sovereign debt suggests[20]. Binding the management into a detailed state-contingent long-term contract principally violates the assumption of a Schumpeterian entrepreneur, and is feasible only for well-structured projects that need little management discretion[21].

Then, an investment contract must contain elements of hierarchy: the right to dismiss the manager or liquidate the project, which essentially defines a transfer of property rights. This contract lowers the expropriable quasi-rent of the investor from the full; amount of the investment to the lower value between the costs of finding a replacement manager or liquidating the assets of the firm. The investor would also ask for substantial control rights to activate the dismissal or liquidation options if necessary.

[20] The fragility of sovereign lending has been long established before the LDC debt crisis of the 1980's. Sachs (1982) gives an account of default and renegotiation of Guatemalan debt in the 19th century. The banking house of the Fuggers collapsed in the 17th century, after the Spanish throne refused to honor its obligations.

[21] Such financial arrangements have been described by Destais (2000), who discusses contractual solutions in project finance even though asset specificity is high.

Yet, in small firms, managers themselves may have returns on private information to protect. There is, thus, a case of double-sided moral hazard[22]: the manager can expropriate the investor's wealth, while the investor can expropriate the manager's private information. If also the entrepreneur must fear expropriation, the ideal contract is not obvious: the right of dismissal can be used in an opportunistic way; an extensive control right can be used to construe situations that warrant dismissal. With double-sided moral hazard, there is an increased likelihood of complete transaction failure.

If the manager has no significant returns to private information, the performance of the contract still depends crucially on the investor's ability to adequately monitor the manager. Inability in this regard increases the likelihood of unnecessary dismissal or liquidation when honest disagreement is mistaken for opportunistic behavior. In this situation, the introduction of a board as a monitoring specialist is only of value inasmuch the investor believes that it is more difficult for two people to collude to expropriate him. The ultimate dismissal or liquidation right must lie with the investor, and also disagreement with the board can be mistaken for opportunism. Increasingly bounded investor rationality leads to an increased likelihood of transaction failure.

1.2.1.2 Equity investments in the widely held corporation

In the widely held corporation, a board as a specialist monitoring institution serves an additional function to overcome the consensus problem with a multitude of shareholders and the monitoring externality. Yet, upon closer look, the efficient governance policy within the board is all but clear. Fama and Jensen (1983) separate the decision-making process into initiation and implementation as decision management, and ratification and monitoring as decision control. If a board refuses to ratify proposals because it may have 'better ideas', or if it continuously uses 'monitoring' to enforce 'better' implementation, then the board will effectively have become management. The distinction by Fama and Jensen is not as clear-cut. Also Arrow (1974) noticed that activist oversight is far from solving the accountability problem: it is merely pushed one layer back.

I call this the fundamental paradox of supervision: too much activism contradicts the principle of delegation. Then, the board has no option other

[22] Aghion and Tirole (1994).

than engaging in 'enlightened self-restraint': only become activist when some performance threshold is not met, else refrain from action. Yet, as described above, the point at which there is 'too much disagreement' and a leader should be dismissed is somewhat arbitrary. If we acknowledge that there are costs associated with recurring management transition, the threshold level to trigger boardroom activism must be set such to balance the (elusive) costs of leaving presumably inefficient management in place against the costs of too frequent management changes. Then, corporate governance *policy* represents *satisficing* behavior as defined by Herbert Simon (1978).

The equity investor in small entrepreneurial firms or large corporations is never in a position to engage in overly activist behavior. In the small firm where managers can themselves be expropriated, a contract allowing too much investor control will not be acceptable to the entrepreneur. In the large corporation, the definition of the board should be such as to limit overly active behavior. Notably, the German Aktiengesetz stipulates that members of the supervisory board should only engage in 'supervisory' activity, while operating decisions are left to management. Yet, in keeping with the above analysis, the Law cannot provide a detailed distinction, where supervisory activity ends, and active management begins. Also observers of the US system have noted the ambiguities inherent in boardroom supervision: "We don't know what directors are supposed to do; we only know that they have to do it 'with care'[23]."

As a final thought on the governance of the large firm, let us return to the notion voiced by Fama and Jensen (1983) and assume that the management of the large firm is merely 'governing' lower levels of management in the firm. The ambiguities in defining a more appropriate role for 'governance' are then accentuated by recognizing that top management is already the institution chosen to govern the firm on a full-time basis: a further argument in favor of management autonomy and governance restraint.

1.2.2 Debt

So far I have argued that equity governance requires some monitoring ability of the investor. In the following, I claim that debt can be a solution to transaction failure motivated by bounded investor rationality. Negotiating

[23] Manning (1984), as quoted by Johnson, Daily and Ellstrand (1996).

a fixed payment – the cash flow characteristic of debt – in return for the investment can solve the problem for such investors, since they care less about every marginal decision. Managerial decisions are judged only inasmuch they increase the likelihood of the project's pay-offs falling below the promised fixed return rather than a directly linear relation. This has important consequences for the feasibility of the contractual solution.

1.2.2.1 The contingent contracting solution

The larger the (positive) difference between expected investment return on the project and the investor's fixed income promise, the less he will care about the manager's decisions. Hence, there is a potentially significant reduction in the scope of the necessary contract space to prevent expropriation: it may suffice to address only basic conflicts of interest between project manager and investor. This may be more desirable than a transfer of property rights with its requirements for decision control capability of the investor, costly monitoring structures, or the problem of reverse expropriation. Next to providing benefits of risk-sharing, **debt economizes on monitoring costs**. The problem of bounded rationality leading to a failure of the contractual solution has been reduced. Yet, a contract doesn't completely solve the problem. The closer debt comes to non-performance, the more the incentives of the fixed income investor will overlap with those of the profit sharing investor, and the investor will start caring again about every marginal management decision.

1.2.2.2 A contingent transfer of property rights

A mechanism for the transfer of control and/or property rights is needed. If the payment promise is unlikely to be met, the investor faces essentially a situation of a profit sharing investment, as he will get all surplus, since it is insufficient to compensate for the promised amount. By the arguments made above, he now needs a governance structure identified with profit sharing, and that implies a transfer of property rights.

Bankruptcies may serve as an example of the concept. Property rights of firms not capable of meeting their debt obligations are transferred to the debt owners. In the intermediary step (e.g. US Chapter 11), management must seek creditor approval for restructuring plans. Prior to the ultimate transfer of property rights, fixed income claimants only assume the function of decision control akin to a temporary transfer of property rights. Only if the

restructuring fails we will see the complete transfer of property rights in liquidation (US Chapter 7).

As long as the probability of meeting the contractual payment obligation is high, the need for decision control from the investor is minimal, and contracts specifying behavioral restrictions that cover basic conflicts of interests may be preferable to a profit sharing agreement for the boundedly rational investor. As fulfillment of the payment obligation becomes less likely, the incentives of the fixed income investor become aligned with those of the profit sharing investor, and he will demand decision control, or a complete transfer of property rights[24]. This governance structure cannot eliminate the whole problem of appropriable quasi-rents, as the fixed income investors may have to assume decision control, or face the costs of replacing management or liquidation. Yet, the *ex ante* expected monitoring requirements are lower for the debt investor than for the equity investor.

1.2.3 Debt versus equity

We can now compare the governance structures of debt and equity from the point of view of a boundedly rational investor:

The less capable the investor is in decision management or decision control, the more likely it is that the governance structure of profit sharing will be too expensive or infeasible, and the fixed income payoff will be preferable.

This is the more true, the higher the returns to the entrepreneur's private information.

The less capable the investor is in decision control, the greater the disparity between the expected return on investment and the fixed claim's return that would make the investor indifferent between the two. Lesser qualified investors have to be satisfied with lesser fixed returns, because the lower the probability of returns not being sufficient to satisfy the fixed income claim, the higher the probability to be called to perform costly decision control.

[24] This is in line with the results of the incomplete contracting literature on securities design. Zender (1991), Aghion and Bolton (1992), or Dewatripont and Tirole (1994).

The more boundedly rational the investor, the more likely debt will be chosen over equity, and the lower the interest rate that will satisfy the investor. The cash flow characteristics of debt can be interpreted as a satisfactory return, rather than the maximal return of a successful equity investment. Hence, the choice of debt over equity can be seen in complete analogy of Herbert Simon's (1978) concept of *satisficing*. Debt can be viewed as a "**satisficing claim"**[25], and is chosen as an alternative to equity for boundedly rational investors.

1.2.4 Contractual safeguards of debt

In a long-term investment, the debt investor will need interim reports informing him about the safety of his payment promise to determine whether he is already sufficiently close to a situation requiring decision control. Yet, bounded rationality and a limited understanding of the business process make this more difficult. Three potential solutions come to mind.

First, the investor can require an independent auditor to deliver reports on the firm's situation in regular intervals. Such an auditor is partially equivalent to the board of directors as a monitoring institution for equity investors. The debt contract does not need to stipulate the right to evaluate – and potentially dismiss – the manager. The equity contract does, and the board fulfills that function for equity investors[26].

Secondly, the investor can demand continuing fixed payments over the life of the project rather than one big payoff at the end in order to check the status by observing the ability to make the interim fixed payments. The converse implies that if these interim payments cannot be met, we demand either a situation of decision control (Chapter 11) or transfer of property rights (Chapter 7). *Debt contracts would specify frequent interest payments for governance reasons alone.*

Third, loans can be secured by pledging assets. For an investor incapable of meaningfully performing the function of decision control, but who specifies a contract that demands a transfer of property rights in case of non-performance, this transfer may be a non-credible threat. Out of the three options available to the fixed income investor at that time of non-performance – managing the project himself, hiring a new manager and performing

[25] See also Hax (1988) for this view of the debt contract.

[26] Benston (1982) argues that auditing information is too coarse to evaluate managers.

decision control, or liquidating the project – the last one is least affected by the debt investor's bounded rationality. Hence, the debt investor's only true safeguard will be the liquidation value of the assets he financed. Then, the debt contract only needs to provide for the contingent transfer of property rights to assets rather than the whole firm. Debt is more likely to be chosen, the less firm-specific the assets financed, i.e. the higher their value in uses outside the investment project[27]. For boundedly rational investors, the firm's credit ceiling is defined by the liquidation value of assets.

1.2.5 Bankruptcy Law

Collateral can also be seen as a device to keep assets out of bankruptcy proceedings. Yet, *ex ante* there is no reason why the contingent transfer of property rights necessary for debt claims should be governed by Law rather than private ordering[28]. Aghion, Hart, and Moore (1994) motivate the legal bankruptcy mechanism with reference to a problem akin to a bank-run: value is destroyed by every creditor trying to beat the line, which requires a transfer of the process to a single authority. In line with the arguments made above, I argue that a heterogeneous group of creditors has a consensus problem, and the Law imposes an authoritarian regime through the imposition of an impartial leader such as a judge (US Chapter 11), or a bankruptcy administrator (German or French bankruptcy Codes).

Another possibility is that the Law increases the negotiating power of creditors to enforce the transfer clause of the debt contract. Because of bankruptcy laws we observe negotiated debt work-outs, which might not happen otherwise due to contract incompleteness and renegotiation. Unambiguous bankruptcy triggers establish a credible floor to the utility of managers, which induces them to negotiate with creditors. Creditors in turn prefer work-outs to the presumably rigid procedures of statutory Law. In the spirit of sequential equilibria as defined by Kreps and Wilson (1982a), bankruptcy Law is necessary to increase the value of the work-out solution for creditors, or make such work-outs possible in the first place. Yet, with a rigid and costly statutory Law structure in place, creditors have an incentive to collateralize their assets ex ante to keep them out of bankruptcy.

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[27] See also Williamson (1988).

[28] Easterbrook (1988) pointed out that bankruptcy Law and private work-outs are substitutes. Gilson, Lang and John (1988) provide evidence that the choice of regime for financial restructuring can be predicted by the markets.

1.2.6 The governance policy of debt and equity investors

Collateralized debt minimizes the appropriable quasi-rent inherent in any investment. The minimal monitoring requirements of debt may have led Charles Dunbar (1929, p.1) to say the following about banks and their services:

> "The wants which banks satisfy are of a simple kind ... moreover, the transactions by which these wants are satisfied are as simple as the wants themselves, and are speedily reduced to such routine as to lead Adam Smith to rate 'the banking trade' as one of the few which could be brought to such uniformity of method as to be safely conducted by a joint-stock company."

Absent collateral, also the debt owner will improve his position through monitoring ability. This is reflected in Josef Schumpeter's (1939, p. 116)[29] view of the role of banks.

> "... the banker must not only know what the transaction is he is asked to finance and how it is likely to turn out but he must also know the customer, his business and even his private habits, and get, by 'frequently talking things over with him', a clear picture of the situation. ... traditions and standards may be absent to such a degree that practically anyone can drift into the banking business, find customers, and deal with them according to his own ideas. ... This in itself ... **is sufficient to turn the history of capitalist evolution into a history of catastrophes.**"

Yet, even if creditors have a monitoring role, the governance policy of debt claims will resemble that of equity, albeit for different reasons: debt has reduced interest to monitor; equity – pushed by its incentives – exposes the paradox of delegation and supervision. Debt and equity governance share the characteristic of monitors being inactive as long as firm performance is satisfactory, and stepping in when some threshold is crossed. For debt owners, the threshold is defined by their required debt service. For equity owners the threshold is defined by shareholders' return or profit expectations. But both efficiently remain inactive as long as performance is *satisfactory*. Hence, corporate governance *policy* always represents "satisficing" rather than "optimizing" behavior[30].

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[29] Requoted from Diamond (1984).

[30] Coming from an incomplete contracting perspective, Dewatripont and Tirole (1994) reach similar conclusions about the governance conduct of regulators, which I am going to address below.

To be sure, the equilibrium solution must entail that equity owners' threshold for board activity is higher than debt owners' threshold, else there would be no incentive to hold riskier equity. Yet, the symmetry in the governance structures of outside debt and outside equity makes differences in governance policy a matter of degree rather than a matter of principle. This is illustrated in Figure 1, where the thin horizontal line represents the intervention level of equity investors, while the stronger horizontal line that of creditors.

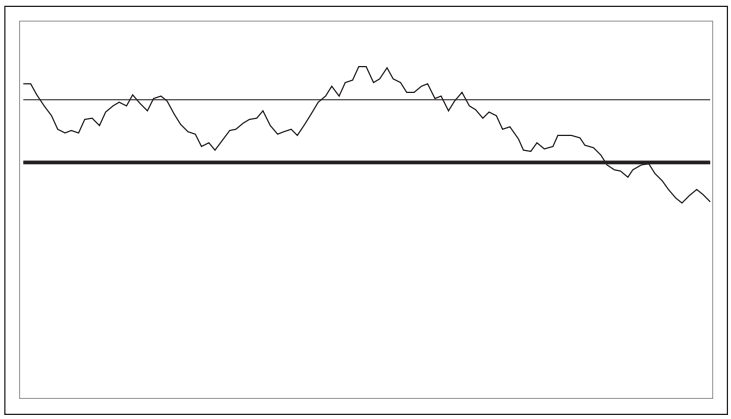

Figure 1: Hypothetical Performance Chart, and Intervention Levels of Debt and Equity

The erratic line is supposed to resemble some performance measure such as a stock price. Equity investors would intervene in management decisions more often. The graph also illustrates why creditor boards are said to allow management a more long-term focus. If we treat the performance measure as a stochastic process, it is well known that the expected time to a boundary increases with the distance from the current position, all other things equal. Staying with a stochastic process interpretation, governance monitoring would also become more vigilant as management alters the terms of the process to increase the likelihood of hitting a boundary, i.e. the well-known phenomenon of risk shifting. Due to the much discussed externality of debt, which does not participate in the upside of risk-shifting, debt governance would mandate a monitoring role to prevent adverse risk shifts.

Overall, however, due to the satisficing nature of governance, authority for day-to-day operations rests with management. The Schumpeterian entrepreneur does not allow comprehensive decision control in order to

protect his returns from private information. The board of the widely held firm is not constrained in this way, but the fundamental conflicts inherent in all supervisory activity leads to restraint in the boardroom. Debt investors lack motivation for close supervision most of the time, and are mostly concerned with risk shifts. Managerial entrenchment follows logically from our theoretical analysis of the management relationship.

These insights can be compared to observed boardroom behavior. The accusation of complacent boards is nothing peculiar to any system of corporate governance. The charge has been issued by Redlich (1968, p. 378) for the US during Financial Capitalism, Roe (1994, pp. 9-12) for the US today, Schaede (1993) for Japan, and Edwards and Fischer (1994, p. 151) for Germany. Yet, corporate restructurings are observed in all systems. Also, the board is increasingly viewed as a consulting device for management[31].

Vafeas (1999) documents that the frequency of board meetings in US firms increases with deteriorating performance as measured by share price declines, and that operating performance improves in the years following increased board activity. Similarly, Warner, Watts and Wruck (1988) find that poor stock price performance can predict management turnover, but the logit regressions have no predictive ability outside extreme performance experiences. Both results are consistent with my hypothesis that boards become active only after a threshold has been passed.

The above analysis of debt and equity contracts also adds to the study of the determinants of a firm's capital structure: bounded rationality and an inability to perform a meaningful monitoring function is added to the list of taxes, bankruptcy costs, agency costs, and the attempt to minimize renegotiation problems between investor and manager. We arrive at a "pecking-order theory" similar to that of Myers (1984), but in the sense of a maturing process: an entrepreneur will finance his investments with internal funds first before turning to external debt. Only after the firm's debt capacity is exhausted will the owner seek outside equity participations – or compromise growth for complete control.

[31] For the German case, see Edwards and Fischer (1994), Bickel (1988), or Schneider-Lenneé (1992).

1.3 Towards banking and relationship banking

Having derived efficient governance policies for debt and equity, I can now analyze some salient features of banking and "relationship banking". My concern here will not be to analyze why banks emerge as a separate form of institutions that act as a financial intermediary[32], but why it is that banks administer debt instead of equity contracts, and why they might nonetheless participate in the governance of the corporations they finance.

1.3.1 Why banks administer debt contracts

Debt economizes on investor rationality, especially when secured by non-specific asset values. This limits concern with governance issues. As long as the assets financed are salvageable with little loss to the creditors, all business finance looks alike. With that, a single loan officer can develop the skills to administer loans to clients across a variety of industries and – due to their simplicity – debt contracts can reap economies of scale.

Not so the equity contract. Even though also equity governance is guided by satisficing principles, the board has to be knowledgeable about the trade the respective firm engages in to evaluate managers. With that, the scope of an "equity officer" (instead of "loan-officer") is going to be narrower. Training of such individuals cannot resort to universal principles, but is more idiosyncratic. Thus, there is also less reason for organizations to emerge that unite different "equity officers", since the gains from communication between them are limited. Economies of scale to administer equity contracts are lower than for debt contracts.

There are some indications for the validity of this principle. Active investors such as Robert Icahn focus on only a small number of businesses, and rarely join efforts. Headquarters of conglomerates perform the function of administering an internal capital market among a variety of unrelated businesses,[33] and thus represent the equivalent of an "equity officer". The number of subsidiaries in such conglomerates is typically smaller than the number of accounts managed

[32] Both Diamond (1984) and Boyd and Prescott (1986) develop models where diversification allows banks to write incentive-compatible contracts superior to those that undiversified individuals can offer. Yet, their models are driven by the Law of large numbers, and thus provide only a partial understanding of the banking firm.

[33] See Williamson (1981) for this argument.

by a loan officer in a bank, and conglomerates are now deemed unsuccessful, precisely because of the limits to governance expertise[34].

The experiment of "equity banks" has also been conducted in countries trying to implement the principles of Islamic Banking[35]. A cursory glance at that experience shows that banks operating in that system do their utmost to subvert interest rate prohibition. Klein (1982) made similar arguments with respect to the canonical interest prohibition in the Middle Ages, where the Church itself violated the principle of interest prohibition. Mutual funds are not a counter example to this thesis since they are largely free-riding on an existing governance infrastructure.

