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CORPORATE CHARTERS WITH COMPETITIVE ADVANTAGES

SHANN TURNBULL*

INTRODUCTION

Lawyers, and others, can play a fundamental role in achieving competitive advantages through the drafting of corporate charters that forego the traditional Anglo theory of corporate governance. This article will explore that proposition and illustrate how the size and cost of government can be reduced by: (i) improving the competitiveness of firms, and (ii) designing the charters of firms

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All works attributed herein to the author that are not widely available are on file with the author. For information, please contact Shann Turnbull, P.O. Box 266, Woollahra, Sydney, N.S.W. Australia, 1350 or via e-mail at sturnbull@mba1963.hbs.edu.

The author would like to thank Professors Bernard Black and Charles Sabel for the financial support which allowed this paper to be presented to the conference they organized on "Alternative Perspectives on Corporate Governance" at Columbia Law School, January 23, 1998. Many thanks also to the Editors of St. John's Law Review for reformatting the paper and adding many additional notes and citations to support and explain the text.

Since the paper was written in 1997, additional elements of the "Alternative Perspective" presented in the article have been included in my survey article, 'Gouvernement d'entreprise: Théories, Enjeux et paradigmes' *Gouvernance: Revue internationale*, 1:1, pp. 11-43, 2000. The full text of the original English version of 'Corporate Governance: Theories, challenges and paradigms', can be downloaded from http://papers.ssrn.com/paper.taf?abstract_id=221350.

and other social institutions to make them self-governing. This alternative approach explored herein also provides a way to outline elements of a cybernetic framework of analysis,¹ and shows how this can be used to produce practicable results that are testable by "normal science."²

As a contribution to the topic of alternatives to traditional corporate governance, this article, however, does not necessarily seek to present "normal science." Instead, this article will establish: (i) how the study of social organizations can be grounded in pure and applied science, and (ii) the potential of this approach to explain complex institutional arrangements by considering some empirical examples. In the interests of efficiency, this article touches upon a number of my arguments only briefly, with references to my various other papers, while other arguments are more fully developed and grounded in various bodies of literature.

Another goal of this article is to encourage corporate governance scholars to engage with pure and applied scientists whose work is in the field of information and control theory. Furthermore, I seek to encourage corporate governance scholars to consider the analysis of sociologists who have identified four ways in which transactions can be governed, rather than the two or three recognized by most economists and organizational theorists. There are many disciplines contributing to the study of corporate governance with at least as many viable perspectives.³ As such,

¹ See F. Heylighen et al., *What are Cybernetics and Systems Science?* (last modified Oct. 27, 1999) <<http://pespmc1.vub.ac.be/cybswhat.html>> (describing cybernetics as the relatively new study of communication, control, and the determination of how systems control their actions and communicate internally and externally); see also JIRI KLIR & MIROSLAV VALACH, *CYBERNETIC MODELLING* 55-75 (W.A. Ainsworth ed., Pavel Dolan trans., Iliffe Books Ltd. 1967) (describing the science of cybernetics).

² THOMAS S. KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* 10 (3d ed. 1996) ("[N]ormal science' means research firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice."); see also Robert A. Solo, *Boulding Among the Structuralists*, 55 REV. SOC. ECON. 432, 435 (1997) (explaining Kuhn's theory of normal science).

³ See Shann Turnbull, *Corporate Governance: Its Scope, Concerns and Theories*, 5 CORP. GOVERNANCE: AN INT'L REV. 180, 185 (1997) Full text at <<http://cog.kent.edu/lib/turnbull4.html>> [hereinafter Turnbull, *Corporate Governance*] (discussing the results of a survey on corporate governance that reviewed the ethnocentric nature of corporate governance scholarship and its limitations stemming from being grounded on an American-based theory of the firm); see also Lawrence A. Cunningham, *Commonalities and Prescriptions in the Vertical Dimension of Global Corporate Governance*, 84 CORNELL L. REV. 1133, 1134-43 (1999) (discussing different models of corporate governance); Mark J. Roe, *Some Differences in Corporate Structure in*

another objective herein is to invite consideration of a theory of the firm based on the economizing of information processing required by individuals. This theory recognizes that all human coordination is based on an evolutionary hierarchy of communication channels, which can be usefully divided into four categories, as set forth in Figure 2.⁴

Objectives of Good Corporate Governance

Good corporate governance includes enhancing corporate performance.⁵ To accomplish this, governance systems and processes are required that minimize fraud and malpractice and provide information and control mechanisms. Such systems and processes can increase the operating capability of the business and the degree to which such capabilities can be utilized.⁶ Accomplishing good corporate governance necessitates reducing the duties of directors and simplifying their responsibilities through the division and specialization of tasks so as to reduce their liabilities.⁷ This can be achieved by establishing an appropriate division of powers in the corporate charter in order to

Germany, Japan, and the United States, 102 YALE L.J. 1927, 1928-35 (1993) (discussing differences in theory and perspective within corporate structures in the United States, Germany, and Japan).

⁴ See *infra* fig. 2 app. at 157; Shann Turnbull, *Impact of Mining Royalties on Aboriginal Communities in the Northern Territory: First Report*, at 52, Parl. Paper No. 135 (Oct. 1977) (Austl.) (report submitted to the Hon. I.A. Viner, Minister for Aboriginal Affairs, as Austl. Parliament Papers 135/1978); Shann Turnbull, *Stakeholder Democracy: Redesigning the Governance of Firms and Bureaucracies*, 23 J. SOC. ECO. 325 (1994) [hereinafter Turnbull, *Democracy*].

⁵ See Shann Turnbull, *Governance Flaws and Remedies*, Corporate Directors' Diploma Course, Univ. of New England, Armidale, Austl., Topic 7.2, at 14 (1994) [hereinafter Turnbull, *Diploma Course*] (describing the necessary elements of good corporate governance); see also The Business Roundtable, *Statement on Corporate Governance* (visited Feb. 15, 2000) <<http://www.brtable.org/pdf/11.pdf>>.

[T]he principal objective of a business enterprise is to generate economic returns to its owners. Although the link between the forms of governance and economic performance is debated . . . good corporate governance practices provide an important framework for a timely response by a corporation's board of directors to situations that may directly affect stockholder value.

Id. at 1.

⁶ See Turnbull, *Diploma Course*, *supra* note 5 at 14.

