The Governance of Financial Supervisors: Improving Responsiveness to Market Developments

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Abstract

We offer a menu of mechanisms to improve the governance of 'normal times' financial supervisors (as opposed to resolution agencies and systemic risk boards). To enhance supervisory effectiveness, we propose to institutionalize strong CEOs, with boards or commissions being limited to basic policy decision-making and to monitoring. Moreover, lower level staff would get increased line responsibilities. Market responsiveness, for its part, would be improved by subjecting supervisors to reinforced disclosure requirements. In addition, they would have to 'act or explain' when a financial intermediary's RoE or CDS spreads rise above pre-set thresholds. Finally, the market for supervisory control would be fostered by reinforcing the contingent powers of resolution agencies. This menu approach facilitates implementation and avoids 'one size fits all' effects.

Keywords: Supervisory agency decision-making, financial supervision, governance, supervisory responsiveness, transparency

JEL Classifications: D23, D73, G28, H83, K22, L22

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I. INTRODUCTION

Tougher financial regulation and supervision generally follow financial crises, not least to appease public opinion. The credit crisis is no exception, but its severity has created high expectations that policy-makers get it right this time. This has led to multiple reform proposals. In particular, it has been suggested to subject banks to more stringent capital and structural requirements and to set up new systemic risk and resolution agencies.

There are good reasons for targeting market participants as well as public sector institutions.[1] Private sector actors failed to properly manage financial risks, while financial innovation and compensation practices compounded the problem by shifting those risks to parties unable to tackle them. Financial regulators and supervisors, as well as monetary and fiscal authorities, proved incapable of addressing risk taking in a timely manner—or even contributed to private sector excesses by facilitating risk taking through low interest rates, misconceived regulation and laid-back supervision.

While they extensively deal with corporate governance and supervisory architecture, post-crisis reforms pay scant attention to the governance of financial supervisors. In the literature, in turn, there is an ongoing debate on enhancing agency independence and accountability.[2] However, this leaves many supervisory governance issues unaddressed. Independence refers to the need for a sufficient distance between supervisors and politicians. Accountability centers on monitoring supervisors' compliance with their mandates and use of their fiscal resources. In

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[1] This does not mean that financial market actors bear the sole or even main responsibility for the credit crisis. For its multiple causes, see recently Raghuram Rajan, FAULT LINES: HOW HIDDEN FRACTURES STILL THREATEN THE WORLD ECONOMY (Princeton University Press 2010).

[2] See, recently, Donato Masciandaro & Marc Quintyn (Eds.), DESIGNING FINANCIAL SUPERVISION INSTITUTIONS, INDEPENDENCE, ACCOUNTABILITY AND GOVERNANCE (Edward Elgar 2007) and the cited literature; Donato Masciandaro, Maria J. Nieto & Marc Quintyn, *Will They Sing the Same Tune? Measuring Convergence in the New European System of Financial Supervisors* (IMF Working Paper 2009/142, available at ssrn.com). See also Udaibir Das & Marc Quintyn, *Financial Crisis Prevention and Crisis Management, The Role of Regulatory Governance* (IMF Working Paper 2002/163, available at ssrn.com).

addition, the few studies which address agency governance in more detail focus on central banks and, more specifically, their monetary policy activities.[3]

The purpose of this paper is to discuss more directly how 'normal times' financial supervision can be improved by means of internal and external governance proposals.

By normal times financial supervision we refer to the powers of a state agency[4] over a solvent bank or another financial intermediary considered in isolation. These powers should be distinguished from the powers a state agency may have to deal with the risks faced or propagated by financial intermediaries as a whole (systemic risk) or with the resolution of an insolvent financial intermediary. Systemic and resolution interventions are essentially salvage operations, given the very low probability of a financial crisis being prevented or a financial intermediary surviving resolution. By contrast, normal times interventions generally result in continued operations by the financial intermediary.

We single out internal and external governance devices (some well-known and of general application to organizations, some others specifically thought out for financial supervision agencies) that should improve financial supervisors' effectiveness as well as market responsiveness. The reforms we suggest are complementary to the work of resolution agencies and to current efforts to build systemic risk surveillance institutions: if normal times prudential supervisors are efficient and market responsive, bank insolvencies and systemic crises may become more manageable. However, we must stress that the core aim of our proposals is to improve day-to-day supervision, *not* to prevent or even merely detect financial crises.

The reforms we propose can be characterized as operational, discrete and resilient to regulatory capture. To begin with, each proposal is relatively easy to

[3] See Bank of International Settlements (BIS), *Issues in the Governance of Central Banks* (May 2009); Lars Frisell, Kasper Roszbach & Giancarlo Spagnolo, *Governing the Governors: A Clinical Study of Central Banks* (Sveriges Riksbank Working Paper 2008/54, available at ssrn.com); Christopher Growe & Ellen E. Meade, *The Evolution of Central Bank Governance around the World*, 21 JOURNAL OF ECONOMIC PERSPECTIVES 69 (2007).

[4] We assume that financial supervision is conducted by an agency located outside the government, which is generally the case nowadays. See also *infra* note 11 and accompanying text.

implement. In addition, we offer a menu of proposals from which policymakers can pick one, any or all of the single items with no material loss in complementarity advantages. Finally, our governance devices are tailored so as to limit the impact of rent seeking by minimizing the costs of deficient implementation due to interest group pressure.[5]

Improving effectiveness and market responsiveness while keeping rent-seeking under control requires the taking into account of supervisory agencies' behaviour. Therefore, we begin our analysis by sketching the incentives of agency personnel and how they can be expected to shape collective decision-making. We point out that there is an inherent tension between bureaucrats' self regarding preferences (for example career considerations) and their other regarding preferences (for example ideological beliefs). The net impact of this bundle of incentives is hard to assess, not least because bureaucratic behavior is affected by cognitive distortions. However, we illustrate that bureaucratic decision-making in financial supervision agencies is not unlike corporate decision-making. This similarity makes it suitable to adopt an analytical approach to agency governance that is inspired, but not dominated, by the principal-agent approach adopted for business corporations.

We then proceed to discuss in detail how to improve internal governance, i.e. the way the supervisory agency is organized, directed, and controlled from within. We essentially argue that institutionalizing a strong CEO position would significantly improve agency management. The agency's board (or commission)[6] remains in charge of basic policy decision-making and monitoring. Operational decision-making, on the other hand, is the exclusive province of a CEO, whose grip on agency affairs would be strengthened by flattening the agency's hierarchy. The CEO is subject to appointment and removal by a majority of the board, partly because the board is best

[5] See e.g. Jean-Jacques Laffont & Jean Tirole, *The Politics of Government Decision-Making: A Theory of Regulatory Capture*, 106 QUARTERLY JOURNAL OF ECONOMICS 1089 (1991); Jean-Charles Rochet, WHY ARE THERE SO MANY BANKING CRISES? (2008); Donato Masciandaro & Marc Quintyn, *Politicians and Financial Supervision Unification Outside the Central Bank: Why Do They Do It?*, 5 JOURNAL OF FINANCIAL STABILITY 124 (2009).

[6] The body at the top of an agency's hierarchy is generally called a board or a commission. We will generally refer to this body as the 'board'.

placed to observe CEO performance and partly to minimize the risk of external political interference.

By themselves, these internal governance reforms would not guarantee that agencies will avoid making mistakes. But they would improve agency effectiveness by giving the CEO default powers and allowing her to be in more immediate contact with front-line managers, thus reducing information distortion and managerial interference by mid-level career bureaucrats. These reforms will also enable the board to devote more time to monitoring the implementation of its policies while decreasing the risk of politically driven board intervention at the operational level.

Although we do not know of any paper developing similar proposals for financial supervisors, the proposals are not ‘new’. Monetary authorities and a few financial supervisors (especially when they are housed within central banks) have adopted some of the suggested internal governance arrangements. However, many supervisory agencies and, more importantly, critical supervisory reform proposals at the European or global levels do not provide for such arrangements. It is these situations that we target.

Finally, we address the issue of how to reform external governance, i.e. the constraints on supervisory behavior that derive from the voluntary or involuntary interaction with the outside world. Policymakers can shape this interaction directly, by requiring the agency to maintain a given relationship with an outside player (the Government, Parliament, other domestic or international supervisors, etc.) or by designing a supervisory framework that allows for some degree of outside “market” pressure on supervisory behaviour. We propose to reinforce market responsiveness in three different ways.

To begin with, we identify six key areas where supervisory agencies in many countries could become more transparent (and therefore more subject to market pressure) with no material harm to their effectiveness and independence: the appointment process, business planning, periodic reporting, interactions with lobbies, and, with due qualifications, decision-making and enforcement actions. In particular, we advocate public confirmation debates before the relevant political body for top appointees and public disclosure of agency business plans. We also propose that financial supervisors publicly disclose detailed financial statements and the type of governance information typically required from the entities they supervise. Finally, we suggest full disclosure of lobbying activities involving supervisory authorities, publication of the minutes of board meetings as well as comprehensive information about enforcement actions. These proposals are not entirely new. But to the extent they are not, the fact is that many supervisory agencies and, more importantly, critical supervisory reform proposals at the European or global levels do not provide for such arrangements.

Second, we propose to improve supervisory market responsiveness by requiring prudential supervisors to “do something” upon material changes in market proxies of risk taking. More specifically, if the annualized return on equity (ROE) of a financial intermediary is an absolute 5% above its peer group average, or its annualized credit default swap (CDS) spread more than 30 basis points above its peer group average, financial supervisors would have an obligation to investigate whether this is due to excessive risk appetite and/or deficient risk management. Importantly, however, supervisors will keep the discretion to limit or even forgo corrective action provided they publicly disclose why (act or explain). This proposal is original in that it identifies a high RoE as a risk factor and puts the spotlight on normal times CDS spreads. By contrast, current reform debates focus on extreme events such as solvency benchmarks, which are overwhelmingly hard to read and generally give financial supervisors a choice between ‘crying wolf at the wrong time’ or reacting belatedly.

Third, the market for supervisory control would be fostered by allowing for a shift of powers over individual financial intermediaries from financial supervisors to resolution agencies in case of ‘financial distress’. More specifically, resolution is triggered when there is a significant risk of a financial intermediary generally defaulting on its obligations. This threshold has several advantages. It is not overly precise, permitting to take diversity among financial intermediary failures into account. It makes the threat of takeover by a resolution agency credible even for large financial intermediaries, but only if they take risks that may result in financial distress. And last but not least, there is an adequate overlap of supervisory and resolution powers, giving the supervisory agency room to take corrective actions while providing the resolution agency with incentives to engage in early monitoring. This proposal is in line with ongoing reforms aiming at improving resolution mechanisms. It is, however, innovative in that it proposes to delineate the supervisory and resolution powers so as to foster a takeover market.

The remaining of the paper is structured as follows. Section II sketches out decision-making within supervisory agencies. The next two sections, drawing from insights in the industrial organization and corporate governance literature, provide a menu of possible reforms. Section III proposes the adoption of leaner internal governance structures to improve supervisory agency effectiveness. We then explore the idea of enhancing supervisory responsiveness by way of public disclosure, market driven 'act or explain' benchmarks and a more active market for supervisory control in Section IV. Section V briefly concludes.

II. SUPERVISORS' INCENTIVES AND PRINCIPAL-AGENT ISSUES

Financial supervisors exist because law enforcement by market participants and criminal prosecutors is universally deemed to be insufficient to ensure the orderly functioning of financial markets.[7]. The majority of financial sector supervisors operate as stand-alone public sector agencies, with the notable exception of banking supervisors being often part of the central bank.[8]

Usually, financial supervisors are not in a hierarchical relationship with the executive branch. The rationale for independence is that, supervision being a highly technical task, bureaucrats motivated by career concerns are more likely to respond adequately to market developments than politicians who typically only care about re-

[7] See e.g. David A. Moss, WHEN ALL ELSE FAILS (Harvard University Press 2002); Katharina Pistor & Chenggang Xu, *Incomplete Law,* 35 NEW YORK UNIVERSITY JOURNAL OF INTERNATIONAL LAW AND POLITICS 931 (2003).