Financial intermediaries administer debt claims, because equity contracts imply diseconomies of scale: there are no (or fewer) universal rules of boardroom conduct. The efforts by institutional investors such as CALPERS are aimed more at establishing a governance *regime* rather than conducting active oversight. Still, their evidence on their value impact is mixed[36]. The debt contract – especially when supported by collateral – can achieve greater standardization and thereby economies of scale.

1.3.2 A governance role for banks: creditor-led work-outs

Is there a case to be made for a role of banks in corporate governance? Inasmuch as loans are not covered by collateral, or the assets purchased are highly specific to the firms and are not easily salvageable, banks could principally gain from governance knowledge when loans are non-performing. However, for the same reason that "equity banks" were rejected as not viable above, a general role for banks as boardroom activists is unlikely. A more detailed analysis is in order. Above, I derived three aspects of the property rights an investor needs to defend his interests in an investment project:

a) The right to liquidate the project
b) The right to replace the manager
c) The right to engage in decision control

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[34] Bhagat, Shleifer, and Vishny (1990), Bhide (1990), Lichtenberg (1992), Comment and Jarrell (1995), Lang and Stulz (1994), Berger and Ofek (1995a, 1995b), Servaes (1996), Lins and Servaes (1999).

[35] Iqbal and Mirakhor (1987), Khan and Mirakhor (1989).

[36] Nesbitt (1994) and Smith (1996) find positive performance effects in CalPERS activism. Karpoff, Malatesta and Walking (1996), Wahal (1996), Duggal and Millar (1999), and Faccio and Lasfer (2000) find no performance increases due to institutional investors' activism.

In the order listed, these rights require an increasing knowledge of operations. For the case of satisfactory performance, decision control covering issues of direct conflicts of interest between manager and investor may suffice. In the case of debt non-performance, decision control has to deal with the substantive issues of the firm. It is this kind of boardroom activism that makes "equity banks" infeasible, and is therefore also outside the scope of a diversified bank.

The replacement of managers is a function that can potentially be performed by bankers. It requires, however, that the manager is more an administrator than a Schumpeterian entrepreneur. This restriction principally rules out a meaningful participation of banks in the governance of small, entrepreneurial firms. It does, however, allow for a (reduced) role in the large enterprise. Banks represented on corporate board can be expected to be primarily active in managerial selection. Their central role in the economy allows them to make a market for top managers.[37]

Banks' role in managerial selection can also be explained by looking at the liquidation motive. In a large enterprise, liquidation of isolated assets may eradicate still existing going concern values. In an illiquid market for large business units, the downsizing process may need active and skillful management to realize going concern values. When loans are in threat of non-performance, selecting a manager experienced at downsizing to sell off parts of the firm in order to repay loans can be a natural role for creditors.

In that sense, the right for managerial selection is an extension of a broader defined liquidation motive. Yet, managerial selection is a right belonging to owners, and banks would have to wait until ownership is transferred to them in a bankruptcy situation. Given the rigidities of the legal process, this may not be feasible in a crisis situation. The motivation for banks to seek a board seat is simply to have a contingency role in governance and – if necessary managerial selection – in crisis situations. During normal times, the role of a banker on a company's board is negligible.

Redlich's (1968, p.378) gives an account of the board activities of the bankers in the USA during 'Financial Capitalism': "The only positive aspect of control was very often the selection of chief executive and perhaps other

[37] See also Baums (1994) for this point of view.

leading officers ... once the right men were in and as long as they ran the enterprise in question ... with profit, the investment banker in control did absolutely nothing." Sheard (1994) shows that bankers in Japan only enter boards during crisis situations. Edwards and Fischer (1994) lament the passivity of German banks in corporate boards, while Harm (1997) shows an active engagement in large firm restructurings. Banks' governance motives are driven by the illiquidity of corporate assets. Only when the lending engagement exceeds collateral value banks will have an incentive to participate in corporate governance. Conversely, an ability of banks to reduce losses in corporate crises due to governance skills extends firms' debt capacities beyond collateral value, thereby contributing to deeper financial intermediation and economic growth.

1.4 The banking firm

1.4.1 The traditional view of banking and its regulation

Based on the dictum of efficient markets, the Finance literature never had an easy approach to banking. Fama (1980, 1985) observed that something must be special about banks, since bank loans command higher rates than those on commercial papers of comparable risk. Thus, the conventional wisdom emerged to view banks as institutions generating private information about borrowers, which would leave their assets (loans) relatively illiquid, since the information would not be credibly communicable due to the lemons' problem. A breakthrough was achieved by Diamond and Dybvig (1983), who argued that demandable debt such as deposits coupled with illiquid loans mandated deposit insurance in order to avert unfounded bank runs, an argument also proposed by Woodward (1988). Under this view, all banks are at all times illiquid and solvent, and needless bank runs could spread contagiously to other banking institutions, ultimately triggering a credit crunch that would impose great costs on society at large.

This negative externality could be avoided through deposit insurance. The problem is only that deposit insurance, if it is not correctly priced according to the asset risk of each institution, would lead to moral hazard problems between bank management and the providers of the deposit insurance guarantee, since the benefits of asset risk can be enjoyed without the corresponding costs of liabilities, and the potential costs of increased asset risk are born by the deposit insurers. This asset shift to a riskier portfolio may then counter the original

welfare argument[38]. Calomiris (1999, p.1499) summarizes that "bank safety nets, originally proposed as a means of stabilizing financial systems, have become an important destabilizing influence".

At the very least, the moral hazard problem necessitates bank regulation and supervision in order to counter the lack of market discipline with public authority. In order to guarantee a minimum of bank safety, regulators prescribe minimum capital levels, which should be determined on the basis of asset risk of the financial institution as well. Also, the right (and practice) of regulators to close inefficient financial institutions (defined as institutions at the point of insolvency) serves to restore managerial incentives for prudence. Conversely, managerial expectations of forbearance could invite risk seeking strategies.

1.4.2 Bank regulation as debt governance

Given the above, it might not be an exaggeration to argue that the cornerstone of modern theories of the banking firm is the illiquidity of assets. Important for the governance of the banking firm is that the illiquidity of bank assets makes them unsuitable to serve as collateral to bank creditors. Bank creditors are thus natural candidates to perform debt governance as defined above: they would be interested in a role in corporate governance to effect 'orderly liquidation' of a potentially delinquent bank. The illiquidity of bank assets could result in large losses if they were simply sold. On the other side, the restructuring of a delinquent bank under new management could retain the knowledge pool available in bank employees and borrower files, and yield a higher return to the creditors of the bank.

The main presumption here is that when bank assets are illiquid, bank restructuring is almost always preferable to bank asset liquidation. Then, the above analysis on debt governance suggests that also creditors of the banking firm have a natural governance interest.

Some 60% of US commercial banks' total liabilities are deposits[39]. In Europe, the magnitude of deposits in total bank liabilities is similar. Of those deposits,

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[38] An often overlooked point in such arguments against deposit insurance is that perverse incentives to shift asset risk also exist if depositors in hypothetical uninsured banks would not appropriately price their claims to reflect bank risk.

[39] Federal Reserve Statistical Release H.8: Assets and Liabilities of Commercial Banks in the United States; http://www.federalreserve.gov/releases/H8/data.htm

a significant proportion is provided by the populace at large. Within this clientele, however, the expertise to monitor bank managers is likely to be nominal. Yet, other institutions with larger – or even junior – debt claims on the bank balance sheet may be numerous enough to suffer from an externality problem. Then, the principal governance interest of bank creditors is not translated into reality: small depositors cannot perform the function, large depositors and creditors may find it still less than worth their while.

One possible solution to this governance dilemma of bank creditors is to seek a board mandate for a creditor representative. If, however, there are legal obstacles to enter a board of directors as a creditor representative, a second option would be to employ the public choice mechanism and hire bank oversight in the interest of bank creditors. Since the problem is equally true for all banks, a general oversight mechanism over the banking sector in the interest of depositors may just be a natural outcome of a political process in a democracy. This institution can both develop the necessary expertise, as well as overcome the monitoring externality faced by the totality of depositors.

Generally, the notion to be portrayed here is not to replace a previously held view on the motives for bank regulation[40]. Rather, the objective is to add to the existing literature by drawing inferences starting from a model of man that is capable of reserving a distinct role for management, which is the object of governance. Conclusions reached at this point are that

a) bank regulation may emerge through the public choice mechanism motivated by a (debt) governance interest common to all depositors (voters?) to overcome monitoring insufficiencies and externalities.
b) bank regulation is governed by the principles of debt governance, which – among others – imply threshold-driven activism[41].
c) the resolution of financial distress at banks should – if at all possible – take the form of restructuring rather than asset liquidation.

1.4.3 Shareholders' and Regulators' Roles in Bank Governance

Given the existence of governance interests on the side of both equity and debt investors in the bank, the objective here must be to find a way, in which

[40] See Bhattacharya, Boot and Thakor (1998) for an excellent survey on the topic.

[41] Multiple thresholds such as Prompt Corrective Action triggered by CAMEL ratings in the US would be a refinement rather than a contradiction of the principle espoused here.

the legitimate interests of the two constituencies can meaningfully co-exist. Can existing regimes be of any guidance to assess the roles the two governance philosophies?

Under the conceptual lens developed in this paper, the role German banks take in the governance of large German industrial firms[42], or that Japanese banks take with respect to *keiretsu* firms[43] should be viewed as evidence of debt governance[44]. For this view to apply, it is immaterial whether bankers have a permanent place on a company's board, as is customary in many of Germany's *large* enterprises, or if they don't, as Japanese *keiretsu* banks. Important is that they assume an active role in enterprise restructurings once the viability of their exposure is threatened.

An unfortunate by-product of the German and Japanese style of large industry governance lies in the deficits to shareholder interests. The question is whether such shortcomings lie in the nature of debt governance, or whether they can be avoided[45]. Under the governance policy principles developed above, the governance priority should first of all lie with shareholders: any firm showing signs of trouble should first of all be steered back to a course of virtue in the long-term interest of shareholders. The only true conflict of interest arises with respect to the issue of risk: equity owners – especially in financially distressed firms – have incentives to 'gamble for resurrection', while debt owners have every incentive to avoid precisely that. No creditors, however, would object to strategic shifts that assure or solidify the long-run viability of the firm.

Thus, also for banks showing the first signs of trouble, a meaningful restructuring plan should be developed by the board of directors in the long-run interest of shareholders. Yet, a crucial difference between banks and industrial firms is that substantial risk-shifts in banks are easier to camouflage and thus harder to detect. Therefore, it is mandatory that regulators receive

[42] Harm (1992a).

[43] Sheard (1994).

[44] Interestingly, Skeel (1999) finds similarities between the governance of industrial firms in Germany and Japan, and banks and insurance companies in the USA. This style of governance is labeled as "ex ante", while governance of US industrials is labeled "ex post". He does not, however, link these governance styles to the governance incentives of debt or equity claims.

[45] Visentini (1997) examined Italian bank governance from a legal perspective to note that – also due to regulation – bank management is largely removed from shareholders. He defines bank supervision similar to a board of directors for creditor interests (Visentini (1997), p. 175).

notice from boards of directors when restructurings are contemplated, and that they accompany the process, but with limited authority. Such authority is geared exclusively at making sure that there are no adverse risk-shifts undertaken by management. In the USA, such a policy might be triggered by a number 3 CAMEL or BOPEC rating.

Obviously, the notion of bank risk lies at the heart of most studies of bank regulation. A question, however, may be whether incentives for risk-shifting emanate from the deposit insurance regime, or whether they more simply reflect innate differences between debt and equity. While the former remains a possibility, this paper is focusing on the latter effect. In this spirit, a number of recent studies have focused on finding mechanisms, by which bank managers are incentivized to internalize depositor interests. Looking at direct downside incentives of management, Macey and O'Hara (2001) have called for the fiduciary duty of bank directors to extend to depositors, and that bank directors should not be able to eliminate their personal liabilities in duty-of-care cases (p. 13).

Noe, Rebello and Wall (1996) provide an early attempt to include management compensation contracts into an analysis of shareholder and regulator policy towards banks. They reason that shareholder designed incentive contracts exacerbate the risk shifting incentives of bank managers. Ang, Lauterbach and Schreiber (2001), however, argue that bank regulations can reduce the amount of incentive pay granted to executives. Recently, Osano (2002) has argued that stock option incentives for banks managers may stand in the way of achieving socially optimal allocations in bank bail-outs.

The most comprehensive model was developed by John, Saunders and Senbet (2000), who reasoned that managers should receive both an aggressive performance related bonus, which is capped at some level, as well as a fraction of the bank's shares[46]. In this way, the evaluation function of managers has a significant concave section, re-introducing risk-aversion to management behavior. The authors show that in case the FDIC premium is priced fairly taking into account the elements of the pay schedule, then shareholders would offer precisely this pay schedule to managers, and managers would make first-best investment-risk decisions. The issue that the

[46] See also Goodhart et al. (1998, p.48) for a discussion of a typical management evaluation function. More generally, people are usually characterized by concave utility functions. Then, any pay schedule rising linearly with performance would be evaluated more conservatively the more remote the chance of bankruptcy.

deposit insurance premium actually charged must incorporate parameters of the management pay schedule would limit the applicability of this concept, but it represents almost a first attempt in the literature to define bank governance by tying shareholder and regulator interests together.

Also the issue of bank ownership has been explored in this context. Ciancanelli and Reyes-Gonzales (2000) focus on the risk-externality of equity to identify bank owners as the dominant force of incentives against regulatory interests. Thus, they not only advocate against significant management ownership shares or higher pay-performance sensitivities for bank managers, but also in favor of regulation actively constraining or superseding ownership interests. Tonveronachi (1997) contemplates the introduction of the government as a 'prudential shareholder' in banks, but immediately inserts the caveat that this would likely complicate matters since it would likely involve the creation of another agency with possibly questionable effectiveness, or even motives[47].

Yet, one ownership solution to the conflicts of interest between debt and equity can already be found in many banking systems: cooperative banks, in which every depositor is a shareholder. This structure alleviates conflicts between debt and equity investors at the shareholder and board level. The cooperative form is not very popular in the economy at large. In banking, however, incentive conflicts between owners and depositors are reduced, making this organizational form more desirable. Of course, banks cannot be ordered to become cooperatives. Like all other institutions, cooperatives must stand the test of the marketplace and compete successfully. However, calls for the abolition of the cooperative form due to a lack of (takeover) market discipline – as has been demanded in the UK occasionally – are equally misguided[48].

In the end, shareholder value maximization was never intended to stand for the complete disregard of all other interested parties[49]. Accordingly, no shareholder value proponent would argue that it is the job of managers to identify externalities and loopholes. These are to some extent evidence of contract incompleteness, which represents an undesirable friction in social life. In the purist corporate governance ideal, shareholders are the ones having discretionary control over the management process, since they stand the most

[47] Banks may, for example, have a better lobby to effect regulatory forbearance.

[48] See Llewellyn and Holmes (1991) for this argument.

[49] See Jensen's (2001) concept of "enlightened value maximization".

to lose. All other stakeholders contract with management to defend their legitimate interest in the firm. In a world of incomplete contracting, this representation of final recourse to management only through the court system may be inefficient. We have derived above that control transfers to creditors in financial distress situations are efficient. In banks such problems are magnified, and the governance regime must find a way of accommodating representatives of both shareholders and depositors.

Such a 'peaceful coexistence' between shareholder representatives and regulators would be consistent with the postulate formulated by Ciancanelli and Reyes-Gonzales (2000), who claim that institutions of shareholder governance should recognize regulators as an external force limiting the degrees of freedom of bank policy relative to industrial firms. Also Llewellyn and Sinha (2000) recognize that bank regulation constrains various dimensions typically associated with shareholder governance such as ownership structure and identity, but also management. Prowse (1997b) showed for the US that also there, regulators limit ownership structure of a bank, and thereby large shareholder monitoring, or the takeover market. Thus, Llewellyn (2000) calls for the banking firm to be viewed as embedded in a multi-dimensional governance regime. He views the true challenge in establishing a governance regime of banks as sensibly combining the various governance and regulatory mechanisms[50].

[50] That such a complex systems design cannot resort to 'cherry picking', but has to be structured as a coherent whole was already observed by Tonveronachi (1997).

2. Bank managers between shareholders and regulators: the empirical evidence

After having sketched some theoretical considerations on the governance of banks, it is now time to analyze the empirical evidence to gain insights as to the potential validity of some of the claims made above, and especially to assess which insights would belong to a more substantiated 'body of knowledge', which may lend itself better as a basis for policy prescription. To be sure, there already exists an excellent survey on the topic of bank regulation and corporate governance by Prowse (1997b). The objective here would be to bring the survey up to date to the year 2002, but also to interpret the literature in the light of the theoretical views developed in the first chapter, namely the governance incentives of debt and equity.

In fact, there seem to be essentially two sides to this literature, which deal largely with the differing objectives of debt and equity: risk and performance. Thus, the first section, which summarizes papers relating corporate governance issues to the performance of banks, identifies the "equity strand" of the literature. The second section looks at papers that are interested in the behavior towards risk of banks, and thus represents the "debt" or "regulation strand" of the literature. Since the first chapter didn't give a survey of the theoretical literature, but rather developed largely one theoretical viewpoint under a consistent 'view of man', the discussions below will fill in theoretical points developed in the relevant body of literature where appropriate.

2.1 Bank managers and shareholders

During the last two decades, the Corporate Finance literature has witnessed a booming interest in the governance of the firm and its financial implications. The first part of the literature can be labeled the "incentive" part, where the role of takeover markets, management share ownership, or management remuneration contracts are identified as possible determinants of management accountability and firm performance. The second part can be labeled the "control" part, since it focuses on direct and indirect mechanisms by which control is exerted over managements. These may include proxy fights, issues of ownership structure, or issues surrounding the board of directors.

In the last ten to fifteen years, the general interest in firm governance has also spilled over to the banking literature, which will be discussed in this section. One surprising element of the discussion of this part of the literature will be how little attention has been paid to the special element of banking as a regulated industry. One may get the impression that the banking industry may have been picked solely as a sample of firms within which general notions of governance could be tested in a more cohesive laboratory. Issues of banks as regulated industries have rarely been raised in the papers discussed below.

The subsequent survey on the empirical literature of the agency problem between bank shareholders with their managers should merely serve as a reference point to be related later on to issues concerning bank regulation.

2.1.1 Expense preference

The first recognition of an agency problem between shareholders and managers of banks was developed in the literature under the heading of "expense preference theory". While it was still deemed reasonable to assume that firms in general would follow a course of profit maximization[51], this behavioral assumption would not necessarily be true in regulated industries since the profit objective would be compromised by regulatory interests – a notion very much in keeping with the topic of this paper. Thus, managers would formulate their policies not to maximize profits, but "staff expenditures, managerial emoluments, and discretionary profits"[52]. Edwards (1977) was the first to examine this notion empirically, and verify that the hypothesis of expense preference behavior was better supported by commercial banking data than the hypothesis of profit maximization. Verbrugge and Jahera (1981) confirmed the same notion for US Savings and Loans institutions. Prowse (1997b) has a more extended discussion of the expense preference literature. For the purposes of this survey, the case has been made that – perhaps more so than in industry – bank shareholders face an agency problem with their respective managements. This calls for a discussion of the corporate governance of financial institutions.

[51] Apparently that term was used in lieu of shareholder value maximization.

[52] Edwards (1977).

2.1.2 The market for control of financial institutions

Ever since Manne' (1965) insight that mergers may be motivated by a corporate control change rather than seeking market dominance, takeover markets have come to be seen as an at least potentially integral part of the corporate governance regime in a country: managers that deliver substandard performance have to stand trial in the market for management teams, which spot firms with inferior performance, buy them, and steer the ship themselves towards better performance, thereby increasing shareholder value[53].

