Agency Theory and the Design of Efficient Governance Mechanisms

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The purpose of this paper is to analyze the mechanisms by which corporate boards may fail to provide the monitoring and ratification of managerial decision in public and private corporations. The paper creates a framework for thinking about the problem of designing efficient governance mechanisms that is based on the theory of agency. Mechanisms by which boards can fail to provide efficient governance of the firm via monitoring and ratification of managerial decisions are analyzed, and the framework is used to supply structural and behavioral interventions designed to make boards better agents for the shareholders. As with any such theory, the framework can also be used by managers to either strengthen or weaken their boards' powers of monitoring, ratification and sanctioning of managerial decisions. It can also be used by shareholder groups to design effective contractual structures that bind boards to their mandate, and by boards themselves to understand the ways in which top managers and shareholders can bind them to their mandate and ways in which they could function more efficiently.

1. The Separation of Ownership and Control: A Fundamental Problem of the Modern Public Corporation.

The modern public corporation is a relatively new organizational form in the history of societies, dating back to the beginning of this century. Its distinguishing characteristic is the separation of *ownership* of the assets of the corporation from *control* of those assets. While ownership of the assets is vested in the shareholders of the corporation, control over these assets is in the hands of professional managers of the corporation. Hence, managers take actions whose consequences are largely carried by the shareholders of the corporation. There are two kinds of managerial failures that keep them from acting as perfect agents of the shareholders:

1. Failures of managerial competence (genuine mistakes and mis-calculations) relate to unwitting mistakes in the discharge of managerial control;

2. Failures of managerial integrity (lies, fabrications, embezzlement and self-dealing) relate to wilful behaviors of the part of managers that negatively impact the value of the firm's assets.

To guard against failures of either type, shareholders enact ratification, monitoring and sanctioning (reward and punishment) mechanisms [Fama and Jensen, 1983]. Ratification mechanisms are mechanisms for validating the decisions of the agent, of giving final approval or veto for an initiative or directive or actionable plan of the agent. Monitoring mechanisms are mechanisms for observing, recording and measuring the output of the efforts and strivings of the agent. Sanctioning mechanisms are mechanisms for providing selective rewards and punishments (i.e. 'incentives') to agents for the purpose of motivating them to exert effort in directions that are aligned with the interests of the shareholders.

The board of directors of the modern corporation plays a critical role in the enactment of these mechanisms, being fiduciarily responsible to the shareholders and having the right to monitor, ratify and sanction the decisions of the managers of the corporation. The role of boards is therefore critically tied to the imperfect agency relationship between shareholders and managers that is itself a direct consequence of the modern corporate form.

2. Knowledge, Decision Rights, Incentives and The Triple Veil of the Modern Corporate Form.

An agency relationship involves a principal (the owner or shareholder) and an agent (a manager or director or employee) [Jensen and Meckling, 1976]. The principal hires or retains the agent because of the agent's specific talents, knowledge and capabilities to increase the value of an asset. In order to increase the value of that asset, all or some of the principal's decision rights over that asset must be transferred to the agent, for a finite period of time.

Agency theory assumes that the interests of owners and managers or board members (principals and agents, respectively) are not, ex ante, aligned [Jensen and Meckling, 1976, ibid.]. Managers or directors, for instance, want to maximize their own wealth, power and prestige while safeguarding their reputation, while shareholders want to maximize the value of their assets. These interests often collide, as managers and directors can take actions that increase their power, influence or prestige without increasing the value of the shareholders' equity.

Contracts are mechanisms for resolving, by *ex ante* stipulation, problems that arise from the imperfect alignment of interests. Hence, agency theorists speak of the modern corporation as a *nexus of contracts* [Jensen and Meckling, 1976]. These contracts delineate or specify agency relationships: between shareholders (principals) and managers (agents), between debt holders (principals) and managers (agents), between shareholders (principals) and directors (agents) and between the directors (principals) and various board committees and task groups (agents). These contracts may be implicit (based on unspoken mutual expectations, cultural norms, individual roles organizational 'common law' or 'culture') or explicit (based upon written representations that are legally binding, such as corporate by-laws, shareholders' agreements, subscription agreements and employment contracts). Agency theory is concerned with devising structural and behavioural measures that minimize inefficiencies in the contractual structure of the firm that arise from imperfect alignment of interests between principals and agents.

I. Elements of Agency Models. The elements of agency models of business relationships are:

a. Decision rights, or the rights to exercise control over a particular asset, which come in two different types [Fama and Jensen, 1983]:

A1. Decision management rights include the right to initiate a decision and the right to implement a decision;

A2. Decision control rights include the right to ratify (give final approval for) a decision, decision monitoring rights (the right to measure the performance of the agent) and sanctioning rights (the right to reward or punish an agent according to the outcomes of his or her decisions).

Both decision management rights and decision control rights can be of two kinds in their turn:

A3. Positive decision rights are the rights to proactively propose or undertake a particular course of action;

A4. Negative decision rights are the rights to veto, oppose or derail a particular course of action.

Typical specifications of decision rights stressing positive rights appear in employment agreements or job descriptions, specifying a set of functions or tasks that the agent will perform in exchange for compensation. Typical specifications of decision rights stressing negative rights appear in shareholders' agreements and their amendments and in subscription agreements and corporate by-laws, and specify a set of actions that individual shareholders are enjoined from undertaking without the express consent of other shareholders (who are thus given *negative* decision rights over specific domains of corporate governance).

b. <u>Knowledge</u> that is critical to the activities of the agent (and sometimes to the activities of the principal), which also comes in two types [Jensen and Meckling, 1992]:

B1. General knowledge is the kind of knowledge one can easily communicate and transfer, such as knowledge of general frameworks and ideas; the framework we are advancing here is an example of general knowledge, as is the training one receives in an engineering school or in conceptually-oriented courses in a graduate program in management;

B2. Specific knowledge is the kind of knowledge one cannot easily transfer or communicate, including knowledge of the specific circumstances of a particular event (fall in silicon fabrication capacity in Taiwan at a particular point in time) or knowledge that cannot be codified at all (knowledge of how to persuade a particular person to give up her board seat through the use of inter-personal charm and knowledge of her psychology, or knowledge of how to write a software program to perform a particular function, which cannot be codified as part of a textbook or a course of learning);

c. Incentives – or rewards and punishments – that motivate the agent to act in one way rather than another, given the choice, and are of two kinds [Jensen and Meckling, 1976]:
C1. Pecuniary incentives relate the observable effort level of the agent to a set of monetary rewards for the agent (such as salaries and bonuses), or a set of rewards that can be easily turned into monetary rewards (such as stock grants and warrant and option grants);
C2 Non-pecuniary incentives relate the observable effort level of the agent to a set of non-monetary rewards, such as intra-organizational power and prestige, perquisites and privileges and market-wide visibility and reputation.

These three elements can be used together to understand the potential problems and pitfalls of the modern corporate form for the organization of work. Failures of the agency relationship can result whenever managers make decision for which they either do not have the right information to reach optimal conclusions (failures of competence) or where they have incentives to take actions that decrease the value of the shareholders' holdings. More generally, agency failures occur whenever decision rights, the necessary specific and general information and incentives are not co-located in the same person.

II. The Triple Corporate Veil. We can speak of a triple corporate veil that insulates decision makers from the consequences of their decisions:

A. A legal veil insulates shareholders from corporate liabilities, thus sheltering them from the downside of decisions that have onerous financial consequences (except for actions whose legal consequences are said to 'pierce the corporate veil', and partially insulates directors from the negative financial consequences of their actions, except for actions construed to contravene the fiduciary obligations of the board members to the shareholders;

B. An informational veil operates at three levels:

B1. it insulates shareholders from information that they may need to run the company competently, through mechanisms that concentrate decision rights (including decision rights over the flow of information) into the hands of top managers and corporate directors effecting an essential separation of ownership and control [Fama and Jensen, 1983] that is the predominant feature of modern public corporations;

B2. it insulates the board of directors from relevant information about the company, through mechanisms that concentrate decision rights over the flow of information in the hands of top managers;

B3. it insulates managers from information that their employees succeed in keeping from them, through mechanisms that create incentives for employees to hoard information in order to treat it as 'organizational currency';

C. A motivational veil operates at four levels:

C1. it insulates shareholders from the exposure (debt and other liabilities, including legal culpabilities, with few exceptions) of the corporation;

C2. it insulates the board of directors from directly bearing the consequences of their actions (with the exception of actions construable as violating fiduciary responsibility to the shareholders);

C3. it insulates top managers from the consequences of their actions to the shareholders, if their compensation packages are not responsive to the price of the company's equity [Jensen and Murphy, 1990];

C4. it insulates employees from the consequences of their actions to the shareholders, provided that their compensation packages are not responsive to changes in the value of the shareholders' equity [Baker, Jensen and Murphy, 1988].

The problem of designing efficient governance mechanisms is the problem of redressing (or at least addressing) the inefficiencies caused by the triple corporate veil. These inefficiencies are brought about by the separation of ownership and control - more precisely, of authority and responsibility – that the mechanisms that create and maintain the triple corporate veil set up and cultivate.