⁷ See *id.*; see also The Business Roundtable, *supra* note 5, at 4 (discussing how the board of directors "delegates to management the authority and responsibility for managing the everyday affairs of the corporation," and noting that "[t]he extent of this delegation varies depending on the size and circumstances of the corporation").

create what is called a compound board.⁸ Good corporate governance also includes protecting the reputations of both directors and the enterprise. This is accomplished by establishing an inclusive information and control system that (i) minimizes communication losses, delays, and distortion while enhancing meaning and responsiveness; (ii) minimizes conflicts of self-interest and mediates any remaining conflicts in a way that provides both accountability and transparency; and (iii) constantly monitors the operating integrity and effectiveness of all information and control systems.⁹ Furthermore, allowing the corporation to become a good citizen by establishing processes for becoming aware of and responsive to community, environmental, and social concerns contributes to good corporate governance.¹⁰

This article presents arguments and empirical examples establishing that corporate charters, which introduce an *appropriate* division of power, provide a way for corporations to unilaterally achieve the objectives of good corporate governance. A division of power can also be established externally through shareholder relationships. Thus, the term "compound board" will be used to describe either arrangement for creating a division of power.

Compound boards are commonly created in Australia through a multinational company, or a family interest, that controls a local publicly-traded enterprise. This situation is also found throughout Asia and Europe. Two thirds of the Paris Bourse falls under the verrouillage system, to create a compound board, as do the "Chinese boxes" found in Italy.¹¹ Compound boards are also

⁸ See Turnbull, Diploma Course, *supra* note 5 at 14; see also Shann Turnbull, Self-Regulation, Address Before the Ninth International Conference on Socio-Economics, University of Montreal (July 6, 1997) [hereinafter Turnbull, Self-Regulation] ("The division of powers in a . . . compound board not only introduces checks and balances but a division of decision-making labour . . . It allows the information needed to be provided to, and processed by, individuals in control centres to be economised [sic] . . .").

⁹ See Turnbull, Diploma Course, *supra* note 5, at 14; see also ADA DEMB & F. FRIEDRICH NEUBAUER, *THE CORPORATE BOARD: CONFRONTING THE PARADOXES*, 88-97 (1992) (discussing monitoring and control systems within corporate governance).

¹⁰ See Turnbull, Diploma Course, *supra* note 5, at 14; see also Business for Social Responsibility, *Introduction to Corporate Social Responsibility* (visited Feb. 15, 2000) <<http://www.bsr.org/resourcecenter/index.html>> (underscoring the concept of corporate social responsibility that "generally refers to business decision-making linked to ethical values, compliance with legal requirements, and respect for people, communities and the environment").

¹¹ See *A New Study on Corporate Governance in the G7 Is Released Today*, OXFORD ANALYTICA DAILY BRIEF, Oct. 13, 1992 (on file with author).

created when shareholders meet in a supervisory board capacity as in a Japanese Keiretsu or a leveraged buy-out association.¹² Furthermore, under the broad definition of a compound board, one can be created in effect by an active and influential "relationship" investor taking an aggressive interest in the corporate governance of the firm it has invested in.

Additional Considerations

Section I considers the limitations of economic analysis and outlines the alternative theoretical framework presented in this article. This alternative framework is grounded in the characteristics of individuals, including their ability to process information, and identifies four evolutionary stages in human channels of communications. In a somewhat analogous typology, four different institutional governance mechanisms are recognized: (i) clans and communities; (ii) associations and networks; (iii) hierarchies; and (iv) markets. Section I concludes by considering how the cybernetic framework can provide a common foundation for other theories of the firm, as well as other organizations in general, with an outline of the paradigm shift this foundation creates.

Section II considers the practical problems of governing publicly-traded corporations without the use of a compound board. These problems include (i) conflicts of self-interest created by centralized power; (ii) managing corruption and corruption of corporate performance; (iii) communication errors; (iv) information overload; and (iv) lack of a self-correcting, or even a self-checking, information and control system. At the conclusion of Section II, gaps in corporate governance scholarship are considered.

Section III presents cybernetic arguments¹³ that support the use of compound boards which introduce a network of information and control centers. The advantages of such networks are their ability to provide (i) distributed intelligence to reduce both information overload and bounded rationality;¹⁴ (ii) a multiplicity

¹² Michael C. Jensen, *The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems*, 48 J. FIN. 831, 869 (1993) (highlighting the governance structure and benefits of an LBO association).

¹³ See *supra* note 1. Cybernetics is the "science of communication and control theory that is concerned especially with the comparative study of automatic control systems (as the nervous system and brain and mechanical-electrical communication systems)." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 287 (10th ed. 1997).

¹⁴ See Roy Radner, *Hierarchy: The Economics of Managing*, 30 J. ECON.

of information channels in order to obtain inclusive feedback information with sufficient variety to correct errors, biases, and omissions; and (iii) distributed control (requisite variety) to manage complex operating variables. Cybernetic laws explain why self-regulation and self-governance are not possible with centralized control through use of unitary boards and/or regulatory agencies. The cybernetic concept of amplification, however, explains how this problem can be overcome to simplify the role of directors and regulators in general.¹⁵

Section IV uses the theoretical framework of Section I in order to illustrate how the problems of a unitary board¹⁶ can be overcome through a corporate charter that provides controllers (i.e., a board of directors) with the knowledge, will, and power to act. For example, the ability of directors to obtain the knowledge to act, independent of management, can be accomplished through the establishment of Stakeholder Councils.¹⁷ The ability of some directors to obtain the will to act, independently of a major shareholder, is achieved by electing directors through preferential

LITERATURE 1382, 1384 (1992) (alluding to bounded rationality as a limit on a person's capabilities for information processing and decision-making); see also OLIVER E. WILLIAMSON, *MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS* 21 (1975) [hereinafter WILLIAMSON, *MARKETS*] (stating that "[b]ounded rationality involves neurophysiological limits on the one hand and language limits on the other").

¹⁵ See Albert Gore, *The Technology Challenge: What is the Role of Science in American Society?*, Remarks at the Annual Meeting of the American Association for the Advancement of Science (Feb. 12, 1996) (transcript available at <<http://aaas.org/meetings/gore.htm>>) (discussing the importance of knowledge and communication in society); see also W. ROSS ASHBY, *AN INTRODUCTION TO CYBERNETICS* 265 (1961) [hereinafter ASHBY, *CYBERNETICS*] (defining the cybernetic concept of amplification as "a device that, if given a little of something, will emit a lot of it").