Yet, there are a number of reasons for mergers that are not agency-related. Already Manne (1965) pointed to the avoidance of bankruptcy in imperfect capital markets, where the acquirer may preserve going concern value that would be lost in bankruptcy or creditor-led distress restructurings. This may be important in the restructuring of troubled industries[54]. There may also be tax reasons, although they would usually not be a primary motivation for mergers. A shift in Antitrust policy, and deregulation efforts in general are an important reason, especially in the case of banking. Finally, mergers may simply be seen in the context of the theory of the firm[55]: a changing market environment requires organizational adaptation. Liquid capital markets may then represent a conduit for change, be it through mergers or spin-offs. Thus, rather than being part of a disciplinary device to ensure managerial accountability, financial markets are a conduit for the market for organizational structures. Management represents an important part of such organizational structures, but is not the sole focus of it.

The merger wave that has swept the US banking industry in the last two decades then leaves only a potential corporate governance interpretation: that the lifting of barriers to interstate banking has opened a long dormant market for corporate control. This section serves to review the current state of the literature on bank mergers and their potential corporate governance interpretation. It will become clear that the evidence of – especially US – bank mergers may carry only a slim governance interpretation. Thus, the hurried reader may wish to skip through the following subsections, which render a rather anti-climactic conclusion.

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[53] Sharfstein (1988).

[54] This is pointed out by Dutz (1989), Morck, Shleifer and Vishny (1989), and Mitchell and Mulherin (1996).

[55] Coase (1937), Williamson (1985).

2.1.2.1 Stock market gains

The early literature followed in the footsteps of Jensen and Ruback (1983), who examined the wealth effects of merger activity in general to conclude that mergers did generally create wealth, and that this wealth creation was to be seen as an increase in shareholder value due to a more active market for corporate control. Accordingly, it was examined, whether bank mergers increased shareholder value. Here, Desai and Stover (1985) found that bidder BHC's experienced positive abnormal returns upon announcement as well as approval of a merger bid. Yet, James and Weir (1987) find that some bidder gains can be traced to the competitiveness of the bidding situation, which somewhat weakens a corporate governance interpretation.

Trifts and Scanlon (1987) find that – as in merger evidence in general – target shareholders gain, while bidders would merely break even. However, bidders involved in large acquisitions earn higher returns than those in small acquisitions. Skepticism of prudent bidder motives lies also in the study by Dubofsky and Fraser (1989), who showed that two 1981 court rulings that removed legal obstacles to future merger activity led to a decrease in the share price of banks known as active acquirers. Evidence on takeovers has also been generated in the Savings and Loans industry. Balbirer, Jud and Lindahl (1992) trace merger gains in failed institutions to government subsidies. For solvent institutions, Gupta, LeCompte and Misra (1997b) find that Pre- and Post FIRREA mergers led to target gains, bidder losses, and small consolidated gains for the merged institutions.

More positively for the assessment of bidders, Cornett and De (1991a) find that they generally earn abnormal returns, which they argue distinguishes the record in banking from that in industry. The same authors[56] also find a difference to non-financial mergers in that the results do not change depending on whether the bidder pays with cash or shares. Cornett and Tehranian (1992) trace the stock market gains to various performance improvements after the merger. Contrary to their evidence, however, Houston and Ryngaert (1994) find that large bank mergers generally do *not* lead to statistically significant market gains. Only those mergers that promise gains from *market consolidation* yield positive results.

[56] Cornett and De (1991b).

Pilloff (1996) extends this line of work similar to Cornett and Tehranian (1992) by using both market and accounting data to evaluate merger gains. He finds that the market tends to value mostly those mergers, which offer *potential* for cost reduction (geographic overlap and high pre-merger expense levels), while – surprisingly – market expectations turn out to be unrelated to subsequent merger related gains. This is also consistent with DeLong's (2001) results, who finds that mergers focusing on activity and geography enhance shareholder value, while diversifying mergers do not. Houston, James and Ryngaert (2001) show similarly that *management estimates* of cost savings are related to overall merger gains. Recently, Becher (2000) examines a much larger data set than most other studies to show that bank mergers do lead to overall stock market gains. Consistency with earlier mixed results on bidder returns is achieved by recognizing that mergers in the 90's were more successful than those of the 1980's.

If there are gains in bank mergers, the Antitrust view would hold that they would be due to a shift in the competitive balance of the overall market. Following the analysis by Eckbo (1983) for mergers in general, Akhigbe and Madura (1999) as well as Akhigbe and Martin (2000) find positive share price effects on rival stocks upon a merger announcement. This would preclude an Antitrust interpretation of the US bank merger experience.

Hostile transactions are a potentially clearer sign of the governance role of takeovers. Baradwaj, Fraser and Furtado (1990) show that targets in hostile bank takeovers earn higher returns than those in non-hostile transactions, while bidders in hostile transactions earn negative returns, more so but insignificantly different from those of non-hostile deals. At least the direction of the latter piece of evidence supports the general claim on hostile merger activity made by Comment and Schwert (1995) and Schwert (2000): that target managers in hostile bids merely negotiate a higher price. The general direction of the evidence presented by Baradwaj, Fraser and Furtado (1990) is compatible with Schwert's (2000) verdict, while not being statistically significant: it neither supports nor rejects Schwert's general claim that hostility lies in the eye of the beholder.

2.1.2.2 Cost and Profit Efficiency

The literature examining the share price effects of mergers is complemented by the literature examining bank cost or profit efficiency. Shaffer (1993) argues that cost savings could be achieved by simulating mergers and examining X-efficiency changes. However, Rhoades (1993) finds that bank

mergers of the 1980's did not yield the promised efficiency gains, even though his sample was selected to include those mergers where efficiency gains would have been most likely. His results are therefore consistent with those of Peristiani (1997): the 1980's mergers do not yield X-efficiency improvements after the fact.

Both papers are mirrored in the above mentioned paper by Pilloff (1996): the market *ex ante* hopes for efficiency gains, but firms may not deliver *ex post*. An in-depths analysis of nine case studies of bank mergers leads Rhoades (1998) to conclude that it was not possible to isolate the reasons for success or failure in improving cost efficiencies, but that the failed firms had problems integrating data processing systems and operations, hinting at a general problem with post-merger integration. Finally, Kohers, Huang and Kohers (2000) find little relation between X-efficiency and merger related abnormal returns, and interpret their findings in favor of the Inefficient Management Hypothesis.

More micro evidence has lately been generated by Berger, Leusner and Mingo (1997), who found that at one (exemplary) US bank there existed large X-inefficiencies due to overbranching, but that these were not necessarily associated with profit inefficiencies since overbranching raises customer convenience which may lead to additional revenues. Alternatively, Avery, Bostic, Calem and Canner (1999) find that within-ZIP code mergers tend to lead to a reduction of branch offices per capita in those ZIP code areas. Competing cost or profit efficiency motives may determine actual bank policy, but the profit motive is more closely associated with shareholder value maximization. Consistent with this view, the survey by Berger, Demsetz and Strahan (1999) finds profit efficiency gains in the US bank consolidation evidence, but little improvements in cost efficiency.

2.1.2.3 The governance interpretation of takeover restrictions

Another avenue of research has focused on the level of takeover activity across States. Early evidence presented by James (1984) indicates that the cost efficiency of banks in 5 states where corporate acquisitions of bank stocks were restricted was below that of banks in 6 States with no such restrictions. By the same token, Schranz (1993) finds that banks in active takeover States are more profitable. While both studies support a positive role for takeovers, they may have only limited corporate governance implications. It is, for example, entirely plausible that State takeover restrictions have – at least on an aggregate level – prevented (or made more difficult) efficiency

adaptations in the organization of financial service firms. Management resistance to advantageous mergers may only be one of many factors explaining inferior performance in States disallowing bank takeovers.

The evidence contrasting states with and without takeover restrictions is put in perspective when contrasted with mergers that are unlikely to carry a corporate governance interpretation: those among credit unions or financial mutuals. Fried, Lovell and Eeckaut (1999) found that there is significant performance variation among US credit unions from a cost efficiency perspective, leaving room for improvement and role models. Later, Fried, Lovell and Yaisawarng (1999) examine targets of credit union mergers and demonstrate that they improve performance after the fact. While these results together would imply a governance deficit in credit unions and a positive role for an active takeover market, the ownership structure of mutuals does not allow such inference.

Thompson (1997), studying mergers among UK building societies in which the mutual ownership equally discourages an active takeover market, finds that the selection of targets does not conform to typical governance predictions of poor management, but is likely explained by regulatory concerns for stability. In a separate analysis, Haynes and Thompson (1999) verify the positive performance effects of building society mergers, paralleling the US experience.

Only for the Australian experience, Ralston, Wright and Garden (2001) find no efficiency improvements in credit union mergers over and above those that could have been achieved by internal growth. This is consistent with the findings of Esho (2001) on Australian credit unions. In summary, however, the evidence from credit unions in the USA, the UK, and Australia suggest that efficiency improvements in mergers *can* be achieved without necessarily carrying a governance interpretation. Accordingly, takeover restrictions may not be equated automatically with a governance deficit.

Rather, it is worthwhile to keep in mind the hypothesis by Thompson (1997) that at least in UK building societies, regulators may have been the driving force between these mergers, not shareholders.

2.1.2.4 Diversifying Mergers

The above mentioned study by Berger, Demsetz and Strahan (1999) had also identified improved diversification of risks as one consequence of the recent

merger wave. That interstate branching limitations reduced the scope for diversification in commercial banks had long been lamented[57] in the literature. For 38 S&L's and 88 commercial banks, Fraser, Hooton, Kolari and Reising (1997) find significant positive wealth effects related to key announcements by the Office of Thrift Supervision in 1991 and 1992, to permit interstate branching for federally chartered S&L's. Carow and Heron (1998) examine large BHC stock prices around the passage of the Interstate Banking and Branching Efficiency Act of 1994 (IBBEA), and postulate that this gain is due to the market's anticipation of control activities. Brook, Hendershott and Lee (1998) estimate the value of the removal of such restrictions at $85 billion.

Accordingly, Benston, Hunter and Wall (1995) found that the recent merger experience supported a motivation to diversify risks better than the alternative to expand the deposit insurance put option. Similarly, this notion is supported in the experience of the bank holding companies examined by Demsetz and Strahan (1997). Microevidence that bank holding companies use their structure to create an internal capital market in order to fully exploit diversification benefits is presented in the works by Houston, James and Marcus (1997) and Houston and James (1998).

Hughes, Lang, Mester and Moon (1999) examine expected profits, profit risks and profit efficiencies of interstate mergers to conclude that these transactions diversify macroeconomic risks of financial institutions, and thus reduce expected claims on society's bank safety net. The latter conjecture, however, stands in contrast to the conclusion by Berger, Demsetz and Strahan (1999) that the bank consolidation wave of the recent past may potentially increase systemic risk. The argument, however, that interstate mergers have the potential to improve on the risk structure of banks through diversification remains strong. Is it a general merger motive?

2.1.2.5 The international evidence on bank mergers

As befits the international division of labor in academia generally, there are but a few studies shedding light on the international experience with financial institution mergers, and their possible corporate governance role. Vander Vennet (1996) finds that domestic mergers among equal sized credit institutions in Europe significantly increases the performance of the merged banks. Yet, counterproductive managerial motives such as size maximization are also supported by his evidence.

[57] E.g. Woodward (1988).

Examining Italian data, Resti (1998) finds that buyers appear less cost-efficient than targets, which is consistent with much of the US evidence on bidders. At the same time, the merged firm improves its efficiency, especially when they operate in the same local market. This supports an industry consolidation interpretation similar to Pilloff (1996) or DeLong (2001) in theUS.

Overall in Europe, Cybo-Ottone and Murgia (2000) find that – based on announcement effects of bank mergers – those that take place in domestic bank-to-bank deals or in banks diversifying into insurance increase shareholder value, both for bidders and targets. They interpret their evidence as 'remarkably different' from the US experience. Boot (1999) views the mostly domestic consolidation experience in Europe as defensive and due to political circumstances (creating European champions), which may not be very relevant for the US, while the US geographic integration of financial institutions may offer valuable insights for 'imminent' cross-border mergers in Europe.

In Australia, Avkiran (1999) finds that – opposite to the Italian experience – acquiring banks are more efficient than target banks, but the merged institution would not maintain its efficiency after the merger has been realized. Again, there may be a story of unfulfilled merger expectations as in the US. For another regional experience, Altunbas, Liu, Molyneux and Seth (2000) argue that – when quality and risk factors are appropriately accounted for – scale-efficiencies for the largest Japanese banks suggest that they have outgrown normal scale efficiencies and should shrink. Kashyap (1999) summarizes his thoughts on merger policy in the US, Japan and Europe by arguing that it should be driven by different considerations[58]. In Europe, he would follow Boot (1999) in arguing for setting the stage for productive cross-border mergers. In Japan, foreign capital could improve on undercapitalized domestic financial institutions. In the US, the current policy of letting consolidation take its path should be continued.

2.1.2.6 Bank mergers and bank governance

The different country experiences, especially as (briefly) compared by Kashyap (1999), render the verdict that mergers in different countries fulfill different purposes in different situations. Yet, there is no overwhelming

[58] This point is also belabored by Santomero (1999): regulators must react to their specific situation in order to pass efficient legislation.

evidence that bank mergers are corporate governance driven[59]. Whenever governance problems are cited, they refer to indiscriminate buying on the side of the acquirer, not substandard performance of the targets. Targets are implicated negatively when managers resist value-enhancing mergers for selfish reasons. Yet, the evidence on hostile deals remains mixed and ambivalent to interpretation.

Thus, so far there has been relatively little evidence on a distinct corporate governance role in bank mergers. While there are benefits from mergers as perceived by the market, these may not necessarily be caused by poor management. Cheng, Gup and Wall (1989) rejected that target banks had exhibited poor performance prior to their merger, but concede that their results may be due to the peculiarities of a regionally concentrated sample. This type of pattern was also confirmed for UK Building Societies by Thompson (1997) as discussed above. On the other side, DeLong (2001) finds that returns to bidders and targets increase with decreasing prior performance of targets. Yet, here the same problem prevails that has been discussed before: the institutions do not necessarily deliver on the cost efficiency gains anticipated by the market. That target firms – even in hostile deals – do not necessarily underperform the market has already been established by Franks and Mayer (1996) for general merger experiences in the UK around 1986.

The banking industry – finding itself in an environment of deregulation – takes the opportunity and restructures to consolidate in various geographic regions and to create supra-regional institutions with improved risk structures. There is an inconsistency in the findings in the literature regarding mergers to focus versus mergers to diversify. While some earlier studies had found their results consistent with the positive impact of cross-regional loan portfolio diversification, especially the study by DeLong (2001) casts doubt on the merits of regional diversification versus geographic consolidation. However, the shortcoming of the latter study is that it exclusively examines announcement gains, where earlier studies had shown that – while the market may believe in cost savings – the merged firms may nonetheless not deliver on these promises, possibly due to unrelated problems with the integration of two institutions (Rhoades (1998)). This is consistent with the survey by Caves (1989), which has shown for merger experiences in general that the presumed

[59] In Japan and some European countries, banking problems are systemic. Bank managers, however, can only be held accountable for their own firm. Mergers that are undertaken to consolidate branch networks in an overbanked area, or to find a strong partner for an undercapitalized bank carry only limited corporate governance interpretations.

gains from a transaction have often left the market eventually disappointed. Caves sees takeovers more as a problem of free cash flow[60] on the bidder's side, rather than a solution to a management problem. It seems intuitive to assume that banks would suffer a potentially greater problem of free cash flow than industrial firms. The international evidence on bidder performance in bank mergers is largely consistent with that view.

We can summarize the insights gained in this section with the following three observations:

a) The main insight yielded by the evidence presented so far is that the deregulation of the US financial services industry has created value, and that one straightforward avenue at realizing this value was through either focusing or diversifying mergers. Very little has been said up to this point about management teams being incentivized by the threat of takeovers, or being disciplined by the reality of takeovers.

b) Takeover activity may often be motivated by reasons other than shareholder value maximization. Takeovers may be the reflection of an agency problem, not a solution to it.

c) The notion put forward by Thompson (1997) has received inadequate attention in the literature: that bank mergers may be demanded by regulators, who see in them a potentially cost efficient way of restructuring institutions in an ailing industry. We have come full circle to Manne (1965): takeovers avoid costly bankruptcies in inefficient market settings. No one has a bigger interest in having banks stay out of bankruptcies than bank regulators. Especially in Europe, where past regulation in many countries had led banks that could not engage in price competition to compete on quality and service grounds (e.g.: over-branching), the liberalization of interest rates with the ensuing decrease of interest margins[61] has left at times the entire banking industry vulnerable. Regulators finding themselves in this situation would favor industry consolidation via mergers[62]. At least part of the European evidence on bank mergers must then be interpreted in the light of bank regulation rather than the corporate governance of banks.

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[60] Jensen (1986).

[61] Dermine (1995).

[62] As a related issue, Hotchkiss and Mooradian (1998) demonstrate the beneficial results of restructuring firms in Chapter 11 by selling them to outside interested parties.

2.1.3 Management ownership stakes

Another way of relating takeovers to corporate governance is to observe the behavior of managers with different incentives – e.g. management ownership stakes – in takeover situations. Allen and Cebenoyan (1991) find that bidder returns of firms with high ownership stakes are positive, while others are not. Looking at potential targets, the flipside of the coin becomes visible: Hadlock, Houston and Ryngaert (1999) show that firms with higher levels of management ownership are less likely to be acquired, which points at management entrenchment.

Another set of studies examines the role of management ownership subscriptions in S&L's converting from mutual to stock form. Carter and Stover (1991) find their results consistent with convergence of interests between managers and shareholders for low levels of management ownership, and entrenchment for higher levels of management ownership. Also for converting thrifts, Boyle, Carter and Stover (1998) find that at low levels of management ownership, ownership is negatively related to anti-takeover provision, while at higher levels of insider ownership, the relationship fades. The authors equate their findings with insider entrenchment. Aharony, Falk and Lin (1996) show that firm value and insider ownership in mutual to stock conversion are negatively related, which similarly supports an entrenchment interpretation.

For commercial banks, Hirschey (1999) argues that a number of empirical results regarding management ownership are actually due to size, since large fraction of insider ownership are predominantly observed in small banks. Nonetheless, DeYoung, Spong and Sullivan (2001) study only small commercial banks to conclude that – once the decision to hire an outside manager has been made – success depends vitally on the provision of incentives related to firm success, and that management ownership stakes are an important element of such success.

In a nutshell, the articles examining ownership stakes of bank managers in a corporate governance setting mirror the insights gained in the wider debate over management ownership: Morck, Shleifer and Vishny (1988) found both incentive (at low levels of management ownership) as well as entrenchment effects (at higher levels of management ownership). More recently, however, Himmelberg, Hubbard and Palia (1999) have argued that management ownership is an endogenous variable, making the performance effects of management ownership stakes much harder to identify.

2.1.4 Management compensation

Next to examining insider ownership, management compensation structure is an obvious mechanism to align shareholder and manager interests. Hubbard and Palia (1995) examine US states with and without takeover restrictions to find that states permitting interstate banking feature banks that pay higher overall bank CEO remunerations which at the same time are more sensitive to bank performance. They also observe higher CEO turnover in such States. They interpret the results as consistent with a managerial talent market thriving in a less regulated environment. However, Ang, Lauterbach and Schreiber (2002) find that the level of CEO remuneration as well as the pay-performance sensitivity are influenced by bank size. Since banks in States with takeover restrictions should usually be smaller, it is not clear what drives the results by Hubbard and Palia.