3. The Design of Efficient Governance Mechanisms: The Co-Location of Decision Rights, Incentives and Specific Knowledge.

Agency theorists suggest three different principles for redressing inefficiencies imposed on the modern corporation by the triple veil:

a. Align decision rights with specific knowledge useful in order to competently exercise those rights (because general knowledge is easily transferable, it is not necessarily required that decision rights and general knowledge be co-located). This principle suggests that decision rights be pushed downward in the organizational hierarchy to the levels at which they reside in the same people (managers or employees) that have the specific knowledge to competently use those rights) [Fama and Jensen, 1983];

b. Align incentives with decision rights. This principle suggests that the incentive packages given to board members, managers and employees match the decision rights given these people [Jensen and Murphy, 1990];

c. Design efficient monitoring mechanisms based on observable performance measures on which basis cash bonuses, stock options and stock warrants are awarded.

4. Hidden Information and Hidden Action: The Fundamental Problems of Imperfect Contracting

Two problems conspire to make the implementation of these principles difficult.

a. The problem of hidden information is the problem of allocating rewards and punishments in such a way as to motivate employees and managers to reveal information that will make it possible to design an efficient pay-for-performance plan: managers low-ball budgets; employees over-estimate the time it will take to complete a project. The 'right' information is often hidden, either by failures of integrity or by failures of competence. Solving the hidden information problem requires the enactment of structural and behavioural constraints that make people reveal more of the information required to adequately monitor their performance more of the time [Arrow, 1985];

b. The problem of hidden action refers to the problem of allocating rewards and punishments in such a way that they reflect the full impact of the actions of an employee, manager or board member on the value of the firm: a good individual salesman might, for instance, de-motivate the rest of her sales force; however, if her compensation package is only based on her ability to meet her own targets, her de-motivating actions, which have an adverse effect on the value of the firm, will be unobservable from the vantage point of the board that ratifies her end-of-year bonus and stock option grant. Solving the hidden action problem involves the design of monitoring mechanisms and incentives that adequately compensates employees, managers and board members on the basis of the net impact of their actions on the value of the firm as a whole [Arrow, 1985, ibid.].

5. The Design of Efficient Corporate Monitoring and Ratification Mechanisms: Structural and Behavioral Remedies to Agency Problems at the Board level.

I. Decision Rights Vested in Directors. Boards of directors have three key decision rights:

a. Monitoring rights: they monitor the performance of top management teams and report on their monitoring activities to the shareholders of the corporation;

b. Ratification rights: they ratify (support or reject) key strategic decisions of the top managers, including decisions concerning the allocation of decision rights. Significantly, boards are responsible for ratifying decisions that relate to the decision rights that boards themselves in fact have;

c. Reward and punishment rights: acting in concert, board members can remove top managers from their positions and sanction top managers for their decisions.

Boards therefore have a key role in the nexus of potentially imperfect contracts between shareholders and managers, as direct agents of the shareholders (to whom they are responsible) in monitoring and sanctioning the performance of potentially imperfect agents of the shareholders (top managers).

II. Agency Problems on Corporate Boards. To the extent that their interests are not aligned with those of the shareholders and they lie in the direction of increasing individual wealth or power notwithstanding the effects on the value of the firm's equity, top managers have an incentive to narrow the decisional span of their boards (narrow their decision rights) and keep the information necessary for boards to exercise their monitoring duties from the boards. More specifically, top managers can:

a. select board members that are 'yes-people' who will vote with the top management team on key decisions, thus increasing the extent and depth of top management control over the assets of the firm;

b. select board members who do not have the right general knowledge (knowledge of organizational structures and mechanisms) to effectively monitor the top management team, thus decreasing the level of monitoring of top managers' actions and decisions processes;

c. select board members who do not have the right specific knowledge (knowledge of particular product or market) to monitor and effectively and authoritatively sanction the actions of the top management team, thus decreasing the level of monitoring of top managers' actions and decisions processes;

d. withhold information from board members that would increase the power of board members to monitor and sanction the actions of the top management team, again curtailing the monitoring capabilities of the board over top management decisions and initiatives;

e. allocate decision rights to board members in such a way that the monitoring, ratification and sanctioning rights of the board members over top managers are curtailed or blunted;

f. provide incentives to board members that motivate them to forego or abdicate their monitoring, ratification and sanctioning activities, essentially by centralizing decision rights over the compensation packages of board members.

To the extent that board members' own interests are not aligned with those of the shareholders of the corporation, board members may have selective incentives to:

a. seek to maximize personal wealth and security at the expense of shareholders by colluding to ratify advantageous and above-market options packages;

b. seek to maximize personal power and authority at the board level by creating committees and sub-committees that essentially fragment the decision rights of the board as a whole;

c. seek to minimize personal discomfort and anxiety by giving uncritical approval to the directives, initiatives and suggestions of top managers;

d. seek to maximize personal bargaining power and authority by using their own networks to influence, in sub-optimal ways, the pattern of associations, alliances and contractual relationships of the firm;

e. seek to maximize personal self-esteem by continually undermining the initiatives, suggestions and directives of top management and other directors, at the expense of shareholder value;

f. seek to maximize personal self-esteem and psychological security by filtering out information that is damaging to their own credibility, notwithstanding the value of that information to the critical decision making power of the board;

g. seek to maximize personal self-esteem and psychological security by colluding to avoid discussion and deliberation on difficult topics (such as the removal of certain board members from the board, the removal or reprimand of top managers, or the admission of failures of competence or integrity of certain board members).

We will analyze the specific agency problems that arise in the selection and management of corporate boards and suggest structural and behavioural remedies to these problems at the level of:

a. Board Selection Mechanisms: How should boards be selected? Who should they be selected by? By what process should boards be selected?

b. Board Design Mechanisms: How should decision rights be allocated on boards? How should board committees (compensation, financial, audit, investment, technology, executive) be formed? Who should have decision rights to form them and dissolve them? What process should these committees be tasked with? What decision rights should they have?

c. Board Management Mechanisms: How should board deliberation sessions be structured so as to maximize the optimal discharge of decision rights and, simultaneously, the critical, albeit constructive, discussion of 'uncomfortable' issues?

d. Board Compensation and Monitoring Mechanisms: Who should monitor the monitors? By what processes? How should boards be compensated (Who should compensate the compensators?)? By what processes?

III. Board Selection Mechanisms

Board selection mechanisms refer to the processes by which board members should be selected, nominated and finally retained for service on the board. The imperfect agency framework that we have developed above can supply a set of principles by which the process of board member selection should be governed. The imperfect agency framework suggests that the following problems must be addressed by an efficient board selection mechanism:

a. Self-dealing on the part of existing board members and top managers, who have an incentive to recruit board members that, either because of their temperament or lack of specific knowledge of the industry or the financial markets or because of lack of general or specific knowledge of corporate governance mechanisms, will not ask 'tough questions' during board members and will provide only loose monitoring of top managerial activities (a problem of 'hidden action');

b. Imperfect self-presentation on the part of prospective board members, who have an incentive to mis-represent their background – both in terms of their socio-economic networks and their specific knowledge of the industry and the financial markets – in order to gain nomination to the board of directors (a problem of 'hidden information').

To address these two problems, one might (A) agree upon a set of board member selection criteria up front, and use these criteria to screen potential board members, (B) make the hard choices between alternative criteria required to build an independent, competent and vigilant board and (C) use independent sources to verify or validate the desirability of any potential board member vis-à-vis the selection criterion chosen.

A. Board Member Selection Criteria. Board members fulfill both the internal functions of monitoring and ratifying managerial decisions and providing conduits of trust and conduits of information for the firm in its external dealings. The board member selection criteria would ideally reflect these functions, and they may be enumerated as follows:

A.1. General knowledge of corporate governance structures allows board members to competently *exercise* their decision rights as board members, and provide critical guidance to top managers in their articulation of firm strategy. Without knowledge of corporate governance mechanisms and structures, board members may feel inhibited in discharging their full decision rights (for fear that they may overstep their statutory authority) and may feel incompetent in monitoring managerial dealings vis-à-vis their compliance with the firm's strategy, shareholders' agreements and corporate by-laws.

A.2. General knowledge of the firm's technology and industry a in order to uncover the specific allows board members to *ask competent questions* of top managers and other board members in order to uncover the specific information that board members are hired to monitor, integrate and deliberate about. General knowledge of the firm's industry can be thought of as a basic awareness of the language system or vernacular that is spoken in that industry, and an ability to string together various disparate facts about the industry in a coherent and empirically testable model or causal map;

A.3. Specific knowledge of technology and industry allows board members to independently verify the information that is being provided to them by the firm's managers, and also to form their own, *independent* opinions on issues of strategy and governance that are critical to the management of the enterprise. Specific knowledge of the firm's industry includes knowledge of the specific technology, marketing, logistics and governance positions of the firm's competitors, suppliers and customers, as well as specific knowledge of the firm's own technology, intellectual property and internal culture and coordination mechanisms. It also includes knowledge of the labor markets of the firm, its competitors, suppliers and customers, and knowledge of the specific culture that pervades the value chain (suppliers-firm-customers) in which the firm operates;

A4. General knowledge of financial market mechanisms allows board members to understand the general framework in which the firm may seek and obtain access to sources of capital. It allows board members to competently judge the soundness of a particular financing option, and to ask competent questions of top managers about the financing options pursued by the firm;

A.5. Specific knowledge of the firm's financial markets allows board members to form independent opinions of the strategic financing initiatives of top managers in the firm, to provide introductions to prospective financial backers of the firm, and to effectively monitor (validate, verify) the information being given to the board by its top managers and other board members;

A.6. Industry-specific reputation helps board members attract other sources of intellectual, social and financial capital to the firm, in the form of organizations and individuals who, though they may not want to be associated with the firm in itself, will want to be associated with its 'name' board members;

A.7. Personal network depth and breadth of individual board members function as guarantors of the trustworthiness, integrity and competence of other member of the organization to other organizations in the same market space, by signalling, through the willingness of the board member to be associated to the firm, qualities that the firm's managers or other board members cannot, by themselves, credibly signal;

A.8. Individual bargaining power of board members relates to their leverage in co-opting potential partners or financial partners in dealings that are advantageous to the organization, in virtue of the membership of the board members in multiple social networks, or their standing on multiple boards to which their goodwill and willingness to help is critical.