[8] See Financial Stability Institute, Institutional Arrangements for Financial Sector Supervision, Results of the FSI 2006 Survey (Occasional Paper 2007/7 available at bis.org); Steveen Seelig & Alicia Novoa, *Governance Practices at Financial Regulatory and Supervisory Agencies* (IMF Working Paper 2009/135, available at ssrn.com).

election.[9] But an alternative, more realistic explanation is that politicians delegate supervision because it is "[an] especially risky [area], i.e. where much can go wrong,"[10] in which case they can use unelected bureaucrats as scapegoats.[11] Consequently, the bureaucrats in charge of financial supervision are granted a fair amount of discretion. To the extent supervision is delegated for technical reasons, it is difficult to fine-tune the delegation of powers.[12] When the goal is to be able to blame bureaucrats if financial regulation proves costly or fails to prevent a scandal or crisis, it is best to give bureaucrats the possibility to choose among various options.[13]

Like in any private or public organization, discretion brings the risk that bureaucrats fail to discharge their duties in the best interest of their ultimate principals (consumers of financial services and taxpayers), or even their intermediate principals (politicians, financial intermediaries and other stakeholders).[14] In fact, the human beings in charge of financial supervision are not anthropologically different from other agents in the market. Whether at the top of such an organization (as chairperson, board members or commissioners) or at lower levels (as officers with managerial tasks, professionals, or rank and file employees), bureaucrats will tend to pursue their own personal goals, which may easily prompt them to take courses of action that are sub-optimal from the viewpoint of principals.[15]

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[9] Alberto Alesina & Guido Tabellini, *Bureaucrats or Politicians? Part I: A Single Policy Task*, 97 AMERICAN ECONOMIC REVIEW 169 (2007); Steven P. Croley, REGULATION AND PUBLIC INTEREST, THE POSSIBILITY OF GOOD REGULATORY GOVERNMENT (Princeton University Press 2008).

[10] See generally Alberto Alesina & Guido Tabellini, *Why Do Politicians Delegate?* (NBER Working Paper 2005, available at ssrn.com).

[11] *Ibid*. See also Morris P. Fiorina, *Legislative Choice of Regulatory Forms: Legal Process or Administrative Process?* 39 PUBLIC CHOICE 33 (1982).

[12] See e.g. Murray J. Horn, THE POLITICAL ECONOMY OF PUBLIC ADMINISTRATION (Cambridge University Press 1995); David Epstein & Sharyn O'Halloran, DELEGATING POWERS (Cambridge University Press 1999).

[13] See James R. Barth, Gerard Caprio Jr. & Ross Levine, *Bank Regulation and Supervision: What Works Best?*, 13 JOURNAL OF FINANCIAL INTERMEDIATION 205 (2004); Stavros Gadinis & Howell Jackson, *Markets as Regulators: A Survey*, 80 SOUTHERN CALIFORNIA LAW REVIEW 1239 (2007).

[14] See Gordon Tullock, THE POLITICS OF BUREAUCRACY (Public Affairs Press 1965).

[15] See Timothy Besley, PRINCIPLED AGENTS? (Oxford University Press 2006). Supervisors' ability to discharge their duties is also affected by cognitive biases, which may exacerbate agency problems: see Stephen J. Choi & A.C. Pritchard, *Behavioral Economics and the SEC*, 56 STANFORD LAW REVIEW

It is well known that various forces drive bureaucrats' behaviour in general and supervisors' specifically.[16] Leaving aside purely monetary motivations, which in the worst-case scenario lead to acceptance of bribes, bureaucrats are generally held to be motivated by the desire to increase their personal power, their prestige, and their career chances, while at the same time minimizing the legal and reputational risk connected with the discharge of their duties. In the case of rank and file employees, the desire to conduct a quiet life can also be important.

The desire for *personal power* easily prompts top bureaucrats to maximize their agency's budget with no due consideration of whether an additional dollar has any positive marginal utility, i.e. whether it increases the welfare of financial services consumers and taxpayers.[17] It may also lead bureaucrats to enact systemic or investor protection rules that grant them interventionist powers even when other more effective and less intrusive legal arrangements would be available.

Conversely, a concern for their ideological legacy and for their reputation as people who do their job well can be a powerful incentive for bureaucrats to act in the interest of consumers of financial services or taxpayers. However, if the desire for *prestige* takes the form of maximizing the agents' presence in the media, incentives could become distorted and result in actions that are not in their principals' interest. Bureaucrats may focus their attention on media-sensitive issues that are less relevant for depositors or investors than other, less visible areas of action; alternatively, bureaucrats may put an excessive effort in promoting their agency's image, while not concentrating enough on substantive issues their principals care about.[18]

1, especially at 21-36 (2003). The insights of behavioural economics should therefore reinforce the principal/agent approach taken here.

[16] See already George Stigler, G., 1971, *The Theory of Economic Regulation*, 2 BELL JOURNAL OF ECONOMICS 3 (1971). See more recently Canice Pendergast, *The Motivation and Bias of Bureaucrats*, 97 AMERICAN ECONOMIC REVIEW 180 (2007).

[17] See William A. Niskanen, BUREAUCRACY AND REPRESENTATIVE GOVERNMENT (Aldine-Atherton 1971).

[18] Cf. Luca Enriques, *Regulators' Response to the Current Crisis and the Upcoming Reregulation of Financial Markets: One Reluctant Regulator's View*, 30 UNIVERSITY OF PENNSYLVANIA JOURNAL OF INTERNATIONAL LAW 1147, 1150 (2009) ("good financial regulators are those who are able

Career concerns are a comparable driver of bureaucratic behaviour.[19] They may result in civil servants interests being aligned with those of consumers of financial services or taxpayers, for example when they consider their job as a gateway to an elected office. But career concerns may also make bureaucrats sensitive to the interests of stakeholders more directly able to give them career opportunities, such as regulated entities, lobbyists, law firms and other providers of financial supervision-related services.[20]

Finally, all bureaucrats are averse to the risk of taking the blame or, more dramatically, being held *legally liable* for failure to act or for taking the wrong actions.[21] This explains the tendency to always do something verifiable *ex post* when trouble can be spotted in advance and to stick to prior practices whenever something has to be done. That can lead to excessive action of an intrusive type on the one hand, and to excessive conservatism on the other.[22]

The net impact of this bundle of incentives is difficult to assess. Clearly, there is an inherent tension between bureaucrats' self-regarding preferences (for example career considerations) and their other regarding preferences (for example ideological beliefs).[23] The analysis is further complicated by bureaucratic behavior being affected by cognitive distortions ('bounded rationality'). For example, financial supervisors

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to put substance over form. But good financial regulators also tend to be smart enough to understand that they should put image over substance, if they want to thrive").

[19] See Mathias Deatripont, Ian Jewitt & Jean Tirole, *The Economics of Career Concerns, Part I, Comparing Information Structures*, 66 REVIEW OF ECONOMIC STUDIES 183 (1999); id., *Part II, Application to Missions and Accountability of Government Agencies*, 66 REVIEW OF ECONOMIC STUDIES 199 (1999).

[20] See also Donald C. Langevoort, *The SEC as a Lawmaker: Choices about Investor Protection in the Face of Uncertainty*, 84 WASHINGTON UNIVERSITY LAW REVIEW 1591 (2006).

[21] See Seelig & Novoa, *supra* note 7 at 14; Donald C. Langevoort, *The SEC and the Madoff Scandal: Three Narratives in Search of a Story* (Working Paper 2009, available at ssrn.com).

[22] See also Clare Leaver, *Bureaucratic Minimal Squawk Behavior: Theory and Evidence from Regulatory Agencies*, 99 AMERICAN ECONOMIC REVIEW 572 (2009) (bureaucrats try to please interest group so as to keep supervisory mistakes hidden); Giuseppe Dari-Mattiacci, Nuno Garoupa and Fernando Gomez-Pomar, *State Liability* (Working Paper 2010, available at ssrn.com).

[23] See Jean-Luc Migué & Gérard Bélanger, *Toward a General Theory of Managerial Discretion*, 17 PUBLIC CHOICE 27 (1974); Michael Levine & Jennifer Forrence, *Regulatory Capture, Public Interest and the Public Agenda: Toward a Synthesis*, 6 JOURNAL OF LAW, ECONOMICS AND ORGANIZATION 197 (1980); Gordon Tullock, A PARTIAL REHABILITATION OF THE PUBLIC INTEREST THEORY (Columbia University Press 1982).

may pay excessive attention to isolated but salient events or prove overly cautious due to loss aversion.[24] But, for our purposes, there is no need to precisely assess incentive trade-offs and anomalies. To begin with, agencies adjust to complex situations through simplification. Bureaucratic decision-making is facilitated by using sense-making policies.[25] For example, one can expect financial supervisors' behavior to be dominated by two meta-incentives: not being perceived as an overly passive agent and keeping the regulatory burden within reasonable boundaries. Second, bureaucratic decision-making is often collective and, more importantly, benefits from organizational correctives. In other words, institutional design is likely to reduce the impact of cognitive distortions.[26]

From that perspective, bureaucratic decision-making in financial supervision agencies is not unlike corporate decision-making.[27] This is not a surprise. Like firms, agencies exist to coordinate and motivate individual activities. And like managers', bureaucrats' actions are constrained by outside forces, i.e. monitoring by principal(s) and (to some degree) competition by rivals. Because of these similarities, we deem it suitable to adopt an approach to principal-agent problems within supervisory authorities that is inspired by the approach adopted for business corporations.[28]

Agency problems within supervisory agencies are not only comparable to conflicts of interests within firms: they are also just as intense. First, the ultimate principals are widely dispersed individual consumers and non-financial firms. This generates significant collective action problems and allows agents to play with

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[24] See e.g. Richard Rose, UNDERSTANDING BIG GOVERNMENT (Sage Publications 1984).

[25] See Karl E. Weick, SENSEMAKING IN ORGANIZATIONS (Sage Publications 1995).

[26] See Herbert A. Simon, ADMINISTRATIVE BEHAVIOR (4th ed., Free Press 1997). Note that we do not claim that behavioral factors do not influence corporate or bureaucratic decision-making. See also Christoph Engel, *The Behaviour of Corporate Actors, A Survey of the Empirical Literature* (Working Paper 2008, available at ssrn.com); Henry Birdseye Weil, *Why Markets Make Mistakes* (Working Paper 2009, available at ssrn.ocm).

[27] Compare Jennifer Arlen, Matthew Spitzer & Eric Talley, *Endowment Effects Within Corporate Agency Relationships*, 31 JOURNAL OF LEGAL STUDIES 1 (2002): Donald C. Langevoort, *Opening the Black-Box of "Corporate Culture" in Law and Economics*, 6 JOURNAL OF INSTITUTIONAL AND THEORETICAL ECONOMICS 1 (2006).

[28] See also Carl Walsh, *Optimal Contracts for Central Bankers*, 85 AMERICAN ECONOMIC REVIEW 150 (1995).

interest heterogeneity,[29] making it highly unlikely that agents' behaviour will be monitored in a responsive way.

Second, while the ultimate principals are far removed from supervisory agents, the reverse is true for the supervisors' immediate principals. While politicians or high-ranking government officials cannot ignore the interests of consumers of financial services if they want to be re-elected or promoted, they—like controlling shareholders—have incentives to act opportunistically. For example, getting re-elected or promoted is often conditional upon getting media attention. To achieve this result, politicians or high-ranking government officials can push for juicy supervisory activism (which maximizes press coverage) and at the same time make sure that targets are not politically influential market players (which minimizes political reactions).

Third, the supervisory authority must deal with a number of stakeholders with their own special interests—in particular regulated entities, industry associations, the specialized bar and other providers of regulation and supervision-related services. At least some of these stakeholders are sufficiently homogeneous and well-organized to affect supervisory decision-making (regulatory capture). Because their interests are at least partly distinct from those of the ultimate principals, these stakeholders will engage in rent-seeking and entice supervisory agents to deviate from the actions that would maximize the principals' welfare.

In addition, lack of rivalry often contributes to agency problems being more acute for supervisory authorities. Product market competition and other forms of market discipline generally reduce the scope for managerial opportunism in private corporations. By contrast, discreet supervisory tasks are often the monopoly of one supervisory agency in each jurisdiction. And even where there is no monopoly—e.g. when cross-border access has been facilitated by deregulation or when public prosecutors or private parties have effective enforcement powers—supervisory authorities can reduce competition by forming regulatory cartels.