Bliss and Rosen (2001) examined managers of acquiring banks enjoying different levels of stock-based compensation to find that those with more incentive related pay were less likely to engage in value reducing mergers. As in Ang, Lauterbach and Schreiber (2002), the level of pay typically increased in the merged institution. This result is also supported by Anderson, Becher and Campbell (2001), who examine compensation changes of bank CEO's after acquisitions, and demonstrate that compensations packages increase in total merger gains realized upon announcement, suggesting that CEO compensation is related to (anticipated) productivity rather than size. Similarly, Barro and Barro (1990) document in a non-merger related setting: that growth in pay for bank executives equals growth in expected marginal product, and that CEO pay is not shielded from aggregate risks. Also CEO turnover is linked to performance, even at age 65.

Thus, the recent literature on compensation of bank CEO's supports the notion that the pay packages correctly incentivize bank managers. Only Hermalin and Wallace (2001) show that CEO compensation contracts in S&L's are complex, and that they cannot easily be related to current compensation theories.

This literature on bank CEO compensation must be related to the literature on CEO compensation in general, where a greater array of problems has been unearthed over and above potential incentive alignment effects. In that literature, it has been argued that actual CEO compensation packages may not address the problem they should solve[63], and that compensation packages lend

[63] Yermack (1995) finds his evidence inconsistent with the notion that actual CEO pay packages are explained by agency considerations.

themselves to *ex post* rent-seeking[64]. Recently, Bebchuk, Fried and Walker (2001) claim that CEO compensation structures observed in the US are better explained by *ex ante* CEO rent-seeking (at the expense of shareholders) rather than theories on contracting incentives.

Thus, bank CEO pay must be treated as an issue open for further research: on the one hand, the existing evidence has not yet systematically examined potentials for abuse in bank compensation structures[65]. On the other hand, some potential for abuse may have been successfully curtailed by bank regulators, in which case bank compensation contracts may actually be less problematic than those found in industry.

2.1.5 Ownership and Board Structure

It is well-developed in the general corporate governance literature that ownership structure is important for corporate performance. Elements of the discussion include the general dispersion of shares[66], or the existence of blockholders[67] and institutional investors[68]. Governance issues related to the ownership of financial institutions have been most actively discussed in the context of alternative organizational forms, most notably mutual or stock organization.

2.1.5.1 Mutuals and stockholder-owned financial institutions

The existence of different organizational forms within the same regulated industry provides the researcher with a natural experiment from which to draw policy conclusions. Thus, there are a number of studies examining the relative merits of organizational form typically at the example of US Savings and Loans.

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[64] Yermack (1997) documents that managers use their inside information to time option awards. Brenner, Sundaram, and Yermack (2000) find that strike price resetting of such options correlates with conflicts of interests on the respective boards compensation committees: "A stronger version of this claim is that managers use their power over corporate governance to appropriate wealth from stockholders in various forms, including resetting" (p. 123).

[65] Although the evidence presented by Angbazo and Narayanan (1997) could potentially be reinterpreted in this way.

[66] Demsetz and Lehn (1985) did not find a significant relationship between ownership dispersion and long-term firm performance.

[67] Denis, Denis and Sarin (1997).

[68] The performance effects of institutional ownership are currently debated in the literature. Lately, Duggal and Millar (1999) have argued that institutional ownership itself may be endogenous.

Early on, mutuals were deemed to suffer from governance defects due to their ownership structure[69]. Akella and Greenbaum (1988) argued that the greater diffusion of ownership in mutual S&L's would lead to more pronounced expense preference behavior of managers in mutual vs. stock owned institutions. Yet, an early test of this proposition by Mester (1989) could not support expense preference behavior in either institutional form. Later, Mester (1993) examined the relative cost efficiency of mutual and stock S&L's to find that stock S&L's were on average actually less efficient than mutuals.

Next to cost efficiency, the comparative performance of mutual and stock S&L's is a fruitful avenue to research the relative merits of organizational structures. Here, Cole and Mehran (1998) support the notion against financial mutuals by demonstrating that those institutions that convert from mutual to stock S&L's, performance is improving significantly. A caveat of such findings is that the conversion decision is potentially endogenous for technology or regulatory reasons[70], which would cloud the inference that organizational form is responsible for the observed performance improvements. Nonetheless, Cole and Mehran (1998) also find that the change in management ownership is positively correlated with the post-conversion change in performance, which supports a positive governance role for management ownership stakes in this setting, and stands in contrast to the above findings by Aharony, Falk and Lin (1996).

The evidence from the UK, however, stands in contradiction to the notion that financial mutuals are outperformed by stock banks[71]. Valnek (1999) finds that UK stock retail banks have been outperformed by mutual building societies in his data set, and traces the advantages of the mutual form to the union of depositor and owner roles, an issue we shall return to further down below. Similarly, Ferri, Masciandaro and Messori (2001) found savings banks in Italy to have been outperformed by cooperative and mutual banks, although savings banks in Italy have their own governance problems due to public ownership exercised through bank foundations[72].

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[69] Deshmukh, Greenbaum and Thakor (1982).

[70] Masulis (1987) has argued that technology and regulatory changes have eroded some of the competitive advantages of mutuals, leading to increased volumes of conversions.

[71] Altunbas, Evans and Molyneux (2001) present evidence that also in Germany, privately owned banks are not more efficient than mutuals or publicly owned savings banks. See also Kregel (1997).

[72] See also Bruzzone (1997).

The implications of organizational form can also be examined in the context of mergers, which were argued above to carry far less of a corporate governance interpretation for mutuals than for stock banks. Yet, Llewellyn and Holmes (1991) have examined the governance of mutuals versus PLC financial institutions paying particular attention to the takeover market as a governance institution. They conclude that the evidence of actual experiences in the takeover market suggests that they may not be suitable for a textbook corporate governance role[73]. Most importantly, they argue that competition in the product markets is the most successful disciplining device in either corporate form. Thus, they soundly reject the notion that mutuals should be forced to convert to PLC's based on the suspicion of a governance problem due to the lack of a market for corporate control motivated by their ownership structure.

The preceding discussion supports the contention that the ownership characteristics of mutual versus stock financial institutions may not only be interpreted in a traditional corporate governance paradigm. Rasmussen (1988) argues that mutual managers have an incentive to reduce risks in order to protect a high income over a lifetime. They cannot gain from risk-reward combinations due to regulatory restrictions on their income. Thus, their safe strategy may appeal to risk-averse depositors. Davis (2001) argues that the one-shareholder-one-vote rule has helped protect this corporate form despite a generational conflict, where "old" owners have an incentive to cash in on the accumulated surplus in a mutual by going public. It will be further discussed below, in how far banks organized as mutuals may answer regulator concerns at the potential expense of shareholder interests.

2.1.5.2 Institutional ownership

The interest of a governance role for institutional investors such as CalPERS or TIAA-CREF, which has by now a track record in the general corporate governance literature, has not been spilled over to the literature on institutional investors' role in the governance of banks. Ely and Song (2000) find that bidders in bank takeovers seem to engage in wealth maximization as long as the institution had a significant blockholder, who may have performed a meaningful monitoring role. Even these scant results may, however, be called into doubt by the results of Becher and Swisher (2001), who claim that institutional investors can identify "winners" early, and significantly increase their holdings in such firms before takeover announcements. Then, the

[73] This complements the findings by Franks and Mayer (1996) for the governance role of takeovers in the UK in general. See also above.

identity of large blockholders may at least be to some extent endogenous to successful merger decisions.

2.1.5.3 Boards of Directors of financial institutions

The survey by John and Senbet (1998) on board effectiveness from a finance perspective may serve as evidence for a keen interest in the workings of internal oversight, which has also found some response in banking. In a seminal contribution, Brickley and James (1987) claim that if states do not allow takeovers as a disciplining device, internal oversight through a board of directors should compensate for the lack of an external governance mechanism. Evidence was provided by examining banks in States with and without takeover restrictions in banking, but the substitution theory finds only weak support. Yet, in keeping with the discussion of the paper by Hubbard and Palia (1995) above, the results may be driven by a size effect: banks in States with takeover restrictions cannot grow as efficiently. Thus, the results by Brickley and James may in part reflect the inadequacy of a governance interpretation of State takeover regulations in banking.

Pi and Timme (1993) find bank performance and cost efficiency only related to the issue of identity of CEO and Chairman of the Board. Large institutional and blockholder ownership, as well as the proportion of outside directors do not seem to be relevant to performance. Angbazo and Narayanan (1997) find that boards with more outsiders are more likely to award bank CEO's with long-term incentives in the form of stocks and stock options. This is especially true for managers that are more entrenched. Whether this is a sign of a positive role of a board versus weak boards in the presence of rent-seeking managers may be subject to interpretation. Also, there may again be a size effect in the background, since large institutions are more likely to have outsiders on the board, and also are more accustomed to award incentive related pay structures.

Whidbee (1997) confirms that outside shareholders are more likely to gain board seats when their relative shares increase. Subrahmanyam, Rangan and Rosenstein (1997) then show that *bidder* abnormal returns in bank acquisitions are positively related to the proportion of ownership held by outside directors, but only with high levels of inside ownership. They are negatively related to the proportion of outside directors: does only their financial interest motivate them to perform a meaningful monitoring role?

Brook, Hendershott and Lee (2000) find that the only role of outside directors in merger *targets* may be to convince management to accept an attractive

offer. More recently, Byrd, Fraser, Lee and Williams (2001) find that S&L survival in the 1980's correlated with both a greater proportion of independent directors as well as better CEO compensation in terms of dollars of assets managed. Thus, their findings reserve a positive role for outside board members in the S&L experience. However, as noted above, size related pay is commonly observed across firms, and may indicate that the results stand for some other – more hidden – relationship.

In support of a positive role for boards in bank governance are only the findings regarding S&L survival, although even there it is possible that the prevalence of outside board members may proxy for other variables that are providing a more direct link to firm survival[74]. A study linking long-term bank performance to board characteristics has not yet been conducted, but the results from industrial firms are not encouraging[75].

The literature on the more direct governance mechanisms through ownership and boards of directors is not unanimous. The largest part of that literature has compared mutual and stock institutions, and has delivered mixed results. Most notably, it seems that the governance consequences of the ownership structure in mutuals may not be the only element characteristic for their performance. The (very thin) evidence on institutional and blockholdings in banks is not pointing unequivocally to a strong force in governance either. Regarding boards of directors, the evidence suggests that a positive role for outsiders can be attested only during the S&L crisis. Yet, if this result holds up, it may not be underestimated, since prevention of bankruptcy seems to be a larger achievement than the marginal increase in returns on investment. It may point to an insight already gained in the general governance literature[76]: that the governance role of the board becomes relevant mostly in times of distress.

2.1.6 Management Turnover

A general question at the end of this section is then, whether management turnover is related to performance at all. If it would not be, it would point to

[74] For example, in a CEO dominated board, outside membership may be endogenous to performance.

[75] Fosberg (1989) and Hermalin and Weisbach (1991).

[76] Vafeas (1999) documents that the frequency of board meetings increases with deteriorating performance as measured by share price declines.

a general governance failure. However, the early evidence provided by Barro and Barro (1990) demonstrated that performance was highly correlated with management turnover in banks. Recently, also Hayes, Oyer and Schaefer (2001) have examined performance links of management turnover, but with some troubling undertones. It was, for example, found that in poorly performing banks and thrifts turnover among non-CEO executives was more sensitive to firm performance than turnover of CEOs. However, when performance is worse, the likelihood that the whole management team will be exchanged by a new CEO is increased. Thus, due to whatever reasons, there is a governance mechanism that holds managements of financial institutions accountable, but it is not clear whether a single mechanism can be isolated as effecting management accountability. It is not even clear whether it is necessarily shareholders who – in one form or another – seek to defend their interests versus a financial institution by replacing management teams. In a seminal contribution, Prowse (1997a) has documented that – while total control changes in the sample are similar to the experience reported by Morck, Shleifer and Vishny (1988) – half of the control changes in US bank holding companies were initiated by regulators, not shareholders.

However, the careful analysis by Ferri (1997) reminds us that management turnover is not necessarily a signal of quality. In a sample of small and large Italian banks, he observed that banks with higher *branch* management turnover had larger amounts of non-performing loans, that large banks had higher management turnover, that banks with higher management turnover had less concentrated customer relationships, and that customers of banks with high turnover were more likely to have multiple banking relationships. Ferri explains the difference between large and small banks such that in large banks, headquarters may have an agency problem with branch managers when they have too much of an information superiority. Then, large banks strike a compromise between the beneficial effects of information on the lending relationship with clients, and detrimental effects due to the internal agency problem. This mechanism would grant some competitive advantage to small banks at the local level[77]. It also supports the notion voiced in section 1.2. that there is a cost to overly frequent management transition.

[77] Of course, as Berger et al. (2002) would argue, it is entirely plausible that the competitive advantage at the local level is due to small institutions being better at processing 'soft' information, which is required in small firm lending. Then, Ferri's results can be interpreted such that headquarters do not understand the deficiencies of their own structure form small business lending, they end up with less loyal customers, and the subsequent problems with non-performing loans trigger management turnover.

2.1.7 Conclusions on the shareholder-manager conflict in banking

The literature on the governance of the banking firm as presented above can be summarized as follows: the takeover markets, viewed as a cornerstone of a market system of corporate governance are likely to be overrated as a governance mechanism. Rather, banks natural access to funds favors a free cash flow interpretation of many mergers. In particular, it is argued above that the regulatory interest in mergers to effect necessary consolidation in banking should be more closely examined.

The results on managerial share ownership were shown to parallel those found in governance studies of industrial firms: ownership can have both positive incentive as well as negative entrenchment effects. However, the literature is only beginning to wake up to the challenges of the potential endogeneity of management shares, leaving many previous results tentative.

Management compensation structures in banking are viewed largely as beneficial in the interest of owners. What is lacking at this point is a more detailed analysis of the potential abuses of managerial pay packages as has been documented at various points in studies of industrial firms. Yet, there is a distinct possibility that the results in banking may be different from those found in industry since regulators may carefully monitor bank compensation practices.

Studies examining the ownership structure of banks have yielded fruitful results from an unexpected angle: financial mutuals do not seem to be disadvantaged vis-à-vis their stock-owned competitors. We are going to elaborate on the favorable regulatory dimension of financial cooperatives below. Here it is worth noting that they do not seem to suffer from a performance deficit. With respect to monitoring performed by a large blockholder, their influence becomes more significant when they also hold board seats. However, the beneficial effects of outsiders on a bank's board has only unequivocably been demonstrated for poorly performing S&L's, who were less likely to go bankrupt when outsiders were on the board. A comparison with boardroom practice in industry[78] reveals that – if at all – the boardroom is only used as a monitoring institution in times of distress.

A concern with a number of studies cited in this section is the potential for size to be related to a number of governance issues. Small banks are more

[78] Demb and Neubauer (1992).

likely targets of (frivolous?) takeover attempts, but are also more likely to be controlled by owner-managers that resist such takeovers, hence leaving the impression of entrenchment. Small banks are less likely to use performance related pay schedules, but it has not been researched, whether this is compensated for by increased management share ownership. Small – insider dominated – banks would be less likely to attract institutional investors, and are less likely to have an outsider dominated board. Small banks are, however, more likely to be organized as cooperatives. The governance infrastructure in small banks is likely to be different from that in large banks just as the governance infrastructure in small firms generally is different from large firms in industry[79]. It seems that the difference is rather one of observability: due to the public interest, more is known on the structure of small banks than of small firms, especially when they are closely held.

It may thus be true that small banks should be treated conceptually different from large banks. We shall return to this issue in the policy discussion in chapter three.

2.2 Banks and Regulators

Shareholders have a vital stake in the performance of the financial firms they have invested in, but are by no means alone in their desire to control the fate of the institution. A competing interest was derived above for creditors of the banking firm – depositors.

The purpose of this section is to survey the empirical literature on bank regulation in order to gain an understanding on the validity of the various theoretical arguments reviewed or derived above, and whether the prescriptions for regulatory behavior are accurate. In the end, this should further our understanding on the actual nature of regulatory policy versus banks and their managers.

2.2.1 Asset illiquidity and information opacity of bank balance sheets

The first – and arguably most important – step in this direction is to verify that bank loans are indeed illiquid, and that therefore – as Calomiris (1999,

[79] Compare Harm (1992a) and Harm (1992b).

p.1502) states – "the lack of clear information about bank asset values ... are intrinsic to the function of the bank"[80]. Such evidence is likely to be inferred indirectly from the behavior of market participants that information about banks is different from information about industrial firms.

Among the papers allowing an inference on this topic, Slovin, Sushka and Polonchek (1991) show that the markets react negatively to the news of sale-and-lease-back agreements or asset divestitures by US Bank Holding Companies. In industry, this is typically viewed positively by the markets as a start of a necessary restructuring, and provides evidence of the managerial will to go through with it. In banking, it is more likely that such sales are seen as a signal about the true state of the financial institution, and thus represents a negative signal. This interpretation can only be carried, if bank financial statements are opaque due to the nature of their business.

Studying a sample of 393 bank IPO's from 1983 to 1991, Houge and Loughran (1999) found these IPO's to lag various benchmarks. In particular, the poor performance is concentrated in larger institutions with aggressive loan growth. Since loan growth is easily observable, but loan performance is not, investors may have overestimated bank value at the time of the IPO by focusing on loan growth. Again, such interpretation of the data can only be carried if bank asset values are opaque. There is thus some evidence to support the notion regarding the illiquidity of bank loans.

A caveat not to carry this interpretation too far, however, is provided among others by Thomas (2001), who examines securitized loans in the USA, which now stand at roughly $2.5 trillion. This is highly significant when judged against the total assets of all US banks of approximately $5 trillion. A large part of the securitized loans manages to be traded without government subsidies, implying that commercial banking has developed features similar to investment banking. Then, the large volume of loans sold in securitization bears witness to the fact that a large fraction of bank loans must be more liquid than theory presumes[81].

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[80] Goodhart (1988, p.104): "... the key feature of banking, which leads to its vulnerability, is its function of providing fixed nominal value loans to borrowers, where information costs make it impossible to observe the actual outcome of the project, for which the loan was sought, at all accurately. This characteristic . makes the "true" market value of banks' assets uncertain – indeed not strictly calculable – which both raises the risk of runs and makes bank supervision, and support, more necessary and more difficult."

[81] As a caveat, Rule (2001) reasons that the banking system remains the ultimate party exposed to risks associated with securitized loans. See also The Economist (Feb. 9-15 2002, p.61).

A similar – albeit weaker – case can be made with respect to syndicated loans, for which Dennis and Mullineaux (2000) report a stock in excess of $1 trillion in 1997. The authors trace syndication not only to borrower transparency, but also to the reputation of the syndicate leader, suggesting that such reputation effects may overcome problems of asset illiquidity[82]. Still, the authors confirm that the salability of debt claims remains related to information and potential agency problems so that the main working hypothesis for the theory of the banking firm remains largely intact, at least for the assets that remain on the banks' books.

2.2.2 Contagion after bank failures

A second necessary prerequisite for the regulation of banks is some evidence that a single bank panic may indeed spread to other institutions and lead to an economy-wide credit crunch with all crippling side-effects. Indeed, the survey by Kaufman (1994) commences by citing leading US bank regulators defending regulation primarily with reference to contagion in banking crises.

Early evidence by Pettway (1976), and Aharony and Swary (1983) seemed to support this notion. The survey by Kaufman (1994) demonstrated, however, that the issue of bank contagion and systemic risk could be seen in two different lights. For one thing, depositors can run indiscriminately on other banks when they see one failure. This would be irrational contagion. Then again, the failure of one bank may merely be a signal for the survival probability of others, in which case contagion should be the more likely, the more similar the institution to the failed bank. This would be rational (or informational) contagion. Kaufman (1994) interprets much of the literature on the topic as consistent with the latter, i.e. bank-specific rather than industry-wide runs.

