CORPORATE GOVERNANCE: WHAT'S SPECIAL ABOUT BANKS?

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The recent financial crisis has called into question the adequateness of existing corporate governance and regulatory frameworks for financial institutions. In particular, there are increasing calls to constrain bank managers and to place more emphasis on the interests of bank stakeholders other than shareholders. Such calls are entirely appropriate given the large fallout from the recent financial crisis, which many researchers and commentators have directly linked to weaknesses in governance and regulation. Reckless lending practices and rogue trading have contributed to a large number of financial institution failures worldwide. Government rescues associated with these failures have thus far resulted in substantial fiscal costs, ranging as high as 40.7 percent of GDP in Ireland (**Figure 1**; Laeven and Valencia, 2012).

While the phenomenon of risk taking behavior or outright looting by banks is not new (Akerlof and Romer, 1993), the scale at which it took place is unprecedented, at least since the banking crises during the great depression which created deposit insurance and intense banking regulation. No wonder that banks have been accused by many of stealing "other people's money".[2]

The academic literature on the corporate governance of banks is scarce. More problematic is that those few studies that do consider banks often look at banks through the lens of the Anglo-Saxon model of corporate governance, focusing on shareholder value creation while abstracting from the interests of non-shareholder stakeholders and financial stability

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[2] "I may like many bankers, but I rather dislike banks. I recognize their necessity, but fear their irresponsibility. Worse, they are irresponsible partly because they know they are necessary. No industry has a comparable talent for privatizing gains and socializing losses. Participants in no other industry get as self-righteously angry when public officials – particularly, central bankers – fail to come at once to their rescue when they get into (well-deserved) trouble. (Martin Wolf, Financial Times, Jan 15, 2008)."

considerations. And the extensive literature on the corporate governance of non-financial firms has limited applicability to banks because it abstracts from regulatory distortions that affect banks.

In this article, I will summarize key insights from the literature on the corporate governance of banks. I will first focus on the effectiveness of traditional corporate governance mechanisms, extensively reviewed in the literature on non-financial firms, in protecting the interests of all stakeholders in banks, and will then discuss the role and limits of corporate governance and financial regulation in safeguarding financial stability.

I. LIMITS OF TRADITIONAL CORPORATE GOVERNANCE

Financial institutions play an important role in the allocation of capital for productive uses. If financial institutions are well-managed and allocate capital to their most productive use, this will contribute to growth (Levine, 2005). Sound corporate governance contributes twofold to this outcome. First, it assures that the providers of capital to financial institution (depositors, debt holders, and shareholders) get a return on their investment, without the managers stealing the capital. Second, it prevents managers of financial institutions from investing in bad projects.

It is therefore worrying that there are stories abound of rogue traders and fraudulent behavior at banks. These highlight that the internal governance of firms, despite the presence of sizeable risk management and compliance functions in all the major financial institutions, does not work effectively. The recent departure of the global head of compliance at HSBC, one of the leading global banks, following allegations by a US Senate panel of money laundering of Mexican drug money, illustrates this internal governance failure.[3]

It is fair to say that the corporate governance problems that plague non-financial companies, namely those associated with the separation of ownership and control, also apply to financial

[3] "HSBC's head of compliance quits after money laundering allegations" (Telegraph, July 17, 2012).

institutions.[4,5] Corporate governance of financial institutions also depends on the legal protection of investors, which is not always adequate (Shleifer and Vishny, 1997). And standard solutions proposed in the literature to align the interests of managers and outside investors also apply to banks. These include concentrated ownership, incentive contracts for managers, hostile takeovers, and large creditors.

However, financial institutions have special attributes that can intensify standard governance problems and limit the effectiveness of corporate control.[6]

In what follows, I use the term banks and financial institution interchangeably. With the exception of deposit insurance, which only applies to deposit-taking institutions, the distinction is largely irrelevant for my purposes.

What's special about banks?

What's special about banks? Financial institutions are different from non-financial firms in at least four aspects[7]:

[4] For an excellent review of corporate governance in non-financial companies, see Shleifer and Vishny (1997).

[5] These conflicts are aptly stated in Berle and Means (1932), the standard reference on this topic: "Have we any justification for the assumption that those in control of a modern corporation will also choose to operate it in the interests of the owners? The answer to this question will depend on the degree to which the self-interest of those in control may run parallel to the interests of ownership and, insofar as they differ, on the checks on the use of power which may be established by political, economic, or social conditions ... If we are to assume that the desire for personal profit is the prime force motivating control, we must conclude that the interests of control are different from and often radically opposed to those of ownership; that the owners most emphatically will not be served by a profit-seeking controlling group." (Berle and Means, 1932, p. 113-114).

[6] See also Caprio and Levine (2002).

[7] Some have argued that banks are more opaque given the large informational asymmetries surrounding loan quality (e.g., Morgan, 2002). But not everybody agrees. Firms in other industries can also be opaque. A good example is the pharmaceutical industry, where the development of new products requires substantial investments with long gestation periods, and with success rates that are difficult to predict even by experts. Moreover, given the wealth of information made available to investors about banks, at least in the United States, through Call reports and other regulatory filings, it is hard to claim that banks are less transparent than other firms. Either way, informational asymmetries associated with opaqueness would simply intensify principal-agent conflicts but traditional governance models would still apply. It is not central to my story here.

- They are highly leveraged
- They have diffuse debtholders (depositors)
- They are large creditors
- They are systemically important and therefore heavily regulated

The typical leverage ratio of a bank is about 10, which is much higher than that of most nonfinancial firms. The typical bank holds the majority of this debt in the form of deposits, taken from a large number of diffuse depositors. Financial institutions are also major creditors to the real economy, even sitting on corporate boards in their capacity as major investors in countries like Germany and Japan. They therefore play a potentially important corporate governance role to the broader economy. In this sense, poor corporate governance of financial institutions can have real implications: if corporate governance of financial institutions is inadequate, then it is difficult to imagine that they in turn will promote sound corporate governance in the firms they lend to. This ultimately means that capital will not be allocated to its most productive use.

These special attributes of financial institutions imply that agency conflicts and valuation effects as predicted by standard theories of corporate governance are likely to be more pronounced in financial institutions, or at least altered. For example, risk taking effects associated with leverage will be more pronounced for financial institutions given that they are highly leveraged. And the presence of small depositors that enjoy deposit insurance weakens the monitoring role of debtholders in banks as compared to nonfinancial firms.