[29] For example, the interests of public pension funds, private pension funds and corporate treasurers are diverse if not outright opposed.

The costs resulting from these intense agency problems ultimately fall upon consumers of financial services and taxpayers. Against this background, improving supervisory governance is not simply a 'nice to have', but a critical undertaking.

III. MORE EFFECTIVE INTERNAL GOVERNANCE

Internal governance refers to how supervisory agencies are organized, managed, and controlled from within. We propose to improve it by drawing on industrial organization research and treating financial supervisory agencies more like professional services firms and less like bureaucracies.

The claim here is not that financial supervision agencies could and should be run like for-profit firms. Some principal-agent issues are specific to bureaucratic organizations and across-the-board transplants of market-inspired mechanisms may easily fail – as evidenced by the relative decline of the New Public Management movement.[30] And even when firms and bureaucracies face similar challenges, the latter must not necessarily mimic the former. To the contrary, there are situations where it is firms that could learn from bureaucracies, especially when it comes to compensation and rules of succession.[31] Nevertheless, because decision-making within financial supervision agencies has features in common with corporate decision-making, one can draw from insights into powers allocation and hierarchies within corporations to sketch out some organizational improvements for supervisors.[32]

Our first proposal is to allow for a strong CEO and limit the powers of financial supervisory boards to basic policy decisions and monitoring CEO activities (Section 2.1). Our second proposal is to simplify the chain of command within the supervisory authority by reducing the distance between the CEO and day-to-day decision-makers (Section 2.2).

[30] See e.g. Christopher Pollitt & Geert Bouckaert, PUBLIC MANAGEMENT REFORM: A COMPARATIVE ANALYSIS (Oxford University Press 2004). But see also Tom Christensen and Per Laegreid (eds.), ASHGATE COMPANION TO NEW PUBLIC MANAGEMENT (forthcoming).

[31] See e.g. Mathias Benz & Bruno Frey, *Corporate Governance: What Can we Learn from Public Governance*, 32 ACADEMY OF MANAGEMENT REVIEW 92 (2007).

[32] Compare Robert Gibbons, *Inside Organizations: Pricing, Politics and Path-Dependence*, ANNUAL REVIEW OF ECONOMICS (forthcoming).

3.1 Strong CEOs

Financial supervision is increasingly conducted by agencies rather than by governments.[33] Like in the private sector, all but the most fundamental decisions have been delegated to agencies' boards. Because the basic features and the issues they face are comparable to those of their corporate brethrens,[34] experiences made in the corporate sector can provide useful insights on how to make agencies' boards more effective.

Nowadays, no one seriously doubts that corporate boards should focus on monitoring senior management as opposed to getting involved in day-to-day management. There is less clarity about the actual allocation of powers, which requires distinguishing between strategic decisions (which the board should make) and operational decisions (which senior management should make). We can observe that directors get less involved in the initiation or even execution of business decisions when the firm has a two-tier board, i.e. when the CEO is not a board member. Yet, there is no empirical evidence that two-tier board structures necessarily improve firm performance.[35] We can also observe that in firms with single tier boards, CEOs can be very powerful when they also chair the board. But yet again, there is no empirical evidence that firms with separate chairperson and CEO perform better.[36] In view of the empirical evidence, the debates[37] about the effectiveness of two-tier

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[33] See note 11 *supra*.

[34] Compare John Armour, Henry Hansmann & Reinier Kraakman, *What is a Corporation?*, in Kraakman et al., *supra* note 32, and BIS (2009), *supra* note 3, Chapter 4.

[35] See e.g. Caspar Rose, *The Composition of Semi-Two-Tier Corporate Boards and Firm Performance*, 13 CORPORATE GOVERNANCE: AN INTERNATIONAL REVIEW 691 (2005); Thomas Jeanjean & Hervé Stolowy, *Determinants of Board Members' Financial Expertise - Empirical Evidence from France*, 44 International Journal of Accounting 378 (2009).

[36] See e.g. James A. Brickley, Jeffrey L. Coles, & Gregg Jarrell, *Leadership Structure: Separating the CEO and Chairman of the Board*, 3 JOURNAL OF CORPORATE FINANCE 189 (1997); Jay Dahya & Nickolaos G. Travlos (2000), *Does the One Man Show Pay? Theory and Evidence on the Dual CEO Revisited*, 6 EUROPEAN FINANCIAL MANAGEMENT 85 (2000); Markus M. Schmid & Heinz Zimmermann, *Should Chairman and CEO Be Separated? Leadership Structure and Firm Performance in Switzerland* (Working Paper 2008, available at ssrn.com).

[37] See already *Report of the Committee on the Financial Aspects of Corporate Governance* (so-called Cadbury Report) 15.2.2 (London 1992); Michael C. Jensen, *Presidential Address: The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems*, 48 JOURNAL OF FINANCE 831 (1993).

board structures and the need to having different persons chairing the board and functioning as CEO thus seem to be of little meaning.

The implications in terms of supervisory agency governance are straightforward. The exact delineation of powers can (and should) vary given that, like in the private sector, one size cannot fit all. Broadly speaking, however, strategic planning and fundamental policy decisions should be made by a board.[38] Operational decisions should be the purview of a board-appointed CEO, who should be allocated powers enabling him or her to exercise leadership while remaining subject to board monitoring and removal. In reality, however, many financial supervisory agencies display decision-making features that greatly differentiate their governance from what we observe in the corporate world.

First, executive powers are often vested with the whole board, with little delegation to staff members, including the CEO. To take just two examples, at the French securities regulator (AMF) a board composed of sixteen members is in charge of most decisions, not just strategic ones, and may not delegate them to staff members.[39] Similarly, all of the Spanish securities regulator's (CNMV) powers lie with its board[40] and delegation of powers to an executive committee is restricted to administrative and preparatory functions.[41]

Second, the chairman, a political appointee like other board members, may have some of the powers of a corporate CEO, but cannot be replaced by the board itself. To illustrate, again at the AMF, the Chairman has statutory and board-delegated powers,[42] but the board can neither appoint nor replace him.[43]

[38] See also Alan S. Blinder & John Morgan, *Are Two Heads Better than One?: Monetary Policy by Committee*, 37 JOURNAL OF MONEY, CREDIT AND BANKING 798 (2005).

[39] Art. L. 621-2 Code Monétaire et Financier (Monetary and Financial Code).

[40] Art. 17 Ley del Mercado de Valores (Financial Market Law).

[41] Art. 18(5) Ley del Mercado de Valores and Art. 16(3) Reglamento de Régimen Interior.

[42] Article R. 621-9 of the Code Monétaire et Financier. The provision is enacted by AMF Decision No. 249 of 15 December 2008, which delegates to the chairman decisions on issuers' disclosure duties, prospectus approval, collective investment schemes as well as access to clearing and settlement systems and central depositories.

[43] L. 621-5 Code Monétaire et Financier.

These features, in turn, have negative governance implications. To begin with, the deep involvement in executive matters prevents the board from effectively performing its monitoring functions.[44] In addition, because board members and the chairman are political appointees in virtually all supervisory agencies, and therefore closer to politics than staff members, their involvement in day-to-day matters and individual cases increases the risk of politically motivated or politically influenced decisions. Correspondingly politics trump expertise, when the latter is one of the core justifications for the very existence of regulators.[45] Further, granting executive powers to a chairman who is not selected by the board for that position and whom the board cannot replace raises an accountability issue. Because the chairman is usually closer to politics than the other board members, this arrangement intensifies the risk of political capture.

It follows that internal governance at many financial supervisory authorities can be expected to gain in effectiveness and market responsiveness if they were to move to an organization model empowering a CEO appointed by the board to implement and enforce regulatory requirements, while limiting the board members' role to taking fundamental policy decisions and hiring, firing, and monitoring the CEO.

To be sure, empowering a CEO does not guarantee that financial supervisors will stop making mistakes. A good example is provided by the UK's Financial Services Authority (FSA). Its operational management is headed by a CEO who reports to a board, but it has been severely criticized for failing to foresee and properly manage the 2007-08 financial crisis.[46] However, the FSA experience is not proof that the board/CEO model can be summarily dismissed as unworkable. On the one hand, similar criticisms have been equally addressed to financial supervisors with different organization models. On the other hand, the board/CEO model seems

[44] On the tradeoff between proximity and objectivity (and therefore effective monitoring) in the context of corporate boards see Jonathan R. Macey, CORPORATE GOVERNANCE. PROMISES KEPT, PROMISES BROKEN 51-68 (Princeton University Press 2008).

[45] See e.g. Andrei Shleifer, *Efficient Regulation*, in Daniel Kessler (Ed), REGULATION VS. LITIGATION (forthcoming); Alesina & Tabellini, *supra* note 12 and accompanying text.

[46] See The Run on the Rock Report, House of Common Treasury Committee, January 26, 2008 (available at www.parliament.the.stationery-office.uk); Vivek Ahuja & Matt Turner, *FSA, Myners, Walker under Attack*, WALL STREET JOURNAL (European ed.), May 15-17, 2009 at 21.

to be working at financial supervisors in other jurisdictions as well as at a significant number of central banks.[47]

A related question arising from the choice of a board/CEO model is whether the roles of board chairman and CEO should be separated. One may argue that allowing the CEO to serve as chairman as well could affect the adequacy of the supervisory agency's responsiveness. As mentioned above, board members are generally political appointees and, thus, prone to regulatory capture. Consequently, one could claim that having the chairman serve as CEO would increase the influence of the interest groups best able to control his or her election and further bias supervisory interventions.

However, in our model, the board elects and removes the CEO, including when the CEO is also the chair. This forces the chairperson to be more responsive to the public interest in its CEO capacity. Indeed, the failure to do so creates a real risk of removal, the board being hopefully more politically diverse than its chairperson. On the other hand, our model does not modify the *status quo* in jurisdictions where the board already has the power to sanction opportunistic behavior by the chairperson. One could thus ask why not going one step further and either have different persons acting as chairperson and CEO or designate a third party for electing and removing the CEO. We do not make such proposals for efficiency and political economy reasons. As we have seen, there is no evidence that having separate chairpersons and CEOs increases agency effectiveness. There is also no reason to believe that a third party would prove less prone to regulatory or political capture than the board.

3.2 Flat hierarchies

Hierarchies generally emanate from the need to supervise workers and reflect limitations in the number of employees any given manager can supervise.[48] As a

[47] Tonny Lybek & JoAnne Morris, *Central Bank Governance: A Survey of Boards and Management* (Working Paper 2004/226, available at imf.org).

[48] See G. Calvo and S. Wellisz, *Supervision, Loss of Control and the Optimal Size of the Firm*, 87 JOURNAL OF POLITICAL ECONOMY 943 (1978).

result, firms as well as government agencies often operate using multiple hierarchical levels.[49]

Organization scholars have pointed out that the multiplication of hierarchical layers can prove costly. Control by top management becomes more difficult and low level employees have diminished incentives to contribute, with negative effects on organizational effectiveness and responsiveness.[50] In addition, decision-making becomes less effective in novel situations. These issues can be dealt with by granting individual units some degree of autonomy, which fosters bottom-up assertion and self-management.[51] This improves performance by reducing the incentive to shirk and by enabling front line managers to use their private information to handle unforeseen situations.[52]

In recent years, many firms have become aware of control issues. From a practical perspective, the importance of keeping management layers to a minimum has led many hierarchies to become flatter, thereby giving increased responsibilities to junior professionals or, at least, bringing them closer to senior decision-makers. For example, a recent empirical study covering 300 U.S. firms shows an increase in the number of positions reporting directly to the CEO.[53] This evolution is not limited to knowledge-intensive intensive industries or the U.S. For example, new airlines based

[49] See, generally, Jean Tirole, THE THEORY OF INDUSTRIAL ORGANIZATION (MIT 2000).

[50] See Oliver E. Williamson, *Hierarchical Control and Optimum Firm Size*, 75 JOURNAL OF POLITICAL ECONOMY 123 (1967); Jean Tirole, *Hierarchies and Bureaucracies: On the Role of Collusion in Organizations*, 2 JOURNAL OF LAW, ECONOMICS AND ORGANIZATION 181 (1986); Armin Falk and Michael Kosfeld, *The Hidden Costs of Control*, 96 AMERICAN ECONOMIC REVIEW 1611 (2006).