Such insights are typically gained by examining the impact of isolated bank failures on prices (equity returns, deposit or interbank rates, or subordinated debt yields) or quantity adjustments (deposit migration). However, for the Pre-FDIC era, Saunders and Wilson (1996) found similar deposit losses in banks that later failed or survived, pointing at industry-wide contagion. Kaufman's blames currency runs triggering systemic bank runs, and the recent insights on twin crises[83] would add credence to this view.

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[82] See also Harm (2001).

[83] Kaminsky and Reinhardt (1999).

The recent literature on bank contagion has further solidified Kaufman's conclusions. Lately, Aharony and Swary (1996) showed that contagion effects are more severe for more proximate, larger, and less capitalized banks. The geographic contagion effect is hypothesized by theoretical arguments in Temzelides (1997), and has also been verified for small financial institutions in Colorado and Kansas[84]. Geographic proximity may proxy for similar risk exposure, and runs are thereby informed rather than irrational. Slovin, Sushka and Polonchek (1999) analyzed the impact of dividend reductions at commercial banks to find that contagion-type reactions were restricted to large money center banks, while in smaller regional banks positive competitive effects were found in rival institutions. These results are replicated by Bessler and Nohel (2000), who interpret them as consistent with informed rather than irrational runs. Also the study by Jordan et al. (2000) examines market reactions to the announcement of formal supervisory action to conclude that contagious effect are merely based on improved information.

Akhigbe and Madura (2001) support the existence of contagion effects for a larger sample involving smaller bank failures, where smaller and less capitalized rivals experience more severe contagion effects. Interestingly, the passage of FIRREA has reduced the contagious effects, indicating that regulation does play a role in limiting contagion after bank failures. Whether this is good (more depositor protection) or bad (less market discipline for banks) may lie in the eye of the beholder.

Importantly, the work on bank contagion indirectly supports the information opacity hypothesis of bank financial statements. However, the diagnosis of rational, bank-specific contagion is no consolation to the regulator. The recent experience in Japan is systemic, and alerts to a need for regulation. Yet, the Japanese experience also points at the pitfalls of the government safety net: when depositors do not run, and regulators do not close banks, inefficient or even insolvent banks are de facto allowed to continue operations. Kaufman (1994, p.138) argues that some Pre-FDIC bank runs actually led to the efficient closure of unsound institutions with lower overall losses. If runs are contained, they have a positive disciplinary element, and this may enhance aggregate welfare. Yet, runs typically have a negative distributional element, which reintroduces the government via the public choice mechanism.

[84] Hendrickson (2000).

2.2.3 The safety net

If we take the opacity of bank financial information and the problem of contagion of bank runs as given, a role for some type of safety net is established[85]. The two most commonly mentioned mechanisms are a deposit insurance, which eliminates the necessity for depositors to run in times of trouble, and a lender of last resort, who can provide liquidity once a bank run has commenced[86]. In the latter case, depositors would see that there is no need for liquidating their balances, and they will be re-deposited. Inasmuch as they are not, however, the cost of such a bail-out is born via the inflation mechanism. Bail-out via a public deposit insurance scheme – if it becomes necessary – is paid for through the fiscal budget, and there is – if at all – more indirect link to inflationary pressures.

Goodhart (1988) argues that "Clearinghouses", banks which attract a large share of overall interbank deposits, emerge naturally in a banking sector as those institutions, which have earned the highest esteem for prudent management from their peers. Yet, the provision of services to potential competitor banks is exposing a conflict of interest inside the clearinghouse, which is best overcome by allocating the function to a centralized, non-profit organization, which does not compete with other banks[87]. Such institution could then provide services, including the provision of liquidity to troubled institutions in order to avert contagious runs. An additional safety feature would be an insurance scheme for bank deposits, which Goodhart (1988, Ch. 6) argues should also be run by the public sector for credibility reasons[88].

Kahn and Santos (2001) address the issue of shared responsibility between deposit insurer and lender-of-last-resort to argue that bank monitoring and closure authority should rest with the insurer, while loans provided by the LOLR should be junior to all other claims except bank equity. Indeed, Mason (2001) attributes some bank failures in the 1930's on the policy of the Reconstruction Finance Corporation to subordinate depositor and investor

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[85] Goodhart (1988, p.77): "... experience suggested that competitive pressures in a milieu of limited information (and, thence, contagion risk) would lead to procyclical fluctuations punctuated by banking panics. It was this experience that led to the formation of non-competitive, non-profit-maximizing Central Banks."

[86] See Dale (2000) for a survey of the theory and practice of deposit insurance, and Bruni and de Boissieu (2000) for a discussion of Lender-of-last-resort issues in the Eurozone.

[87] Similarly Goodhart and Schoenmaker (1995).

[88] Every insurance scheme is finally limited, while the taxation or inflation power of the government is theoretically unlimited.

interests. Garcia (2000) reviews international evidence and experience with deposit insurance schemes to advocate an explicit albeit limited deposit insurance scheme embedded in a system with a functioning LOLR and strong regulators and supervisors.

A major issue in the empirical literature is to determine, whether deposit insurance or LLR liquidity guarantees indeed induce banks to shift their asset portfolio to higher risks[89]. Early on, it was clear that this line of literature would be plagued by measurement problems[90]. Brickley and James (1986) demonstrated that stock returns are an insufficient means to identify asset risk, since modified insolvency rules as defined by the S&L regulators have reduced the correlation between stock returns and S&L asset risks.

Looking at S&L asset portfolios, Brewer, Jackson and Mondschean (1996) found possible evidence that additional diversification opportunities were used to shift risks by at least some S&L's who were not specialized in real estate. Conversely, Akhigbe and Whyte (2001) showed that the passage of the FDIC Improvement Act of 1991 significantly reduced bank risk, especially for larger institutions with lower capitalization and higher credit risks on their books. This would be consistent with undesirable risk shifting under the previous, more lenient regulatory environment. Hovakimian and Kane (2000) found risk-shifting activities in banks with low capital and low debt to deposit ratios, i.e. those with more limited outsider monitoring. The authors could also document improving conditions after regulatory tightening in 1991.

However, a long-term study by Saunders and Wilson (1999) could not identify significant risk shifts in banks between 1893 and 1992. This is rather significant, since in the 1890's, banks were well capitalized and often did not enjoy limited liability for owners, but double liability, where owners had to secure the paid-in capital twice over[91]. As a corollary, double liability may serve as proof that legislators were already concerned with bank risk before

[89] Freixas, Giannini, Hoggarth and Soussa (2000) argue that the lender of last resort provokes moral hazard when bailing out individual banks, but that it can be contained through making access to liquidity costly and uncertain. Martin (2001) claims that – unlike deposit insurance – LOLR intervention can be structured through Central Bank repurchase policy such as to eliminate all moral hazard.

[90] Goodhart (1988, p.79): "There is no objective, and widely agreed, means of assessing risk".

[91] Esty (1998) finds that increased owner liability of banks reduces risk-taking in these institutions, which is consistent with the findings presented by Saunders and Wilson (1999) for that time period. See also Grossman (2001), who finds that banks operating in States with double liability rules were less risky, but that these rules could not guarantee bank stability in times of widespread financial distress.

the advent of deposit insurance. Still, the introduction of limited liability coupled with mispriced deposit insurance could then lead to more perverse incentives for bank managers. Saunders and Wilson (1999) find that asset risk choices made by banks in the 1980's are comparable to those made in the 1890's, and that bank capital ratios are as sensitive to asset risk then as now. The results are interpreted with reference to residual market discipline as well as the possibility of regulatory moral suasion. The latter point is supported by DeYoung, Hughes and Moon (2001), who claim that regulators can distinguish between 'efficient' risk shifts, which promise higher returns, and 'inefficient' ones, which only exploit the regulatory externality. They claim that the former banks are given significantly more latitude in their investment strategies than the latter banks.

Looking at a sample of European banks, Gropp and Vesala (2001) find that the introduction of explicit deposit insurance actually reduced bank risk taking. Their interpretation, however, is that banks were previously betting on implicit insurance guarantees by the public sector, and that the introduction of explicit insurance *de facto* reduced the extent of guarantees. In the light of the findings by Saunders and Wilson (1999), however, their results may also be interpreted as a rather weak link from the deposit insurance externality to bank risk-taking behavior.

Hence, either the incentives to engage in risk-shifting are at times overestimated, or regulatory policies may compensate for inefficient incentives. The former point is supported by the theoretical work by Niinimäki (2001), who claims that risk-shifting incentives are mitigated if bank loan portfolios consist of overlapping long-term loans. The latter point would be supported by DeYoung, Hughes and Moon (2001).

The reason why the literature persistently connects deposit insurance to risk-shifting incentives lies most certainly in studies of the mechanics of banking crises, not in the least the US S&L debacle. The analysis by Kane (1989, 1992) reserved a prominent role for the deposit insurance externality in explaining the S&L crisis. Brewer (1995) found positive stock value effects in S&L's conducting risk increasing asset shifts. Knopf and Teall (1996) find less S&L risk-taking in the post-FIRREA period, which is also supported by the results of Cebenoyan, Cooperman and Register (1999). Both studies support the notion that tightening regulatory standards tend to curb the excesses, but that excesses were observed.

Looking at the developing world, Calomiris (1999) supports his concerns regarding deposit insurance with case studies from Chile, Venezuela and Mexico. Demirgüc-Kunt and Detriagache (2001) find that deposit insurance variables scored significant in regressions that predict financial crises. However, countries with developed governance institutions were able to compensate the negative effects of deposit insurance. This would be consistent with the claim by DeYoung, Hughes and Moon (2001) that US regulators "know what they are doing". Thus, in the end problems with deposit insurance may more likely be concentrated in developing economies. This in turn could indicate political economy considerations that are beyond the scope of this paper[92].

It is certainly risky to deny that deposit insurance has no effect on bank risk-seeking at all. Yet, the identification of risk-shifts faces measurement problems due to bank financial statement opacity, while the issue of *implicit* government guarantees makes it harder to measure the effect of *explicit* schemes. Also, it seems fair to say that deposit insurance *alone* may not be sufficient to induce risk-shifting behavior on the side of banks. It also takes an existing crisis, an excessively lax regulatory environment, or both.

2.2.4 Bank charter value

The charter value of financial institutions has often been mentioned as a market substitute for regulatory efforts. Bhattacharya, Boot and Thakor (1998) explain charter value to be a rent stream associated with the mere 'existence' of a bank. Since default or closure is terminating the rent-stream, banks with significant charter values may behave more cautiously than others[93]. This would be consistent with the notion that risk shifting occurs especially in times of financial distress rather than due to deposit insurance incentives alone. During times of financial crisis, charter values tend to be lowest.

Humphrey and Pulley (1997) showed that interest rate deregulation in the early 1980's suppressed profitability of financial institutions for a decade,

[92] This is also consistent with the assessment by Garcia (2000): "A well-designed deposit insurance system, supported by effective bank supervision and a modern legal and accounting infrastructure, can promote financial integrity: unfortunately, a poorly designed system can detract from it."

[93] More precisely, as in Kreps and Wilson (1982b), threat of termination of a rent stream induces less deviant behavior that supports the development of a reputation.

which implies lower charter values. As a response, banks engaged not only in cost savings, but also in higher risk and return investments, which is consistent with risk-shifting incentives due to lower charter values. Nonetheless, some less than competitive market structures were identified, which would preserve some charter value. A similar analysis was conducted by Keeley (1990), who found declining charter values with increasing competition, followed by decreased capital ratios and increased risk. Brewer (1995) demonstrated that stock returns of low capitalized S&L's increased when asset risk was increased, which was not the case for well-capitalized S&L's. Galloway, Lee and Roden (1997) examined bank behavior between 1974 to 1994 to demonstrate that banks with high charter values did not change risk-taking behavior over the sample period, but low charter value banks assumed significantly more risk beginning in 1983, a behavior that continued into the early 1990's, when – according to Humphrey and Pulley (1997) – bank profitability was restored.

These studies together suggest that bank risk-taking incentives are reduced with increasing charter value. This, however, was put in perspective in a study by Saunders and Wilson (2001), who argued that there is also an inverse causality from bank risk to charter value. They find that high charter values lead to increased capital during expansion times, but that the relationship reverses during economic contractions. Economic conditions may then be the exogenous force behind loan portfolio risk.

The results on the effects of charter value seem rather consistent to suggest that risk-taking is more desirable in financial distress situations. However, Berger and Hannan (1998) warn against taking this as an opportunity to return to a bank regulation philosophy that grants institutions a sheltered life in order to induce risk averse bank policies[94]. They determine the main costs of such policy not necessarily in the welfare loss inherent in all anti-competitive measures, but in the X-inefficiencies associated with a 'sheltered life'[95]. Thus, charter value may continue to be a welcome byproduct of successful financial institutions. It may be less suitable as an element of the regulatory objective function. Regulators then need other powers at their disposal.

[94] Teranishi (1997) describes the Japanese regulatory principle of the "convoy system" precisely in these terms.

[95] Hicks (1935 p.8): "The best of all monopoly profits is a quiet life."

2.2.5 Closure, forbearance and resolution

In order for regulatory rules to be binding, regulators must be able to close those banks that have failed. There are important issues associated with efficient closure. An expectation on the side of banks that closure is an empty threat increases the moral hazard problem. At the same time, the resolution process should be structured such that more bank wealth is preserved.

As to the issue of closure, Cebenoyan, Cooperman and Register (1993) demonstrated that measured X-efficiency scores have predictive value for future closure of both mutual and stock S&L's. Closure, however, is only a 0-1 variable, and the regulator bears responsibility to define a process that minimizes frictions and tax payer losses. With opaque bank assets, this can be a problem, which was confirmed by Barth, Bartholomew and Bradley (1990), who found that tangible net worth significantly understates market net worth – a problem related to asset illiquidity in banks.

Asset illiquidity can create potential costs in the resolution process, which accrue to the tax payer. One solution in the Pre-FIRREA period was observed by Fraser and Zhang (1997): package bidding – the practice of packaging failed depositary institutions – was an innovation to reduce the total cost to the tax payer. This may be evidence that individual thrifts could not diversify optimally due to geographical limitations, but it may also be simply a way to overcome the lemons problem by lumping assets together indiscriminately. Also Pre-FIRREA, Guo (1999) showed that forbearance was a reality in thrift resolutions, and that also personal and political factors influenced such timing. Hence, the signals emanating from that process were not incentive compatible.

On the whole, the literature agrees that thrift resolution changed for the better with the passage of FIRREA in 1989 and the creation of the Resolution Trust Corporation. Gardner and Stover (1998) find some improvement in a shift to a process structured like a private value auction. Gupta, LeCompte and Misra (1997a) find no significant acquirer gains in RTC assisted takeovers, which could not be shown for the previous period. However, Varaiya and Ely (1997) document resolution delays resulting ultimately in higher resolution costs. Also Kaufman and Seelig (2001) address the issue of losses incurred due to delays in resolution.

In all, the articles presented here suggest that there most certainly are frictions associated with bank closures, but that these can be somewhat mitigated

through appropriate regulatory oversight. Interestingly, Kaufman (1994, p.138) suggests that the resolution of failed banks, despite problems of forbearance and asset illiquidity, was comparatively more efficient than comparable procedures of non-banks in Chapter 11: creditors recovered more money in less time. One interpretation of this evidence is that regulatory closure is invoked in a more timely manner than Chapter 11, an issue we shall return to. Yet, the true objective of the regulator is not to effect efficient auctions of failed institutions, but to avoid closing institutions in the first place.

2.2.6 Bank capital regulation

Once the state has assumed a fiduciary duty for the safety of bank deposits, it has absorbed the incentive structure of debt governance, which leads to the creation of a regulatory body as described in chapter one. One of the ways to reduce the likelihood of financial problems that could endanger the safety of deposits is to require banks to improve on their capitalization, thereby lowering the chance of default.

The issue of bank capitalization has been reviewed extensively by Berger, Herring and Szegö (1995), who start their inquiry from a Corporate Finance perspective to ask, why regulatory capital requirements may differ – be more stringent than – market-generated capital requirements. After considering 'the usual suspects'[96] for why there may be an optimal capital structure also for banks, they identify the safety net – especially mispriced deposit insurance – as a primary motivation for regulators to demand more banks capital than the market would.

A first question addressed in the literature is, whether regulatory capital requirements are in fact higher than market requirements, i.e. they are binding. In an early empirical study, Shome, Smith and Heggestad (1986) examine bank holding companies between 1974 and 1983 to find that capital constraints are not binding, since they estimate that banks were not forced to hold more than shareholder value maximizing amounts of equity. Yet, Cooper, Kolari and Wagster (1991) find that announcements of risk based capital adequacy rules in the 1980's were generally associated with bank stock declines. This would indicate that the market expects banks to have to raise more capital after the rule changes. Thus, capital regulation would have been

[96] Taxes, Bankruptcy costs, asymmetric information, transactions costs.

binding in US, Canadian and UK banks. This is also the conclusion in the study performed by Wall and Peterson (1995): for large bank holding companies in the early 1990's, bank capital requirements were often binding.

Even though regulators may achieve their primary goal of improved capitalization, the issue of overall bank risk may not be resolved through this measure. Berger, Herring and Szegö (1995) identify 'unintended consequences' of higher capital requirements, since banks may opt for a more risky portfolio instead. Park (1997) models regulatory monitoring and bank asset choices. A higher capital requirement is found to induce banks to incur higher asset risk. Similarly, Blum (1999) argues that – since risk tends to increase expected returns – higher capital requirements would increase the opportunity costs of equity, and induce riskier investments that way. Calem and Rob (1999) argue the case for a U-shaped function between capital and risk-taking. Thus, there is a possibility for a counterproductive element in bank capital regulation.

Hovakimian and Kane (2000) examine risk-shifting incentives in US banks from 1985 to 1994 to conclude that low capitalized banks engaged in more risk-shifting activities than others, and that a 1991 legislation package improved on the situation, while still not establishing full regulatory control over banks' risk shifting incentives. Also Dahl and Spivey (1996), who look at equity issues of banks, interpret their results as consistent with a potential nonviability of low capitalized banks.

Aggarwal and Jacques (2001) support the positive impact of the FDICIA by demonstrating that subsequently US banks increased their capital without increasing their risk exposure. Similarly, Rime (2001) finds that regulatory pressure in Switzerland induced banks to increase capital without increasing risk. Bichsel and Blum (2001) analyze Swiss data to find a positive correlation between changes in capital and changes in risk at Swiss institutions, but default risk is invariant to capital ratios.

Beatty and Gron (2001) found no systematic difference in pre- and post-regulation behavior of financial institutions. Banks might have had an incentive to shift into riskier assets with the introduction of risk-based capital standards (RCBS), but this was more than compensated for by improving their capitalization. This pattern was observed more so for low capitalized banks, who, the authors claim, were always under greater regulatory scrutiny. In all, the results suggest that RCBS has induced the lowest capitalized banks to improve their capitalization, which was the desired end. More supportive

evidence has been generated by Saunders and Wilson (1995), who demonstrate that between 1927 and 1933 capital was used to cushion asset volatility.

Overall, the empirical literature cannot be viewed consistent with increases in overall bank risk when capital regulation is tightened[97]. More likely, the evidence suggests that banks that are already risky due to low capitalization may shift policy to incur higher levels of asset risk, but that regulatory stringency can counter those perverse incentives so that regulation seems overall effective.

2.2.7 Summary on banks and their regulation

The empirical literature comes out largely in support of the view that bank financial statements are rather opaque. However, bank runs, if they are at all contagious, are usually of the informed kind, meaning that runs inform depositors about the true condition of similar banks when opaque financial statements cannot. Of course, banking sectors are still vulnerable to financial shocks, but depositors themselves are not as likely to be a threat to financial system stability themselves through irrational runs.

The more refined treatment of runs as 'rational' would only weaken, but not eliminate bank regulation, which – as argued above – would also arise by way of the public choice mechanism as an instrument of debt governance for depositors, or Goodhart's argument for continued demand for liquidity by banks from a central, public institution. LOLR's and deposit insurance still arise endogenously.