¹⁶ See Oliver E. Williamson, *The Logic of Economic Organization*, in *THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT* 90, 105-06 (Oliver E. Williamson & Sidney G. Winter eds., 1991) (describing the unitary board form as a centralized and functionally departmentalized operation incapable of managing the complexities associated with growth (citing ALFRED CHANDLER JR., *STRATEGY AND STRUCTURE: CHAPTERS IN THE HISTORY OF THE INDUSTRIAL ENTERPRISE* 382-83 (1962))); see also Shann Turnbull, *Competitiveness and Corporate Governance*, 2 *CORP. GOVERNANCE: AN INT'L REV.* 80, 81-83 (1994) [hereinafter Turnbull, *Competitiveness*] (examining the problems associated with the unitary form of corporate control); Turnbull, *Self-Regulation*, *supra* note 8; Richard M. Buxbaum, *Institutional Owners and Corporate Managers: A Comparative Perspective*, 57 *BROOK. L. REV.* 1, 44 (1991).

¹⁷ See Shann Turnbull, *Self-Governance and World Governance: Necessary Partners* (visited Sept. 17, 1999) <<http://www.worldcitizen.org/issues/junjul96/self-gov.html>> [hereinafter Turnbull, *World Governance*] (describing how stakeholder councils support directors by establishing qualitative and quantitative performance standards independent of management).

(cumulative) voting.¹⁸ The ability of some directors to prevent management from misusing their powers and/or appointing new directors is achieved through the establishment of a Corporate Senate.¹⁹ The division of power in these ways simplifies the roles of directors while improving their effectiveness. This is best illustrated by considering the operations of Japanese Keiretsu firms²⁰ and Spanish Mondragón firms.²¹ Section IV concludes by considering the opportunities to simplify and/or privatize some of the roles of government through the introduction of compound boards.

The Conclusion points out that an increasing number of firms with unitary boards are becoming employee-controlled. This may be viewed as a positive development, but such firms are not

¹⁸ See generally Jeffrey N. Gordon, *Institutions as Relational Investors: A New Look at Cumulative Voting*, 94 COLUM. L. REV. 124, 174 (1994) ("[T]he institutional use of cumulative voting, which buttresses director independence and accountability, will strengthen the board's ability to prod management in valuable ways.").

¹⁹ See Turnbull, *Competitiveness*, *supra* note 16, at 80 (characterizing a corporate senate as a supervisory committee with veto power over any decision in which directors have a conflict of interest). Corporate senates function as an oversight panel and are comprised of senators elected on the basis of one vote per shareholder. See *id.* The corporate senate is independent of the board of directors, and its members must not have any operational interests in the corporation. See *id.*; see also Shann Turnbull, *A Whistle-Blowing Senate for Companies* (visited Feb. 15, 2000) <<http://www.globalideasbank.org/1993/1993-58.HTML>> (describing the concept of a corporate senate). See generally Shann Turnbull, *Improving Corporate Structure and Ethics: A Case for Corporate Senates*, 17 DIRECTOR'S MONTHLY 1, 1-4 (1993) [hereinafter Turnbull, *Structure and Ethics*]. Full text at <<http://www.worldbank.org/devforum/files/struc-and-eth.pdf>>.

²⁰ See, e.g., Kai Schadbach, *The Benefits of Comparative Law: A Continental European View*, 16 B.U. INT'L L.J. 331, 410-11 (1998) ("[The] Keiretsu is the Japanese system of cross-shareholding between related corporations, both vertically and horizontally, with a core bank that advances relationships between the members.") (footnotes omitted); see also Michael R. Czinkota, *Distribution in Japan: Problems and Changes*, in JAPANESE BUSINESS: CULTURAL PERSPECTIVES 299, 302-04 (Subhash Durlabhji & Norton E. Marks eds., 1993) (discussing the Keiretsu); Ronald Dore & Hugh Whittaker, *Introduction*, in BUSINESS ENTERPRISE IN JAPAN: VIEWS OF LEADING JAPANESE ECONOMISTS 1, 9-11 (Kenichi Imai & Ryutaro Komiya eds., Ronald Dore & Hugh Whittaker trans., 1994).

²¹ See, e.g., William F. Whyte, *The Mondragón Cooperatives in 1976 and 1998*, 52 INDUS. & LAB. REL. REV. 478, 478 (1999) (extolling the success of the Mondragón system of corporations). The Mondragón name is derived from the town in the Basque provinces of northern Spain, where the first small producer's cooperative was formed. See *id.* at 479. The Mondragóns are employee-owned and controlled economic cooperatives. See *id.*; see also WILLIAM FOOTE WHYTE & KATHLEEN KING WHYTE, *MAKING MONDRAGÓN: THE GROWTH AND DYNAMICS OF THE WORKER COOPERATIVE COMPLEX* (1988); ROY MORRISON, *WE BUILD THE ROAD AS WE TRAVEL* 3-4, 8-35 (1991) (discussing the Mondragón system).

sustainable without a compound board. The evidence indicates that compound boards do not necessarily increase costs, and that they are a condition precedent for establishing competitive self-governing charters for firms, as well as other forms of social institutions. Self-governing firms minimize the cost and the size of government while improving the quality and efficiency of corporate democracy. Attaining this objective depends, in large part, upon legal educators and commentators supporting the concept of the compound board and their instruction of both lawyers and students of the law on how to craft corporate charters with an appropriate compound board.

I. OUTLINE OF ALTERNATIVE THEORETICAL FRAMEWORK

A. *Limitations in Economic Analysis*

Many economists have failed to recognize that there are alternative ways of organizing transactions outside the markets and hierarchy model or the hegemony of a market ideology. This failure has resulted in there being no accepted theoretical framework for comparing systems of corporate governance within or between cultures.²² The problem being "fac[ed] . . . of developing a viable theory of organizations"²³ is exacerbated by the fact that there is no "theoretical research to date that compares the relative efficiency of hierarchical and non-hierarchical organizations within a common model."²⁴

This problem of organization has been identified by a number of leading researchers in the field²⁵ who acknowledge that there is

²² See DEMB & NEUBAUER, *supra* note 9, at 16–17.

In an era when companies and corporate activity shape the contours of physical, economic, and social environments to an overwhelming degree, existing "ideologies" regarding the relationship between corporate activity and social welfare appear inadequate . . . [T]he profound and ubiquitous impacts of multinational and global businesses seem to demand that responsible leaders reexamine the fundamental assumptions on which the structures for corporate governance rest today.

Id. (footnote omitted); see also Shann Turnbull, *Governance Options—Beyond Markets and Hierarchies* (visited Feb 15, 2000) <<http://www.worldservice.org/issues/decjan96/governance.html>> (emphasizing the shortsightedness of economics in clinging to the hierarchical and market models of governance, and suggesting ways to develop alternatives to these theories).

²³ Jensen, *supra* note 12, at 873.

²⁴ Radner, *supra* note 14, at 1384.