[51] See already Michael A. Campion, Gina J. Medsker & A. Catherine Higgs, *Relations Between Work Group Characteristics and Effectiveness: Implications for Designing Effective Work Groups*, 46 PERSONNEL PSYCHOLOGY 823 (1993); more recently Viral V. Acharya, Stewart Meyers & Raghuram Rajan, *The Internal Governance of Firms* (Working Paper 2009, available at nber.org).

[52] See Peter K. Mills, James L. Hall, Joel K. Leidecker and N. Margulies, *Flexiform: A Model for Professional Service Organizations*, 8 THE ACADEMY MANAGEMENT REVIEW 118 (1983); Edward E. Lawler, Susan Albers Mohrman, and Gerald E. Ledford, CREATING HIGH PERFORMANCE ORGANIZATIONS (Jossey-Bass 1995); J. Sundbo, *Management of Innovation in Services*, 17 THE SERVICE INDUSTRIES JOURNAL 432 (1997).

[53] Raghuram G. Rajan and Julie Wulf, *The Flattening Firm: Evidence from Panel Data on the Changing Nature of Corporate Hierarchies* 88 THE REVIEW OF ECONOMICS AND STATISTICS 759 (2006); see also Cari Tuna, *Big Firms Show the Door to Top Lieutenants*, WALL STREET JOURNAL (European ed.), September 21, 2009 at 34 (a survey of 672 large US companies shows that, between January 2008 and June 2009, 40 eliminated the COO or President position, while 20 added it).

in the Middle East are considered to have a competitive advantage due to their flatter hierarchies.[54] There is also empirical evidence that flatter hierarchies increase managerial effectiveness when both the CEOs' and lower level managers' efforts are important for the firm's output.[55] In such an environment, the CEO is not only needed to coordinate activities and manage 'optimal dissent' by front line managers.[56] She must also manage the promotion system so as to insure for the sustainability of a flatter hierarchy.[57]

By contrast, supervisory agency organization is often characterized by multiple management layers. Take, for instance, the Spanish securities commission, CNVM (*Comision Nacional de Valores Mobiliarios*). By statute, matters must be brought to the attention of the board following a proposal by the competent organizational unit, which is first revised by the head of the department comprising that unit, and then by the competent director general.[58] Similarly, the Swiss supervisory authority, FINMA (*Eidgenössische Finanzmarktaufsicht*) is divided into divisions, which in turn are segmented into sections or groups, with the division heads bringing matters to the attention of top executives.[59]

Such multi-layered organization leaves little discretion at the lower echelons. It results in a slower decision-making process, less motivated case-handlers, and a greater tendency to conservatism. To be sure, conservatism correspondingly implies greater predictability, which might be of value for market players, and especially newcomers. But in an environment like finance, where innovation is key, conservatism is intuitively detrimental to a supervisory agency's effectiveness and its all-important aptitude for adaptation to an ever and fast changing environment.

[54] See *Rulers of the New Silk Road*, THE ECONOMIST, June 5, 2010 at 74, 75.

[55] Rajesh K. Aggarval, Huijing Fu & Yihui Pan, *An Empirical Investigation of Internal Governance* (Working Paper 2010, available at ssrn.com).

[56] Milton Harris & Artur Raviv, *Organization Design*, 48 MANAGEMENT SCIENCE 852 (2002); Thesmar, David, 2008, *Optimal Dissent in Organizations*, REVIEW OF ECONOMIC STUDIES (forthcoming).

[57] Raghuram G. Rajan & Luigi Zingales, *The Firm as a Dedicated Hierarchy: A Theory of the Origins and Growth of Firms* 116 QUARTERLY JOURNAL OF ECONOMICS 805 (2001).

[58] See Articles 27-31, Reglamento de Régimen Interior.

[59] Art. 14(2), 15(3) and 19 Organisationsreglement FINMA.

In view of private sector experiences, the implications in terms of supervisory agency governance are straightforward. Lower level staff should get increased powers and line responsibilities. The CEO should become more directly involved in front line activity monitoring. And staff members should be subject to a stricter career regime.

Here again, the adequacy of this model cannot be summarily dismissed as unworkable or as carrying 'one-size-fits-all' disadvantages. The U.S. Securities and Exchange Commission (SEC) has recently increased the enforcement decision-making powers of lower level staff in order to address deficiencies in the effectiveness as well as market responsiveness of past enforcement actions.[60] More generally, central banks around the world have flattened their hierarchy in recent years. This is reported to have increased their effectiveness regardless of diversity in size, management practices and cultural traditions.[61]

Flattening the hierarchy is bound to cause transition problems, as it involves reorganizations that could face employees', and especially middle management's, opposition. However, if the transition is properly managed, a flatter organization will not necessarily be fiercely resisted, even in agencies with a tradition of lifetime employment. Middle management could be moved to advisory roles, which would help retaining 'institutional memory' and limit opposition, while in all cases the younger staff would gain in power and visibility and therefore strongly favor such a move.

One may argue that flattening the organizational chart would have the side effect of aggravating the problem supervisory agencies have with the retention of qualified staff.[62] Junior staff becomes more powerful, more visible, and therefore arguably more attractive for market players typically hiring from such agencies, like

[60] See Kara Scannell, *SEC Empowers Staff Lawyers*, WALL STREET JOURNAL (European ed.), August 7-9, 2009 at 19.

[61] See BIS (2009), *supra* note 3, 164.

[62] See e.g. Stavros Gadinis, *The SEC and the Financial Industry: Evidence from Enforcement against Broker-Dealers 27* (Working Paper 2009, available at ssrn.com) (reporting that approximately 1/3 of SEC staff left the agency between 1998 and 2000).

financial institutions and law firms. At a time when revolving doors have been singled out as one of the causes for agencies' failures,[63] flatter hierarchies could make it even more difficult for agencies to form professionals internally and to build the institutional culture that they need to perform their tasks responsively.[64]

However, it is doubtful whether the revolving doors phenomenon would materially intensify should agencies' organization become flatter. Junior staff members may get powerful earlier in their career and this non-monetary prospect should lower the incentive to leave for the private sector. To be sure, there is a stage at which power benefits are outweighed by compensation disadvantages.[65] However, the wedge between supervisory agencies' and private sector salaries increases with seniority,[66] making it comparatively less attractive for junior than for senior staff to leave for the private sector. Moreover, the problem might be addressed, if necessary, by designing appropriate retention bonuses for bureaucrats in key positions.

IV. MARKET DISCIPLINE DEVICES

Generally speaking, market discipline is one of the most valuable governance devices. Within firms, because competition in the product market drives down prices, there is simply less room for slack or misappropriation of assets to the detriment of shareholders. If equity markets, the market for managerial services and the market for corporate control are efficient, corporate managers will do their best to maximize the (long-term) value of the firm so as to retain their jobs and improve their career opportunities. Of course, market discipline does not always work as theory would predict: market frictions make this mechanism far from perfect. And coupled with state intervention, such as implicit or explicit guarantees for creditors in the banking

[63] See recently Tom McGinty, *SEC's 'Revolving Door' Reviewed*, WALL STREET JOURNAL (European ed.), June 17, 2010 at 24.

[64] Seee Yoshiharu Oritani, *Public Governance of Central Banks: An Approach from New Institutional Economics* (BIS Working Paper 2010/299) (arguing that employment security is a plus in central banks, as it facilitates the employment of staff with good institutional memory and long time horizons while reducing the risk of 'probity hazard').

[65] See Björn Bartling, Ernst Fehr and Klaus M. Schmidt, *Screening, Competition, and Job Design: Economic Origins of Good Jobs* (Working Paper 2009, available at ssrn.com).

[66] See e.g. Merton H. Miller, *Functional Regulation*, 2 PACIFIC-BASIN FINANCE JOURNAL 91, 103 (1994).

sector, the effects of market pressure can even be detrimental. Nevertheless, it is fairly intuitive that complete isolation from market discipline is the best recipe for the systematic neglect of principals' interests by their agents.

The same is true for financial supervisors. Competition among agencies leaves less room for slack or mismanagement of taxpayers' money. If regulatory markets, the market for bureaucratic services and the market for supervisory control are efficient, supervisors will do their best to maximize the (long-term) value of financial supervision so as to retain their jobs and improve their career opportunities. Of course, here too market discipline does not always work: the credit crisis has shown that 'light touch' supervision has more to do with a 'race to the bottom' than efficiency. But, again, even for financial supervisors complete isolation from market discipline is no recipe for success.

Admittedly, it may sound odd to call for market-inspired solutions to improve supervisory responsiveness in the aftermath of the most serious financial crisis in decades. However, a post-crisis prejudice against market-based devices would be misguided for at least two reasons. First of all, it would ignore the basic fact that the spectacular failures we observed in the financial sector are also the outcome of regulatory approaches that remained heavily interventionist despite some moves towards deregulation in selected areas. It is the perverse mixture of market mechanisms and state intervention (including supervisory and fiscal guarantees), not market mechanisms alone, that proved fatal.

Second, and more to the point, the underlying intuition of such a prejudice would likely be that market discipline devices necessarily involve regulatory arbitrage, whether within a single jurisdiction or cross-country. This implies a greater influence of regulated intermediaries over the financial supervisor and magnifies what is commonly thought to be the main cause of pre-crisis supervisory failures. We take no position here as to whether the dominant effect of regulatory arbitrage is indeed to weaken supervisory responsiveness due to race-to-the-bottom effects. This is ultimately an empirical question, the answer to which varies depending on the specific kind of financial supervision (e.g. prudential versus disclosure supervision) and the characteristics of individual countries' industries and institutions. What we have in mind are instead market discipline devices that do not imply an increase in regulatory arbitrage by supervised entities.

Under our approach, supervisory responsiveness is improved by enlisting market forces to directly align agents' and principals' interests. More specifically, we propose to improve supervisory disclosure (Section 4.1), submit financial supervisors to market benchmarks that trigger 'act or explain' obligations (Section 4.2) and to enhance the market for supervisory control via contingent supervisors (Section 4.3).

4.1 Supervisory disclosure

It is nowadays generally accepted that financial supervisors must inform the public or, at least, involved parties about their activities.[67] Such disclosure generally contributes to the predictability and efficacy of supervisory interventions, but even more importantly, it makes external governance mechanisms more effective.[68] Following the lead of the U.S., many jurisdictions have significantly improved supervisory disclosure in recent years. For instance, it is now most common for supervisors to conduct public consultations before issuing regulations and to publish relatively elaborate annual reports.

To be sure, supervisory disclosure has to be wisely weighed, in terms of both quantity and timeliness.[69] Like in central banking, there is a point beyond which disclosure becomes counterproductive.[70] All the same, we have identified several key areas where many supervisory agencies could become more transparent (and therefore more subject to market pressure) with no material harm to their effectiveness: the appointment process, business planning, periodic reporting,

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[67] See IMF, Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles (September 1999, available at imf.org).

[68] See e.g. V. Sundararajan, Udaibir S. Das & Plamen Yossifov, *Cross-Country and Cross-Sector Analysis of Transparency of Monetary and Financial Policies* (IMF Working Paper 2003/94).

[69] See Christopher Crowe & Ellen E. Meade, *The Evolution of Central Bank Governance Around the World*, 21 JOURNAL OF ECONOMIC PERSPECTIVE 69 (2007); Carin A.B. van der Cruijsen, Sylvester C.W. Eijffinger & Lex H. Hoogduin, *Optimal Central Bank Transparency*, JOURNAL OF INTERNATIONAL MONEY AND FINANCE (forthcoming).

[70] See Alan Blinder, *Talking about Monetary Policy: The Virtues (and Vices?) of Central Bank Communication* (BIS Working Paper 2009/274, available at bis.org).

interactions with lobbies, and, with due qualifications, decision-making. As shown by Table I, transparency could be improved in these areas even in jurisdictions with fairly developed financial markets.