An important question is, whether these institutions create moral hazard on the banks' side. Here, the literature is more ambiguous. Grave incentive problems between banks and regulators due to deposit insurance schemes seem to coincide with political economy weaknesses. Also, the empirical investigation of regulatory tightening in the US through FDICIA and FIRREA points at a positive impact on bank risk taking. While it is not possible to infer from the data that the safety net has no impact on bank risk-taking, it is nonetheless possible that the problem has been overstated with respect to countries with mature legal systems and properly incentivized regulators.

[97] Milne (2002) reasons that regulatory incentives induce banks not to counter capital regulation with risk shifts.

Do we need active regulation and supervision? For one thing, bank charter value has been established as a reliable motivating factor for banks to refrain from inefficient risk taking. Yet, this does not mean that regulatory efforts such as a freezing of high interest margins and blockage of market entry would achieve the desired results. Regulators must be able to monitor their risk exposure regularly, and close banks if necessary.

Here, the evidence is surprisingly positive. The resolution of closed US banks seems to have created comparatively less losses than the Chapter 11 mechanism has for non-bank firms. Even though the system showed elements of politically motivated forbearance, the time to resolution was typically shorter than the average time firms spend in Chapter 11. Despite some shortcomings, the findings are consistent with relatively timely intervention in ailing institutions and relatively efficient resolution.

Closure and resolution are only devices of 'last resort'. Regulators have an interest to prevent banks from having to be closed, for example through the imposition of risk-based capital requirements. Here, one concern voiced in the literature – that bank risk taking may increase with more stringent capital requirements – does not seem to be born out in the data. Some studies also indicate that the imposition of risk-based capital requirements has mostly had a positive impact on overall bank riskiness, which was the desired end.

2.3 Bank managers and regulators

So far, the literature on bank regulation has – for the most part – assumed the bank to be a monolithic structure with a well-defined agenda. Similar to the literature on Corporate Finance[98], academics studying bank regulatory issues recognized that bank policies were shaped by bank management, and that bank management would not necessarily act in regulators interest, just like they would not necessarily act in shareholders best interest.

2.3.1 Management share ownership

Thus, bank risk-shifting activities could be linked to managerial incentives. The first variable to come to mind was the ownership stake of managers.

[98] E.g.: Jensen and Meckling (1976).

Morck, Shleifer and Vishny (1988) had found in a cross-industry study that smaller amounts of equity holdings would incentivize managers to act in shareholder interests, while larger holdings would lead to 'entrenchment': managers can no longer be disciplined effectively by shareholders. The parallel position of regulators versus managements then spawned a literature relating management share ownership to bank behavior towards risk.

Saunders, Strock and Travlos (1990) were the first to examine the relationship, examining the difference between stockholder and management controlled bank risk taking in periods of deregulation. There, they found that manager-controlled businesses were more risk averse, which would signal that – possibly due to lack of diversification of their wealth – they would stand more to lose from default than shareholders in general.

Gorton and Rosen (1995) develop a model in which in a deteriorating investment environment, managers entrenched through large share ownership choose high risk investments. They support this model on a sample of well-capitalized banks against the hypothesis that risk shifting occurred due to the FDIC-related moral hazard. Thus, they claim that managerial entrenchment is a better explanation for observed risk shifts than moral hazard.

Outside a specific point in the business cycle, Chen, Steiner and Whyte (1998) report that in their sample of 302 depositary institutions analyzed over a 6 year period, management ownership is generally negatively related to institution risk, which suggests that natural risk-aversion dominates equity-inspired risk-seeking. The opposite insight was communicated by Whidbee and Wohar (1999), who examine the propensity of 175 BHC's to hedge, as proxied by derivative usage. They find that managers owning more than 10% equity use less derivatives, i.e. engage in risk shifting, while managers with low equity stakes and more outside directors would use more derivatives. The authors claim that internal oversight through the board would make managers with low equity stakes reconsider, since they are not entrenched enough to 'follow their instincts' for risk shifting.

The S&L debacle has triggered a number of papers questioning the role of managerial motivations in the crisis. Cebenoyan, Cooperman and Register (1995) find that management ownership has different implications for risk-taking in different regulatory environments. In 1988, the regulatory environment was characterized by forbearance, while in 1991 the authors note that it was characterized by regulatory stringency after the 1989 passage of FIRREA. Entrenched managers exhibit greater risk-taking behavior than

others in times of regulatory laxity, but not in times of regulatory stringency. This is consistent with deposit insurance induced moral hazard, but also with the success of regulatory stringency. Knopf and Teall (1996) find similar evidence in the thrift industry: pre-FIRREA, insider controlled thrifts engage in high risk-taking, while post-FIRREA the relationship between risk-taking and insider ownership is reduced. Cebenoyan, Cooperman and Register (1999) add to their earlier study by adding charter value as an explanatory variable: in the mid 1980's, times of regulatory laxity and low charter value, thrifts engage in 'unprofitable' risk-taking, while the 1990's, a period of high charter value and regulatory stringency, are characterized by 'profitable' risk-taking.

Also Demsetz, Saidenberg and Strahan (1997) incorporate charter value to their analysis of commercial bank risk-taking to conclude that the relationship between ownership and risk holds only for low charter value banks: here, equity incentivized managers overcome their natural risk aversion to engage in risk-shifting. For high charter value institutions, their risk aversion prevails. This result is almost exactly mirrored by Anderson and Fraser (2000): in the late 80's, when regulation was lax and charter values were low, more management ownership implied higher risk-taking, while in the early 1990's this relation was reversed.

In summary, the impact on managerial equity holdings on institution risk can go both ways. In well-capitalized institutions in a positive business climate and with high charter value, the risk-aversion instinct of managers dominates. Only in weak institutions managers would engage in risk-shifting, but activist regulation has the potential to curb the excesses. Whether the risk-shifting in weak institutions is due to mispriced deposits or deposit insurance is not entirely clear. It is equally plausible that the above analyses point at 'gambling for resurrection' as an alternative explanation of observed behavior.

2.3.2 Management remuneration

There are, as of yet, only a few studies relating management compensation structures to bank risk-taking, but their predictions would be similar to those for management ownership: when management interest are aligned with shareholders, bank managers are more likely to engage in risk-taking. Charter value and risk aversion considerations have the same implications as with

management ownership, but there is no entrenchment effect due to the voting power of shares.

Joskow et al. (1993) argue that – generally in regulated industries – CEOs` would have compensation packages that are lower and less responsive to profitability than those found in unregulated industries. This, however, would be due to the public perception of 'excessive' compensation packages rather than bank-specific risk considerations. Crawford, Ezzell and Miles (1995) indeed find an increase in the pay-performance sensitivity of bank CEO compensation packages after 1981, a period of deregulation. Also, they find that banks with lower capitalization increased pay-performance sensitivity more, which they interpret in light of the moral hazard problem due to the FDIC insurance umbrella. Evans, Noe and Thornton (1997) argue similarly that the adoption of golden parachutes for bank managers prior to large bank failures exploited the insurance umbrella, and virtually ceased after the FDICIA of 1991.

Yet, the results by Fields and Fraser (1999) indicate that banks branching out to investment banking did not increase the pay-performance sensitivity of managerial salaries to match those in investment banking, but remained lower and similar to the salaries found in banks that did not branch into investment banking. Thus, the prediction by Joskow et al. (1993) on bank salaries may be verified in this study, while the fear of bank managers being paid in a way counterproductive to regulators may be exaggerated. Also the findings by Houston and James (1995) do not point in this direction: the authors find a strong relation of equity-based incentives to bank charter value, which they view as inconsistent with the promotion of risk-taking. Yet, 'profitable' risk-taking may also improve bank charter value, so that there may be at least some relationship.

Overall, the evidence gathered in the literature so far does not yet allow conclusive inference on a relationship between management compensation patterns and regulatory interests, let alone coupled with shareholder interests as described in the model by John, Saunders and Senbet (2000).

2.3.3 Ownership structure

An issue also found in the regulation literature is that of ownership structure and organizational form. Here, two studies by Esty (1997a, 1997b) analyzed the risk-taking behavior of thrift institutions in the 1980's. Both in empirical

work and case studies it is confirmed that stock thrifts engage in riskier activities than mutuals, and that risk-taking is increased after conversion from mutual to stock organizational form. Similarly, Karels and McClatchey (1999) found no support for risk-taking behavior due to misguided incentives emanating from deposit insurance in credit unions. Kane and Hendershott (1996) agree that the organizational form of a credit union is responsible for the National Credit Union Share Insurance Fund (NCUSIF) not experiencing a similar debacle as the FSLIC.

One (theoretical) explanation, put forward by Rasmussen (1988) is that managers in mutuals cannot gain from risky strategies due to their remuneration contracts, and thus invest strictly in safe securities. On the other hand, Esty (1997a) proposes that the key to understanding the difference between risk taking at stock banks versus mutual banks is that in the latter, residual and fixed claims are not strictly separated: depositors are owners as well. This seemingly simple realization may be at the heart of the debate on the corporate governance of banks: the frictions between regulator interest on the one hand, and shareholder oriented corporate governance practice on the other are removed once the separation of the financial interests becomes fuzzier.

2.3.4 Summary on bank regulators and managers

The comparatively scant literature relating bank regulation directly to managerial interests has yielded three important conclusions. First, managerial equity stakes sufficient to entrench managers typically lead to increased risk seeking, but is limited by charter value, and can be curtailed through tighter regulation. Second, a direct link between management pay contracts and risk taking has not been established, but there are indications that regulatory influence has led to a reduced pay performance sensitivities of bank managers' pay packages. This may indicate regulatory vigilance to curtail problems of equity inspired risk seeking of otherwise risk-averse bank managers.

Third, and perhaps most importantly, the cooperative form may survive in banking more so than in the rest of the economy because it has blurred the boundaries between debt and equity, and has thereby reversed the most polarizing separation of bank stakeholders. As a consequence, mutually organized banks seem to have been less of a burden to regulators and tax payers alike. This observation leads us directly to the (even more scant) literature examining regulator and shareholder influence on managers jointly.

2.4 Bank managers, shareholders and regulators

The empirical literature analyzing the competing interests of shareholders and regulators on the behavior of bank managers is as of yet thin. Conceptually, one can separate the task at hand into obtaining information about management (monitoring), and influencing management (control). Out of the question of monitoring by market participants and regulators arises the issue whether the two groups can learn something from each other.

Originally, the literature posed the question, whether market participants had the information at all in order to meaningfully judge the financial condition of a bank. In part, this issue has already been addressed in the literature on contagious runs, where it was shown that runs conveyed information to market participants that influenced the assessment of institutions elsewhere. Here, instead of examining quantity adjustments as in a run, we look at price adjustments: do market participants distinguish between good and bad financial institutions, and if so, do worse financial institutions pay higher interest on their debt? This branch of the literature thus examines, whether markets discipline poor financial institution performance.

Inasmuch as it relates to the contagion literature, 'market discipline' belongs to the general literature on banks and their regulation. Yet, it was the survey by Flannery (1998), which put market discipline at the heart of the debate on the corporate governance of banks. Therefore, market discipline is rather discussed in this section. After examining 'monitoring' of financial institutions, the attention will shift to 'control' in the second section.

2.4.1 Monitoring banks: market and regulatory efforts

The theoretical literature has identified the main problem of deposit insurance as well as capital adequacy regulation with deviations from market perceptions, either in the pricing of insurance, or in the determination of optimal capital structure. Thus, a proposal has been forwarded by Calomiris (1999) not to abandon regulation, but to make it respond to market signals, in particular the pricing of the most junior debt titles a financial institution has issued[99]. Based on his literature survey, Flannery (1998) argued that regulators could benefit from market information by shortening the time

[99] Also Llewellyn (2000) argued that regulatory and market structures may complement each other. Lately, Benink and Wihlborg (2002) similarly called for an adjustment of Basle II.

period from the inception of a problem at a financial institution to regulatory action. Both recognition and response times could potentially be shortened. For this proposal to have merits, market participants have to be able to infer the financial condition of a bank from observable data, which stands squarely against the notion of the opacity of bank financial statements. However, the recent literature on market discipline comes out largely in favor of markets pricing junior debt claims of financial institutions correctly.

Flannery and Sorescu (1996) examine debenture yields of US banks from 1983 to 1991 to conclude that investors were definitively capable of differentiating among the risks undertaken by banking firms. Park and Peristiani (1998) demonstrate a positive relationship between the risk of thrift institutions and the interest rate they have to offer to attract uninsured deposits. This has recently been corroborated by Goldberg and Hudgins (2002). Jagtiani and Lemieux (2001) find that bond spreads start rising as early as six quarters prior to financial institution failure, making them potentially valuable signals for regulators. Furfine (2001a) examines the federal funds market to conclude that interest rates paid there reflect credit risk across borrowers. Martinez Peria and Schmukler (2001) examine Latin American banks to conclude that depositors there discipline banks, which is also mirrored in the findings by Demirgüc-Kunt and Huizinga (2000). Finally, Morgan and Stiroh (2001) compare bond spreads and banks' asset structures to find that investors do seem to price banks' asset portfolio risks.

A central question in the literature is, whether the information contained in market prices would actually add any information to what is already known to regulators. Evanoff and Wall (2001) examine the relative merits of yield spreads versus capital adequacy measures (now used for Prompt Corrective Action, or PCA) on predicting bank condition measured as subsequent CAMEL or BOPEC ratings. Indeed, subordinated debt yield spreads performed slightly better than capital adequacy. Prediction errors are still found to be relatively high.

Conversely, DeYoung, Flannery, Lang and Sorescu (2001) analyzed, whether there also exists a reverse flow of information from regulators to market participants. They found that there is indeed additional information created in on-site bank examinations, and that the market incorporates negative information into yield spreads of subordinated debt, albeit at a sometimes significant time lag. The results are consistent with the studies by Berger and Davies (1998) on exams at banks, and Flannery and Houston (1999) or Berger, Davies and Flannery (2000) on exams at bank holding companies.

With respect to market assessments by external agents, Billett, Garfinkel and O'Neal (1998) show that banks relying more on deposits for financing display larger negative returns after Moody's downgrades. Also, riskier banks are more likely to switch to deposit financing, thus evading market scrutiny. More skeptical is an analysis by Gropp and Richards (2001), that documents market reactions to rating changes of European banks. Here, bond prices hardly reacted to ratings changes, while stock prices were usually reacting according to prediction. Stock investors may learn something from ratings changes, while bond investors do not. The authors speculate that the "Too-big-to-fail" principle may be at fault in Europe. Possibly, the evidence is reconciled by the findings of Gropp, Vesala and Vulpes (2001). They find subordinated debt yields to be good predictors of default events shortly before the occurrence, while bail-out expectations seem to remove the signal at earlier times. Equity market based distance-to-default measures appear to be more consistent. Curry, Elmer and Fissel (2001) analyze the use of stock market indicators for regulatory purposes and find them more useful than both rating downgrades as well as Call Report financial data.

Gilbert and Vaughan (2001) are more skeptical regarding the efficacy of market discipline in banks. They examine the effect of 87 public Federal reserve announcements of enforcement actions (PCA) at banks, and compare deposit withdrawals and interest rates at those banks over time and with a peer group of institutions. Neither analysis suggests that depositors react strongly to Fed action: neither in price (interest rate), nor in quantity (runs). More cautiously, Sundaresan (2001) argues that regulatory responses to market signals will alter the market signals themselves, thus prohibiting an approach where supervision and regulation are put on 'automatic pilot'.

Another careful analysis results from the recognition that not all banks' subordinated debt markets are going to be perfectly liquid. Hancock and Kwast (2001) advise 'careful judgment' when interpreting such spreads. Also Sironi (2001) documents the at times rather illiquid markets in the subordinated notes and debenture issues of over 1800 European banks. It appears that yield spreads may be only a coarse indicator for regulators for the vast majority of small financial institutions.

Finally, Birchler and Maechler (2001) examine depositor preference for non-insured savings accounts in Switzerland to conclude that depositors are not well informed about the protection they are offered, or – alternatively – that they may anticipate implicit insurance. There seems to be some consistency in the latter result based on small depositor behavior with other studies

mentioned above, especially Gilbert and Vaughan (2001). Nonetheless, while it is perfectly conceivable that the average citizen does not spend time pondering the investment strategy in bank deposits, investors in active debt markets do, and their behavior can reflect the underlying situation of the bank. This can – in turn – provide a useful signal for action to regulators.

2.4.2 Market monitoring of banks: an assessment

The empirical literature on market versus regulatory monitoring has provided some insights, but leaves some issues wanting. Most notably, the presumable opacity of bank financial statements due to the illiquidity of bank loans is squarely at odds with the evidence on market discipline. If market discipline works so well, how do the market participants get the necessary information? A possible solution to the quagmire championed here is that financial markets tend to be rather closely knit communities, and that information may just as well travel unofficially "through the grape vine" as officially through financial statements. Then, market discipline can play a larger role to assist – not replace – regulators, to effect timely action against failing banks, as suggested by Flannery (1998).

Only if bank financial statements could truly be shown to be less opaque we could contemplate substituting some regulatory efforts by market means to motivate bank managers. This poses the (empirical) question, whether banks are truly unique in their asset structure. Similar to evidence on market discipline, the evidence on loan securitization and loan syndication would identify a large proportion of the overall assets originated by banks to be salable, thus more liquid. Of course, banks may continue to be illiquid due to the assets remaining on their books.

Then, the concept of 'narrow' and 'free banking' could possibly find higher acceptance[100]. Yet, Aghion, Bolton and Dewatripont (2000) warn that systemic shocks may still increase the likelihood of contagious bank failures in free banking systems. Still, information based runs would all but wiped out. A recent attempt at judging the concept of 'narrow banking', was performed in the survey by Bossone (2001). He concluded that the benefits of a mandated system of narrow banks were limited, while the costs in terms of financial sector efficiency and credit availability could be crippling to real economic activity.

[100] Thomas (2001).

A truly Salomonic solution has been proposed by Mishkin (1999), who hopes that shifting financial institution strategies will anyhow increase the likelihood of a split of the sector in regular banks, which invest in illiquid securities and finance themselves only in capital markets, and narrow banks, which issue deposits, qualify for deposit insurance, but invest only in liquid assets.

The case for narrow banking rests on a theoretical ideal of markets working with few frictions. The empirical support for this model in banking is not sufficient to generate policy responses with potentially far-reaching negative consequences. Thus, also this study can only propagate narrow banking as an option available to market participants. To introduce narrow banking as the mandated norm would be frivolous.

2.4.3 Shareholder and regulator control over bank managers

Based on his extensive work researching market participants' capacities to assess the financial condition of financial institutions, Flannery (2001) realizes the shortcoming that monitoring banks cannot be equated with influencing them. In Bliss and Flannery (2001), he finds evidence that the reaction of banks to adverse market conditions does not necessarily translate into policy or even management changes. This holds also for stockholder monitoring, which is directly relevant to the discussion of the corporate governance of banks.

The comparative merits of shareholder and regulator control of financial institutions was first examined by Prowse (1997a), who documented first of all that the overall frequency of control changes in a sample of Bank Holding Companies he examined was quite comparable to that found by Morck, Shleifer and Vishny (1989) in industry, but that in banking more than half the control changes were initiated by regulators, not shareholders[101].

A first reaction in terms of the theoretically derived governance policy of debt and equity as displayed in figure one above would be that the findings by Prowse (1997a) indicate a potentially significant failure of equity governance on banks. While it is clear that certain shocks can be so large as to pierce both activism thresholds at the same time, and that regulator interests take

[101] Prowse (1997a) equated a number 4 or 5 BOPEC rating with a control change.

precedent at those times, a different interpretation would be that shareholders cannot – or do not want to – play the final card of management replacement in a failed venture. Only in these instances we would see such a large comparative role of regulator induced control changes. If shareholders had the will or the ability to take such action when it is deemed necessary, shareholder induced control changes would still be the norm.