Deposit insurance and financial regulation

High leverage, diffuse debt, and large creditors can in principle also be found in nonfinancial companies. What really sets financial institutions apart is that they are subject to deposit insurance and heavily regulated. True, firms in several other industries are also regulated, but with the exception of perhaps nuclear power plants, none are as heavily regulated as financial institutions, especially banks. Regulation comes in many forms, including capital requirements, ownership, and activity restrictions, etc.

There are good reasons for why banks enjoy deposit insurance and are heavily regulated. Deposit insurance is there to deal with liquidity risk, which is inherent to banking where short-term obligations are transformed into long-term claims. And regulation is there to correct the displacement of market discipline arising from deposit insurance, and to prevent bank failures and associated negative externalities on the financial system and broader economy.

The implications of high leverage are different for banks than for non-financial companies because it raises the probability of bank failures and the threat of systemic risk. Capital requirements in particular are seen as effective regulatory instruments to prevent banks from taking on excessive leverage, although regulatory arbitrage has allowed banks to circumvent leverage rules in some circumstances and many argue that minimum capital requirements are set too low.

The problem with deposit insurance and financial regulation is that they alter the traditional channels of corporate governance. Take deposit insurance. By reducing incentives of depositors to monitor banks, deposit insurance displaces market discipline, hindering corporate governance. Moreover, deposits are not only a form of diffuse debt but also of uninformed and unsophisticated debt, further hampering corporate governance. Most households only know deposit insurance when there is a banking crisis, in other words, when it is too late.

And financial regulation, in trying to correct the behavior of managers and investors of financial institutions with a view to safeguard financial stability, may be counterproductive and introduce new distortions that reduce the ability of investors to exert control, lowering valuations of financial institutions, which ultimately could have negative ramifications for financial stability. In particular, bank regulation is partly responsible for the ineffectiveness at banks of traditional corporate governance solutions to align the interests of managers and outside investors. These solutions include: concentrated ownership, managerial incentive

contracts, hostile takeovers, and large creditors.[8] Let me elaborate on the limits of each of these four devices in the case of banks.

Concentrated ownership

The most direct way to align the interests of managers and shareholders is concentrated ownership. Large investors have the incentive to collect information and monitor management, limiting managerial discretion. While large shareholdings of non-financial companies are common in most countries, this is less the case for banks.[9] The reason is that "most countries restrict the concentration of bank ownership and the ability of outsiders to purchase a substantial percentage of bank stock without regulatory approval (Caprio and Levine, 2002)." These restrictions usually come in the form of limits on the percentage of bank capital that can be owned by a single entity or constraints on ownership by non-banks.

For example, the U.S. imposes specific limits on the block holdings of bank holding companies that prevent representation on the board of directors of the banking organization.[10] The practical implication of these limits has been that most non-controlling investments in banks have been kept below 10 percent of voting shares so that the investor could obtain a

[8] I largely abstract from the role of the board of directors, focusing instead on the role of managers and owners. For a comprehensive review of the role of boards in governance of banks, see Adams and Mehran (2003).

[9] The bulk of corporate governance literature examines the agency problems that arise from two extreme ownership structures: diffuse ownership or one large, controlling owner combined with small shareholders. Ownership structures in the real world are more complex. In fact, one-third of publicly listed firms in Europe have multiple large owners, and the dispersion of cash-flow rights across these large shareholders influence corporate valuations (Laeven and Levine, 2008).

[10] Specifically, "the Bank Holding Company Act provides that a company has control over a banking organization if the company directly or indirectly owns, controls, or has power to vote 25 percent or more of any class of voting securities of the banking organization. Companies with investments that exceed this threshold of control are required under the Act to itself becoming a bank holding company, with concomitant regulatory burdens. Moreover, under the Act, the Federal Reserve Board "generally has not permitted a company that acquires between 10 and 24.9 percent of the voting stock of a banking organization to have representation on the board of directors of the banking organization. The principal exception to this guideline has been in situations in which the investor owns less than 15 percent of the voting stock of the banking organization and another person (or group of persons acting together) owns a larger block of voting stock of the banking organization (Federal Reserve Board, 2008, Policy statement on equity investments in banks and bank holding companies)".

board seat without itself becoming a bank holding company.[11] Similar ownership limits are in place in about 40 percent of countries around the world (Caprio and Levine, 2002).

The rationale at the time to limit the controlling influence of bank owners over the banking organization was the so-called "source of strength" doctrine: any company that acquires control of a bank holding company needs to be prepared to use its resources to financially support the bank holding company should the need arise.[12] This doctrine presents a major obstacle for the acquisition of control of a banking organization by most investors. In addition, this regulation was driven by a desire to limit the comingling of banking and commerce, effectively preventing non-financial companies with commercial interests from exercising a controlling influence over banking organizations.

As a result of such ownership restrictions, ownership of banks is more diffuse than it otherwise would have been.[13] This raises the possibility that the relatively small size of their investment keeps diffuse shareholders from effectively exerting corporate control on financial institutions.

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[11] Partly in response to the financial crisis, which resulted in capital shortfalls in a number of banks, the Federal Reserve has recently relaxed ownership restrictions. Specifically, since September 22, 2008 the limit for total equity held by a non-controlling interest has been raised from 24.9% to 33% (as long as the investor does not own more than the statutory limit of 15% of a class of non-voting securities), and investors with up to 24.9% of voting shares have become eligible to have representation on the board (previously this eligibility had been capped at 10% ownership).

[12] "In this way, the Act ties the potential upside benefits of having a controlling influence over the management and policies of a banking organization to responsibility for the potential downside results of banking organization but also bear the costs of their significant involvement in the banking organization's decision-making process, thus protecting taxpayers from imprudent risk-taking by companies that control banking organizations. Minority investors in banking organizations typically seek to limit their potential downside financial exposure in the event of the failure of the banking organization. Concomitantly, the BHC Act requires that minority investors seeking this protection limit their influence over the management and policies of the banking organization (Federal Reserve Board, 2008, Policy statement on equity investments in banks and bank holding companies)".

[13] For the U.S., the Dlugosz-Fahlenbrach-Gompers-Metrick dataset on blockholdings of publicly-listed companies shows that, as of 2001, 1 in 5 non-financial companies had total blockholder ownership by insiders (officers, directors and affiliated parties) in excess of 10 percent, while there were no such cases among financial institutions.