A.9. Psychological and intellectual independence of board members is directly relevant to the monitoring function by the board members of the plans and behaviours of management. Psychological independence refers to the *proclivity* of board members to make their own judgments about critical and potentially divisive issues, rather than relying on the expertise of managers and of other board members. Intellectual independence refers to the *ability* of board members to make their own judgments about critical and potentially divisive issues, rather than relying on the expertise of managers and of other board members. Obviously, psychological independence is required in order for one to make use of one's intellectual independence, which in turn is required in order for one to be psychologically independent. The two kinds of independence may be correlated with a board member's general and specific knowledge of the firm, its industry and its financial environment but are not necessarily causally linked to levels of specific and general knowledge, as 'independent thinkers' with the ability to quickly learn about a critical situation are not necessarily only those who have knowledge of that situation already.

A.10. Socio-Economic independence of board members refers to the absence of significant entanglements of board members – economically or socially – that might bias their opinion on the board and thus affect their capacity to competently monitor managerial performance and ratify managerial decisions. If a board member, for instance, has a significant stake in the pursuit of particular projects or technologies (because he or she is the author or inventor of those technologies, or a contributor to technical standards that are making use of those technologies), then the agency problem that is created by the bias of that board member should be traded off against the benefits of a board member that has deep technical knowledge of a particular issue of relevance to the firm.

B. Hard Choices. Whenever multiple decision criteria are proposed for the same predicament calling for a decision, there is a hard choice to be made: which criterion shall be favoured over others? The purpose of a framework is not to set forth cook-book-style recipes for solving particular problems – such as the problem of selecting board members, but rather to illuminate the choices and trade-offs that must be made by someone that is confronted with that problem. Theoretical frameworks are not recipe books, but rather metaphorical structures that help the user navigate uncertain predicaments. It is, however, within the realm and purpose of the framework builder to simplify the decision predicaments with which the user is confronted. The eight criteria for selecting board members, one might argue, lead to an overly complex decision problem – one that is not necessarily easier to make or cognitively more economical than it would have been without the framework in place. Therefore, it may be useful to set forth some important trade-offs – or hard choices that one cannot get away from making - that are made in terms of selecting new board members. They are:

B.1. Internal coherence versus external coverage. There are significant benefits to retaining board members who jointly possess all of the desirable attributes relating to knowledge, reputation and bargaining power, as the board will be less likely to be 'blind-sided' in its monitoring and ratification efforts if its members have all of the critical skills required to evaluate a business plan or proposal than if they have to rely on outside advice or the expertise of the firm's top managers for assistance. There are also significant benefits to the board's internal coherence – the capacity of the board members to work collectively through difficult conversations addressing potentially divisive issues. It is often the case that such internal coherence develops when there is a common, shared language that individual board members can use in order to bridge conflicting positions. If board members come from very different backgrounds and do not share such a system, then the development of such a language may be more difficult, or proceed more slowly. It is precisely in a 'well-rounded' board that such incompatible language systems or ways of viewing the world are most likely to occur, as the selection criteria for individual board members cover a wide range of different disciplines, range and possible uses of language. Hence, there is an important trade-off to be made between the desire to foster and maintain internal coherence and the desire to build a board that covers many areas of expertise and capability.

B.2. Internal balance versus bargaining power of individual board members. There are obvious advantages to the firm to attracting board members with significant intra-industry bargaining power (with the suppliers, customers and potential financial backers of the firm), both in terms of the ability of the board to provide opportunities for value creation to the firm, and in terms of the capacity of the board to work more closely with top managers in the latter's strategic efforts – thus increasing the board's capacity to monitor managerial efforts: if the board has something ‘to offer’ in terms of creating new opportunities for the firm, then top managers may be more willing to share critical information with board members in exchange for the new opportunity set that the board members help to create. As, in an organization, money is to some extent by information as a form of currency, intra-organizational bargaining power and inter-organizational bargaining power should be positively correlated.

There are also obvious advantages to building a board that is not overly controlled or ‘held up’ by any group of directors, or by individual directors, who can leverage their extra-organizational bargaining power in order to make credible threats of exit from the firm at critical moments in order to extract personal benefits. Once again, the relevant mechanism is the conversion of inter-organizational bargaining power of individual members into intra-organizational bargaining power, this time in the form of credible threats of exit at moments when the firm can least afford such exits. Thus, there is an important trade-off to be made between internal strategic balance on the board and external bargaining power of individual board members or groups of individual board members.

<u>B.3. Knowledge Depth Versus Knowledge Breadth</u>. Several of the board selection criteria above address the issues of general and specific knowledge of the board members – of corporate governance mechanisms, of the firm’s technology and of its competitors, customers and suppliers. These selection criteria address the important distinction between general knowledge – knowledge that can be easily taught and transferred by means of formalized dialects – and specific knowledge – knowledge that cannot be easily encoded and transferred.

However, within each different kind of knowledge we can talk of a distinction between the depth of the knowledge and the breadth of the knowledge. Knowledge is deep when it is of the sort that can answer many concatenated ‘why?’ questions. The physicist’s and the mathematician's knowledge are examples of deep knowledge. It has a hierarchical structure, with a few basic propositions at the top of the hierarchy, from which all other propositions follow by self-evident steps. Knowledge is broad when it can be used to answer many questions of the type: 'what?', 'where?', 'who?' and 'how?'. The economist's and the biologist's knowledge are examples of broad knowledge. There are few key fundamental; assumptions that can compress all of this knowledge, which consists of a large set of empirical findings and basic causal mechanisms which only work when certain conditions come about.

Both general and specific knowledge can be deep, broad or deep *and* broad. Deep knowledge is helpful because it helps board members connect together disparate facts and figures into a framework, theory or model that they can use to understand the business model of the firm. Broad knowledge is helpful because it helps board members identify the possible sources of alternative points of view and the possible errors in the mental maps and models of the top managers.

However, very different cognitive skills are required in order to use and produce broad and deep knowledge, respectively, and it is infrequent that these cognitive skills are to be found in the same individual. Thus, there is an important trade-off to be made between selecting cognitively deep and cognitively broad directors for their specific or general knowledge. This trade-off should be made with an awareness that persons with different cognitive styles may find it difficult to communicate and conduct a cooperative inquiry process, and thus early choices (of deep knowers versus broad knowers) should influence the trade-off between cognitive depth and breadth that one makes in subsequent board member selection decisions.

<u>B4. Knowledge *OF* and Knowledge *THAT*</u>. There is yet another important distinction that intervenes within the broad class of specific knowledge. This is the distinction between

knowledge *of* a particular mechanism, or craft, or way of being, and knowledge *that* something is the case [Dretske, 1983]. Knowledge *of* is usually tacit. It is knowledge of how to persuade people to carry out certain tasks, of how to get them to trust you, of how to scare them away from a particular course of action, of how to build an interpersonal network that can be very valuable for the company, and so forth. Knowledge *that* is knowledge that this or that proposition is considered to be true by general wisdom, and includes all propositional beliefs: facts, models, theories, frameworks, belief systems and paradigms.

Both kinds of knowledge can be very helpful for a board member. Knowledge *that* one can build a network within the industry by a particular strategy can be used to test hypotheses and validate various models that top managers put forth for how they are going to put together a set of critical relationships. Knowledge *of* how one actually builds such networks is useful in that board members who possess such knowledge can actually engage with *building* the relationships in question.

The two different kinds of knowledge have very different roles: Knowledge *of* has a *performative* role – it helps board members perform certain value-increasing tasks. Knowledge *that* has a critical role – it helps board members criticize various propositions put forth by top managers. As in the case of knowledge depth and breadth, the trade-off between choosing board members that have knowledge *of* certain critical processes and board members that have knowledge *that* certain processes are better than others is presaged by the fact that the two kinds of knowledge are only infrequently co-located in the same individuals. Much of one's knowledge *of* is not directly verbalized – nor perhaps verbalizable in contemporary language. Much of one's knowledge *that* something is the case may not be directly applicable in practice.

Thus, while the two kinds of knowledge are not mutually exclusive, there exists nevertheless a tension between the two different kinds of *knowers* that the board members selection process would do well to heed. Given that boards embody and enact mechanisms for *critical* ratification and monitoring of managerial actions and that these processes depend on prolonged *discussions* in which the *articulation* of difficult ideas and arguments is important, there exists a strong argument for favouring knowers *that* over knowers *of* in board selection mechanisms.

B.5. Independence Versus Specific Competence. There is an important trade-off to be made between the psychological and socio-economic autonomy of a board member on one hand (begetting open-mindedness during ratification processes and increased objectivity in monitoring processes) and his or her specific involvement in the industry in which the firm operates, at the intellectual, social and economic levels, begetting higher bargaining power of that member within the industry and greater relevant knowledge about the industry and the firm, which in turn help to make ratification and monitoring processes more efficient by broaching the internal agency problems between managers and the rest of the shareholders of the firm. As these two sets of features should be expected to be negatively correlated (if not causally linked) – because greater involvement of the board member in the industry of the firm often comes at the expense of greater intellectual, economic and sociological involvement of that board member with the industry of the firm – there may be yet another *hard choice* to be made between the overall independence of a particular board member and his or her level of knowledge, connectedness and bargaining power – all of which can bring additional value to the firm.