A secondary assessment, however, would be to come back to the theory of management, and note that management appointment, termination and replacement are procedures that defy common notions of rationality or optimality. Then, the findings by Prowse (1997a) could indicate that persons farther removed from the process are more willing to take such action. Similar to this interpretation, the incomplete contracting literature has come to see the advantage of debt as being a hard budget constraint for management, since control changes are rule-based rather than discretionary.

Whether regulatory vigilance is viewed as self-interested due to the insurance promise to depositors, or as representing the long arm of depositors instituted through the public choice mechanism, it is evidence of the principle of debt governance as derived in chapter one.

3. Policy recommendations

Given the above discussion of theoretical arguments and empirical insights, what is one to recommend to policy makers? The literature has already emerged into a direction that one size cannot fit all. Flannery (1998), Calomiris (1999) as well as Benink and Wihlborg (2002) make their cases for improved market surveillance via publicly traded subordinated debentures only for 'large' banks. What is their case to separate banks?

There seems to be mounting evidence that there is a degree of market segmentation between large banks, which finance predominantly larger clients, and small local banks, which finance predominantly SME's. The comparative advantage of large banks to finance large industry is easily explained: large firms typically have many locations, and any single small bank can only observe a location in its own neighborhood. To generate the same information about a large borrower that a large bank with many locations would have access to, small banks would have to repeatedly form lending syndicates, which is a prohibitively costly process[102]. Thus, large banks have an information and thereby cost advantage to finance large firms.

But why would small banks have an advantage to finance small firms? Ferri (1997) argued that the agency problem between branch managers and headquarters in a large bank constrains institutional information acquisition at the local level. He favored this explanation to fit Italian data better than the competing hypothesis that branch managers in large banks see their post only as a temporary assignment. Also the analysis by Guiso, Sapienza and Zingales (2002) is consistent with market segmentation between large and small banks in Italy.

Berger et al. (2002) argued that the financing of small firms demands significantly more processing of 'soft' information, and that small institutions are better equipped to do that. Their data confirm market segmentation between large and small banks for the USA. Accordingly, Sapienza (2002a) finds that bank mergers tend to reduce the supply of loans to small firms.

[102] Actually, the creation of Deutsche Bank in 1870 goes back to a decision of six private banking houses to fund a common institution for large international financing ventures, in which the six repeatedly found themselves in costly syndicate negotiations.

Recently, Berger, Klapper and Udell (2001) examine data consistent with market segmentation between large and small banks in Argentina. With much coarser data analysis, Harm (1992a) argues that such market segmentation exists also in Germany.

Superficially argued, the financing of small firms demands a different business model, different management requirements, and thereby also a different governance mode. A number of governance elements in large banks simply do not lend themselves well to an application in small banks, or if they do, they may have a different valuation. If listed, small banks may be easier targets for a takeover. Their management teams are compensated less, and with lower pay-performance sensitivity, than their colleagues in large banks[103]. However, if they have an ownership stake in their bank, it is likely to be much larger in relation to total capital than this would be the case in large banks, i.e. they would be more easily 'entrenched'. The cooperative form of organization lends itself more to small than to large banks. Due to limited access to capital and interbank markets, small banks typically have lesser access to non-deposit forms of financing than large banks, and can be expected to cause more regulatory effort and cost per insured deposit.

Overall, then, it does not make sense to design identical governance models from the perspective of both shareholders and regulators for both small and large banks. The following section is going to address governance concerns principally for large banks. A governance model for small banks is introduced in the following section. The third section argues that the empirical distinction between large and small firms should not be mandated by regulators, but should rather be the consequence of a self-selection mechanism in which banks choose the regulatory regime that fits them best.

3.1 Governance mechanisms for shareholders and regulators

This chapter serves to merge the insights on the various mechanisms at the disposal of bank shareholders and regulators to assess the merits of each such mechanism for either group, and to make recommendations as to how they may be combined with others to form a sensible regime for the governance and regulation of banks.

[103] Ang, Lauterbach and Schreiber (2002).

3.1.1 The safety net

The first element to be examined here is the structure of the safety net designed by official agencies to protect depositors. As discussed above, it typically falls into two separate institutions: deposit insurance, which defines a concrete claim against an insurer, and a lender-of-last-resort – typically a central bank – which is not legally required to provide liquidity services to all banks that seek them.

The point has been made repeatedly in the literature that both elements of the safety net entail the danger of moral hazard, even though the evidence examining risk shifting due to mispriced deposit insurance is not unanimous. Still, the deposit insurer and possibly the LOLR bear the residual loss from a systemic crisis and have to devise mechanisms to protect themselves against opportunistic behavior.

One way to look at the system is to treat deposit insurance and LOLR as two lines of defense, one contractual – or rule based – and one discretionary. The problem with deposit insurance is that in the event of a systemic crisis, the insurer is most likely overburdened with the claims made against it. For example, Goodhart (1988) invokes the issue of credibility against a private deposit insurer.

However, once we look at isolated bank failures, then deposit insurance is credible, and the private insurance option becomes feasible, even though it will have to be underwritten by the government for the event of a systemic crisis.

Thus, the first proposal is for bank regulators to allow privately organized deposit insurance. Since the government still underwrites the residual in case of a systemic crisis, the deposit insurance must be regulated by the government and conform to certain standards. However, the 'first line of defense' is put into the hands of the private sector, and it is likely that the contract between deposit insurer and bank comes as close to market terms as possible. Thus, concerns about deposit insurance subsidies are reduced.

As an additional feature, banks could be asked to organize deposit insurance from their own ranks in a mutual organization, as is the case in Germany[104]. The added benefit from such a structure is that banks are themselves equipped

[104] See Holtorf and Rudolf (1999) for a critical examination of the German deposit insurance scheme.

best to understand each others' risk positions. Therefore, a mutually organized deposit insurance fund under government regulation contains elements of credibility and continuing government oversight, but also peer monitoring and private sector organization. This could improve the efficiency of the first line of defense, while still warding off irrational runs.

Obviously, since the government still underwrites the private insurance fund *de facto*, it is indispensable that it should regulate or at least "accredit" the insurance fund with the objective that the insurance promise issued to depositors is credible even in large but isolated bank crises. Elements of accreditation could spell out necessary fund size relative to insured deposits, or size of the fund to the largest or largest few institutions in terms of insured deposits. As an added element of enforcing competition and institutional creativity, the approach favored here would rely more on accreditation of the insurance fund rather than permanent supervision by national authorities. Accreditation would leave open the option of an internationally organized deposit insurance scheme for the largest banks in the world, which is recognized by all nations with participant banks.

This is desirable, since the size distribution of large banking institutions in many countries leave an insurance fund rather lop-sided. In England, a fund for privately owned financial institutions would likely contain six large banks and not much else. Thus, any catastrophe in one bank would be a sever strain on the five others. In Germany, Holtorf and Rudolf (1999) report that at the end of 1998, 4 banks accounted for some 40% of all insured deposits in the fund for German credit institutions, while the size of the fund itself is estimated at about 1% of insured deposits. Any one failure would thus have the potential to completely overburden the system, and the element of public underwriting is highly visible.

Thus, the proposal sponsored here is for those 100 to 200 banks in Europe and North America, which anyway meet each other time and again in the syndicate loan market, and have a lot of exposure to each other, and knowledge about each other, to create an international deposit insurance fund that can be credible even for the largest institutional failures. Of course, national regulators would have to permit that all institutions supporting the fund would have a call option to take over a delinquent bank. Realistically, therefore, one would think that in today's political environment, there would be only banks from a few countries willing and allowed to join such an international fund, but – if one can achieve a feasible size from the beginning – growth and acceptance over time would likely follow. The design of such

a mutually organized international deposit insurance fund should be developed in coordination between those banks that would see a benefit from such a system, national regulators, and the BIS, in a discussion round similar to the current debate on Basle II.

It must be stressed that such a system can only be a first line of defense. For that limited purpose, also Goodhart (1988) could see a role for privatized deposit insurance. In a sense, a systemic crisis cannot be insured against, since the system is affected as a whole. The only thing a government can do is to prevent an undesirable distribution of who shoulders the overall loss. This is done via the fiscal budget under government underwritten deposit insurance, or via the inflationary mechanism under liquidity provision through the LOLR in a systemic crisis.

A combination of privately organized and regulated deposit insurance and government responsibility in the event of a systemic crisis would also preserve the element of 'constructive ambiguity', which is often mentioned as an efficiency enhancing feature of an LOLR[105]. The government can choose the form of intervention in a systemic crisis. In a way, the EU currently has a system of this nature, even though typically not with privately organized deposit insurance. However, the ECB has not officially been endowed with any responsibility for bank supervision and regulation, nor liquidity provision as an LOLR. Yet, it remains to be seen, if the system is strong enough to prevent monetization of bad debt in a major banking crisis in a member country. Thus, constructive ambiguity has truly been built into the system, at least until the first crisis.

3.1.2 Capital structure and regulation: a self-selecting regime

Since a fully credible deposit insurance mechanism would have to confer a legal right to the depositor while at the same time covering all eventualities, governments will always bear the residual loss in *systemic* crises[106]. Therefore, regulation will continue to be necessary, and banks will have to live with justified claims for appropriate capitalization, supervisor audits, and possibly regulator induced control changes.

[105] E.g.: Freixas et al. (2000).

[106] Else, the deposit insurance contract would have to stipulate, how awards would be rationed in case of the insufficiency of the fund due to systemic crises. This would be an obvious example of an incomplete contract, and thus represent a non-credible insurance scheme.

The experiences of the 1988 Basle guidelines for risk based capital adequacy measures have recently triggered the widely debated proposals for adjustments, known as Basle II. The current framework proposes a three pillar system[107] based on bank internal ratings[108] for risk classification, expanded active supervision, and more market discipline based on improved information disclosure. To many academics, the market pillar does not go far enough, and thus there have been several proposals to demand that banks issue credibly uninsured subordinated debt. Observed yield spreads on such debt could then be used by regulators to assess the necessity for bank audits. The literature on market discipline as discussed above has largely come out in favor of using sub debt yield spreads as an additional source of information for all interested parties, including regulators.

This has most recently prompted a call by Benink and Wihlborg (2002) that issuance of credibly uninsured subordinated debt be mandated in the first phase of Basle II at least for a feasible subset of all banks[109]. Also a study performed by the Federal Reserve Board (1999) has concluded that sub debt would improve on market discipline, but the study recognizes that to some institutions, "mandatory issuance would impose a penalty for risk-taking beyond the penalty associated with not issuing SND" (p. 23).

The problem concerns rationing of funds in public debt markets: what type of claims will find a buyer, and which claims could not be placed at reasonable cost. The FRB (1999) study indicates that the market's appetite for risky bank debt changes over time (p. 20). Let us suppose, we would have identified a feasible set of financial institutions that are in the position to issue subordinated debt claims. In an environment of deteriorating economic conditions, the marginal institutions could be squeezed out of liquid markets. What is a regulator to do in this situation? The contract between regulator and regulated institution has become incomplete.

The regime favored here does not involve mandatory issuance of subordinated debt, which would only lead to arguments between banks and

[107] See Karacadag and Taylor (2000) for a survey and analysis of the proposals.

[108] Internal ratings would be pragmatic since regulators would then merely have to audit processes rather than results. They do, however, leave ample scope for 'gaming and manipulation'.

[109] A theoretical argument against mandatory sub debt issuance would be the possibility that sub debt owners would not exit upon rapid deterioration of the bank's perceived asset quality because sub debt owners might opt for staying in with management and gamble for resurrection. However, the available empirical evidence would note attach a great likelihood to such occurrence or behavior. I am indebted to Maria Soledad Martinez Peria for this insight.

regulators, on whether issuance of notes at a particular point in time would have overburdened the institution or not. The regime favored here involves self-selection of regulated institutions into one of three regulatory regimes.

The default for each bank is to have no subordinated debt, and be placed in a 'tough' regulatory category. This could involve frequent audits in order to compensate for the lack of market information, and a number of regulatory covenants being imposed on bank managers and bank shareholders. This might even take the form of regulators being allowed to veto compensation packages, if they are deemed inconsistent with bank prudence.

If, however, the bank achieves placement of subordinated notes in the capital markets, and thereby conveys additional information to regulators, the audit frequency can be reduced. Thereby, capital market costs may be increased, but regulatory costs would be reduced. It would be the responsibility of each individual institution to balance the costs of either regime at the margin.

Obviously, those banks that would never have access to capital markets – the small local banks – would be faced with greater costs and a potential competitive disadvantage in this regime. The next section describes a regulatory regime for small banks involving an appropriately structured clearinghouse that could help preserve small local banks without imposing additional regulatory burdens on them.

A thorny issue for regulators would be the question of charter value. The empirical studies discussed above have concluded with rare exception that higher charter values are associated with bank behavior viewed as more beneficial by regulators. At the same time, charter value *is* shareholder value, and thereby viewed favorably by shareholders. The pitfall is that attempts by regulators to *create* charter value – for example through regulated interest margins – have fallen out of favor, since they are viewed in the long run to lead to more institutional slack and cost inefficiencies rather than successful banks. There remains, however, the possibility for regulators set up an incentive mechanism as to *reward* higher charter value rather than create it. This could again be achieved by defining different regulatory regimes with differing regulatory intensities, and thereby differing regulatory cost. Institutions with higher charter value would then be rewarded with lower regulatory costs.

As a first step in gaining experience with the new Basle guidelines, we are here favoring an equilibrium, where banks self-select into one of three regulatory regimes, one for large banks with public subordinated debt

outstanding, one for small banks part of an appropriately designed clearinghouse structure, and one for the remainder. In addition, regulators should have the freedom to set up structures to *incentivize* banks to work towards more successful operations generating higher charter value.

3.1.3 Financial institution mergers

While it is clear that the market for corporate control is a market of managerial control over corporate assets, it is by no means clear that observed corporate control contests imply an improvement of the situation in the eyes of shareholders. This is so, because the control contest itself may be motivated by improper objectives, e.g. Michael Jensen's (1986) 'free cash flow' problem. On top of that there are a wealth of other reasons that may explain observed mergers so that a positive corporate governance role is but one explanatory variable. For the US evidence, we could conclude above that the very active merger activity in the banking industry was triggered to a large extent by regulatory change that enabled institutions to either exhaust opportunities for geographic diversification not available before, or to consolidate operations in "overbanked" areas. The latter motive would also apply to many domestic mergers in Europe.

Only the consolidating merger type *could* carry a governance interpretation. Notably, this is equally true for regulators and shareholders. The merger of competing financial institutions could be an attempt at strengthening these institutions in a particular area, and is thereby a primary tool for regulators faced with potential banking problems in such areas. Going back to Manne (1965), mergers can be seen as an institution avoiding bankruptcy costs in imperfect capital markets plagued by a variety of frictions. Certainly, this diagnosis holds for the market environment of banks. Appropriately, then, bank mergers can be a meaningful element in the tool set of regulators.

The exact mechanics of the use of this tool would be dependent on the exact nature of bank regulation in the respective country. The recommendation for the US system, which has been described at length in this study, would be that regulators would reserve the right to order financial institutions to merge at a CAMEL or BOPEC rating of 3 or lower[110]. One could also envision that at a BOPEC or CAMEL rating of 3, regulators and shareholders jointly decide

[110] Of course, institution mergers of closed banks already belong to the regulatory portfolio.

on the appropriate course of action. This aspect will be developed more fully below, when talking about supervision in a board of directors. In other countries, financial institutions mergers effecting a beneficial consolidation could also be achieved more informally via moral suasion.

Of course, there is absolutely no reason to restrict mergers based on the evidence presented above, so that if there is a need for disciplinary takeovers, they should be able to proceed if there are no major regulatory or antitrust concerns. The focal point of this section lay in the recognition that financial institution mergers can be an important regulatory tool.

3.1.4 Management ownership stakes

One of the thorny issues in bank governance concerns the appropriate role of equity in the bank's balance sheet. While private ownership is the most fundamental building block of a modern market economy, especially the case of banking is more subtle. A number of theoretical studies reviewed in section 1.4.3. had concluded that – all too often – uninhibited equity interests were a problem, and part of the challenge was, how to contain them.

Thus, on top of the well-known problem of managerial entrenchment to the detriment of small shareholders, also depositors and regulators are more likely to suffer from an equity linked externality when managers hold too many shares. The corporate governance literature was rather unanimous in its verdict that entrenched management is not too desirable. The case for regulators is more mixed, but also here a suspicion prevails that too much equity ownership on the side of management may lead to excessive risk-taking.

Yet, the studies have also shown that charter value as well as active and efficient supervision can reduce the problem of risk-shifting due to perverse incentives given to management. The irony of management stakes in banks is that – while normally the removal of management incentives from shareholders is viewed as a problem – the natural risk aversion of managers is here actually welcomed by regulators. Large management equity stakes tend to neutralize this stance.

It has never seemed like good policy to discourage the owner-managed firm, since it has often proven to be the most dynamic force in an economy. The case of banking is different. Here, the private banking houses have all but

disappeared from the international scene, and have given way to institutions too large to be owned by individuals. At the local level, private banking houses in many countries have not managed to compete with public sector savings institutions, or cooperatives. Some empirical work cited above has actually established elements of superiority of the latter type of institutions. Only in the US, a history of fragmentation through regulation has preserved the institution of the private banker. Recent deregulation moves have made the survival of this institution more difficult.

Thus, it would not come as a great loss to discourage very large management equity stakes, say to the order of 25% of total capital and above. An outright prohibition, though, would seem to place too much of a burden on businesses currently structured in this very manner. Thus, the resolution proposed here is to communicate to such banks that high management equity stakes would increase regulatory supervision efforts.

Most notably important of such a solution is that it preserves the issuance of small shares of total capital to bank managers for motivation purposes. Coupled with sales restrictions, bank equity awards are actually providing bank managers incentives consistent with *long-term* value maximization. As this would be synonymous with the creation and management of charter value, it is ultimately also in the interest of regulators, who – as reasoned above – would reward institutions of higher charter value with less regulatory burdens.

3.1.5 Management incentives and remuneration

This discussion leads directly to the topic of appropriate incentives for bank managers. On the downside, Macey and O'Hara (2001) had argued in favor of expanding the fiduciary duties of bank managers to depositors. On the upside, the most thought through proposal available in the literature at this point is contained in the model by John, Saunders and Senbet (2000) as discussed in chapter one: managers would receive an aggressive but capped bonus plus a small equity participation. This would lead to a concave section in the management evaluation function that generates the desired risk-aversion, and regulatory action incorporating the observed pay schedule would incentivize owners to actually create such a pay schedule in the first place.

While this structure carries the appeal of simplistic elegance, there are a number of objections that can be raised. Probably the strongest complaint would be based on the notion that a bank that has been faced with an

exogenous shock finds itself in a situation, where management's evaluation function is actually convex rather than concave, and that management would now have even greater incentives to gamble for resurrection.

Secondly, the proposal to link FDIC policy to the structure of the management remuneration contract may be economically creative, but probably a long shot from a legal point of view. The versatility of remuneration contracts is only limited by human creativity. A proposal to limit this variety to a structure that the FDIC can incorporate into a regulatory contract does not seem likely. Also, the proposal intended owners of banks to have the correct incentive to set the appropriate managerial pay schedule. This presumes that owners can actually do that, or that they do that in normal corporations. The recent study by Bebchuk et al. (2001) questions that mechanism. In their interpretation, actually observed management contracts are better explained by managerial rent-seeking rather than contracts optimal from an agency point of view.

Thus, remuneration contracts entailing "immediate gratification" would arguably be too vulnerable to abuse, in banks to the additional detriment of depositors on top of shareholders. The proposal favored here would go in a different direction.