It is important to note that concentrated ownership is not a panacea. Large investors may act in their own interest at the expense of minority shareholders, debt holders, and other stakeholders in the firm. Furthermore, large investors may encourage the firm to invest in risky assets, since they benefit on the upside while debt holders bear the costs of failure (Jensen and Meckling, 1976). Expropriation of minority shareholders can be particularly problematic in countries with poor protection of minority shareholder rights.

Executive pay

Another way to deal with the principal-agent conflicts arising from the separation of ownership and control is to give managers a highly contingent, long term incentive contract to align their interests with those of investors. Executive compensation contracts generally include such high-powered incentives. The scale of the recent financial crisis and the seemingly exorbitant executive pay amassed by bankers has led to much discussion on executive compensation and whether it helps align interests of managers and shareholders.

In principle, the risk taking incentives of bank managers will depend on the degree to which their interests are linked to those of value-maximizing stockholders, including through executive compensation contracts (Berle and Means, 1932). However, the incentives of managers also depend on their bank-specific human capital skills and private benefits of control. As a result, bank managers may advocate for less risk taking than stockholders without those skills and benefits, even in the presence of incentive contracts (Jensen and Meckling, 1976; Demsetz and Lehn, 1985; John et al. 2008).[14] In practice, bank managers often do not hold much bank stock, placing them at odds with bank owners in their views on risk taking (Laeven and Levine, 2007).

[14] The presence of conflicts of interests in financial institutions is also evident in literature on the diversification of activities within financial activities, which generally finds that financial institutions destroy value for their shareholders when they become more diversified (Laeven and Levine, 2007). Managers of financial institutions frequently display empire building behavior, citing diversification and growth as overarching objectives as opposed to shareholder value creation.

Moreover, high-powered incentives contracts, such as bonus pay and option contracts, can "create enormous opportunities for self-dealing for the managers, especially if these contracts are negotiated with poorly motivated boards of directors rather than with large investors" (Shleifer and Vishny, 1997, p. 745). It is therefore not surprising that regulators and the public at large have questioned such incentive contracts. Indeed, there is empirical evidence that banks with managers whose incentives were more aligned with the interests of shareholders performance significantly worse during the recent financial crisis (Fahlenbrach and Stulz, 2011). This suggests that executive pay should not be seen as a panacea for solving corporate governance problems.

Market for corporate control

Hostile takeovers are another mechanism to solve the problem of managerial discretion over the firm's free cash flow. In a typical hostile takeover, successful bidders acquire control over poorly performing firms through tender offers, typically ousting management in the process. However, despite their apparent success in the United States and the United Kingdom, they are virtually absent in the rest of the world. As regards banks, most countries explicitly limit the possibility of hostile takeovers. Any legally permissible mergers require prior approval from the country's bank regulator. And some countries explicitly prohibit takeovers of banks by non-banks. For example, the U.S. National Banking and Bank Holding Company Acts effectively prohibit any corporation other than a commercial bank or a bank holding company from acquiring a commercial bank. This is not to say that takeovers necessarily reduce agency costs. Corporate bidders frequently overpay for target firms in acquisitions that bring them private benefits of control.

Large creditors

Large creditors can act as another disciplining device on bank management. The power of debtholders "comes in part because of the control rights they receive when firms default or violate debt covenants and in part because they typically lend short terms, so borrowers have to come back at regular, short intervals for more funds (Shleifer and Vishny, 1997, p. 757)." The distinguishing feature of debt is that creditors do not need to coordinate to take action

against a delinquent firm. Since banks have diffuse debt in the form of many small depositors, this makes debt renegotiation difficult, weakening corporate governance.

The diffuse debt structure of banks is largely due to the existence of deposit insurance, which offers small, uninformed depositors the confidence to place money in banks. However, deposit insurance reduces the monitoring role of debt holders and renders it unattractive for banks to attract non-deposit debt which is not subsidized.

II. BANK REGULATION AND SYSTEMIC RISK

So far, I have considered the role of traditional corporate governance mechanisms to align the interests of those in control with those of ownership, and argued that traditional devices proposed in the literature are not effective or altogether absent in the case of banks. I will now argue that even if corporate governance were fully effective in resolving these conflicts of interest, this would be insufficient from a financial stability point of view.

Externalities from bank failures

In the financial sector, individual firm failures can pose serious externalities on the financial system and the broader economy, much more so than in other sectors of the economy. The owners of banking firms will not internalize the risks that the failure of their firm will pose on the rest of the financial system, even though such systemic risk can pose significant threats to the broader economy. While corporate governance may curtail individual bank risk, it will not force banks to internalize systemic risk. Corporate governance of individual firms therefore may have little bearing on the risk taken by the financial system as a whole. From a financial stability point of view, corporate governance is therefore insufficient.

The adverse real economic effects resulting from bank failures arise primarily from disruptions to the payment system, disruptions in credit flows, and contagion effects.[15] The

[15] Payment system disruptions, such as those arising from bank runs, may cause the failure of illiquid but solvent firms, and can lead to a loss of confidence in the financial system. Depositor runs are most damaging when they result in contagion, with liquidity pressures spreading through the banking system as failures of

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economic significance of these effects is witnessed by the large real effects of systemic banking crises, as measured in terms of output losses and fiscal costs to resolve failed financial institutions. The fiscal costs to resolve banking crises have been estimated to average about 13% of GDP across 147 banking crises since the 1970s (see Laeven and Valencia, 2012).

Bank performance and systemic risk

Traditional governance models use valuation as the measure of firm performance. But given the existence of large externalities associated with bank failures, is valuation the right metric to assess the performance of banks?

Banks can boost valuations by increasing leverage and risk, which can be optimal from a shareholder point of view given the presence of limited liability, but may be problematic from a society's point of view if it is accompanied by an increase in the probability of failure that raises systemic risk. The presence of these externalities associated with bank failures is exactly why banks are regulated in the first place.

Banks naturally take more risk than is optimal for society because their shareholders are subject to limited liability. As in any limited liability firm, diversified owners have incentives to increase bank risk after collecting funds from bondholders and depositors (Galai and Masulis, 1976). And to the extent that debtholders can only monitor and control shareholder's actions imperfectly and ex post, shareholders will increase shareholder value by increasing bank risk. These risk taking incentives are only reinforced in the presence of deposit insurance (Merton, 1977).