C.Board Member Validation Mechanisms. Board member validation mechanisms refer to the ensemble of processes by which the references and credentials of individual board members under consideration are validated by appointed members of the board and the top management team. The agency framework suggests that three different kinds of problems can emerge, which can bias the selection process. Each problem can be treated as a separate principal-agent problem, as follows:

C.1. There is an *internal* agency problem, wherein individual members tasked with checking references and collecting information on potential board members, as agents for the firm, have an incentive to use looser reference checks on board members whom they personally favour having on the board for personal reasons, if they expect, for example, that the board member in question will vote in a particular, favourable direction on key, divisive issues.

C.2. There is an *external* agency problem in collecting valid data on potential board members, as candidates for the board have an incentive to hide, in their self-presentation strategies, critical and potentially negative information that can influence their appointment to the board. There is also an external agency problem in collecting data about potential board members from third parties, who may be unwilling to give potentially damaging accounts of individual board members' past performance, thus biasing the board selection process. In these cases, it may be helpful to think of the potential board members and their reference providers as the agents, and the existing board members and top managers of the firm as the principals, with the task being defined as providing valid and accurate information about the past performance of the board members being considered.

C.3. There is an *intra-personal* agency problem for individual board members and top managers tasked with selecting new board members, as, in spite of their best intentions to provide a truthful and accurate account of their discoveries and to probe into the past of the potential board members with critical intent and intellectual honesty [Schelling, 1984]. In these cases, it helps to think of individuals as being, as principals interested in maximizing the welfare of the firm, interested in conducting a fair and unbiased due diligence process, and, as their own agents, in moments of weakness-of-the-will, interested in protecting themselves from discovering information that they 'do not want to hear'. 'Don't ask- don't tell' policies can be seen as the outcome of precisely such intra-personal agency problems.

The agency framework suggests that the efficient solution of agency problems is based on (a) the co-location of decision rights with specific knowledge, and (b) the co-location of incentives with decision rights. It also suggests that (c) monitoring rights should be separated from implementation and initiation rights in making a decision, to avoid self-dealing incentives that result when individuals come to monitor their own output and (d) that reward and punishment rights should be separated from initiation and implementation rights to guard against self-dealing incentives for individual board members and top managers. This framework suggests the following specific remedies to the agency problems outlined above:

C.I. Co-Location of Decision Rights and Specific Knowledge. Decision rights over the selection of new board members should be given to existing board members or members of the management team that have specific knowledge of the industry, social networks and past record of potential board members. This measure will help mitigate the agency problems related to the process of discovering new information about potential board members, as inquirers with relevant specific knowledge can ask probing questions that quickly filter through inaccurate claims made by board member candidates and the references they provide. Alternatively, the search and inquiry process can be contracted outside of the firm, using a contingent-pay-for-performance contract with a professional head hunting organization. It is conceivable that part of the recent growth in the corporate head hunting industry is attributable to the rising agency costs of having internal board members and managers filter through candidates for board and executive positions.

C.II. Co-location of Incentives and Decision Rights. The agency framework suggests that, because directors and top managers are only imperfect agents for the rest of the shareholders of the firm, selective incentives should be provided for them for performing tasks that will benefit the firm as a whole. If a director or top manager has equity-class claims on 1% of the company's total value of $100MM and the value of a particular successful action to the company is worth $1MM, then the value of that action to the respective director or shareholder will only be $1MM, making it less likely that he or she will undertake it than would be the case if the director or top manager in question had claims on 10% or 100% of the equity of the firm. Selective incentives – reward and punishment schemes ties to particular outcomes causally linked to particular actions – can help to bridge this agency gap. This can be accomplished by the creation of special options and warrants pools that are to be awarded contingently on the achievement of particular milestones in the board recruitment process. Alternatively, the co-location of incentives with decision rights (and, presumably, relevant specific knowledge) can be accomplished by the retaining of a corporate recruitment agency that can undertake the board member recruitment or selection process on a contingency basis.

C.III Separation of Initiation/Implementation Rights and Monitoring/Ratification Rights. The agency framework suggests that individuals are imperfect monitors of their own activities and performance, either because of failures of integrity (failure to curb one's temptations for self-dealing) or failures of competence (failure to recognize a temptation to undertake a value-destroying activity as a value-destroying activity). The resulting agency problem can be dealt with by the separation of monitoring and ratification rights on one hand and initiation and implementation rights on the other hand. If a particular board member or top manager is tasked with performing due diligence on a potential new board member and with recommending new board members to the rest of the board, then the monitoring and ratification rights for this decision process should remain vested in the rest of the board. Out-sourcing the board member validation task to a corporate or a private investigation firm should follow the same principle: initiation and implementation rights should be vested with the recruiter (because of his or her detailed knowledge of the process and the individuals in question) while ratification and monitoring rights should remain vested in the firm's board.

C.IV. Separation of Initiation/Implementation and Reward and Punishment Rights. As individuals who are tasked with the board member validation process have incentives to maximize their own welfare, perhaps at the expense of that of the firm's shareholders, reward and punishment rights for decisions leading up to the validation of individual board members should be separated from the initiation and implementation rights that will be used during that process. Thus, reward and punishment rights should remain vested with the board as a whole when a particular board member is engaged with doing due diligence on another potential board member, and they should remain vested with the board as a whole when a corporate recruiter or a private investigation firm is retained to go through the validation process.

D. Board Design Mechanisms. Board design mechanisms refer to rule-based structures processes and procedures for defining and allocating decision rights in ways that avoid, circumvent , dissolve or resolve agency problems arising between board members and shareholders, top managers and board members, and top managers and shareholders. Boards perform a critical role in bridging the potential agency gap that arises between top managers – who may take actions that do not lead to the creation of shareholder value, because of failures of competence or integrity – and shareholders, who have vested interests in the maximization of the value of their equity holdings in the firm.

Board members are themselves potentially imperfect agents of the shareholders who have different decision rights from those of top managers. It makes sense therefore to speak of a dual relationship of potentially imperfect agency, one linking managers to shareholders, the other linking board members to shareholders. The problem of designing an *efficient board* is the problem of allocating *decision rights* between boards and managers and among board members in such a way as to mitigate the agency costs arising from imperfect shareholder-manager and shareholder-board agency relationships.

D.1. The Assignment of Decision Rights: Who should have decision rights and why should they have those rights? As outlined above, there are several kinds of decision rights to allocate: decision management rights are the rights to initiate and implement (carry out the actions that cohere with) a decision, whereas decision control rights are the rights to monitor and ratify (give final approval for) decisions and reward and punishment rights for those making decisions. The agency cost-minimization framework suggests that decision rights should be co-located with the specific knowledge necessary to make competent decisions. This principle will usually result in an allocation of decision rights that favours the line managers and employees of the organization, who have the most organization-specific relevant knowledge of all of the agents of the firm. Some economists have argued that the recent ‘flattening’ of hierarchical organizational structures is a rational organizational adaptation to the predicament of increasing specialization of the workforce accompanied by attending rapid increase in the costs of communicating relevant specific knowledge to the higher levels of management.

There are also other costs that must be considered in allocating decision rights, and these are the coordination costs of making de-centralized decisions. De-centralized decision processes that have to cohere but cannot rely on a price system as a coordination mechanism, as they do in an organization, need to be governed by a central mechanism that provides relevant information to relevant decision makers regarding the decisions of other members of the organization. Coordination costs rise in a completely decentralized decision-making environment and decrease in a completely centralized decision making environment. The principle of allocating decision rights in order to minimize coordination costs will usually favour higher level managers and board members in the decision right allocation process. Some economists have argued that the hierarchical form of the organization – with a top layer of managers with broad executive authority – is a rational adaptation of organizations to the problem of processing information about the market internally, without the aid of the price system as a coordination mechanism.

Thus, the question ‘where should decision rights be vested?’ can be addressed by considering the trade-off between the coordination costs of decentralized decision making processes and the communication costs of transferring specific knowledge to the relevant decision agents. This trade-off should favour the middle levels of a hierarchy in the allocation of decisions rights in a hierarchical organization.

One must also consider the question of *which* decision rights should be d in different parts of the organization. Here, the agency framework suggests that we pay attention to the minimization of agency costs that arise from managerial or employee actions that can diminish the value of the assets of the organization to its shareholders, and suggests that *decision management rights* should be separated from decision control rights, in order to maximize the *accountability* of individuals within the firm and to avoid a situation in which the firm is dependent, for its performance on self-monitoring, self-reward and self-punishment by decision agents. This principle argues for vesting decision control rights at superior hierarchical levels to those in which decision management rights are vested, i.e., in top managers and the boards of directors.

Thus far, we have addressed the question of *where* to vest decision rights within the firm and *what kind* of decision rights to vest at different levels of the firm, and arrived at an allocation that vests middle managers with decision management rights and top managers and the board of directors with decision control rights. In order to figure out how to partition decision rights between top managers and the board of directors, one final question must be addresses, concerning the scale and scope of the vested decision rights. The scale of a decision right can be measured in terms of the total possible impact, in dollar terms, of a decision, on the value of the assets of the firm. Large-scale decisions are, for example, decisions about the strategic direction of the firm, that can have a large impact on the cash flows of the firm for a long period of time, and therefore that can have a large impact on the value of the firm. Thus, significant acquisition, merger and divestiture decisions are large-scale decisions. Small-scale decisions are decisions that impact the particular ways and means by which the firm will carry out its averred strategy. Operating strategy-related decisions are smaller-scale decisions. The *scope* of a decision right can be thought of as the number of other decisions that must be made within the firm, which are shaped, constrained or otherwise impacted by a decision that flows from the exercise of that right. Re-structuring and re-engineering decisions are large-scope decisions, whereas point purchase, sale and negotiation decisions are smaller-scope decisions.