Table 1: Existing disclosure by select supervisory agencies[1]

	Hearings for appointments	*Business plan*	*Annual report*	*Lobby contacts*	*Minutes of meetings*	*Name of investigated firms*
CBFA (Bel)	-	-	√	-	-	-
AMF (Fr)	-	√	√	-	-	-
BaFin (Ger)	-	-	√	-	-	-
AFM (Ned)	-	√	√	-	-	-
CNMV (Sp)	√[2]	√	√	-	-	√
FINMA (Swi)	-	-	√	-	-	-
FSA (UK)	-	√	√	-	√	√
Fed (US)	√[3]	√	√	-	√[4]	-
SEC (US)	√[3]	√	√	√	√	√
FSA (Jp)	-	√[3]	√	-	-	√

[1] Information drawn from agencies' websites (last visited on October 12, 2010).
[2] Public hearing in Parliament focusing on potential conflict of interests.
[3] Chair confirmed by the Senate.
[4] Unless the meeting is 'closed'.

A. Appointment process. The appointment of board members and top officials is a key decision in the governance of financial supervisors. All or some of these decisions are in the hands of politicians, who may fail to select the best candidates in order to favour politically loyal individuals or even their cronies, thus potentially affecting a supervisory agency's effectiveness or responsiveness in a serious way.[71] Disclosure alone cannot prevent this from happening. However, public notice of the positions available, of the qualifications requested, and of how to present one's candidacy would broaden the pool of candidates and make it more likely that good ones will emerge. One could also think of requiring disclosure of the pool of candidates from which the decision-making body has picked the appointee. However, that would arguably discourage candidacies *ex ante*. But it would do no harm if disclosure were limited to the candidates having explicitly consented to it.

Above all, however, it would be desirable for jurisdictions to impose a public confirmation debate before the relevant political body, like the hearings taking place before the U.S. Senate for appointees to executive and judiciary positions. Again, this is no guarantee of quality, competence, and professionalism of the top names in the agencies. But such a procedure is unlikely to be costly while offering significant protection against cronyism or blatantly inadequate appointees.

B. Business plan. Supervisory action is necessarily selective and imperfect. Financial supervisors cannot be expected to reduce the probability of financial intermediaries' taking excessive risk to zero, nor can they start enforcement actions every time they are alerted about a possible compliance issue.[72] Given their limited resources, financial supervisors must prioritize. For that to take place in an orderly and functional manner, they have to do it in advance according to a business plan or other similar document.

Here again, it would be desirable for all financial regulators to make such documents publicly available. While some may play this down as window-dressing, a business plan makes it easier for outsiders to judge whether the supervisory agency has a clear understanding of market developments and displays the organizational skills to plan its activities. Even more importantly, a business plan facilitates the *ex*

[71] See e.g. Joel Seligman, THE TRANSFORMATION OF WALL STREET, A HISTORY OF THE SECURITIES AND EXCHANGE COMMISSION AND MODERN CORPORATE FINANCE (3d ed., Aspen 2003).

[72] See Alexander Dyck, Adair Morse, & Luigi Zingales, *Who Blows the Whistle on Corporate Fraud?* JOURNAL OF FINANCE (forthcoming).

post assessment of a supervisory agency's performance, once periodic reports show whether and how the goals set out in the business plan have been achieved.

C. Annual report (and periodic reporting). We mentioned that it is currently common for financial supervisors to publish relatively elaborate annual reports. However, annual and periodic reporting by financial supervisors is still a far cry from what is required from supervised banks or publicly traded companies. Clearly, some information has to remain confidential, but this also applies to the private sector. There is no reason why financial supervisors cannot publicly disclose detailed financial statements and the type of governance information typically required from the entities they supervise.

In particular, there can be no justification for lack of transparency and data comparability when it comes to the number and type of ongoing and completed investigations or the follow-up by other public enforcers (prosecutors, other agencies or courts).

D. Contacts with lobbyists and industry representatives. Financial supervisors are bound to have contacts with supervised entities, industry associations, and other persons or organizations involved in lobbying activities. In the current environment of re-regulation across the world, with most of the nitty-gritty details of the new rules to be drafted by the supervisory agencies themselves, lobbying efforts can only intensify. Such contacts are not only inevitable, but also useful to the extent these stakeholders will provide the supervisors with information that, no matter how biased, can prove highly useful to devise adequate policies and interventions.[73] However, too close a relationship between supervisors and people engaged in lobbying activities can lead to capture.

Full disclosure about lobbying activities involving supervisory authorities, possibly including periodic disclosure by anyone engaged in lobbying activities,[74] would be useful to discourage excessive familiarity between supervisors and the

[73] See e.g. Daniel C. Hardy, *Regulatory Capture in Banking* (IMF Working Paper 2006/34).

[74] See Lobbying Disclosure Act 1995, as modified by the Honest Leadership and Open Government Act 2007 (requiring *inter alia* a quarterly report on lobbying activities by anyone who has engaged in it).

industry they regulate and allows for public control over this delicate relationships. But even direct disclosure by the agency of its contacts with lobbyists would be useful. For instance, the SEC has recently announced that "[s]taff will ask those who request meetings [on regulatory matters] to provide, prior to the meeting, an agenda of intended topics for discussion. After the meeting, the agenda will become part of the public record."[75]

E. Decision-making publicity. Whenever decisions are made collectively within supervisory agencies, rules should be in place to provide for public meetings (which is nowadays inexpensive thanks to webcast technologies) or, as a second best, for publication of the minutes. In addition, comprehensive information should be made available about ongoing or, at least, completed investigations. Attention should, of course, be given to the protection of third party (i.e. non-supervised entities or persons) privacy rights by omitting or limiting the disclosure of sensitive personal data on them.

Exceptions should also be made for some enforcement decisions and emergency situations.[76] In particular, supervisory investigations should remain confidential if public disclosure is likely to hamper the gathering of evidence, prevent efficient settlements or unduly tarnish the reputation of involved financial intermediaries. Similarly, keeping quiet in emergency situations may prevent panics. But care must be taken to narrowly define exceptions given that early disclosure of supervisory action also has benefits. For example, revealing that an investigation has been launched can encourage witnesses to come forward, make it more difficult to organize data destruction, or prevent unfounded speculation about third party involvement. Similarly, swift information about the taking of emergency measures can calm down markets by revealing the scope of the problem as well as the nature and

[75] See Press Relaese, *SEC Chairman Schapiro Announces Open Process for Regulatory Reform Rulemaking*, 27 July 2010 (available at http://www.sec.gov/news/press/2010/2010-135.htm).

[76] See Eva Hüpkes, Marc Quintyn, & Michael W. Taylor, *The Accountability of Financial Sector Supervisors – Principles and Practice*, 2005 EUROPEAN BUSINESS LAW REVIEW 1575, 1587. But compare John S. Jordan, Joe Peek & Eric S. Rosengren, *The Market Reaction to the Disclosure of Supervisory Actions: Implications for Bank Transparency*, 9 JOURNAL OF FINANCIAL INTERMEDIATION 298 (2000) (enhanced disclosure can improve the allocation of resources in the banking system).

dimension of corrective actions. Moreover, even in instances where confidentiality is required, it is hard to justify on a permanent basis. Well before they become of mere historical interest, enforcement or emergency efforts should be disclosed to the public, if only to keep supervisory agencies accountable.

One may counter that, because influential stakeholders are more likely to make use of disclosed information about board meetings than the general public, disclosure increases the former's power vis-à-vis supervisory agents, by letting them identify (and punish) "unloyal" agents and reward "loyal" ones, possibly later in their career. The same argument, however, applies to all lawmaking bodies, but no one would seriously subscribe to the idea that Parliaments should legislate behind closed doors. Because of supervisors' career concerns, disclosure is even more important than for political bodies.

More generally, the above mentioned transparency measures are likely to improve supervisory responsiveness. They should reduce rather than increase regulatory capture as they make it more difficult to make political loyalty-driven appointments, to camouflage the weakness or mid-stream adjustments of agency plans and to hide the influence of lobbies.

4.2 Market-driven monitoring systems: act or explain

We propose to enlist capital markets to improve supervisory responsiveness by requiring prudential supervisors to "do something" upon material changes in openly observable market proxies of risk taking. More specifically, an annualized increase in any financial intermediary's return on equity (ROE) or credit default swap (CDS) spreads above a predefined and publicly disclosed threshold would trigger an obligation for supervisors to investigate.[77] Importantly, however, financial supervisors would maintain the discretion to limit or even forgo corrective action provided they disclose why (act or explain).[78]

[77] A milder version of this proposal would be to institutionalize an 'act or explain' mechanism that would allow supervisors to explain why even an investigation is not necessary.

[78] Compare Article 17 Proposal for a Regulation on Community macro prudential oversight of the financial system and establishing a European systemic risk board, COM(2009) 499 final (national

This mechanism has several advantages. Compared to a system where investigations are based on private information, the reputation and other effects of not acting upon a threshold crossing rule out the possibility of supervisors delaying the fulfilment of their obligation to investigate. Second, by introducing a presumption that supervisory reaction is needed in such a situation, our approach allows the agency to justify actions that may otherwise be successfully opposed by the government or the industry. Third, looking at financial intermediaries' risk taking on an annualized basis and in view of peer group average reduces the risk of yardstick manipulation. Fourth, the 'act or explain' approach preserves agency discretion as to whether some financial intermediaries should be allowed to take more risks than others. Fourth, supervisory actions being automatic, they will not have the stigma effect that would go hand-in-hand with discretionary investigations.

Focusing on normal times. The credit crisis having put a new light on the 'systemic' consequences of financial intermediaries' risk taking, supervisory authorities as well as academics have been focusing on how to detect a forthcoming *systemic crisis*. The objective is to provide mechanisms to evaluate the potential for risk spill-over by calculating the systemic exposure of individual financial intermediaries (micro-level analysis) or by aggregating risk taking (macro-level analysis).[79]

We propose a different, but complementary approach. Our focus is on how to incentivize financial supervisors to respond to *normal times* market developments. The objective is to provide mechanisms to steer supervisory attention by giving salience to routine changes in risk taking. While our approach may also ultimately reduce the likelihood of financial crisis occurrence, the main purpose is to ensure that

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authorities must communicate to the ESRB the actions undertaken in response to its recommendations or explain why they have not acted).

[79] See T. Adrian & M. K. Brunnermeier, *CoVaR,* Federal Reserve Bank of New York Staff Reports No. 348 (August 2009); D. Gray & A. A. Jobst, *New Directions in Financial Sector and Sovereign Risk Management*, 2009 JOURNAL OF INVESTMENT MANAGEMENT 8; N. Tarashev, C. Borio, & K. Tsatsaronis, *The Systemic Importance of Financial Institutions*, BIS Quarterly Review, September 2009; M. A. Espinosa-Vega, C. M. Kahn, & J. Sole, *Systemic Risk and the Redesign of Financial Regulation*, Chapter 2, IMF Global Financial Stability Report, April 2010; Mark Kritzman, Yuanzhen-Li, Sebastien Page & Roberto Rigobon, *Principal Components as a Measure of Systemic Risk*, MIT Sloan Research Paper No. 4785, 2010-10.

supervisors engage in a prompt and appropriate assessment of ongoing activities by supervised entities. Corrective intervention is only warranted if the assessment leads to the discovery of inappropriate risk taking.

By contrast, under the systemic crisis approach, yardsticks are used to spot extreme events and, almost by necessity, threshold crossing results in supervisory intervention. Not only can this result in inefficient outcomes, for example when financial intermediaries are required to increase their regulatory capital based upon false beliefs that a financial crisis is looming. Focusing on extreme events may also result in agencies 'crying wolf at the wrong time', which both reduces the mechanisms' credibility *ex post* and gives agencies reasons to disregard the mechanism's warnings *ex ante*.[80]

Relying on RoE and CDS. Riskiness can be evaluated directly, for example by analyzing balance sheets and income statements, or indirectly, for example by relying upon financial instruments issued by third parties. We propose a combined approach that uses two benchmarks, one associating risk taking with profitability disclosure and the other with insolvency perception.

The first benchmark is a specific measure of profits, return on equity (RoE).[81] In the financial sector, a *high* RoE generally reflects first mover advantages, significant leverage and/or oligopolistic rents. It is easy to see that first mover or high leverage business models inherently imply significant risk taking. But this is also true for oligopolistic rents business models as market dominance often prompts financial intermediaries to take actions that increase their risk of failure.[82] Evidently, RoE is influenced by accounting practices, which may smooth profits and make RoE a lagging indicator; however, RoE smoothing cannot go undetected for a long time.