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individual banks create network externalities for the banking system as a whole. Contagion can arise from direct contractual linkages between banks, such as through interbank loans, or from indirect linkages, such as through balance sheet exposures to common shocks. Disruptions in credit flows, such as those arising when large numbers of loans are called in by distressed banks, may create sharp contractions in the supply of funds to otherwise profitable investment opportunities in the real sector. The resulting decline in economic activity and drop in asset prices can further negatively affect the asset quality of banks, creating a vicious cycle of negative balance sheet effects.

It is therefore problematic that much of the literature on the corporate governance of banks completely abstracts from regulation and uses valuation as the metric for assessing the performance of banks. More attention should be paid to the impact of corporate governance on risk taking by banks. Moreover, this literature generally focuses on individual bank performance rather than the stability of the financial system as a whole. For example, even if executive compensation were to help align the interests of shareholders with managers by increasing corporate valuations of financial institutions, it would still be problematic if this is done in a way that increases systemic risk.

From this perspective it is interesting to note that individual firm risk of major U.S. financial institutions (as measured by the volatility of individual firm stock returns) had been on a downward path prior to the recent financial crisis, while interdependencies reflecting systemic risk (as measured by correlations of stock returns) had been on an upward trend (see **Figure 2**). This shows that risk in the financial system is not simply an aggregation of individual risks but is driven by the collective behavior of financial institutions. Corporate governance of individual firms therefore may have little bearing on the risk taken by the financial system as a whole. While corporate governance may curtail individual bank risk, it will not force banks to internalize systemic risk, so from a financial stability point of view corporate governance is insufficient.

Regulation and governance interact

An added complication in banking is that the existence of regulation can alter the traditional relationships between governance traits and bank performance. Indeed, the mere existence of regulation means that traditional governance channels can break down as regulations interact with ownership and other governance characteristics.

Yet, ongoing financial reforms and re-regulations in response to the global financial crisis virtually ignore bank governance, including the ownership of banks and the incentives and conflicts that arise between bank owners and managers. For instance, in the area of capital regulation, the general approach is that more capital is better, irrespective of who provides

this capital. But what if the governance of banks is intrinsically linked to bank risk? And what if bank governance interacts with regulation to shape bank stability?

This emphasis on using regulations to induce sound banking, while ignoring the role of bank governance, is surprising because corporate governance theory suggests that ownership structure influences corporate risk taking (Jensen and Meckling, 1976). For example, shareholders with larger voting and cash flow rights have correspondingly greater power and incentives to shape corporate behavior than smaller owners (Shleifer and Vishny, 1986). This means that the same regulations could have different effects on bank risk taking depending on the comparative power of shareholders within the ownership structure of each bank.

However, the ability of bank shareholders to maximize their equity value by increasing risk depends in part on the preferences of the bank's managers and on the constraints imposed on bank risk taking by bank regulation and the regulators that enforce such regulation (Buser, Chen, and Kane, 1981). Indeed, theory predicts that regulations influence the risk-taking incentives of shareholders differently from those of managers and debt holders. For example, deposit insurance intensifies the ability and incentives of stockholders to increase risk (Merton, 1977; Keeley, 1990). The impetus for greater risk taking generated by deposit insurance operates on owners, not necessarily on managers with small shareholdings. As a second example, consider capital regulations. One goal of capital regulations is to reduce the risk-taking incentives of owners by forcing owners to place more of their personal wealth at risk in the bank (Kim and Santomero, 1994). Capital regulations need not reduce the risk-taking incentives of owners, however. Specifically, although capital regulations might induce the bank to raise capital, they might not force influential owners to invest more of their wealth in the bank. Thus, the impact of regulations on risk depends on the comparative influence of owners within the governance structure of each bank.

Yet, research on bank risk taking typically does not incorporate information on each bank's ownership structure, nor its interaction with financial regulation. In an early exception, Saunders, Strock, and Travlos (1990) find that shareholder controlled banks exhibit higher risk taking behavior than banks controlled by managers with relatively small shareholdings,

and that these differences in risk become more pronounced following financial deregulation which relaxes regulatory constraints on shareholders to take risks.

More recently, Laeven and Levine (2009) test how national regulations interact with a bank's ownership structure to determine its risk taking behavior prior to the recent crisis. They find that banks with large shareholders tend to take greater risks, in support of theories predicting that owners with substantial cash flow rights induce banks to increase risk taking.[16]

They also find that deposit insurance is only associated with an increase in risk when the bank has a large shareholder. Similarly, stricter capital regulation is associated with greater risk when the bank has a large shareholder, but has the opposite effect in widely-held banks. Ignoring bank governance leads to incomplete and sometimes erroneous conclusions about the impact of bank regulations on bank risk taking.

Regulatory forbearance

To complicate matters further, the effectiveness of bank regulation to curtail bank risk taking will also depend on the incentives of the bank regulators that enforce such regulations. To the extent that regulators serve the public interest, they could improve corporate governance as compared to a situation where this is left to diffuse depositors and shareholders. In principle, financial regulation gives extraordinary powers (including on-site supervision and prompt corrective action) to supervisors that do not exist for nonfinancial companies. In particular, bank supervisors are accorded special powers to intervene in failing banks and supersede shareholder rights to protect debtholders and taxpayers.

However, to the extent that regulators and supervisors serve their own interests rather than those of the public at large, the benefits of regulation will be moot (Boot and Thakor, 1993). Although supervisors have a fiduciary duty as delegated monitors to protect the interest of

[16] Consistent with Laeven and Levine (2009), Beltratti and Stulz (2012) find that bank risk is generally higher in banks with more concentrated ownership (large controlling shareholders) during the recent U.S mortgage crisis.

debtholders, there is much reason to believe that regulators are unlikely to exert the same amount of effort and monitor with the same amount of intensity as debtholders would if they were not insured, given that supervisors are looking after other people's money rather than their own. With self-interested bank regulators that have private benefits or reputational concerns, or that can be captured by industry, regulation may be mute to constrain bank risk taking (Kane, 1990).[17]

The possibility of regulatory forbearance is particularly problematic given that society largely relies on regulators to control systemic risk and prevent banking crises, since owners of banking firms do not internalize the threat that failure of their firm may pose on the financial system and broader economy.