As direct agents of the shareholders with fiduciary obligations to the firm and direct personal liability for corporate veil-piercing liabilities, but without full-time employment contracts and day-to-day responsibilities for the firm's operations, board members should have decision control rights over large-scale and large-scope decisions. As imperfect agents of the corporation with deep specific knowledge about the organizational aspects of the firm, top managers can reasonably be given decision management rights over large scale, large scope decisions and decision control rights over all other kinds of decisions.

Thus, we have arrived at a partitioning of decision rights that takes into account the communication, coordination and agency costs associated with managing a firm, vesting decision management rights over small scale, small scope decisions in employees and middle managers, decision control rights over small-scale, small scope decisions with top managers, and decision control rights over large scale-large scope decisions into the board. According to the framework, the board of directors will be vested with decision rights that relate primarily to *monitoring, ratifying, rewarding and punishing* the large scale and scope decisions of the top managers of the firm.

One final question: how should decision rights be vested in the board? There are two significant options here: one is to vest particular decision rights (such as those relating to decisions about corporate governance issues or the acceptance of a buyout or merger proposal) in some N/M (2/3 or ¾) majority of the board. The other is to vest veto rights over particular kinds of decisions in individual board members. The first approach has the advantage that some consensus is required to make a decision, which will not get ratified without the collaboration of a majority of the board members. It is susceptible, however, to manipulation by some board members or top managers who have more than the (1/3 or ¼) of the votes on the board, and who can thus 'hang up' the board by withholding their vote. It is also susceptible, on the other side, to herding behaviour by which board members – particularly those who have other social, familial or psychological ties or affinities to one another, go along with a budding majority in spite of their personal convictions, lest the harmony of the group process – and hence their personal relationships – be disrupted, or lest they should end up on the 'losing side' of certain decision processes. The alternative – which restores a measure of autonomy to individual board members and strengthens the bargaining power of individual board members in deliberation processes - is to vest individual board members (or certain individual board members who own more than x% of the equity or y% of the debt of the firm) with veto rights over certain key decisions (such as the merger of the firm and the hiring and firing of top managers).

This approach is, on the other hand, more susceptible than the first approach to manipulation of the board by individual board members, who may trade in their veto on a decision for someone else's veto on another key decision, thus creating an internal market for decision rights. Unlike the case of external markets with unlimited access of buyers and sellers to the decision rights being transferred, there is no reason to suppose, in this case, that the eventual allocation of decision rights will be the most efficient one for the firm, as the internal market is restricted to internal board members, and thus there is no free access to the external pools of information and competence that make market processes efficient. On the other hand, vesting individual board members with veto rights that can hold up a decision regardless of the wishes of a majority of board members may encourage further critical dialogue and discussion about key decisions, stemming from the need to persuade veto-holders to forego their veto rights, on a case-by-case basis. Therefore, another highly consequential decision to be made in the design of boards is one between different ways of allowing decision rights to be exercised. Either approach has significant potential pitfalls, which may reflect in part the inability of structural measures alone to address the hard problems of corporate governance.

D.2.Objectification and measurement of specific knowledge and competence of board members and managers: The monitoring, mutual monitoring and self-monitoring functions of boards.

The key to understanding the role of the board of directors in the firm is its monitoring role. This is because any competent ratification and incentive control decision will have to be informed by accurate and timely insight into the working of the firm and its product and financial markets. Moreover, because information to some extent replaces money as currency in dominance hierarchies that form the structural underpinning of the modern corporation, there are strong incentives for employees, middle managers and top managers to hoard relevant information about the firm and use this information in a self-interested – and potentially value-decreasing – fashion in their inter-personal dealings within the firm. The monitoring function of the board is the critical mechanism – and last resort, as the authority of individual shareholders in the modern corporation is fragmented – for parsing through the informational games played by employees and managers within the firm in order to filter out relevant information in a timely fashion to make critical board-level decisions.

There are two aspects to the board's monitoring function. One relates to the monitoring of top managers and – indirectly – of other members of the management team and employees of the firm. The other relates to the monitoring by the board of directors of its own activities, particularly in situations where the shareholders are too distant or fragmented in their shareholdings to provide direct monitoring of the board members (which is the case in most large public corporations).

We will consider the 'hard case' where both monitoring and self-monitoring functions – and associated decision rights – rest with the whole board of directors, and concentrate on the choice among different kinds of performance measures for board members and top managers.

The problem of monitoring someone's performance on a particular task can be understood as the problem of specifying, up front, the observable measures or characteristics of that person's performance that will be rewarded or punished, and the problem of actually carrying out the observations and measurements that the monitoring scheme calls for. The agency framework generates predictions and guidelines for the design of monitoring mechanisms that start from the assumption that the monitors and the monitored will play games with one another, as they have (or can come to have) incompatible or opposing interests. The monitors are interested in measuring a feature of the behaviour of the monitored that actually makes a difference to the value of the firm. The monitored, on the other hand, may be interested in getting compensated for their efforts without regard to the actual implication of these efforts for the value of the firm, and therefore have an incentive to *simulate* competence, effort or expertise in order to reap the rewards that accrue to these characteristics without actually possessing or exhibiting them. When the monitored are also, jointly, the monitors – as is the case when board members monitor themselves and each other – those who would tackle the monitoring problem should also take into account the self-dealing incentives of the self-monitoring monitors. In what follows, we consider various kinds of performance measures and measurement systems, and outline the costs and benefits of each approach. As before, the emphasis is not on coming up with a single optimal solution, but rather with clarifying the choices that are to be made, that these choices may be undertaken more consciously, conscientiously and competently.

D.2.1. Performance Measures. The two characteristics of performance measures are ex ante specifiability and ex post observability. Ex ante specification keeps both principal and agent honest by guarding against parallel temptations to conclude that performance of the principal on a task was ‘superior’ or ‘inferior’ according to the incentives that the agent and the principal have for maximizing (minimizing) benefits (costs). Ex post observability is a condition that requires that the specified performance measure be ascertainable by both the principal and the agent or by a third party that has not incentives to favour either principal or agent in a transaction.

D.2.1.1. Objective and Subjective Performance Measures: Definitions. Objective performance measures are referred to as characteristics of the performance of an agent (a director, a manager) that are not dependent on the judgment of the principal.

Examples of such objective performance measures include the price of the firm's stock, on a per share basis, relative to the price per share of competitors or firms competing in the same market niche, the achievement of specified sales forecasts and the achievement of internally specified target project milestones. Obviously, 'objective' measures are hardly 'observer-independent' – as their textbook definition indicates, as there must be some observers that construct these measures and validate them. However, what sets apart stock price as a measure of performance from subjectively appraised personal development is the common sense judgment about the *replicability* of each measure, *were other observers than the ones carrying out the observation involved in the measurement process.* It is likely, for example, that anyone capable of perceiving and understanding a number would attest to a particular stock price, whereas it is not likely that anyone capable of rendering a judgment would judge the skills or effort level of a particular manager at precisely the same level. We will use the word 'objective' henceforth, in this more general sense, to denote situations in which the inter-personal reliability of a particular measure is judged to be high.

'Subjective' measures will be deemed to be those measures in which the inter-observer reliability is expected to be low. However, subjective performance measures – if they are to functions as *reasons* for granting or denying the agent certain benefits – cannot be perceived as being whimsies of the principal . There must, in other words, be some concurrence between principal and agent about the validity of these performance measures, or some level of *intersubjective agreement* on their validity. This discussion suggests that all performance measures should at some level be inter-subjectively valid – with 'objective' measures and 'subjective measures' forming two ends of a continuum.

D.2.1.2. Objective Performance Measures. The main advantages of objective performance measures over subjective measures is (a) their apparent incontrovertibility by the agent - who cannot try incurring personal favours with the principal in order to sweeten his or her end-of-year performance review – and (b) their apparent independence from the ex post revisionist temptations of the principal – who has an ex post incentive to undercut the agent's pay in order to maximize his or her (the principal's) net benefit. On the other hand, objective performance measures, once specified and put into place, can be gamed. The stock price of the firm can be manipulated by wily top managers through their crafty dealings with stock analysts, through 'vapour-ware' announcement that boost end-of-the-year stock prices at the expense of , by proposed acquisitions and mergers that increase short term shareholder value at the expense of long-term value – particularly given myopically biased financial markets or by short-run sales and provisioning agreements with financially dubious clients that increase the firm's bottom line by inflating accounts receivable. Setting up objective performance measures whose attainment will determine the level of compensation of the agent can set up a series of principal-agent 'games' wherein the agent tries to produce behaviour that mimics value-maximizing behaviour at a lower cost to him/herself, whereas the principal attempts to uncover and sanction attempts by the agent to mimic value maximizing behaviour without actually producing such behaviour.