[80] See e.g. Manja Völz and Michael Wedow, *Does Banks' Size Distort Market Prices? Evidence for Too-Big-To-Fail in the CDS Market* (Deutsche Bundesbank Discussion Paper 2009, available at ssrn.com) (CDS spreads are distorted when investors expect a bail-out)

[81] RoE equals net profits divided by average total equity. It is a popular performance indicator as it directly measures profitability and is easily available and comparable.

[82] See Gianni De Nicolò and Rima Turk Ariss, *Bank Market Power Rents and Risk, Theory and Measurement* (Working Paper 2010, available at ssrn.com); see also Thorsten Beck, *Bank Competition and Financial Stability: Friends or Foes?* (World Bank Working Paper 4656/2008, available at ssrn.com).

More importantly, RoE is a cleaner risk measure than stock prices, P/E ratios[83] and other potential profitability indicators while playing a much smaller role, if any, in systemic supervision[84]—thus increasing supervisory complementarities.

The second benchmark is a specific measure of realized or potential losses, credit default swaps (CDS) spreads.[85] A spread increase often reflects market participants' perception of higher insolvency risks, due to past or current risk taking and risk management policies. Perceptions, of course, do not necessarily reflect effective risk taking. However, this problem is partly mitigated by the existence of a range of standard CDS maturities[86] and is likely to be more acute in abnormal situations than in normal times.[87] Similarly, market participants can be slow in recognizing changes in the financial health of a financial intermediary, resulting in CDS spreads providing lagging signals. Nevertheless, CDS spreads are deemed to respond in a cleaner way than bond spreads to changes in credit conditions.[88]

Subjecting a financial intermediary with a high RoE or large CDS spreads to supervisory attention does *not* imply that supervisors will automatically impose corrective action. To begin with, high RoEs may reflect efficiency and large CDS spreads market misperceptions rather than significant risk taking. Second, high RoEs

[83] Stock returns may, however, provide information about the quality of a financial intermediary's earnings. See e.g. Sugato Bhattacharyya & Amiatosh Purnanandam, *Risk Taking by Banks: What Did we Know and When did we Know it?* (Working Paper 2010, available at ssrn.com).

[84] See also European Central Bank, Appendix to the Report on EU Banking Structures (September 2010).

[85] Compare Oliver Hart & Luigi Zingales, *A New Capital Regulation for Large Financial Institution*s (Working Paper 2009, available at ssrn.com).

[86] See Tobias Berg, *The Term Structure of Risk Premia, New Evidence from the Financial Crisis* (ECB Working Paper 1165, March 2010).

[87] See Benjamin Yibin Zhang , Hao Zhou & Habin Zhu, *Explaining Credit Default Swap Spreads with Equity Volatility and Jump Risks of Individual Firms* (BIS Working Paper 2005/181, available at bis.org); Carol Alexander and Andreas Kaeck, *Regime Dependent Determinants of Credit Default Swap Spreads,* 32 JOURNAL OF BANKING AND FINANCE 1008 (2008); René M. Stulz, *Credit Default Swaps and the Credit Crisis*, 24 JOURNAL OF ECONOMIC PERSPECTIVES 73 (2010) (in times of crisis, lack of liquidity may also facilitate manipulation of the CDS market); Fitch Ratings Special Report, CDS Spreads and Default Risks, Interpreting the Signals (October 12, 2010).

[88] See Habin Zhu, *An Empirical Comparison of Credit Spreads Between the Bond Market and the Credit Default Swap Market* (BIS Working Paper 2004/160); Roberto Blanco, Simon Brennan & Ian W. March, *An Empirical Analysis of the Dynamic Relationship Between Investment-Grade Bonds and Credit Default Swaps*, 60 JOURNAL OF FINANCE 2255 (2005).

or large CDS spreads may be caused by manipulation. Third, external factors, for example changes in the economic outlook or in competition, monetary and fiscal policies may also influence RoE and CDS spreads.[89] Yet, this does not allow us to infer that supervisory investigations are not warranted in the first place. On the one hand, concluding that a high RoE is due to efficiency rather than risk taking or is mitigated by robust risk management necessitates in depth analysis. On the other hand, the possibility that market misperception, manipulation or external factors may result in a high RoE or large CDS spreads justifies supervisory investigations by itself, if only to explain that there are no manipulation, solvency or withstanding external changes issues.

Setting the thresholds. Let us start with our profitability threshold. While there is an abundant literature on earnings ratios, comparative research on RoE in the financial sector is scarce.

A 1990 study covering 34 banks in six countries for the 1984-1990 period and aiming at calculating supervisory fees, concluded that ROE was highest in the US, Canada and the UK (10%-12%) and lower in Germany (7%) and Japan (3%).[90] Two other studies, which focus on expected (cost of equity) rather than historical RoE, report similar results. One covers over 100 banks in twelve countries from 1993 to 2001 and concludes that the average cross-country range decreased from 8-10% to 6,5-8,5% over the period, with Canada (9-14%) experiencing the highest, Japan the lowest (1-6%) and Spain the most dispersed (5-16%) cost of equity—Germany, France, Italy, the UK and US being in the middle.[91] The other study reports that the cost of equity for 89 banks in Canada, France, Germany, Japan, the UK and the US

[89] See also Asli Demirgüç-Kunt & Harry Huizinga, *Are Banks Too Big to Fail or Too Big to Save? International Evidence from Equity Prices and CDS Spreads* (World Bank Working Paper 2010/5360, available at ssrn.com); İnci Ötker-Robe and Jiri Podpiera, *The Fundamental Determinants of Credit Default Risk for European Large Complex Financial Institutions* (IMF Working paper 2010/153, available at ssrn.com).

[90] Steven A. Zimmer and Robert N. McCauley., *Bank Cost of Capital and International Competition*, 1990 FEDERAL RESERVE BOARD OF NEW YORK QUARTERLY REVIEW 33.

[91] Aurellio Maccario, Andrea Sironi and Cristiano Zazzara, *Is Banks' Cost of Equity Capital Different Across Countries? Evidence from the G10 Countries Major Banks* (Working Paper 2002, available at ssrn.com).

continued to decline from 2002 to 2006, but rose slightly thereafter—averaging 6-9% in 2001-2009, but for Japan (11%).[92]

Higher returns are reported by two 2010 reports. According to the Bank of International Settlement (BIS) (Figure 1 below), average bank ROE was 12%-13% during the 1995-2007 period, while average ROE for non-bank financials was 11%-12% and similar to average ROE for non-financial firms. Unsurprisingly, ROE fell drastically in 2008-2009, but much more for banks and financial firms than for other firms.

Profitability and leverage

Medians across years and institutions

	Return on assets[1]				Return on equity[2]				Leverage[3]			
	95–09	95–00	01–07	08–09	95–09	95–00	01–07	08–09	95–09	95–00	01–07	08–09
Banks	0.6	0.7	0.7	0.2	12.2	13.3	12.8	3.2	18.3	17.8	19.1	17.4
Non-bank financials	0.9	1.0	1.0	0.5	11.2	12.3	11.4	5.4	12.1	12.5	12.1	10.8
Non-financials	3.2	3.0	3.4	2.8	11.7	10.9	12.8	9.8	3.0	3.0	3.0	2.9
Energy	5.9	3.9	8.1	5.2	14.2	10.8	18.6	10.1	2.4	2.5	2.3	2.2
Materials	4.3	4.3	4.7	3.2	10.6	8.8	13.1	8.5	2.5	2.4	2.5	2.7
Industrials	2.1	1.4	2.4	2.3	10.4	8.3	11.5	11.0	5.4	6.1	5.4	4.8
Consumer discretionary	2.2	2.1	2.6	1.1	9.1	8.9	10.4	4.2	3.4	4.0	3.1	3.1
Consumer staples	5.4	5.2	5.7	5.1	13.0	12.4	13.8	11.7	2.5	2.4	2.5	3.0
Health care	8.1	8.0	8.3	6.5	18.2	18.8	18.5	15.3	2.3	2.3	2.3	2.3
Information technology	5.1	5.1	5.0	5.6	12.8	15.1	12.8	10.3	2.2	2.2	2.1	2.0
Telecom services	3.2	3.6	2.8	2.9	8.5	10.8	8.4	6.4	2.6	2.7	2.6	2.7
Utilities	2.7	2.5	2.7	2.7	10.8	9.3	11.6	11.9	4.1	3.7	4.4	4.0

[1] Net income over total assets, in per cent. [2] Net income over total shareholder funds, in per cent. [3] Total assets over total shareholder funds.

Source: Bloomberg. Table VI.1

Figure 1, BIS 80th Annual Report (2009-2010) at 75.

The European Central Bank (ECB), for its part, compared the RoE of banks driven by investment activity (Credit Suisse, Deutsche Bank, Goldman Sachs, Morgan Stanley, UBS) and banks driven by deposit-taking activity (Bank of America, Barclays, BNP Paribas, HSBC, Royal Bank of Scotland, Santander, UniCredit). Average RoE increased from 15% to 25% from 2001 to 2007, to fall below -5% in 2008/2009. More specifically, the investment bank mean first increased from 10% to 30% and then fell to -20% in mid 2008, whereas the universal bank mean remained stable at around 20%, but fell to 0% by the end of 2008 (Figure 2 below).

[92] See Michael R King, *The Cost of Equity for Global Banks: A CAPM Perspective from 1990 to 2009*, BIS QUARTERLY REVIEW, September 2009, 59-73.

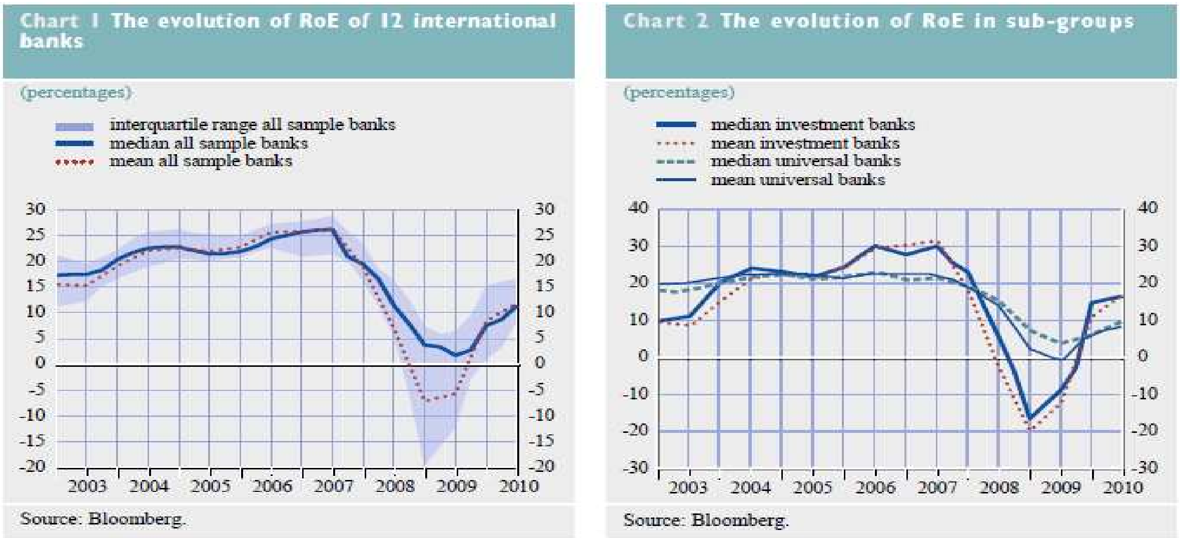

Figure 2, ECB Appendix, *supra* note 84, at 15-16.

While limited in number and scope, these studies provide useful information for the purpose of setting RoE investigation thresholds. Financial supervisors should not worry about lower (annualized) RoEs, as they generally seem to go hand-in-hand with more conservative business models.[93] To be sure, a very low RoE could be a source of concern because of unprofitable financial intermediaries facing liquidity and solvency issues, but this problem is addressed by the CDS spread benchmark. By contrast, financial supervisors should be concerned when the annualized RoE raises an absolute 5% above the peer group average. On the one hand, there are non negligible ROE differences among various categories of financial intermediaries, justifying the use of peer group benchmarks. On the other hand, financial internediaries with a RoE that is 5% above the peer group can generally be considered worthy of attention. Obviously, this does not necessarily warrant a major investigation with potentially drastic corrective action. But supervisory action should be taken, using the procedures and instruments described below.