²⁵ See D.C. North, *Transaction Costs in History*, 4 J. EUR. HIST. 552, 557 (1985)

a need for "a more comprehensive theory."²⁶ Nevertheless, such a theory must be well-grounded because mere "theory is outrunning our knowledge of the facts in the study of industrial organization and . . . more empirical work is required if we are to make progress."²⁷ The "recent work – of team theory (Alchian and Demsetz, 1972), agency theory (Jensen and Meckling, 1976) and transaction cost kinds – has not gone far enough."²⁸ As such, it has been said that a "more complete theory of the firm must give greater weight to information cost than is given either in Coase's theory or in theories based on shirking and opportunism."²⁹ Economists Sidney G. Winter and Harold Demsetz have emphasized the importance of the acquisition of knowledge and its utilization in future work on the theory of the firm.³⁰ It is clear, however, that limitations still exist with respect to economic analysis, and that more work is necessary in this area.

B. Human Information Processing and Behavior

Human behavior can be both variable and contradictory because environmental messages and stimuli can produce behavioral changes.³¹ This is illustrated in Figure 1,³² which identifies and contrasts the characteristics of real people and theoretical "economic" people. The characteristics identified in items two, six, seven, and nine of Figure 1 explicitly depend upon

(noting that there is an additional dimension currently missing in the discipline of economics); Oliver E. Williamson, *Introduction*, in *INDUSTRIAL ORGANIZATION*, i, xi (Oliver E. Williamson ed., 1990) (quoting Herbert Simon's request for "observing the phenomena at a higher level of resolution").

²⁶ Ronald H. Coase, *The Nature of the Firm: Influence*, in *THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT*, *supra* note 16, at 61, 72.

²⁷ Ronald H. Coase, *Contracts and the Activities of Firms*, 34 J.L. & ECON. 451, 451 (1991). It has been further noted that there is an additional dimension currently missing in the discipline of economics. See North, *supra* note 25, at 559. Moreover, there is a need for observing the phenomena at a higher level of resolution. See Williamson, *supra* note 25, at xi.

²⁸ Oliver E. Williamson, *Introduction*, in *THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT*, *supra* note 16, at 10.

²⁹ Harold Demsetz, *The Theory of the Firm Revisited*, in *THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT*, *supra* note 16, at 159.

³⁰ See Williamson, *supra* note 28, at 11. See generally Sidney G. Winter, *On Coase, Competence, and the Corporation*, in *THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT*, *supra* note 16, at 179; Demsetz, *supra* note 29, at 171–75.

³¹ See DEMB & NEUBAUER, *supra* note 9, at 17.

³² See *infra* fig. 1 app. at 156 (citing A.J. Wearing, *Economic Growth: Magnificent Obsession*, Address Before the 44th Australian & New Zealand Association for the Advancement of Science Congress in Perth, Australia (Aug. 1973)).

information gathering.³³ Figure 1 also helps to explain the conflicting research findings concerning agency theory and stewardship theory.³⁴ Agency theory assumes that managers will appropriate shareholder value to further their own pecuniary and non-pecuniary self-interests.³⁵ Conversely, stewardship theory assumes that managers act selflessly in the best interests of investors.³⁶ Items one through five in Figure 1 suggest that the same person could act either as a self-interested agent or a selfless steward.³⁷ Item seven suggests that human behavior is contingent upon social environment, while item eight indicates that, within the same environment, different people could act in different ways.³⁸

Item two refers to what the micro-economic literature describes as "bounded rationality."³⁹ The genesis of this concept was the recognition that the "problem of a rational economic order is trivial in the absence of bounded rationality limits on human decision makers."⁴⁰ This formulation explicitly recognizes that the design of social institutions is dependent upon the ability of people to process information. Information overload creates design limits for the information and control architecture of an organization and, if present, may require "change in [the] organizational structure."⁴¹

³³ See *id.*

³⁴ See L. Donaldson & J.H. Davis, *Boards and Company Performance: Research Challenges the Conventional Wisdom*, 2 CORP. GOVERNANCE: AN INT'L REV. 151, 151-60 (1994).

³⁵ See Michael C. Jensen & W.H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 305-60 (1976).

³⁶ See *id.*

³⁷ See *infra* fig. 1 app. at 156.

³⁸ See *id.*

³⁹ "Bounded rationality" refers to the ability of human agents to act, in some degree, in a rational manner, while recognizing that biological and language limitations present difficulties to completely rational behavior. WILLIAMSON, MARKETS *supra* note 14, at 21. This formulation, therefore, may be described as referring to "human behavior that is 'intendedly rational, but only limitedly so.'" *Id.* (emphasis in original) (quoting HERBERT A. SIMON, ADMINISTRATIVE BEHAVIOR xxiv (1961)). The neurophysical limitations on human behavior consist of "limits on the powers of individuals to receive, store, retrieve, and process information without error." *Id.* In addition, language limits often prevent individuals from articulating their knowledge to others in conventional ways, thus requiring the aid of demonstrations or "learning-by-doing" to overcome language difficulties. *Id.* at 22.

⁴⁰ *Id.* at 5; see also F.A. Hayek, *The Use of Knowledge in Society*, 35 AM. ECON. REV. 519, 527 (1945).

⁴¹ WILLIAMSON, MARKETS, *supra* note 14, at 46.

Similar to computers, humans have physical limitations on their ability to receive, store, process, and transmit information.⁴² The "efficient processing of information is an important and related concept" to transaction costs in an organization.⁴³ Therefore, using information, rather than cost as a unit of analysis, is more useful⁴⁴ because it allows for the observation of the "phenomena at a higher level of resolution,"⁴⁵ provides an "additional dimension to analyses,"⁴⁶ gives "greater weight to information cost[s],"⁴⁷ and is based on knowledge and know-how.⁴⁸

The governance of transactions through a market or hierarchy model is dependent upon obtaining the necessary information to organize the transactions in the most economic manner.⁴⁹ In this context, transaction costs are both created and represented by information. The social construct of cost represents a surrogate for the physical capture of information by decision-makers. Institutional arrangements that economize the need for, and capture of, information will also economize cost. As a result of bounded rationality, "the problem of organization is precisely one of decomposing the enterprise in efficient information processing respects."⁵⁰ An information processing interpretation has been advanced to explain why the structure of firms changed earlier this century as they grew larger and more complex.⁵¹ As the

⁴² See *id.* at 21.

⁴³ Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Transactional Relations*, 22 J.L. & ECON. 233, 234 (1979).