D.2.1.3. Subjective Performance Measures. The main advantage of subjective performance measures over objective performance measures is their capacity to withstand or prevent gaming strategies undertaken by the agents. Subjective performance measures leave the ultimate 'call' as to the value of the agent's contribution in the hands of the principal, and make him or her the final arbiter of the value of the agent's contribution to the enterprise, all things (including the agent's gaming tactics) considered. They effectiveness strongly depends on the level of inter-personal trust that exists between the monitor and the monitored, as the subjective performance estimate of the monitor may differ strongly from the agent's own expectations, without there being any arbiter of last resort that can authoritatively intervene in the attending dispute without incurring significant costs. We can understand the main difference between objective and subjective performance measures in terms of decision rights: objective performance measures give away some critical decision rights to the agent (such as the right to decide how to achieve a particular performance measure, or how to game it), whereas subjective performance measures vest decision rights concerning the value of the agent's contribution with the principal, at the cost of setting up the agency problems we described above.

D.2.1.4. Monitoring and Self-Monitoring Functions of Boards: The Role of Performance Measures.

The monitoring function of boards can be meaningfully separated from its self-monitoring function, which it absorbs in virtue of the relatively poor monitoring capabilities of the firm's often fragmented shareholders. Thus, some consideration must be given to various monitoring mechanisms (and kinds of performance measures) in the situations where the board monitors its own performance.

There is, again, a choice to be made between 'objective' and 'subjective' performance measures. Here, however, the choice may be shaped by but other considerations than just those affecting the decision among different performance measures for managers. Board members are more difficult to monitor using 'objective' performance measures as they do not have immediate line or executive responsibilities. The usual performance targets relating to stock price over a given period of time, sales targets and project-related milestones will therefore not be applicable to board members, as they are to line managers with profit and loss responsibilities and to executives with ultimate responsibility for the performance of the firm or a work group.

‘Subjective’ performance measures are also difficult to apply directly to board members as there is generally no single board member that has the competence and authority to render final and authoritative judgments on the performance of other board members. Rather, board members are only indirectly – and often imperfectly – monitored by the shareholders of the corporation, whom they represent. Particularly in situations where the equity ownership of the corporation is fragmented and the shareholders are not experts in evaluating the business plan and initiatives of the firm, the ‘outside’ monitoring of individual board members is weak. For this reason, it is important for board members to evolve *self-monitoring* and *mutual monitoring* mechanisms that regulate their activities.

Self-monitoring mechanisms can be understood in the framework of individual failures of control and decision-making capacity, which we shall discuss below. We will concentrate here on mutual monitoring mechanisms for board members. As stated earlier, the key piece to understanding monitoring mechanisms is a *performance measure*, which objectifies and renders accessible to scrutiny a particular characteristic of the person who is being monitored. Although board members do not have executive and line responsibilities for the achievement of firm-relevant objectives that have measurable correlates (such as the value of the firm’s stock), they do, however, have responsibilities for monitoring top management teams and ratifying their decisions.

Both ratification and monitoring processes depend for the effectiveness on the *trustworthiness* and perceived *intellectual honesty* of the individual board members

– including autonomy of judgment and rigor of the process by which the judgment is produced. Whereas the trustworthiness of a board member measures his or her *truthfulness* in a particular context, the intellectual honesty of the board member has effects on the *truthlikeness* of his or her judgments – how representative they are of the situation at hand, assuming that the board member is well-intentioned. Failures of truthfulness, then, are akin to the *failures of integrity* that we discussed earlier in a managerial context. Failures of truthlikeness are akin to the *failures of competence* discussed earlier.

These two kinds of failures can be monitored through the informal institution of a system for tracking the credibility of individual board members – proxying for both their trustworthiness and their intellectual honesty - on the basis of their contributions to board-level discussions. The key to the successful creation of such a system is the realization that the credibility of a source (whether a machine, a person, or a rule for computing new quantities) can be inferred from the correspondence of the assertions of the source to a set of facts that can be inter-personally observed and decided upon. Statements about market conditions at some time in the past or future can be corroborated against actual observations, as can statements that make precise predictions or retrodictions about the behaviour of a person. In order for statements to be verifiable in this way, three conditions must be met:

1. The statement must be empirically testable: it must be possible to be able to observe a phenomenon that makes a difference to the question of deciding whether or not the statement is true. Talking about 'industry conditions' in general does not produce empirically testable propositions. Nether does speaking in general about 'human nature' or 'general propensities' of individual people'. Talking about the precise conditions

obtaining in industry X at time T under the set of assumptions A about the set of competitors C, suppliers S and buyers B may, on the other hand, lead to propositions that are directly testable;

2. The statement must be precise: even if empirically testable in theory, statements can be imprecise enough to allow someone to 'get away' with statements that are false, just by invoking the 'benefit of the doubt' in a particular case. In order for the 'benefit of the doubt' to be minimally accessible, the 'doubt' should be minimized. Talking about the state of a particular industry at a particular time may lead to empirically testable statements that are nevertheless easily 'escapable', a problem that specifying minutely what is subsumed in the word 'industry' and the specific period of time that is being considered may resolve;
3. the statement should be intelligible to people without significant specialized training, or must have the possibility of being made intelligible to such people without expensive additional work.
4. the empirical test of the statement must be inexpensively realizable by the firm or the board members. It is possible to escape the censoring of empirical tests by specifying precise and theoretically realizable empirical tests that are nevertheless not practically realizable, thus 'passing' the 'testability' and 'precision' prongs of the test, but nevertheless failing to submit one's statement to critical scrutiny.

Once these four conditions are met and they are recognized as normative in board-level conversations, it becomes possible to track the credibility of individual board members in terms of the relative corroboration of the propositions that he or she puts forth, or of the assumptions that the arguments of that particular board member rest on. If all or most of the discussions taking place at the board level are regulated by these conditions, then it also becomes possible to single out board members making limited or untestable contributions, lest their predictions and /or explanations should end up disconfirmed by the empirical tests. The performance measure of each individual board member then becomes his or her own credibility – which on a well balanced board (one without disparately powerful or mutually dependent factions) should confer greater authority and autonomy on the board members with the greatest credibility. The system relies delicately on mutual monitoring by board members on each others' contributions, and on the observation by all board members, of basic principles (1-3 above) that make their contributions verifiable. Adherence to these principles can be understood as an individual contribution to a public good (the ability to track contributions by individual board members) with significant individual payoffs (greater deliberative autonomy and competence for the board), which therefore gets around the familiar problem of sustaining public goods with limited individual benefits through the private actions of self-interested persons.

<u>E.The pooling and segregation of decision rights: the constitution and dissolution of board-level committees and task groups</u>.

A key decision in the allocation of decision rights to various board members is the constitution and dissolution of board-level committees and task groups. Boards can delegate to committees decision initiation rights and de facto decision ratification rights on a variety of issues that are critical to the governance and strategic direction of the firm – such as compensation policy, audit policies, technological strategy, investment policy and the acceptance and rejection of investment offers or human resource management issues. De facto ratification rights accrue to such committees in spite of the fact that boards retain formal ratification and monitoring rights, because of the authoritativeness of the individuals making up the committee, and the ex ante trust that is being placed in the individuals by the rest of the board. Boards can delegate to task groups decision initiation rights on a variety of issues relevant to the governance or strategic direction of the firm – which are usually of lesser scope and more topical interest than those on which standing committees are appointed. As reflected in the less formal appointments process and the more transitory nature of the task groups, decision ratification rights relating to activities of the task group are usually left up to the board level. Thus, we can think of the difference between committees and task groups in terms of the preponderance of the decision ratification rights between the entity in question and the rest of the board.

The reason behind pooling decision rights into committees and task groups that are themselves segregated from the rest of the board, and vesting special decision rights in committees and task groups is usually the combination of (a) the presence of board members who have abilities in a particular area that is recognized as relevant and problematic for the firm and (b) the decreased coordination cost of having the more knowledgeable members of the board communicate with one another (rather than bringing the entire board into each interaction, which, combined with the cost of educating the board in order to bring them up to the level of the more knowledgeable members, can make the entire process highly inefficient).

The agency framework suggests that there are several potential costs that must be weighed against the coordination cost savings that committees and task groups can bring to the firm's board of directors.

E.I. Committee members, once vested with far-ranging decision rights that can be used to hold up the activities of the board in other areas (as is the case with investment committees, audit committees and compensation committees) can use these decision rights as bargaining chips in ex post interactions with other board members, leading to adversarial games in which the welfare of the firm is swept aside by more immediate considerations. This eventuality suggests that boards should aim for a 'light' policy on committees, opting for task groups (which are dissolved upon completion of their tasks).

<u>E.II.</u> Moreover, committee members may desire to *perpetuate* their decision rights over a particular area (such as investment decisions or human resources policy decisions) by 'creating work' for the committee and presenting this work as part of its mandate. Alternatively, committees may build up their decision rights by making the process of ratifying and monitoring their decisions so difficult that the board is unable to exercise its full ratification and monitoring function, and the firm becomes managed by individual, specialized committees. The drawback to such board level fragmentation of authority is that the representative function vested in board members by shareholders is not longer apparent, and board members become agents of their individual committees, rather than the agents of their shareholders. These eventuality suggests that boards should retain sufficient expertise related to the work of the committee outside of the committee itself, in order to be able to critically discuss and question the work of the committee, and to ratify and monitor, authoritatively, the committee's decisions.

E.III. Committee members may also shirk in a different direction, and use their membership in order to shirk additional duties on the board, even as they are not exercising the decision rights they were awarded. This eventuality suggests that committees should be regularly monitored by the board (i.e. should report to the board on the nature of the problems they are tackling and their proposed solutions) in a language that is accessible to most of the board members, and that performance measures – such as credibility tracking measures (see above) – should be applied to committees as they are applied to other board members. It is particularly important to think through the implications of designing credibility tracking measures for committees, as individuals involved with specialized languages and jargon can quickly come to escape the critical scrutiny of ‘lay’ individuals who do not understand these jargons, and thus, the recommendations, forecasts, explanations and models presented by committees should be subject to the principles that govern any testable assertion, discussed above.