It is therefore particularly alarming that there is much evidence that supervisors pay undue attention to their own career concerns and find it difficult to promptly intervene in failing banks, frequently serving the interests of the institutions they aim to regulate rather than that of taxpayers who ultimately are passed the bill should financial institutions fail. In particular during periods of financial distress when systemic risk is high, regulators frequently forbear on capital rules to prevent a large number of financial institutions from failing, including by relaxing accounting rules.[18]

Banks have considerable discretion in the timing of their loans loss provisioning for bad loans and in the realization of loan losses in the form of charge-offs, and when faced with mounting losses may hold back on the provisioning for bad debt in an effort to preserve book capital. Moreover, banks can augment book value by reclassifying trading assets as held-to-maturity when fair value is lower than amortized cost.[19] Laeven and Huizinga (2012) show

[17] "The only meaningful distinction between man and machine is moral hazard" (Boot and Thakor, 1993).

[18] See Kane (1989) and Kroszner and Strahan (1996) for evidence of regulatory forbearance during the S&L crisis; Skinner (2008) on the Japanese crisis; and Huizinga and Laeven (2012) on the US subprime crisis).

[19] Under U.S. accounting rules (FAS 115), banks have to classify assets when acquired and subsequent reclassifications are not allowed, except under special circumstances. However, regulators publicly allowed Citigroup to reclassify its mortgage-backed securities and the evidence shows that other U.S. banks have

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that U.S. bank holding companies overstated their regulatory capital during the U.S. subprime crisis by underprovisioning for loan losses and reclassifying trading assets under more favorable accounting treatments. Indeed, the increasing discrepancy between market and book values of U.S. bank holding companies since 2008 attests to some degree of regulatory capital forbearance (**see Figure 3**).

Accounting discretion, combined with regulatory forbearance, delivers highly inaccurate financial information on financial institutions, especially at time of financial crisis when assets become distressed. Such financial misreporting can impede market discipline by investors of financial institutions, and can have real consequences for the allocation of capital in economy can be severe (Kedia and Philippon, 2009). However, despite the risk of regulatory forbearance, we still need financial regulation to address serious market failures in banking, and therefore cannot do away with regulators, even if they are human.

Supervisors also gain preferential access to lots of information on financial institutions, including though filings of detailed financial statements. Such supervisory information is in many ways more extensive than that for non-financial companies, for which even financial statements are often not available.

Given that disclosure and transparency are of key importance to the well-functioning of any corporate governance system, this places banks in a special category. From this perspective it is unfortunate that much supervisory information on banks is not shared with the broader public, as it could greatly enhance market discipline. While not sharing information out of fears of triggering bank runs is understandable, the stringent limits put on the sharing of supervisory information are questionable.[20]

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reclassified with or without regulatory approval. This suggests covert asset reclassification under US accounting rules as forbearance policy. In Europe, under international accounting rules which had been relaxed during the crisis, such reclassification was overtly allowed.

[20] "Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants; electric light the most efficient policeman (Brandeis, 1914)"

III. DEALING WITH SYSTEMIC RISK

If corporate governance is inadequate to address systemic risk, then what should be used in its place? A number of solutions have been proposed to deal with systemic risk in banking. These include government ownership, macroprudential regulation, and higher capital. I will now offer a critical review of these solutions and then offer some additional complexities in dealing with systemic risk.

Government ownership

Some have proposed for the government to directly influence the governance of financial institutions through government ownership of financial institutions. Proponents of state ownership argue that private profit-maximizing firms fail to address concerns related to externalities, such as those associated with bank failures. Politicians acting in the public interest can then improve efficiency by controlling the decisions of firms. However, "with a few exceptions of activities where the argument for state ownership carries the day, such as police and prisons, the reality of state ownership is broadly inconsistent with this efficiency argument (Shleifer and Vishny, 1997)". The problem is that state ownership places control rights in the hands of bureaucrats that almost certainly do not have the same interests as shareholders or the general public. Instead, the goals of bureaucrats are likely dictated by their political interests, including catering to special interests groups. From this perspective, it is problematic that government ownership of banks and other financial institutions is widespread and growing, as a result of government rescues during the ongoing financial crisis.[21]

Macroprudential regulation

Given the existence of externalities associated with bank failures, we should not place the entire burden on corporate governance but also rely on regulation. The problem with the

[21] According to La Porta et al. (2002), on average about 41.6 percent of the assets of the largest ten banks in each country are owned or controlled by the government as of year-end 1995.

current regulatory framework for banks is that financial regulation has been focused too much on the risk of individual financial institutions rather than the system as a whole. Prudential regulation has been too much micro-focused. Financial regulation has to become more macro-focused, focusing on the risks of the financial system as a whole.

The main tool that regulators have used to prevent bank failures has been capital regulation in the form of minimum capital requirements. Yet, the crisis has shown that this approach is insufficient to prevent costly financial crises. Under current capital regulations, capital adequacy levels are set on the implicit assumption that by creating buffers to absorb unexpected shocks at individual banks, the system as a whole is safer. Yet, this need not be the case. By responding to capital regulations with only their own interest in mind, banks can potentially behave in ways that collectively undermine the system as a whole (Rajan 2009). For example, banks hit by a negative shock may prefer to delever when faced with binding capital constraints, causing a credit crunch and a generalized drop in asset prices, thereby exacerbating the initial negative shock. To control such systemic risk that may jeopardize financial stability, regulation will need to become more macroprudential, concerning itself with the stability of the financial system as a whole.

A related problem with the current regulatory framework for banks is its procyclical nature. During boom episodes, when risk appetite is large and asset values rise, banks appear overcapitalized and respond by expanding their business and increasing leverage. By contrast, during busts when asset prices collapse and measured risk rises, banks try to maintain capital adequacy ratios by shrinking their balance sheets, as capital has become scarce and expensive, thereby reducing access to finance for firms and households.

By seeking to align capital levels at individual banks with a bank's own risk exposures, bank regulation has done too little to restrain bank expansion and the build-up of systemic risk in the upswing, nor has it been able to provide much support during the collapse of the system. Macroprudential regulation is needed to dampen the procyclical nature of the current regulatory framework for banks.

Macroprudential regulation is justified by the market's failure to deal with aggregate risks and financial stability (Rochet, 2004). This is because each bank free-rides on the willingness of others to pay for financial stability. The existence of externalities that operate between financial institutions and that either contribute to the accumulation of vulnerabilities during boom periods or to the amplification of the negative shocks during busts provide the main rationale for macroprudential regulation.

There is growing consensus of a need for an increased focus on macroprudential regulation to control systemic risk, which is not internalized by the management of financial institutions and their investors. Yet the same time inconsistency problems that plague microprudential regulation, including political pressure on supervisors, regulatory forbearance, and too big to fail policies also hamper the implementation of macroprudential regulation.