⁴⁴ See Demsetz, *supra* note 29, at 159. "But for the limited ability of human agents to receive, store, retrieve, and process data, interesting economic problems vanish." Williamson, *supra* note 43, at 234 n.5.

⁴⁵ Williamson, *supra* note 25, at xi.

⁴⁶ North, *supra* note 25, at 572.

⁴⁷ Demsetz, *supra* note 29, at 159.

⁴⁸ See Winter, *supra* note 30, at 189-90 (asserting that a fundamental characteristic of a business firm is its possession, retention, and use of knowledge despite frequent changes in personnel).

⁴⁹ See, e.g., Ronald H. Coase, *The Nature of the Firm: Meaning*, in *THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT*, *supra* note 16, at 48, 48-60; Oliver E. Williamson, *The Logic of Economic Organization*, in *THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT*, *supra* note 16, at 90.

⁵⁰ OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING* 283 (1985) [hereinafter WILLIAMSON, *CAPITALISM*] (citations omitted).

⁵¹ See ALFRED D. CHANDLER, JR., *STRATEGY AND STRUCTURE: CHAPTERS IN THE HISTORY OF THE INDUSTRIAL ENTERPRISE* 378 (1962) (analyzing the methods and strategies employed by some of the largest U.S. industrial enterprises in expanding their business and altering their corporate structure, and concluding that "both the

"operations of the enterprise became too complex and the problems of coordination, appraisal, and policy formulation too intricate for a small number of top officers to handle both long-run, entrepreneurial, and short-run operational administrative activities," a new corporate structure was required.⁵² This change in organizational structure from the unitary form to multidivisional form was seen as a method to economize the information processing load on executives.⁵³

The limitations of bounded rationality are resolved by adopting a multidivisional form structure, where information processing is economized by the decomposition of decision-making into short-run operational and long-term strategic concerns.⁵⁴ Short-run disturbances of degree are managed in the appropriate division, while long-run strategic disturbances are managed by the head office.⁵⁵ Interestingly, this same arrangement is found in humans, in that local nerve centers immediately activate limbs when exposed to pain, while the "head office," the brain, activates

operational activities . . . and the entrepreneurial ones . . . called for the adoption of the new structure"); WILLIAMSON, *CAPITALISM*, *supra* note 50, at 280 (noting that the "organizational strain of trying to cope with economic adversity under the old structure" was the impetus for innovating the corporate structures of Du Pont and General Motors, among others).

⁵² WILLIAMSON, *CAPITALISM*, *supra* note 50, at 280 (quoting Alfred D. Chandler, Jr.).

⁵³ A multi-divisional corporation, "M-form," is distinguished from the unitary form, "U-form," in that it involves the "creation of semiautonomous operating divisions . . . organized along product, brand, or geographic lines. The operating affairs of each [are] managed separately [by] . . . a general office . . . to monitor divisional performance, allocate resources among divisions, and engage in strategic planning." *Id.* at 281. The U-form structure, on the other hand, is centralized and organized based on corporate functional activities, such as manufacturing, marketing, and finance. *See id.* at 320. Therefore, executives in the U-form structure have a much greater information processing load because they are responsible for both the "destiny of the entire enterprise" and for "more routine operational activities." *Id.* at 281 (quoting Alfred D. Chandler, Jr.). Conversely, executives in the M-form structure are freed from routine corporate activities, which gives them the "time, information, and even psychological commitment for long-term planning and appraisal." *Id.* (quoting Alfred D. Chandler, Jr.).

⁵⁴ *See id.* The M-form structure accommodates the constraints of bounded rationality by bifurcating the decision-making process into an operational part and a strategic part. *See id.* at 282. The operational part responds to short-term needs of the organization and makes decisions within existing rules. *See id.* The "repertoire" of the operational part, however, is limited, "which is a concession to bounded rationality," so that it does not have the resources to respond to long-term needs. *Id.* The strategic part, on the other hand, which is free from the responsibility of routine activities, has the ability to develop new rules to respond to long-term needs. *See id.*

⁵⁵ *See id.* at 282-83.

strategic avoidance action. This is illustrated by the fact that "[e]volutionary systems that are subject to such bimodal disturbances will, under natural selection, necessarily develop two readily distinguishable feedbacks."⁵⁶

C. *Four Evolutionary Channels of Human Communication*

Human evolution has produced four levels of specialization in the use of the five senses for communication.⁵⁷ All methods for governing or coordinating human activities are based on a mixture of one or more of these four channels. Different cultures use different mixes, and these change over time.⁵⁸ The information transmitted by each channel can vary considerably. For example, voice communication can transmit data at approximately one hundred bits per second or baud.⁵⁹ Tactile communications, which include touch, taste, and smell, are processed at less than thirteen bits per second.⁶⁰ Meanwhile, the optic nerve is capable of receiving data at one billion bits per second.⁶¹ Regardless, the data per second, or baud rate, may not correlate with the level of meaning or understanding.⁶² Parallel processing⁶³ does allow the

⁵⁶ *Id.* at 282 (citation omitted).

⁵⁷ See *infra* fig. 2 app. at 157 (illustrating the four levels of specialization); Shann Turnbull, *The Application of Knowledge in Governing Society*, Address Before the International Conference on Knowledge, Economy and Society at the University of Montreal (July 3, 1997) [hereinafter Turnbull, *Governing Society*] (manuscript on file with author).

⁵⁸ See Shann Turnbull, *Stakeholder Democracy: Redesigning the Governance of Firms and Bureaucracies*, 23 J. SOCIO-ECON. 321, 328 (1994); Shann Turnbull, *Impact of Mining Royalties on Aboriginal Communities in the Northern Territory: First Report*, at 52, Parl. Paper No. 135 (Oct. 1977) (Austl.).

⁵⁹ See E-mail message from P. Cochrane, <<http://www.labs.bt.com/people/cochrapp/>> Head of Research, British Telecom to Shann Turnbull, Macquarie University (Dec. 21, 1997) (on file with author); see also P. Cochrane, *Hard Drive: Band width and bandwidth*, Telegraph, April 6, London 2000, <http://www.telegraph.co.uk:80/et?ac=0027812357018_07&rtmo=wA0eAK5b&atmo=99999999&pg=/et/00/4/6/ecrhard06.html>.

⁶⁰ See *id.*

⁶¹ See *id.*

⁶² For example, if a parent is having a conversation on the phone and her child asks a question at the same time, the parent may lose track of the conversation and the child's question, even though she realizes that both are occurring at the same time. See Samuel H. Pillsbury, *Crimes of Indifference*, 49 RUTGERS L. REV. 105, 140 n.92 (1996). As such, information is received, but not processed.