We now turn to our insolvency risk perception threshold. Here too, there is limited comparative research in the financial sector.

A 2009 study compares CDS spreads for 41 major banks in Europe and the US (but not US investment banks) to those of 162 non-banks during the 2003-2007

[93] See also Carrick Mollenkamp, Liz Rappaport and Aaron Lucchetti, *Investment Bank Seek Fresh Business Models*, Wall Street Journal Europe, October 6, 2010 at 20.

period.[94] CDS spreads are lower for banks than for any other industry. Average CDS spreads (premia) are 0,21% (21 basis points) for banks versus 0,58% (58 basis points) for non-banks, median premia being 15bp versus 37bp. Similarly, average end of 2002 CDS spreads amount to 60bp for banks versus 160bp for non banks, with average end of 2007 being 65bp versus 80bp. The significantly lower premia for banks is partly explained by solvent banks having access to central bank liquidity. On the other hand CDS spreads rose sharply for banks as well as for non-banks during the second half of 2007.

The BIS provides a similar but fuller picture for the 2004-2010 period, as it also includes insurance companies and US investment banks (Figure 3 below). Using CDS spreads covering 10 commercial and 8 investment banks headquartered in North America, 16 universal banks headquartered in Europe and 14 insurance companies headquartered in the US and Europe, it shows that premia were below 30bp from 2004 to mid-2007. They rose to 150bp by the end of 2007, reached 300 in early 2009 and then decreased to 100bp by mid 2010.

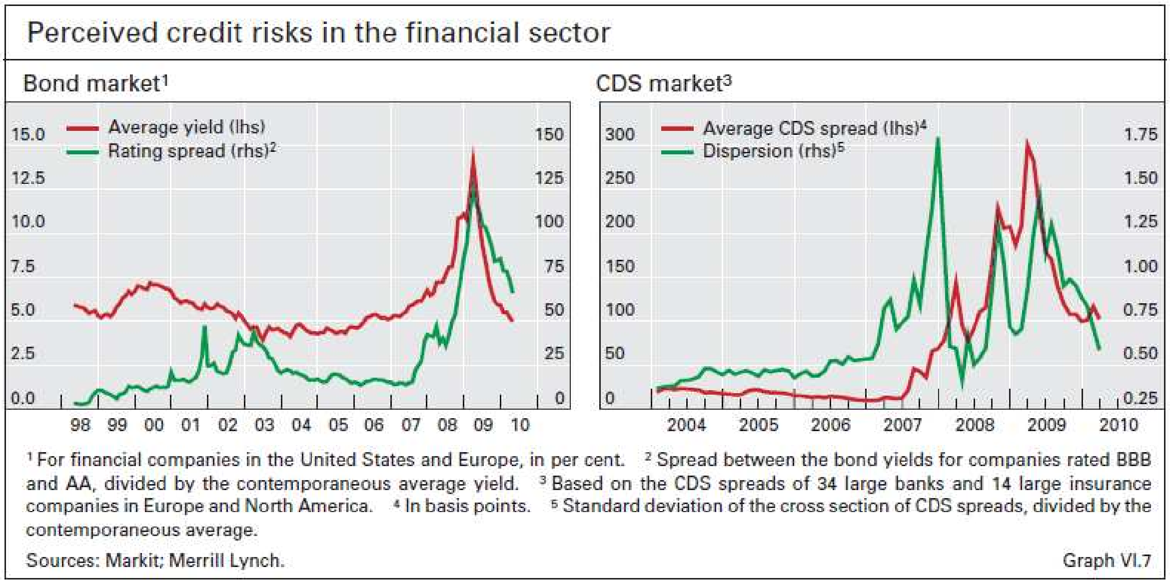

Figure 3, BIS 80th Annual Report (2009-2010) at 81.

A more firm-specific picture emerges from a 2010 study covering 31 listed euro-area banks in Belgium, France, Germany, Greece, Ireland, Italy, The Netherland,

[94] Burkhard Raunig and Martin Scheicher, *Are Banks Different? Evidence from the CDS Market* (Oesterreichische Nationalbank Working Paper 152, February 2009).

Portugal and Spain for the 2004-2008 period.[95] Average CDS spreads were 14 basis points in 2004 and remained very low until the first quarter of 2007, but then increased 182 basis points in 2008. There is also significant variance among banks (Figure 4 below). Average CDS spread over the period range amount to 14bp for Banco Popolare to 299bp for Banca Italease, whereas the minimum at a given time ranges from 2,8bp for Dexia to 750bp for IKB. But individual banks also face significantly different premia over time. This is especially obvious for banks that required massive state bail-outs, with premia for Dexia ranging from 2,8bp to 550bp and premia for IKB from 10bp to 750bp. But even banks like BNP Paribas, Deutsche Bank, Banco Santander and Unicredit have faced premia ranging from 5-9bp to 121-186bp.

[95] See Jan Annaert, Marc De Ceuster, Patrick Van Roy and Cristina Vespro, *What Determines Euro Area Bank CDS Spreads?* (National Bank of Belgium Working Paper 190, May 2010).

	CDS Spread Levels				CDS Spread Changes				Nobs
	Min.	Mean	Max.	St. Dev.	Min.	Mean	Max.	St. Dev.	
Belgium									
DEXIA	2.80	52.60	550.00	86.56	-155.00	1.03	156.70	25.31	159
KBC GROUPE	7.50	21.88	282.20	40.18	-6.10	1.25	104.10	10.96	92
France									
BNP PARIBAS	5.20	20.29	121.30	22.18	-32.70	0.18	34.20	6.71	235
CREDIT AGRICOLE	5.50	27.69	165.00	34.21	-51.30	0.17	43.20	9.60	199
NATIXIS	7.50	40.79	335.00	62.54	-70.00	1.26	78.80	11.83	147
SOCIETE GENERALE	5.90	25.34	149.20	30.71	-44.20	0.29	44.20	8.53	229
UNIBAIL	23.00	73.79	320.00	61.13	-23.00	2.07	88.30	13.02	119
Germany									
BAYER.HYPO	6.00	30.60	150.00	26.50	-45.00	0.19	56.70	8.03	230
COMMERZBANK	7.40	32.50	165.00	30.05	-71.20	0.18	75.00	10.39	240
DEUTSCHE BANK	9.00	30.13	186.20	30.91	-90.10	0.34	81.70	11.08	238
IKB DEUTSCHE INDSTRBK.	10.00	140.40	750.00	203.24	-139.20	3.11	112.50	30.70	88
EFG EUROBANK ERGASIAS	14.50	18.08	23.50	2.22	-10.00	-0.37	3.00	2.18	32
Ireland									
ALLIED IRISH BANKS	6.30	42.04	275.00	55.06	-126.30	0.40	78.80	15.53	189
ANG.IR.BK.	3.00	107.46	605.00	140.46	-251.20	0.43	160.40	36.22	125
BANK OF IRELAND	6.40	48.39	320.00	65.71	-140.00	0.22	88.30	18.47	172
IRISH LIFE & PERM.	115.00	191.24	319.20	55.82	-143.30	-2.54	60.50	33.73	32
Italy									
BANCA ITALEASE	65.70	299.49	650.00	141.45	-135.00	2.19	110.00	37.24	46
BANCA MONTE DEI PASCHI	6.00	29.25	156.70	26.68	-36.70	0.19	29.40	7.67	238
BANCA POPOLARE MILANO	11.50	25.17	125.00	16.89	-15.00	0.57	27.50	3.67	190
BANCO POPOLARE	3.00	14.13	75.00	13.70	-20.00	0.27	12.80	2.83	234
MEDIOBANCA	7.00	22.55	119.70	20.04	-33.00	0.16	35.80	5.74	191
UBI BANCA	14.80	19.73	69.20	5.87	-9.70	-0.12	6.70	2.20	91
UNICREDITO ITALIANO	7.00	27.08	154.80	27.17	-44.80	0.36	56.70	8.79	238
The Netherlands									
ING GROEP	4.50	26.23	188.30	35.59	-48.60	0.40	80.80	10.02	236
FORTIS NL	6.00	46.98	415.00	64.51	-75.00	1.27	262.50	23.59	157
Portugal									
BANCO BPI	10.50	16.25	32.00	4.78	-14.50	-0.09	13.25	2.43	88
BANCO COMERCIAL PORTUGUES	8.00	30.04	161.20	30.51	-41.20	0.21	30.00	7.47	240
BANCO ESPR.SANTO	8.50	34.00	182.80	37.07	-59.10	0.20	45.30	9.39	240
Spain									
BANCO DE SABADELL	21.00	197.66	321.70	83.11	-96.70	0.54	33.00	26.60	22
BANCO SANTANDER	7.50	27.00	154.20	29.94	-38.80	0.28	41.70	7.75	240
BBVA	7.80	25.97	152.50	29.50	-44.30	0.22	40.80	7.87	237
ALL	**2.80**	**38.50**	**750.00**	**63.90**	**-251.20**	**0.44**	**262.50**	**13.49**	**5214**

The table contains the minimum (Min.), mean, maximum (Max.) and the standard deviation (St.Dev.) of both the levels and the changes in the weekly CDS spreads (in basis points) by bank. Banks are assigned to countries based on the Bankscope classification. Nobs refers to the available number of observations in the changes. The period runs from 1 January 2004 to 22 October 2008.

Figure 4, Annaert et al, *supra* note 95 at 6 (Table 1).

While these studies, like RoE studies, are somewhat problematic, they too provide useful information for the purpose of setting intervention thresholds. They show that pre-credit crisis CDS spreads remained low for a long time even though financial intermediaries took significant risks, then spreads stayed high in the wake of the credit crisis, even though many financial intermediaries benefited from state guarantees. However, CDS spreads clearly vary across financial intermediary types. Here again, it follows that financial supervisors should be required to launch an investigation when the (annualized) premia for standard 5 year maturity CDS is 30bp above the peer group average. This threshold is sufficiently high to (1) avoid triggering by normal fluctuations and (2) justify either corrective measures or supervisory explanations to restore market confidence. It is also sufficiently low to permit corrective action at a time when insolvency is not looming and, thus, intervention by a resolution authority not yet required.

Investigations and follow-up. Supervisory investigations would be automatically triggered when a given financial intermediary's annualized RoE is an absolute 5% or its CDS premium 30 basis points above the peer group average. There will be no scope for bank opposition or lobbying efforts to defer the investigation. On the one hand, RoE and CDS spreads being directly observable, failure to immediately undertake an investigation would inevitably attract the attention of policy makers, competitors, investors and, most importantly, rival enforcers.[96] On the other hand, the targeted financial intermediary has more to gain from the supervisor explaining why, based on its investigation, no intervention is necessary than from a public debate about the opportunity of an investigation.

The purpose of the investigation will be to establish whether risk taking and risk management are adequate. Indeed, as mentioned above, high RoEs or large CDS spreads may reflect factors that are of no direct risk concern from a 'normal times' perspective, such as operational efficiency or monetary and fiscal policies. Supervisory authorities will basically focus on the consistency of the financial intermediary's risk appetite with its business strategy and risk management.[97] More specifically, they will investigate asset riskiness (which is not reflected by RoE), own

[96] See *infra* IV/3 for a discussion of the market for supervisory control and the role of competing enforcers.

[97] See also René M. Stulz, *Risk Management Failures: What Are They and When Do They Happen?,* 20 JOURNAL OF APPLIED CORPORATE FINANCE 39 (2008).

fund quality and funding capacity, capital allocation across business lines and related risk management framework and procedures.

The scope of the investigation should not vary with the amplitude of threshold breach. For example, there is no reason to believe that an annualized RoE that is an absolute 10% above the peer group average necessarily reflects deficiencies that are prudentially more important than an absolute 5%. In other words, the supervisor has discretion on how to structure and conduct the investigation. Moreover, regardless of whether the investigation leads to supervisory intervention or in an explanation that there is no need for it, follow-up investigations may be warranted. The intensity and nature of such investigations will depend upon what both supervisors and financial intermediaries have done – or not done.