Capital

Another approach to control systemic risk is to reduce the probability that banks fail and thus the likelihood that a systemic event will be triggered. The most direct way to reduce the probability of bank failure is to raise capital standards. The risk-shifting incentives of banks arising from limited liability and deposit insurance would significantly be reduced if bank capital would create larger buffers for losses. And by reducing the probability of individual bank failure, higher capital buffers will reduce the likelihood that a systemic event will be triggered, even though banks with more capital will still not internalize the externalities associated with bank failure.

Capital can be strengthened in two ways. First, the quality of capital can be improved by doing away with hybrid debt instruments and tax deferred claims, which are no true loss absorbers, as elements of capital.[22] Second, minimum capital requirements could be raised. This would reduce excessive risk taking, thus lowering financial fragility and systemic risk (Admati et al., 2010). However, there are real costs associated with higher capital

[22] The new Basel rules are making headways in this regard.

requirements. Higher capital may be detrimental to the bank's ability to lend, not least because debt is favored through taxes and deposit insurance, but also because ownership restrictions raise the cost of bank equity in some countries. While the case for higher capital standards is strong, the desire to safeguard financial stability should be weighed against these real costs to determine the appropriate level of capital.

Moreover, it should be clear that unless banks are all-equity financed, risk shifting incentives will remain. Higher capital requirements therefore need to be supplemented with other regulatory controls to keep systemic risk in check. Finally, more consideration should be given to the characteristics and incentives of the suppliers of capital. If these are diffuse owners, then this need not improve monitoring of bank management.

Resolution

There are additional complexities in dealing with systemic risk that are beyond the control of the regulator. These relate to the legal underpinnings of bank resolution and the role of the government in crisis management. Let's discuss resolution first.

Even in the absence of regulatory forbearance, for regulators to effectively do their job, resolution frameworks need to be in place that give regulators the powers to intervene early on in failing banks. After all, for debt contracts to work effectively, and thus lower the cost of debt finance, it should be the case that upon non-payment by borrowers, control automatically transfers to the bank's debtholders, away from its shareholders. For banks, such transfer of control is generally formalized under resolution frameworks that allow for the resolution or liquidation of banking firms. However, not all countries have such resolution frameworks (in fact, until the recent crisis, formal resolution frameworks were not in place even in many advanced economies), and where they do exist there are questions about its effectiveness in dealing with the prompt resolution of large and complex financial institutions that are deemed too big to fail. This implies that the threat of bankruptcy, which acts as a disciplining device in nonfinancial firms, does not work for banks.

Government bailouts

Now let's discuss the role of government in crisis response. During systemic banking crises, the government in the form of the treasury takes on a special role in addressing systemic risk that go beyond the mandate of the regulator. These include the use of fiscal resources to intervene directly into ailing financial institutions. Such government interventions aim to restore financial stability while protecting taxpayer money. Although they increase moral hazard and impose large burdens on taxpayers, they may be necessary to prevent a collapse of the financial system with real implications. However, given that it is often difficult to tell whether a financial institution is systemically important, the risk is that in an act of panic, treasury officials may err on the side of caution, wasting taxpayer money in the process. For example, uninsured debt holders in failed banks are frequently bailed out by governments, and in some cases even shareholders in failed banks have received compensation.

The prospect of bailouts, combined with liquidity support from central banks, also explains why many financial institutions in Europe today can trade at market-to-book values rarely seen in nonfinancials.[23] The key difference is that major financial institutions, unlike nonfinancials, typically get recapitalized using public money when they fail. This provides some potential upside to shareholders in an insolvent bank, even if their shares are diluted in the process.

Regulatory forbearance, combined with inadequate resolution frameworks and the possibility of bailouts, poses challenges to the effectiveness of banking regulation. While some aspects of the current regulatory framework for banks can be improved without great difficulty, such as resolution frameworks and limits on the use of taxpayer money in resolving banks, regulatory forbearance is more difficult to address and probably something we have to live with. This means that regulation alone, even if of a more macroprudential nature, will also not suffice to protect the interests of all stakeholders in bank, including that of taxpayers.

[23] For example, Unicredit, Italy's largest banks and one of the largest banking groups in Europe, currently trades at a market to book value of 0.2.

Ultimately, a combination of efforts is needed to improve both the corporate governance and the regulation of banks.

IV. POLICY IMPLICATIONS AND CONCLUDING REMARKS

This review of the literature on the corporate governance of banks has important policy implications. The current approach to bank supervision and regulation that relies on internationally established capital regulations and supervisory practices is questionnable. Instead, private governance mechanisms exert a powerful influence over bank risking and the same regulation has different effects on bank risk taking depending on the bank's governance structure. Since governance structures differ systematically across countries, bank regulations must be custom designed and adapted to local governance systems and practices. Regulations should be geared toward creating sound incentives for bank stakeholders, not toward harmonizing national regulations across economies with very different governance structures.

Naturally, regulations will shape the future of banking. It is not too late for bank regulation to condition on bank governance, and for supervision with limited resources to make the enforcement of regulation a function of a bank's governance structure. For example, supervisors should pay closer attention to the ownership information they collect, and could allocate a disproportionate amount of their resources to supervising those banks that corporate governance theory would indicate are intrinsically more inclined to take risk, such banks with large shareholders. More generally, the risk taking of banks will depend on the underlying incentives and preferences of the banks managers and owners, including their ownership and wealth concentration in the bank.

This review also emphasizes the complementary nature of corporate governance and financial regulation. By focusing on the valuation of individual financial institutions, sound corporate governance will be insufficient to protect the financial system as whole. It should be complemented by macroprudential regulation. Corporate governance and its ability to monitor and control default risk of financial institutions is little defense against macroprudential risks that come with the economic cycle, and is therefore not effective in dealing with aggregate risk. Of course, regulators need help as well because the politics of

booms and supervisory discretion may render prudential regulation ineffective. Therefore, the market should join forces with regulators to discipline financial institutions.
This is however easier said than done because of their divergent interests. Contingent capital instruments, that would trigger automatic regulatory intervention upon conversion to equity if market values drop below a given point, could be one promising avenue to increase the monitoring role of owners.

In my view, key elements to success will be to increase the role of owners in limiting bank risk taking and to improve resolution frameworks. This would act to reduce systemic risk both by improving incentives to lower the probability of default and by raising the probability of regulatory intervention into ailing financial institutions.