⁶³ Parallel processing involves "forming a synthesis of several bits of information" at the same time. Sarah B. Duncan, *Pursuing Quality: Writing a Helpful Brief*, 30 ST. MARY'S L.J. 1093, 1117 (1999). Serial processing, on the other hand, involves taking information one bit at a time, running it through a single processing unit "which performs certain analytic tasks," and producing a new form of information. Pillsbury,

human brain to operate much more quickly, but still not as fast as its ability to receive information.⁶⁴ Social institutions, therefore, need to be designed to recognize such neurophysiological limits.⁶⁵

The pattern of information and control channels in a social institution constitute its cybernetic architecture. Similarly, the efficiency and effectiveness of computers and their chips are dependent upon their architecture.⁶⁶ Both the efficiency and effectiveness of a computer's ability to perform different tasks can be improved by adopting specialized architectures for particular applications.⁶⁷

The legal constitutions of institutions are important, albeit not the only, determinants of the social architecture and the efficacy of their governance. Unfortunately, corporate charters are rarely considered as variables for establishing competitive advantages. The Mondragón firms, however, provide an outstanding example of corporate constitutions that are designed to establish strategic relationships.⁶⁸

D. *Four Ways of Governing Society*

There are "four distinctive forms of governance: markets, hierarchies, the clan or community, and associations."⁶⁹ All institutional arrangements for coordinating social activities, however, must rely on the channels of communication and control identified in Figure 2.⁷⁰ The four forms of governance⁷¹ are characterized by the channels based on prices, voice/word, sensory, and semiotics. Although each form of governance may be characterized by a different channel, in practice, there is a mixture

supra note 62, at 144.

⁶⁴ See Cochrane, *supra* note 59. For example, a single peripheral neuron is limited to about ten baud.

⁶⁵ See WILLIAMSON, MARKETS, *supra* note 14, at 21 (noting that economic models often do not adequately take account of such limits on human agents).

⁶⁶ See Gore, *supra* note 15 (describing the change in computer design from the beginning of the mainframe era to the modern massive parallelism architecture).

⁶⁷ See *id.* (noting that modern computer architecture, called massive parallelism, is more effective at solving most problems than an older design).

⁶⁸ See Turnbull, Self-Regulation, *supra* note 8 (providing tables and figures that illustrate their scheme).

⁶⁹ J. Rogers Hollingsworth & Leon N. Lindberg, *The Governance of the American Economy: The Role of Markets, Hierarchies, and Associative Behavior*, in PRIVATE INTEREST GOVERNMENT: BEYOND MARKET AND STATE 221, 221-22 (Wolfgang Streeck & Philippe C. Schmitter eds., 1985) (on file with author).

⁷⁰ See *infra* fig. 2 app. at 157.

⁷¹ See Hollingsworth & Lindberg, *supra* note 69.

of channels. As such, Ronald H. Coase, was asking and answering the wrong question.⁷² Instead of inquiring why economic transactions are organized through the "authority system" of a firm, rather than through the market, he should have asked, why are economic transactions organized by any combination of the four different ways in which transactions can be governed?

The existence of four modes of organizing human cooperation means that existing theories of the firm are incomplete.⁷³ This does not necessarily mean that existing theories of the firm are incorrect, only that they may have limited application in a way that is analogous to how Newton's laws of motion provide correct answers when the effects of relativity are not present.⁷⁴ In other words, the theory of the firm becomes most relevant in cultures that are committed to competition with strong anti-trust laws, have large, impersonal publicly-traded firms without related party transactions; have little bonding of stakeholders through cultural, clan, trade, industry, vocational, or other associations, including strong interlocking directorships. In effect, this theory of the firm is characteristic of the U.S. economy.⁷⁵

The U.S.-based theory of the firm becomes less relevant when economic transactions are mediated by cultural priorities, business related associations, or trade, vocational, family, social, and political networks. These attributes are more prominent in continental Europe, Japan, and other Asian countries.⁷⁶ The

⁷² See generally Ronald H. Coase, *The Nature of the Firm* (1937), in *THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT*, *supra* note 16, at 18 (arguing that "a definition of a firm may be obtained which is not only realistic in that it corresponds to what is meant by a firm in the real world, but is tractable by . . . the idea of the margin and that of substitution, together giving the idea of substitution at the margin") (footnote and citation omitted).

⁷³ See Shann Turnbull, *Beyond Markets and Hierarchies: Extending the Theory of the Firm*, Address Before the Conference of Economists (Sept. 28, 1994) (on file with author).

⁷⁴ See SIR ISAAC NEWTON'S *MATHEMATICAL PRINCIPLES OF NATURAL PHILOSOPHY AND HIS SYSTEM OF THE WORLD* 7 (Florian Cajori ed. & Andrew Motte trans., 4th prtg. 1960) (defining the difference between absolute and relative motion).

⁷⁵ See Geoffrey Miller, *Political Structure and Corporate Governance: Some Points of Contrast Between the United States and England*, 1998 COLUM. BUS. L. REV. 51, 51 (1998) (contrasting American firms with those of Germany and Japan, and noting that American firms are characterized by "a regime of explicit contracts and free-standing firms," and opposition to "employee codetermination").

⁷⁶ See J. Rogers Hollingsworth, *Continuities and Changes in Social Systems of Production: The Cases of Japan, Germany, and the United States*, in *CONTEMPORARY CAPITALISM: THE EMBEDDEDNESS OF INSTITUTIONS* 265 (J. Rogers Hollingsworth & Robert Boyer eds., 1997) (arguing that different forms of governance "cannot easily [be]

effect, however, of social priorities on the U.S. market is not insignificant.⁷⁷ This feature is ignored by most economists as being either irrational or outside the discipline of markets and hierarchies.

Empirical research by corporate governance scholars in other disciplines has implicitly confirmed the perspective of Hollingsworth, Lindberg, Schmitter, and Streeck.⁷⁸ Some of the empirical research was commissioned in the 1980s by the U.S. Competitiveness Policy Council, which was formed to address concerns that U.S. firms were not as competitive as Japanese and German firms.⁷⁹ This led U.S. corporate governance scholars to study other cultures at the beginning of the 1990s. One result was a report by Michael Porter in 1992 recommending reform of the U.S. system of corporate ownership and control so that it would more closely follow the practices of other cultures.⁸⁰

transferred from one society to another" because they are embedded in the social systems of each particular country); Leon N. Lindberg et al., *Economic Governance and the Analysis of Structural Change in the American Economy*, in GOVERNANCE OF THE AMERICAN ECONOMY 3 (John L. Campbell et al. eds., 1991) (explaining how changes in the institutions that govern economic activity occurred with respect to different industries); *Capitalism, Sectors, Institutions, and Performance*, in GOVERNING CAPITALIST ECONOMIES 3-16 (J. Rogers Hollingsworth et al. eds., 1994); *A New Study on Corporate Governance in the G7 Is Released Today*, *supra* note 11.