V. Board Management Mechanisms. We have thus far discussed problems that may arise from the over-zealous, self-serving and exploitive exercise of decision rights by individual board members and designated groups of the board, such as committees and task groups, and identified mechanisms relating to the allocation of decision rights designed to mitigate the resulting efficiency losses for the firm. There are, however, also agency problems resulting from the abdication by board members of their decisions rights. In such situations, individual board members may not assert their decision rights in a timely and effective fashion, because of individual temptations to conform to the rest of the group, individual inertia and/or individual aversion to taking responsibility for a particular decision. These decisional failures can relate to the exercise of any kind of decision right.

A. Failures of Deliberation result from the inadequate airing of the concerns and objections of all of those who are involved in carrying out the actions that result from the choice. Resentment festers and the dissenters may quietly and imperceptibly sabotage the actions that they ostensibly bought into [Moldoveanu and Martin, 2000];

B.Failures of Specification result from the imprecise specification of what it means for the board to have carried out a particular action. If the outcome of the choice remains unobservable, then members of the board will not be able to figure out whether or not the action in question has been carried out. Absent such a test of the board's actual actions, there is no monitoring mechanism for the choice that was just made. Without a monitoring mechanism, no specific incentives can be credibly tied to the execution of the new mandate [Moldoveanu and Martin, 2000];

C. Failures of Commitment result from the unwillingness of members of the board to resolve potential conflicts and coordination problems that result from a new course of action. A group or a board is not an individual, and collective action is not individual action, but rather the non-separable combination of the activities of many individuals, many of whom have values and concerns that are not harmonized. Any change in group direction threatens to lay bare the hidden conflicts among members. Their willingness to address these conflicts is the key to the efficient follow-through on a board-level choice. Often, board members are unwilling to resolve these conflicts, either explicitly or implicitly. The result is that board-level decisions, even though ratified by a majority vote, will not be implemented. They will remain at the conceptual level, and its effects will not be brought into the 'real world' [Moldoveanu and Martin, 2000].

D. Corrective Mechanisms: Getting Board members to Talk Through Difficult Issues Decisively. When board members disagree about what to do but agree that they must reach some agreement in order to act, they attempt to talk through their differences. The process of talking through differences is usually one in which individual participants advance arguments for their position and respond to counter-arguments and criticisms. A successful deliberation and ratification process is one in which everyone feels that they have been heard and taken into account, and also one in which most and perhaps all of the participants believe that the best argument has won the day. We have reason to inquire into the internal workings of deliberation processes and to map out various strategies for argumentation and criticism.

There are many different processes by which arguments can be produced and counter-arguments can be incorporated, and they can loosely be classified into two groups. Justificationist approaches [Albert, 1985] characterize most processes of advocacy. When engaging in these processes, individuals advance and then prop their particular choices up using reasons. They produce arguments why their individual value systems should take precedence over alternative value systems. They back up their choices with facts, anecdotes, statistics and arguments from the various disciplines that they are familiar with.

Someone arguing, in our example, for removing the chairman of the board in view of efficiency considerations might argue by citing precedents in which firms whose chairmen were relatively uninvolved that failed in the market place, or might argue for efficiency as a sine qua non of a firm that has plans to go public in the near future. Someone arguing for retaining the chairman because it is 'unfair' to have him removed might cite precedents of firms that failed because of internal feuds and squabbles, or might ask individual board members to put themselves in the chairman's place and consider how they would like to be treated under these circumstances. They might also argue for the relative precedence of fairness over efficiency by giving examples of firms that have failed because of a stressful and obsessive pursuit of efficiency to the exclusion of all other values. Justificationist approaches to deliberation stress the process of giving reasons *for* a particular position, value or course of action.

Another broad class of deliberation strategies are falsificationist in nature [Lakatos, 1974]. Falsificationist deliberation aims to uncover reasons against a particular position, value or proposed course of action. It aims to lay bare the weak points of everyone's arguments, with the aim of choosing the least weak from among all of the arguments put forth. Someone proposing that fairness should take precedence over efficiency, for example, might specify the conditions under which he or she is willing to let go of this preference. Perhaps a thought experiment showing that an obsessive commitment to fairness to one's employees is incompatible with access to capital markets will provide a refuting argument. Someone proposing that efficiency should not be subordinated to any other value within the organization because of a commitment to efficiency as an instrumental value that is a means to greater wealth should be able to specify up front empirical findings (showing that undue stress placed on efficiency in the way he or she defines it can undermine the economic performance of the firm, for instance) that would persuade him or her to *change his or her mind*.

Justificationist approaches are usually self-sealing. One can *justify* a belief or a commitment in three different ways, none of which opens up the argument to discussion and critical insight [Albert, 1985]. One can first affirm one's position strenuously, and refuse to give any further justification for it. One might for instance, affirm that efficiency should govern all discussions about the allocation of resources, and accept no argument against this view. In other words, one's belief in efficiency as a governing value would be dogmatic in nature. Directors that demand the removal of the chairman might dogmatically assert that their position will not change no matter what the counter-arguments advanced against it. Directors that are not in favour of removing the chairman might similarly assert that their position will not change, regardless of the arguments advanced against it. Dogmatic justificationists are unwilling to submit their arguments to critical testing and rebuttal.

Alternatively, one can justify one's argument by coming up with reasons for it, reasons for those reasons, and so forth, until, perhaps, the others break down because of fatigue or ennui. Clearly, this approach will set up a long regress in the chain of reasoning, whereby increasingly far-fetched reasons are put forth in order to justify a particular position. Finally, one can justify one's argument by an argument that is itself justified by the first argument. For instance, one can argue that it is morally right to behave efficiently, and it is efficient to seek to behave in morally desirable ways (which one has a priori defined as being efficient). This often-used tactic hides from the audience the substance of the argument, rendering it impermeable to attacks based on reasonable questioning.

Taken together, justificationist approaches to deliberation are ways in which dialogue about the hard topics of values and norms is truncated or cut short. In a group of individual justificationists, there is no process by which the mental states of the participants can be altered or criticized. Each individual contributor has his or her own approach to resolving the joint problem, and no single justificationist is willing to respond to the arguments advanced against his or her position.

Just as there are several different types of justificationism, there are also several different types of falsificationism [Lakatos, 1974]. Dogmatic falsificationists believe that once an argument has been refuted or successfully contradicted by another argument that everyone agrees with, the refuted argument should be immediately abandoned. If, for instance, someone is shown that his or her commitment to efficiency contradicts his or her commitment to fairness in a particular situation, then that person is logically compelled to abandon her simultaneous commitment to both values. However, any argument can be argued against in its turn. One might argue, for instance that fairness and efficiency do not necessarily contradict one another in a particular case, so long as we restrict the domain of fairness to refer to equality of opportunity (rather than equality of endowment). The argument then continues, and the question naturally arises: where does it all end, so we can get on with decision making?

Naïve falsificationists posit that an argument should be abandoned when it, along with all of its restatements, have been adequately refuted. One might show, for instance, that equality of opportunity does, in this particular case, require a course of action that is inefficient. They also believe that we should keep on searching for reasons against a particular argument. Taken together, these requirements mean that we will end up with a large number of discarded moral arguments at the end of a deliberation session. There is no conclusive way to choose among these discarded arguments, and therefore we end up with the same frustrating situation of a hung jury that is likely to emerge in a deliberation process among justificationists.

This is where sophisticated falsificationism can make a difference. Sophisticated falsificationism posits that arguments should only be abandoned in favour of better arguments. Better arguments are arguments that explain and logically accommodate more of the objections raised against them than any other arguments, having received roughly the same level of critical testing. The acceptance of an argument for the sophisticated falsificationist is always provisional, and subject to change upon further critical discussion that reveals another argument to be superior to the one that is currently operational.

Sophisticated falsificationism offers a solution for all three of the problems that bedevil group processes for making decisions. It addresses the problem of deliberation by making critical testing and open discussion of all possible positions the norm of interaction. Participants are not engaged in advocacy – as they are in the justificationist modes we considered above – but rather in a process of critical testing and discussion. It addresses the problem of ratification by offering a criterion by which certain arguments will be selected – provisionally – over other arguments: the group chooses the least inadequate of all of the alternatives given, and aggress to keep up the critical discussion that is the engine of group-level moral choice. It also addresses the problem of commitment by making it easier for people to engage in actions that they do not necessarily condone at the individual level, by making it possible for them to participate in the process by which the group-level moral commitments can be changed. If one feels that one has the opportunity to bring about group-level moral change in the future, then one will be more likely to engage in action in the present that does not reflect one's preferred course of action, but contributes meaningfully to the strength of the group as a whole.

VI. Board Compensation Mechanisms.

The compensation package of a board member might reflect several factors, many of which do not figure directly into the agency problem between board members and shareholders, such as the bargaining power of the individual board member, the specific knowledge and skills of that board member and the relationship of that board member to other members of the board. The problem of creating an efficient compensation package for board members – one which minimizes the ex post agency problem between themselves and the shareholders – is not that of regulating all of these different aspects of the compensation agreement, but rather of suggesting how a *given* compensation package should vary according to the various actions that the board member undertakes – i.e. to determine the right mix of *incentives* for that board member.