Raising capital requirements will significantly reduce risk-shifting incentives by increasing the loss to shareholders in the event of failure. Minimum capital requirements can be raised both by improving the quality of capital, such as by not including hybrid debt instruments and tax deferred claims which are no true loss absorbers in the calculation of capital[24], and by raising the level of capital. Both approaches would reduce excessive risk and would create larger buffers to absorb losses in the case of a systemic event, thus lowering financial fragility and systemic risk. Given the substantial costs to society associated with banking crises, a strong case can be made to raise minimum capital requirements on banks, even though this may come with real costs in terms of bank's ability to lend.

Last but not least, resolution frameworks for banks need to be improved to facilitate the orderly resolution of failed banks. It is alarming that many countries still do not have appropriate resolution frameworks in place as this can greatly add to the cost of banking crises. Such frameworks should provide for the early intervention into ailing banks and imposition of losses on shareholders and uninsured debtholders. And they should stipulate under which conditions fiscal resources can be used to resolve systemically important financial institutions.

[24] The new Basel Accord rules for bank capital are making headways in this regard.

Standard governance theory also applies to banks. But banks have special traits (leverage and diffuse debt) that can reinforce these traditional channels, and are regulated in ways that can limit effectiveness of traditional governance mechanisms. Moreover, the existence of regulation means that banking outcomes are affected in complex ways by the interaction of governance and regulation. The externalities associated with bank failures can have material real effects. Valuation should therefore not be sole metric to assess the performance of banks from a financial stability point of view, but risk of failure and contribution to systemic risk are also important. Traditional governance will be insufficient to deal with these risks. Regulation, and especially of a macroprudential nature, is needed to address systemic risk. Yet, regulatory capture and the absence of adequate resolution frameworks for failed banks complicate the effectiveness of the current regulatory framework for banks in safeguarding financial stability. Corporate governance and regulation need to join forces.

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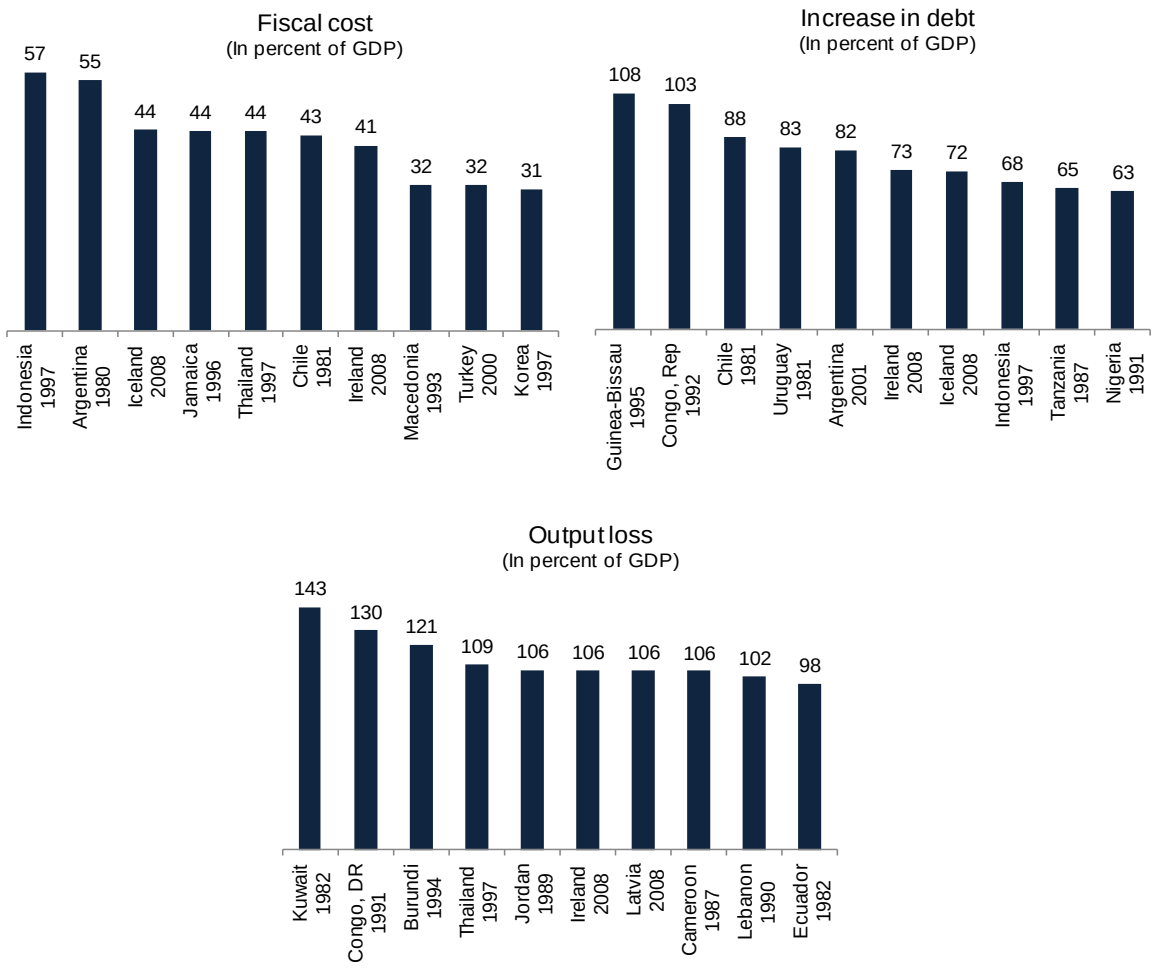
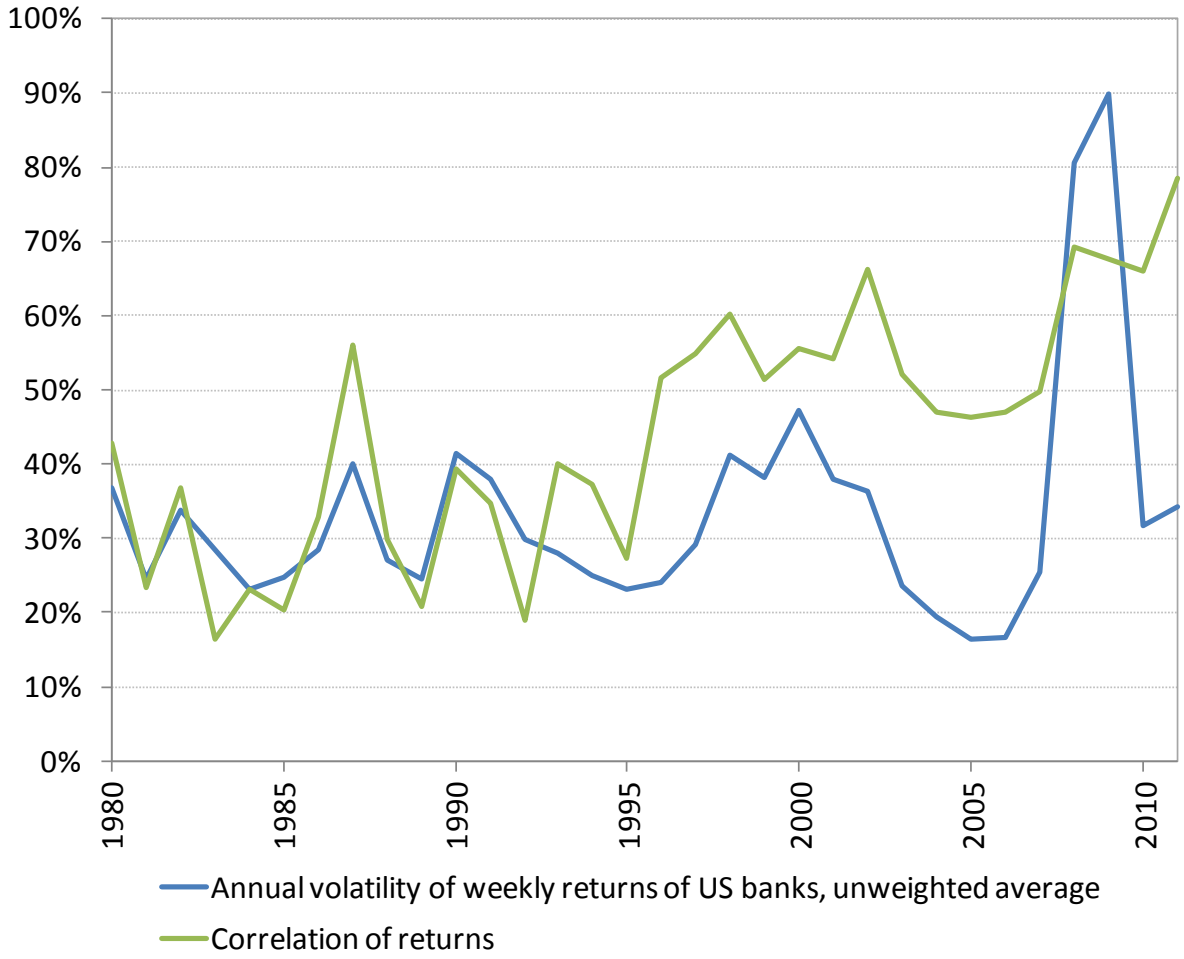
Figure 1. Costliest banking crises since 1970s