Let us first assume that financial supervisors impose corrective measures. In such case, they should get market feedback about the effectiveness or perceived adequacy of their intervention. If RoE or CDS premia remain above the peer group average, it will be necessary to determine if this is due to intervention failure or changes in circumstances. If financial intermediary share prices decline, it may be appropriate to investigate whether the supervisory authority has proved overly heavy-handed.

Conversely, let us assume that financial supervisors decide, based on their investigation, to do nothing. They will have to explain why they so decided, for example by showing that a high ROE is due to sound operational performance or that market manipulation is the cause of the high CDS premium.[98] Here again, markets should provide feedback about the perceived adequacy of the agency's inaction. If ROE continues to rise or CDS premium to increase, it will be necessary to reassess supervisory inaction. This may ultimately force financial supervisors to do something—prompting the feedback described above.

Regarding the publicity to be given to the investigation, a special report seems appropriate when RoE and CDS thresholds are first triggered, not least with a view to

[98] Note that such developments may, however, prompt systemic intervention. See text preceding note 102 *supra*.

foster market confidence. Follow-up investigations could take a more modest form if they reveal no material information, for example a mention in the supervisory agency's annual report.

Against this background, financial supervisors may have incentives to intervene too early and too much. However, this is not necessarily costly. To begin with, increased intervention will require financial supervisors to become more effective, providing incentives to implement the internal governance reforms proposed in the previous section. Second, supervisors are under no obligation to impose more stringent requirements across-the-board. Given that our benchmarks reflect average risk taking, corrective action should target the intermediaries least able to manage riskier activities.

In addition, the financial services industry can be relied upon to curb excessive supervisory activism. Financial intermediaries will see the advantage of having agency investigations driven by market instruments rather than by bureaucratic fiat or populist sentiment. But there will always be a point at which they will lobby to constrain agency action. Of course, the implication is that market-based risk proxies may not, by themselves, insure for a responsive level of agency activism—which leads us to our next proposal.

4.3 Market for supervisory control

From a static perspective, and with due exceptions and qualifications, financial supervisors are monopolists: at any given point in time there is one single regulator in charge of supervising a regulated entity for a given purpose. From a dynamic perspective, however, financial supervisors may compete, both because new ones can be created to absorb or replace pre-existing ones and because old ones can similarly absorb or substitute others that (are seen to) have failed to do their job.

In countries with more than one agency supervising financial markets, any of them may be able to increase its influence by becoming active in areas left uncovered by the agency primarily in charge. Such may also be the case when multiple agencies operate at different levels of government, for example at the state/federal or national/international levels. Influence can increase as an outcome of an agency lobbying effort to chip regulatory powers away from another agency, or simply of a broader interpretation of its mandate. Alternatively, when financial intermediaries can opt for supervision by the agency of their choice, regulatory arbitrage may similarly result in a given agency increasing its influence.

Supervisory power shifts can occur as well in jurisdictions with a single supervisor. To begin with, this model is not irreversible: the agency can be split up and/or put under the control of the central bank.[99] In addition, financial fraud or financial distress may enable episodic (for example public prosecutors or the plaintiff bar) and contingent rivals (such as deposit insurance agencies) to expose supervisory deficiencies by acting themselves against financial intermediaries or issuers of financial products. For example, when the SEC adopted an 'outside of the limelight' enforcement strategy, its actions were soon overshadowed by very visible enforcement interventions by a U.S. attorney general (Eliot Spitzer).

We will not consider competition among ordinary and/or systemic supervisors. Their powers are under review in most jurisdictions and there is no firm view about the optimal model of financial supervision. Similarly, we will not consider competition by episodic rivals. Enlisting them is likely to require adjustments in a number of institutional factors that are not financial market specific (e.g. plaintiff incentives, rules on fee awards, etc.).

Instead, our focus is on *contingent* competition by resolution agencies. Many jurisdictions have or are setting up bridge institutions for failing intermediaries and introducing mechanisms to manage their liabilities and sell their assets.[100] This process can be administered directly by the 'ordinary' or systemic supervisors, or taken over by a specialized resolution agency—a combination of both systems being also possible.

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[99] See Report, *A New Approach to Financial Regulation: Judgement, Focus and Stability* (July 2010) (outlining proposed changes to the UK financial supervision architecture).

[100] See e.g. Eva Hüpkes, *Insolvency—Why a Special Regime for Banks, Comparative Review of Procedures*, in CURRENT DEVELOPMENTS IN MONETARY AND FINANCIAL LAW, Volume 3, 471 (IMF 2005); European Commission, Communication 'Bank Resolution Fund', COM (2010) 254 final (May 26, 2010).

Commentators as well as lawmakers generally favor resolution administration by a specialized agency. A supervisor with resolution powers may hesitate to use them due to his close ties with the supervised intermediary or because of supervisory mistakes having contributed to its failure.[101] Moreover, in a federal or international system, negative externalities can be reduced by centralizing resolution powers when supervision is decentralized.[102] We share these views and propose to design the specialized agency's powers so as to allow for tolerable risk taking by financial intermediaries. This result can be achieved by insuring for adequate competition between financial supervisors and resolution agencies, i.e. in the market for 'supervisory' control.

Such competition will crucially depend upon resolution thresholds. Let us first assume that the threshold is demanding, for example by making a takeover by the resolution agency conditional upon a financial intermediary entering a formal bankruptcy proceeding. Under this scenario, the resolution agency is unlikely to get control over a large financial intermediary unless there is a full-blown financial crisis. To begin with, the supervisory agency has strong incentives to prevent such a takeover as it would put the resolution agency in the limelight, provide evidence of supervisory failure and, at least temporarily, significantly reduce supervisory scope. The supervisory agency also has the means to make a shift in control difficult. It can reduce the likelihood of a large financial intermediary filing for insolvency by ordering business plan and management changes, temporarily easing regulatory requirements or, ultimately, orchestrating a merger with another financial intermediary. By contrast, the resolution agency has weak incentives to get control over a large financial intermediary, because of the costs involved. On the one hand, such takeovers will be very infrequent and the agency will be unlikely to have the required staff or experience. On the other hand, control is likely to be achieved when the financial

[101] See Edward J. Kane, *Principal-Agent Problems in S&L Salvage*, 45 JOURNAL OF FINANCE 755 (1990); Arnoud W. A. Boot & Anjan V. Thakor, 1993, *Self-Interested Bank Regulation,* 83 AMERICAN ECONOMIC REVIEW 206 (1993); Charles A. E. Goodhart, REGULATORY RESPONSE TO THE FINANCIAL CRISIS (Edward Elgar 2009); Peter Brierley, *The UK Special Resolution Regime for Failing Banks in an International Context* (Bank of England, Financial Stability Paper 5/2009).

[102] Wim Fonteyne et al., *Crisis Management and Resolution for a European Banking System* (IMF Working Paper 2010/70 available at ssrn.com).

intermediary is already falling apart, minimizing resolution revenues and maximizing resolution costs.

In other words, a demanding threshold will normally result in resolution agencies merely taking control over smaller financial intermediaries. This is not necessarily a bad outcome, as it may incentivize supervisory agencies to focus on larger players and rely on the resolution agency to take care of failing smaller players. On the other hand, it may also incentivize supervisory agencies to let large financial intermediaries take more risks than under a less demanding resolution threshold as there is no credible threat of takeover by the resolution agency.

Let us now assume that the threshold is undemanding, for example by making the supervisory takeover conditional upon a financial intermediary merely facing some solvency or liquidity issues. This makes it more likely that a large financial intermediary will be taken over by the resolution agency. The supervisory agency has weaker incentives to oppose it: the takeover will occur earlier in the default cycle and make the uncovering of supervisory failure evidence less likely. More importantly, it becomes more difficult for the supervisory agency to prevent the takeover by the resolution agency. Any significant supervisory intervention can also be construed as evidence of solvency or liquidity difficulties, in turn justifying a takeover. The resolution agency, for its part, has stronger incentives to attempt a large intermediary takeover, as it may boost its status and prove less costly than for a financial intermediary that has already filed for insolvency. The resolution agency is also more likely to have the means to implement the takeover as it will have more staff and experience due to the increased *ex ante* monitoring that goes hand-in-hand with an easier to trigger threshold.

In other words, an undemanding threshold will result in resolution agency takeovers potentially targeting larger financial intermediaries. This is not necessarily a good outcome, as it may result in the resolution agency intervening too early so as to justify its investments in specialized staff and minimize resolution costs. On the other hand, it may incentivize supervisory agencies to require large financial intermediaries to take less risk than under a more demanding threshold. There is now a significant threat of resolution agency takeover, putting the supervisory agency under considerable pressure to monitor and force changes in business plans or financial intermediary management.

Designers of resolution thresholds thus face a tradeoff. If the threshold is demanding, risk taking may be excessive; if it is undemanding, risk taking may be sub-optimal. This has led many jurisdictions to set 'regulatory' resolution thresholds that differ from the cash flow or balance-sheet thresholds used for non-financial firms. Resolution thresholds can be quantitative—with capital positions or leverage ratios serving as threshold—or qualitative—with financial or operational stress measures serving as thresholds.[103] We propose to address the risk taking tradeoff by setting a qualitative 'financial distress' threshold. Resolution is triggered when there is a *significant* risk of a financial intermediary *generally* defaulting on its obligations.

A 'financial distress' threshold has several advantages. It is not overly precise, permitting to take into account diversity among financial intermediary failures. It makes the threat of takeover by a resolution agency credible even for large financial intermediaries, but only if they take risks that may result in financial distress rather than mere financial difficulties. More importantly, there is an adequate overlap in supervisory and resolution powers. The financial distress threshold's constructive ambiguity makes triggering events fuzzy, leaving room for discretion on both the supervisory and resolution sides.

Hence, financial supervisors will be able to undertake a range of corrective actions when a financial intermediary has financial difficulties without automatically giving resolution agencies an option to takeover control. They will thus have incentives to act promptly—to keep control and, consequently, secure their budget as well as preserve their prestige—but not hastily. In most instances, supervisory intervention is likely to be successful without resolution threshold triggering, as most financial intermediaries do not become financially distressed overnight. But even when financial distress may occur, supervisors are unlikely to engage in hurried

[103] See also IMF and World Bank, An Overview of the Legal, Institutional and Regulatory Framework for Bank Insolvency (April 2009, available at ssrn.com); see also the basket of thresholds approach adopted in the Dodd-Frank Wall Street Reform and Consumer Protection Act.

interventions as resolution agencies' incentives to adopt aggressive takeover policies are constrained by operational (personnel) and financial (resolution funding) restrictions.

Conversely, resolution agencies will be able to observe supervisory intervention when a financial intermediary faces financial difficulties without automatically exposing themselves to criticism or litigation for failing to immediately take over. They will thus also have incentives to act promptly—to get control and, consequently, secure their budget as well as preserve their prestige—but not hastily. To be sure, prompt intervention by resolution agencies presupposes their adequate staffing and funding, but this condition must be satisfied under any resolution threshold. If not, it is not only the financial supervisors' incentives to act promptly in financial distress situations which are reduced. It also increases financial supervisors' incentives to be generally lax in order to be attractive for financial intermediaries which have the option to pick their financial supervisor (race to the bottom).

5. CONCLUSION

Contrasting with many recent studies, this paper focuses on 'normal times' and not on systemic supervision. This approach does not merely reflect that the two types of supervision are complementary. It also reflects the belief that day-to-day supervision is more likely to minimize the costs of future financial crisis as it is much easier to administer and implement than systemic supervision.

We propose a relatively rich menu of internal and external governance improvements for 'normal times' financial supervisors. They should have strong CEOs and flatter hierarchies. Appointment procedures, business plans, decision-making, and lobbying activities should be made more transparent. Supervisory investigations would be prompted by 'market driven' benchmarks, return on equity and credit default swaps spreads, and result in either supervisory action or explanations about why this is not necessary. And finally, resolution agencies should be enlisted to ensure an active market for supervisory control.

There are three reasons for offering a menu of proposals. First, it reduces resistance to change. Second, it avoids 'one-size-fits-all' effects: jurisdictions can adopt those measures that are suitable in view of the development of their financial markets and their economic, social and cultural characteristics. Third, our proposals can be experimented individually without material loss in complementarity advantages.

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