First of all, the proposal here shares the ideas contained in John, Saunders and Senbet (2000) to the extent that regulatory and shareholder interests should be reflected in the managerial pay schedule. Thus, regulatory scrutiny of management remuneration contracts is desirable, even to the point of regulatory interception of structures deemed too likely to pronounce rather than soften the incentive conflict between debt and equity.

The proposal for the content of management remuneration is to treat current performance as a signal worthy of gratification, but not necessarily with a strong current cash flow component. The last subsection mentioned equity stakes with a sales restriction. Another possibility would be to translate current performance based bonuses not into cash, but for example into pension promises written against the banking firm. While the recent collapse of Enron and US ERISA legislation would arguably curtail such proposals for the US, in Germany, for example, such a practice is feasible and within the confines of common corporate pension practice: a mutually organized rescue fund insures the pension promises of all beneficiaries.

The market for managers demands that firms have the chance to recruit the talents they need to fill their top positions. Certainly, banks cannot be

disadvantaged in this market. Yet, recent findings in the literature for top management compensation have clouded the notion that actually contracted management packages are best explained through efficiency arguments. A modest proposal here would be to encourage the use of regulatory clout to shift managerial incentives via feasible remuneration packages towards long-term conservative value creation.

There is a stronger objection to relying on spelled-out incentive remuneration coming out of motivation crowding theory as proposed by Frey (1997), or Frey and Jegen (2001): detailed rules of what is to be achieved and how it is to be rewarded may crowd out intrinsic motivation. Interestingly, the same problem has been recorded by Simpson, as quoted by Llewellyn (2000), for the relation between regulators and banks: "In a market which is heavily regulated for internal standards of integrity, the incentives to fair dealings diminish. Within the company culture, such norms to fair dealings as 'the way we do things around here' would eventually be replaced by 'it's OK if we can get away with it'.

3.1.6 The board of directors

The board of directors is more of a discretionary, hands-on device for strategic decision-making, and therefore does not lend itself well to rule-based procedures so typical of government behavior. Yet, in the process of bank supervision, regulators have learnt that also they have to react to unexpected on-site contingencies. The proposal here includes an intermittent phase between laissez-faire and institution closure, where bank regulators would start interacting with the board of directors.

This proposal grows out of the theoretical discussion on debt governance, and may be seen as the equivalent of a Chapter 11 procedure to banking. In Chapter 11, management may make a restructuring proposal, and creditors get to vote on the proposal. Only in Chapter 7 are the assets of an institution transferred totally to creditors.

I would envision that regulators should have a right to participate in a bank restructuring proposal at the board level when the financial condition of the institution has deteriorated sufficiently. In the US, this could be a number 3 CAMEL or BOPEC rating after an audit in a bank or bank holding company. The initiative for the policies aimed at turning the company around would still be originating from the shareholders side, but as this happens typically in an environment of weakening financial strength, the incentives to gamble for

resurrection are increased, and regulators have an increasingly legitimate interest to be able to control, and if necessary veto, a proposal.

The structure envisioned here would allow regulatory access to the boardroom at the first signs of trouble, and thereby act in a timely manner – if only passively – to prevent further decay of the institution, which has often generated the capacity for increasingly perverse management incentives.

3.1.7 Ownership structure and owner identity

The strongest results generated in the literature on beneficial ownership structures of financial institutions are the positive experiences with mutual banks. The principal reason for this was argued to be the identity of depositor and owner, which would confer just the right incentives on management to promote long-term value creation without free-riding on creditors and regulators.

I have argued above that in the special case of banks, the natural disadvantages of the mutual form of organization may be more than compensated for by eliminating the tensions between shareholders and regulators. This may explain the success of the mutual form of organization in banking relative to other industries.

From a policy perspective, however, this is of only limited value. First of all, the cooperative form thrives particularly in small and local institutions, and only generates larger structures by pyramiding. These central institutions in a cooperative network show only limited comparison with large stock banks so that this corporate form finds its proper place of discussion in the next section on governance and regulation in small banks.

Yet, the one important policy implication of the extant literature in this area is not to discourage the mutual form in banking due to some intellectual arguments on hypothetical governance deficits: in the special case of banking, the cooperative form has a governance advantage.

Other ownership forms have been discussed only to a limited extent in the literature. The study by LaPorta, Lopez-de-Silanes and Shleifer (2002) has come out strongly against government ownership of banks in developing countries. In developed countries, the issue is more one of subsidization when the good faith and credit of the government is standing behind a financial

institution that would then enjoy a competitive advantage in the issue markets. Whether the documented success of public savings institutions in some countries can be traced to this government subsidy that mainly accrues to their clearinghouse banks remain an issue for further research. Another caveat regarding public ownership of banks in developed countries is the inherent danger of politically motivated lending decisions. This hypothesis is unfortunately supported by Sapienza (2002b) for Italian data.

What can be said about ownership in financial institutions, however, is that any polarization of the conflict of interest between debt and equity will need to be avoided. However, this concerns all the governance mechanisms typically invoked as favorable in the mainstream corporate governance literature. For the issue of ownership this means that any strong ownership voice leads to exaggerated conflicts between shareholders and regulators. Thus, it is no longer clear whether we would like to see Carl Icahn at Citibank, or CalPERS making its voice heard at the shareholder meeting of Bank of America. While the empirical evidence on the positive impacts of large shareholders and institutional investors in firms is still mixed, in banking even the theoretical case is weak.

Thus, widely held ownership would be the ideal form for banks. Yet, this makes the shareholders more vulnerable due to the bank-endemic governance problem. This in turn would increase the cost of capital for banks. Bank stocks would be less attractive than industry stocks. Under perfect competition, this would be a puzzle, because it is not clear that bank stock would be purchased in equilibrium. One potential avenue to restore equilibrium is to think of oligopolistic structures that preserve some charter value even for the marginal institution and even in the absence of regulated barriers to entry. I have shown elsewhere[111] that financial markets display strong tendencies for concentration.

Thus, it could be reconciled that bank shareholders with only limited governance recourse to their management are still interested in purchasing bank stock.

3.1.8 A consistent portfolio of governance mechanisms

To summarize, the shared responsibility between owners and regulators of large banks would ideally show the following features:

[111] Harm (2001).

- A privately organized – possibly international – deposit insurance fund for *individual crises* that is accredited by regulators. Banks select an accredited fund, or a national fund organized by the public sector.
- Governments stand behind the system with an LOLR for the case of a *systemic crisis* only to avert an unwanted distribution of the common loss. For this, there exists the option of a fiscal or an inflationary burden. Due to the distributional nature of the task, it has to be addressed in the national polity.
- Regulators impose risk-based capital adequacy norms based on banks own ratings, where regulators only check the adequacy of procedures, not results.
- Banks can self-select into a regulatory regime by issuing subordinated debt or not. The regulatory burden for institutions that provide market information to regulators is reduced.
- Regulators encourage the creation of charter value, but do not intend to create it themselves.
- Shareholders control a governance infrastructure that is compromised by regulator interests.
    i. Institutions with large blockholders – especially managers – face a more activist regulatory regime.
    ii. Regulators can influence, if not veto, management remuneration arrangements that are seen as detrimental to depositor interests. Long-term benefits written against the banking firm are more incentive compatible than short-term cash benefits.
    iii. In an environment of deteriorating financial conditions, regulators participate in the decision-making process in the board of directors similar to a Chapter 11 process. In times of increasing incentives for risk-shifting, regulators must be able to veto potentially harmful restructuring proposals, while shareholders must maintain the initiative for the corporate turn-around.
    iv. In such situations, regulators could propose institution mergers for the purpose of industry consolidation to the boards of the institutions involved. In worse financial conditions – i.e. CAMEL or BOPEC 4 or 5 ratings in the USA, regulators have the right to mandate such institution mergers as they see fit.

Such an environment would provide the beginning of a solution, in which the frictions created by the highly levered capital structures of today's banks would hopefully be reduced to a minimum.

3.2 A separate solution for small banks

The proposal for large banks has obvious limitations for small banks. Here, atomistic ownership is less natural. Managerial equity shares – if they are meant to be comparable with competitive offers from larger institutions – are likely to be sizeable. Non-listed banks cannot give equity-linked incentives at all, be they shares or options. Finally, small institutions are likely to be disadvantaged in their access to capital markets, thus compromising initiatives that attempt to require mandatory issuance of subordinated debt. From a regulatory perspective, it is likely to be much more labor intensive to supervise one thousand institutions with $100 million in insured deposits each, rather than one institution with $100 billion in insured deposits.

Thus, it pays to contemplate a separate solution for small banks.

The solution proposed here involves a decentralization of regulatory activity by relying on debt governance at a more decentralized level to enforce depositor interests.

This is achieved in structures like the German system of cooperative banks or public savings banks, but also in US bank holding companies. To describe the German systems, they all have central institutions that function as clearinghouses to their hundreds of members. The clearinghouses manage the aggregate system liquidity, and thereby also act as an LOLR to member banks. Also, the systems run their own deposit insurance funds, although Holtorf and Rudolf (1999) view them as insufficient.

In return for the liquidity promise and the deposit guarantee, however, the central institutions have an audit and a governance privilege. They consult individual member institutions on audit standards, and have the right to initiate audits when necessary. In extreme cases, they have the authority to take over the delinquent institution, and replace its management.

This system combines many features described as desirable above: the common deposit insurance funds provoke peer monitoring. The central institution has debt governance interests, but full access to a governance infrastructure typically associated with equity interests. This is possible, because in both public sector savings banks as well as cooperative banks the typical equity interests have been removed, either by aligning depositor and owner interests, or by overlaying normal equity interests with public sector objectives. The result is a structure, in which the enforcement of debt

governance incentives has credibly been decentralized to the level of the system's clearinghouse.

Nonetheless, the German regulators still insist on auditing small banks embedded in such a system, but it is clear that the likelihood of getting caught in a systemic crisis involving such small institutions has largely been curtailed.

The proposal for other countries here would be to rely again on a regime of self-selection: small banks anyhow have a competitive disadvantage by being less able to tap capital markets. By being embedded in a system of small banks with a central institution that does have access to the capital markets, small banks overcome this disadvantage – albeit at the expense of "freedom" due to the legitimate governance interests of the central institution. On a net basis, however, the advantages of system membership should outweigh the disadvantages.

Then, regulators could create a less stringent regulatory regime for those small institutions, which opt to self-select into a credible governance network. As mentioned before, a US bank holding company with many decentralized banking subsidiaries may be viewed as such an institution, and no new regulatory regime would need to be created. Of course, no attempt to force existing independent small banks into selling itself to a BHC under regulatory pressure is also no answer. Yet, smaller banks need to understand that they have to internalize the higher regulatory costs they create. Regulators should rather encourage the creation of systems of small banks connected via a common clearing house, although this would be difficult, if not impossible, if any number of the small banks are competing with each other in the same regions.

3.3 Who is small, and who is large?

What should have been communicated by now is that the regulatory regime would ideally be characterized by self-selection.

Every system needs a default option. Such default option would be established as an activist regulatory regime, and a government run deposit insurance scheme. The terms of such a scheme should be harsh with respect to the number of audits, restrictions on institution ownership, restrictions on management share ownership and remuneration contracts, and broad powers

to use the board of directors of faltering financial institutions to turn banks around in the interest of depositors.

Banks need to know that they can opt out of the harsh regime in two ways.

For one, large banks can tap the capital markets regularly by issuing subordinated debt claims. The regulators reward this provision of market information with greater leniency. In addition, large banks may escape the public deposit insurance fund by joining an accredited (international?) privately organized fund. Small institutions have the choice of embedding themselves in a system of small banks that are characterized by debt governance oriented clearinghouses, which provide access to the capital markets for the small banks, while at the same time receiving far-reaching governance privileges in return.

In the ideal world, the default option would no longer be used.

Concluding remarks

This study has examined the peculiar governance situation of banks. Governance in general is argued to be a set of mechanisms with which the providers of capital, and possibly other stakeholders, are defending their interest against the firm. The firm, in turn, is run by managers, and this is where the problems start: the management position can only be derived with recourse to a model of man, which defies traditional assumptions of economic rationality. In turn, the governance of the firm can also be only a rather crude measure of supervision. Yet, some accountability framework for managers is most definitively desirable. One must only be aware of its limitations.

An important result deriving from the analysis of the management function that equally holds for all governance concerns is the recognition that management is the prime institution entrusted with the governance of firms, also banking firms. Thus, the default option has to be one of trust. Shareholder governance and regulator concerns become relevant only when the primary institution of management is deemed to have failed. In this situation, the first institution to impose corrective devices must be shareholders, since they are still bearing the residual losses. Only after continued deterioration regulators would be phased in gradually, not unlike in a Chapter 11 framework.

The empirical literature examining the effectiveness of individual corporate governance mechanisms has not yet come up with a smoking gun. Only as of late, studies by Gompers, Ishii and Metrick (2001) and by Klapper and Love (2002) make use of governance indices to examine performance effects of the overall governance regime. The study by Gompers et al. (2001) identifies a potential of excess returns of 8.5% p.a. through the 1990's by shorting stock of firms with poor shareholder rights and investing in stocks with strong shareholder rights. This is implausibly large, but the extent of the impact of governance may be exaggerated due to an exogeneity problem. The study by Klapper and Love (2002) examines firms in emerging markets to find that a one standard deviation improvement in a governance index yields a one sixth standard deviation improvement in Tobin's Q, which is more plausible for a governance performance effect.

This motivates a further quest for ideal governance forms, and this essay wishes to contribute to this search for the special case of banks. It is derived that bank regulation finds its origins in the governance interests of debt owners, where in banks depositors have delegated their monitoring rights to the government via the public choice mechanism. The interplay between debt and equity governance is explored, yielding the common insight that equity governance should be more agile, while debt governance focuses on situations of financial distress, including the potential for such distress through risk shifting activities.

The essay has provided a survey of the extant empirical literature both on the effect of individual governance mechanisms as employed in banking, as well as the empirical literature on bank regulation. It is shown that the competing nature of debt and equity interests on management has been largely neglected until recently, when it became part of conventional wisdom that both broad interests form part of the overall governance regime of the banking firm.

The state of knowledge as defined by the discussion of the existing empirical literature was used to formulate policy recommendations for an internally consistent governance regime of banks. Such regime would increase the role of market monitoring mechanisms were feasible, and would open the governance infrastructure normally reserved for shareholders to regulators in more troubled financial institutions.

Debt governance for debt market participants, shareholders and management

a) Instead of government run deposit insurance, government accreditation of privately organized deposit insurance is recommended as a 'first line of defense' primarily against individual institution failure. The private schemes are ideally organized as mutuals owned by participating banks in order to increase incentives for mutual monitoring.
b) Private deposit insurance schemes in many countries are going to be 'lop-sided' since very few large banks are going to account for a large amount of total insured deposits. I recommend that the 100 to 200 largest banks in the world, who know each other intricately from the syndicate loan market anyway, mutually organize an international deposit insurance fund under the auspices of national regulators as well as the BIS in a process not unlike the current debate over Basle II.

c) A political constraint of this proposal is that the members of the international deposit insurance mutual should get a call option on the capital of institutions that need to be bailed out by this fund. It is not clear, whether all national regulators would allow foreign ownership of prominent institutions in their jurisdiction. A secondary concern is that the departure of the highest quality institutions from national DI schemes would expose the current cross-subsidization between institutions, and thereby expose the fund to higher risks in the remaining sample. This may not be in the interest of the national regulator.
d) The lender-of-last-resort remains a government task to smoothen politically infeasible distributional consequences in systemic crises.
e) The call in the recent literature for the issuance of uninsured subordinated debt by banks is supported, yet not as a mandatory requirement, but by way of a regulatory framework that allows banks to self-select into different regimes. A mandatory requirement risks the contract between bank and regulators to be rendered incomplete when the market would not accept an issue by some bank.
f) Small banks, that are unlikely to tap capital markets in the near future are encouraged to organize a new or join an existing system of small banks structured around a large clearinghouse in the center. The clearinghouse bank provides liquidity to the member banks and obtains substantial governance rights in return. To the regulator, this represents a decentralization of debt governance, and is rewarded with a more 'lenient' regulatory regime similar to that provided for banks that issue uninsured subordinated debt. Again, banks self-select into a regulatory regime.
g) The conflict of interest between shareholders and depositors of a bank can also be mitigated by making sure that everyone is both. This is the advantage of cooperatives. I argue that the survival of the cooperative form in banking is so much more pronounced than in other industries, because financial cooperatives address the specific governance dilemma faced by banks. Weakening shareholder instincts seems to be an advantage for the overall performance of banks. However, I do not advocate special support for financial mutuals, but rather call for regulators looking favorably on the cooperatives instead of fighting them for a presumed governance deficit.
h) I join the call by Macey and O'Hara to also transplant creditor interests to the managerial level by extending the concept of fiduciary duty to depositors.

Regulators and shareholder governance

1. Preventative measures (*ex ante*)

Regulators must have the ability to prevent arrangements between bank shareholders and their managers that needlessly accentuate rather than attenuate conflicts of interest with regulators. The following elements may be contemplated:

a) Ownership restrictions. Unadulterated equity interests can lead to perverse incentives due to the call option feature of equity. The aggressive pursuit of shareholder value concerns can lead to incentives to 'gamble for resurrection'. Therefore, the most suitable ownership form next to the cooperative for a bank is widely held ownership. Any concentrated form of ownership will more likely turn against regulatory interest in times of distress. To avoid this, ownership restrictions may be desirable from the point of view of regulators. This holds particularly for management ownership shares that are large in percentage terms relative to the banks total capital, but also the manager's total wealth. Due to the sensitivity of ownership regulation in a free market economy, an alternative to outright ownership restrictions would be a more aggressive regulatory regime for banks with concentrated ownership. From a social welfare point of view, what has been said about the cooperative form is true about ownership structure: the reduction of shareholder vigilance is to some extent positive in banks.
b) Management compensation contracts. Also the contract between shareholder and management can lead to excessive incentives to take on risks. In the mainstream corporate governance literature, it is accepted that managerial risk-aversion represents a potential agency problem between shareholders, who are only interested in market risk, and managers, who are interested in firm-specific risk. Management remuneration contracts specifying performance-based awards should stretch the cash flows associated with these awards over time in order to make sure that failed gamble for resurrection strategies are not rewarded. Regulators, who in many countries get to have a say in bank management nominations in the first place, should also be able to ratify payment terms, at least in the form of spelling out guidelines to acceptable bank management remuneration contracts.

2. Protective measures (*ex post*)

a) Access to the board of directors: I claim in the paper that bank regulation shares characteristics with debt governance as for example practiced between German banks and large firms, where bankers often have a board mandate to step in during times of financial distress. Regulators should not have a permanent board mandate, but in times of deteriorating bank quality, they should be in a position to ratify shareholder initiated restructuring proposals after checking for risk compatibility[112]. In weaker banks, regulators may even initiate restructurings. This would be akin to the role of creditors in Chapter 11 or out-of-court restructurings.
b) At the beginning signs of trouble, regulators should also be able to propose, later mandate, financial institution mergers to decentralize the restructuring process if necessary.
c) Finally, I argue that Charter Value is viewed positively by both shareholders and regulators. While bank regulation should not attempt to create charter value, it may contemplate to reward it.

The resulting regime avoids some pitfalls of some calls for mandatory requirements of market monitoring as part of the third pillar of bank regulation under Basle II. The anticipated self-selection mechanism appropriately resembles a market structure embedded in an incentive mechanism that reflects regulatory priorities. The resulting governance regime for banks avoids confrontational while stressing compatible debt and equity interests.

The final result to be achieved with a structure as the one proposed here is an efficient financial sector, in which managers, guided by the principal of shareholder value maximization and constrained by regulatory risk concerns, would adapt structures and policies of financial institutions in a way that serves their financial clientele best.

[112] Similar to the decision-making typology developed by Fama and Jensen (1983).

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