Compensation packages can be thought of in terms of three major characteristics:

A. Composition. Salary, cash-based consulting contracts, bonuses, options, warrants and straight stock ownership are all components of a potential compensation package for a board member. As salaries are usually given in consideration for an employment contract stipulating minimum employment conditions and time spent on the job, they are less suitable for board members who often rely for their cash flows on sources that lie outside of the firm. They are suitable for board members with executive duties that allow them little time for the pursuit of other activities, as is the case with executive chairman positions. Side consulting agreements are suitable in situations where the work performed by the board member can be tied to specific deliverable milestones, and when it is not clear that the work performed by the board member will lead directly to appreciation in the value of the equity of the firm (in which case straight stock ownership and options are better compensation alternatives). Options with an exercise price equal to or slightly lower than the value of the stock at the time the board member joined the board of directors of the firm are suitable in situations where the board member's contributions to the firm are expected to make a difference to the value of the firm going forward.

   Here, a distinction must be made between directors whose presence on the board adds value because it signals quality and credibility to the market, as is the case with recognized 'gurus' and prominent industry figures, in which case the exercise price of the option is less important than is the vesting period of the options grant and the vesting and exercise provisions for each individual option granted (as the firm has an incentive to retain the credibility-enhancing director for as long as possible) and directors with lesser industry-level renown, whose contribution to the value of the firm is primarily related to their day-to-day contributions to the firm, in which case the exercise price of the option is more important than is the vesting period for the options. This distinction can be used to usefully illuminate the trade-off between exercise price and vesting and exercise terms in negotiations with the respective board member. Stock and grants have essentially similar incentive effects to those of option pools: they are options with voting privileges and an exercise price of $0. Stock ownership has two significant effects on the behaviour of self-interested board members: on one hand, it mitigates the shareholder-director agency problem by making the director into a partial shareholder of the firm, and increases the director's personal stake in the value of the firm (particularly if the director is asked to buy the stock at a fair market value, rather than given warrants for the stock). On the other hand, it can increase the executive power of the board member when he or she can essentially vote him/herself on and off the board, essentially reducing the disciplinary power of the process by which directors are elected and dismissed by their shareholders. Thus, there is another trade-off to be made between enhancing the personal stake of each individual director in the welfare of the firm through stock and warrant grants and diminishing the disciplinary authority of other shareholders by the fragmentation of voting rights. Grants of non-voting stock with preferred liquidity claims can help in making the trade-off more efficient.

B. <u>Functional Form</u>. The functional form of a compensation package relates to the functional dependence between the level of a particular unit of compensation (cash bonus, option grant) on the observed achievements that are directly traceable to a particular board member. Sharper functional forms will provide higher-power incentives to self-interested individuals. The problem of determining the functional form of compensation packages for individual board members is notoriously difficult, as it is hard to trace the value of each particular director's actions to the firm as a whole - except perhaps in cases where the directors are actively involved in forging linkages and contracts for the firm in its industry. Even in such cases, it is not clear that the compensation problem can be resolved by offering the 'brokering' directors networking fees based on percentages of the cash flows generated from the relationships they bring to the firm, as this practice can create an incentive for directors to push the firm into value-decreasing partnerships (which can tie up the firm's intellectual capital, for example) that nevertheless generate significant short term capital gains for the directors involved. More generally, because directors often lack direct personal control over the events that will ultimately influence the value of the firm on the market place, directors' compensation packages should be 'muted' relative to the compensation packages of line managers and top managers with direct responsibility for profit and loss-making activities.

C. Stake. It is only infrequently that the *stake* of individual directors in the firm is taken into account in the design of compensation packages, as there is an informational veil that protects the individual net worth of directors from scrutiny by the firm. However, assuming that money functions as a potent extrinsic motivator, it is important to aim for a board of directors who have a significant proportion of the net worth tied up in the company as a whole. Asking directors to *buy* their stock and option grants in the firm at a fair market value determined by an independent agency is often a way in which the stake of the individual directors in the firm can be increased. Here again, there is an important trade-off to make. A director with all of his or her net worth tied up in the (yet-illiquid) stock of the company may make panic-driven decisions aimed at protecting his or her net worth from obliteration, which in turn will not serve to maximize the value of the company. One might expect such a director to vote consistently against high-risk projects with potentially high payoffs, and drive the firm towards a growth rate that approaches that of savings and money market accounts. On the other hand, one might expect a director who only has one thousandth of his net worth tied up in the company to treat the firm as a speculative play on the stock market and not devote as much energy as a director with a higher stake in the company.

Aside from financial extrinsic motivators (which can be controlled through financial compensation packages) and fully intrinsic motivators (which by definition are not extrinsically controllable) it is important to consider the compensation accruing to individual board members through non-financial extrinsic compensators, such as personal power, internal and external prestige and reputation for making particular kinds of decisions and excelling in particular situations. In particular, the following extrinsic motivators may be usefully considered and cultivated:

A. Decision rights themselves can be thought of as a compensation for board members who build up the credibility and intellectual and interpersonal weight to sway the rest of the board. The craving for personal power can on one hand lead to destructive dynamics wherein board members fight internally in order to wrest control from each other, but can also lead to extraordinary efforts by individual board members to build up a reputation for trustworthiness and intellectual honesty with other board members. The difference between these two situations is the freely given consent by other board members in the proposals and initiatives of the board member in question, which are lacking from a pure power struggle but are present in situations where power is based on competence and integrity.

B. Internal and external reputation of individual board members may also motivate extraordinary levels of individual effort, notwithstanding the pecuniary consequences of these efforts, and thus help increase the value of the firm without substantial dilution or financial costs. Once again, there is an important distinction to be made, as the pursuit of fame and recognition by individual directors, for the sake of fame and recognition themselves can diminish the value of the firm, as is the case where a director can use the firm as a showcase for his or her organizational talents, without any regard about the effects of this show on the rest of the members of the firm or its board. On the other hand, the enhanced external reputation of a board member can increase the value of the firm, by maximizing the attention that the firm gets from suppliers, customers and financial analysts. This dilemma can be managed by making the pecuniary part of the compensation package strong enough that directors with narcissistic bents see the pursuit of recognition as a *means* to maximizing the value of the firm, rather than seeing their membership in the firm as a means to maximizing their personal reputation and renown.

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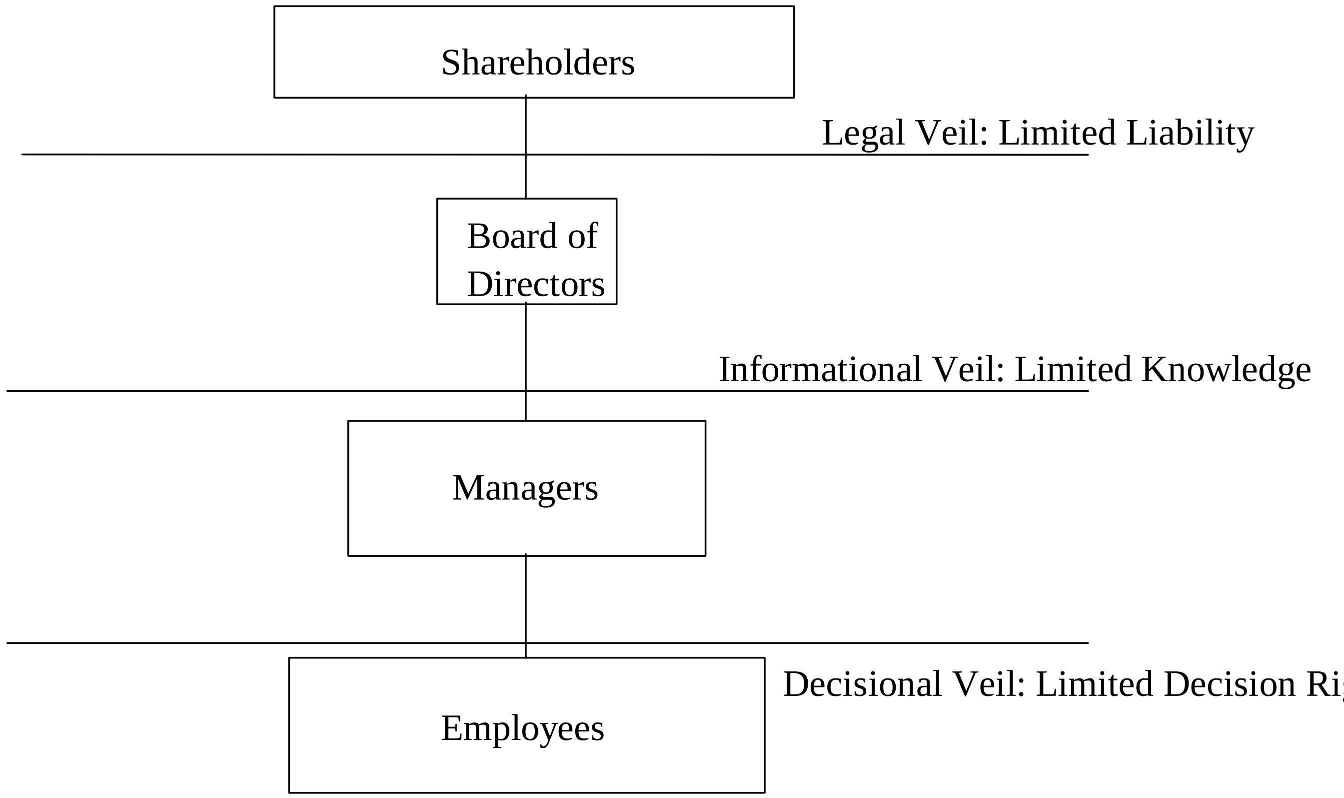

Figure 1:
The Triple Corporate Veil