⁷⁷ See SEVERYN T. BRUYN, *A FUTURE FOR THE AMERICAN ECONOMY: THE SOCIAL MARKET* 171 (1991) (noting that the market is often seen as motivated by economic ends, but functions within society because it "always serves a broader purpose").

⁷⁸ See *supra* note 76 and accompanying text; see also *infra* notes 79-80 and accompanying text.

⁷⁹ See 15 U.S.C. § 4801(a)(1)(A)(iii) (1994) (stating that among the Congressional purposes for establishing the Competitiveness Policy Council was the need to obtain information about the "competitive strategies of foreign competitors"); see also Ronald J. Gilson, *Reflections in a Distant Mirror: Japanese Corporate Governance Through American Eyes*, 1998 COLUM. BUS. L. REV. 203, 203-05 (1998) (describing the disparity between U.S. and Japanese corporate governance during the 1980s); Marleen A. O'Connor, *Rethinking Corporate Financial Disclosure of Human Resource Values for the Knowledge-Based Economy*, 1 U. P.A. J. LAB. & EMPLOYMENT L. 527, 530 (1998) (linking disclosure of information, used as a tool of governance, to encourage investing and thus bolster competitiveness).

⁸⁰ See MICHAEL E. PORTER, *CAPITAL CHOICES: CHANGING THE WAY AMERICA INVESTS IN INDUSTRY* (1992). Porter's recommendations are supported by U.S. economists Margaret M. Blair and Mitsuhiro Fukao, both of the Brookings Institution. See generally MARGARET M. BLAIR, *OWNERSHIP AND CONTROL: RETHINKING CORPORATE GOVERNANCE FOR THE TWENTY-FIRST CENTURY* 321-22 (1995) (encouraging American corporations to consider greater employee ownership, among other corporate governance reforms); MITSUHIRO FUKAO, *FINANCIAL INTEGRATION, CORPORATE GOVERNANCE, AND THE PERFORMANCE OF MULTINATIONAL COMPANIES* 72, 72 (1995) (noting that "globalization of production processes and the integration of world financial markets" exert pressure to change the structures of corporate

E. Alternative Framework

The concerns and limitations of economic analysis based on economizing costs can be overcome by an analysis based on economizing information-processing by individuals.⁸¹ In this way, insights developed from economic analysis can be extended to all types of social institutions, including those where costs may have little or no relevance.⁸² The grounds for using information, rather than cost, as a unit of analysis arises from the foundations upon which the theory of the firm was established.⁸³

Once the relevant prices are discovered, however, they alone cannot adequately communicate the qualitative aspects of a transaction.⁸⁴ Before a transaction is executed or avoided, information is required about the nature of the goods or services, the timing and terms of the exchange, and the trustworthiness of the parties involved.⁸⁵ In fact, "exchange relationships are

governance); see also Martin Lipton et al., *Corporate Governance in the Era of Institutional Ownership*, 70 N.Y.U. L. REV. 1144 (1995) (reviewing MARGARET M. BLAIR, *OWNERSHIP AND CONTROL: RETHINKING CORPORATE GOVERNANCE FOR THE TWENTY-FIRST CENTURY* (1995)).

⁸¹ See SHANN TURNBULL, *ECONOMIC DEVELOPMENT OF ABORIGINAL COMMUNITIES IN THE NORTHERN TERRITORIES: A STUDY IN TWO PARTS* 6 (1980) (describing Aboriginal society as a model of a social institution that ignores costs).

⁸² See fig. 3 app. at 158 (outlining the paradigm shift introduced by this approach, which offers a practical solution to the issue of how to compare differently-structured boards); see also DEMB & NEUBAUER, *supra* note 9, at 7.

⁸³ See Coase, *supra* note 72, at 21 ("The most obvious cost of 'organizing' production through the price mechanism is that of discovering what the relevant prices are. This cost may be reduced but it will not be eliminated by the emergence of specialists who will sell this information.") (footnotes omitted). In other words, according to the theory of market failure, firms exist because markets fail to communicate information as efficiently as organizations. In addition, the "costs of negotiating and concluding a separate contract for each exchange transaction which takes place on a market must also be taken into account." *Id.* (footnote omitted). It is possible to reduce both of these costs by enlisting the services of professionals, but they cannot be eliminated. See *id.* The price may effect the cost of production in ways unrelated to just discovering the price. It has been postulated that higher prices imply less pressure on workers, leading to a more sheltered environment. See HARVEY LEIBENSTEIN, *INSIDE THE FIRM: THE INEFFICIENCIES OF HIERARCHY* 132 (1987). This results in a more sheltered environment that promotes lower effort and higher production costs. See *id.*

⁸⁴ See William G. Ouchi, *Markets, Bureaucracies, and Clans*, 25 ADMIN. SCI. Q. 129, 130 (1980) ("Transactions [sic] costs arise principally when it is difficult to determine the value of the goods or service."); Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 J.L. & ECON. 233 (1979) (noting the growing reliance upon transaction costs).

⁸⁵ See George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, in AN ECONOMIC THEORIST'S BOOK OF TALES 7, 7-9 (1984) (using

generally subject to so much informational ambiguity that they can never be governed completely by markets."⁸⁶

Prices are just numbers that are efficient only because they contain so little information.⁸⁷ In fact, prices represent "second order" information, which has no meaning without communication of contextual qualitative "first order" information.⁸⁸ A cybernetic framework can include all social relationships and institutions, and thus provide a common foundation for linking together other established theories such as transaction cost economics, resource-based theories, and evolutionary theories.⁸⁹

Established theories, such as those noted above, add richness to the cybernetic framework. This, in turn, can also extend their relevance to non-profit organizations, among other social institutions. Most importantly, because cybernetics is grounded in the laws of pure and applied science, it can provide a way of developing a science of organization.⁹⁰ Cybernetics is capable of doing this because unlike social constructs such as costs, value, and money, which provide the basis for other theories, information must have a physical manifestation.⁹¹

II. PROBLEMS WITH UNITARY BOARDS

A. *Excessive Powers*

Lawyers and corporate watchdogs advise directors to avoid conflicts between the interests of the company and those of the directors. Conflicts of self-interest, however, cannot be avoided

the example of a used car purchase to demonstrate the function of information in a market).