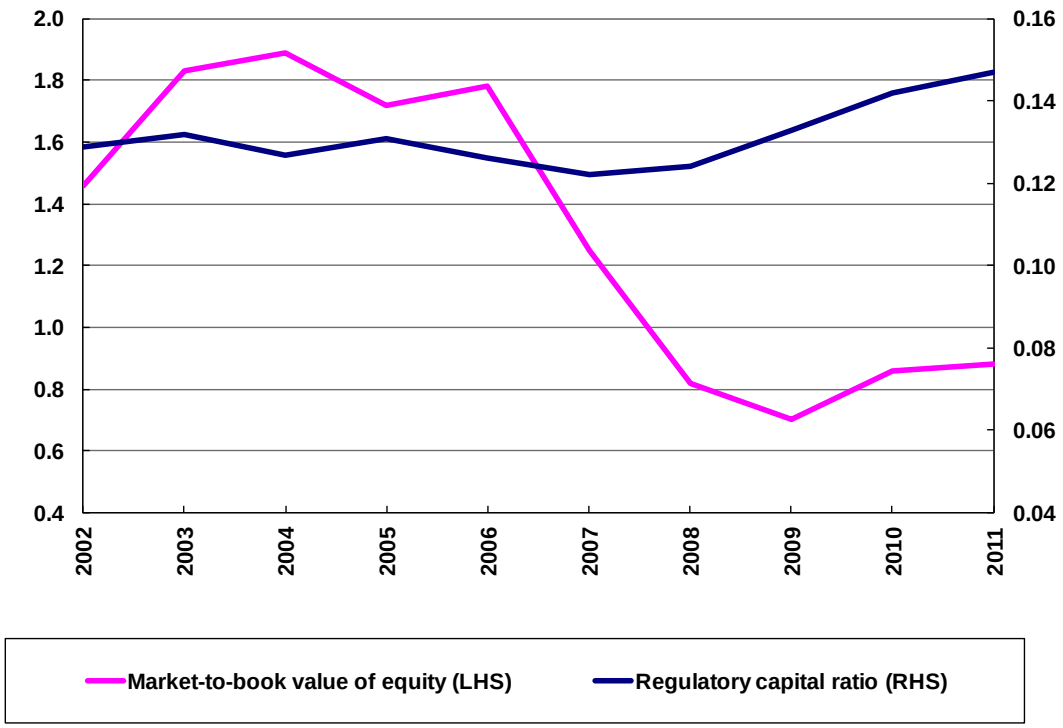
Note: This figure reports economic outcomes following systemic banking crises in terms of fiscal costs, increases in public debt, and output losses.
Source: Laeven and Valencia (2012).

Figure 2. Individual and correlated risks of large and complex US financial institutions, 1980-2011



Note: This figure reports the volatility and correlation of weekly stock returns for a sample of large and complex US financial institutions over the period 1980-2011. Weekly stock returns are from Datastream. Sample of large and complex US financial institutions as defined in Gary H. Stern, Ron J. Feldman, 2004, Too big to fail: the hazards of bank bailouts" Brookings Institution Press, (Box 4.1, page 39).
Source: Datastream.

Figure 3. Discrepancy between market and book values of U.S. bank holding companies



Note: This figure reports median values of market-to-book values of equity and regulatory capital ratios of U.S. bank holding companies over the period 2002 to 2011 based on quarterly Call reports and stock market information.
Source: Datastream and Call Reports.