⁸⁶ Ouchi, *supra* note 84, at 139.

⁸⁷ See JAMES V. KOCH, *INDUSTRIAL ORGANIZATION AND PRICES* 311 (2d ed. 1980) (noting that "ignorance of market characteristics such as price . . . exist[s] in the real world").

⁸⁸ See W. ROSS ASHBY, *DESIGN FOR A BRAIN: THE ORIGIN OF ADAPTIVE BEHAVIOUR* (2d ed. 1960) [hereinafter ASHBY, *BEHAVIOUR*] (Ashby is a noted pioneer in the development of cybernetics).

⁸⁹ See *infra* fig. 4 app. at 159 (setting forth the relationship of the cybernetic framework to other theories of the firm).

⁹⁰ Developing a science of organization has been sought by Oliver E. Williamson, among others. See Williamson, *supra* note 16.

⁹¹ The cybernetic perspective meets the test of being a paradigm shift as it "involves the same bundle of data as before, but places them in a new system of relations with one another by giving them a different framework." KUHN, *supra* note 2, at 85 (quoting HERBERT BUTTERFIELD, *THE ORIGINS OF MODERN SCIENCE: 1300-1806*, at 1-7 (1949)).

when corporate powers are concentrated in a single board, no matter how diligent the director. In Figure 5, it is noted that the powers which allow directors to appropriate value from shareholders through their conflicts of self-interest are not those required by the directors to add value for shareholders.⁹² Thus, separating these two powers, which are inherently at odds with one another, would not jeopardize the ability of the directors to add value.⁹³ Instead, the division of powers in this way can protect both investors and the reputations of directors while continuing to benefit the company as a whole.

Directors of unitary boards possess the power to determine their own remuneration, nomination, retirement, and the basis by which their performance is assessed by shareholders because they control how profits are determined and reported.⁹⁴ Directors also control and remunerate the auditor, who is supposed to represent shareholders.⁹⁵ In addition, directors control the conduct of shareholder meetings and voting procedures, which allows them to protect and maintain their power.⁹⁶

⁹² See *infra* fig. 5 app. at 160.

⁹³ See Lynne L. Dallas, *Proposals for Reform of Corporate Boards of Directors: The Dual Board and Board Ombudsperson*, 54 WASH. & LEE L. REV. 91, 114 (1997) (proposing a dual board consisting of a conflicts board, which would "consider conflicts of interest issues and would be composed of independent directors," and a business review board, which "would decide all other issues and would consist of a mix of different kinds of directors").

⁹⁴ One way that directors are able to mislead investors as to the value of a firm is in the area of human resource costs. When firms report training costs immediately, they show lower book values and earnings for the immediate period. When firms, however, "report the benefits derived from their investments in-training without declaring corresponding costs," they avoid such negative consequences—this accounting practice, however, does not reflect economic reality. O'Connor, *supra* note 79, at 531.

⁹⁵ See J. Guthrie & Shann Turnbull, *Audit Committees: Is There a Role for Corporate Senates and/or Stakeholder Councils?*, CORP. GOVERNANCE: AN INT'L REV., Apr. 1995, at 78–79 [hereinafter Turnbull, *Audit Committees*]; Shann Turnbull, *Flaws and Remedies in Corporatisation and Privatisation*, in HUMAN SYSTEMS MANAGEMENT 1993, at 227–52 (1993) [hereinafter Turnbull, *Flaws and Remedies*]; Turnbull, *Structure and Ethics*, *supra* note 19, at 1–4; Shann Turnbull, *Positions Vacant, Wanted: Corporate Whistle-Blowers*, J. SEC. INST. AUSTL., Dec. 1992, at 2–6 [hereinafter Turnbull, *Vacant*].

⁹⁶ See *infra* fig. 5 app. at 160. Unitary boards have also been criticized because combining the roles of the chairman and the CEO "represents a very substantial concentration of power in the hands of one member of the board creating the potential risk that they will exercise undue dominance over decision-making." *Adding value in the Boardroom-building on Cadbury's success* (visited Feb. 15, 2000) <<http://www.icaew.co.uk/depts/td/hampel/cover.htm>>.

Unitary boards concentrate power and create conflicts of director self-interest, both of which frustrate the ability of dispersed shareholders to participate in corporate self-regulation. The result is popular demand for more laws, regulations, and government oversight.⁹⁷ This is a rational response to a long standing issue. On the other hand, companies built upon principles of self-regulation and self-governance are dependent upon a division of power with checks and balances to retain legitimacy, not new laws or increased government oversight.⁹⁸

In addition to the corrupting influence absolute power has over unitary boards with respect to managing their own conflicts of self-interest, other problems are commonly associated with unitary boards. These problems include a management hierarchy that creates communication problems,⁹⁹ and centralized decision-making and control that creates information overload.¹⁰⁰

B. Communication Problems

In any hierarchy, instructions have to be interpreted in order to be made operational at lower levels. Information from lower levels also needs to be condensed when reported back up the hierarchy.¹⁰¹ Even simple communications can suffer quite serious

⁹⁷ Even when there are procedures in place that limit the autonomy of corporate boards, they have been largely unsuccessful. See Dallas, *supra* note 93, at 93 (stating that many plans for reforming corporate boards are inadequate because they "fail to deal adequately with social dynamics on boards" and because they "do not take proper account of the many important relational roles of the board other than conflicts monitoring"); see also Miller, *supra* note 75, at 52 (noting that shareholder derivative actions based on mismanagement have become "extraordinarily difficult to win").

⁹⁸ See Cunningham, *supra* note 3, at 1140 (explaining that the decentralized market model used in the United States requires regulations that provide a system of checks and balances). The "separation of the roles of the Chief Executive and Chairman is often proposed as a method of ensuring an appropriate balance of power, increasing accountability and increasing the capacity of the board for independent decision making." *OECD Principles of Corporate Governance* (visited Nov. 11, 1999) <<http://www.oecd.org/daf/governance/principles.htm>>.

⁹⁹ See ALEXIS JACQUEMIN, *THE NEW INDUSTRIAL ORGANIZATION* 142 (Fatemeh Mehta trans., MIT 1987) (noting that "the U-form favors a pyramidal and bureaucratic hierarchy in which feudalism and ritualism tend to predominate").

¹⁰⁰ See *id.* (noting that with regard to U-form boards, "managers who are . . . responsible for [both] long-term strategic decisions and daily operational decisions[] will give more attention to the short run[] because the pressures are more direct"); Oliver E. Williamson, *The Modern Corporation*, in *INDUSTRIAL ORGANIZATION* 70 (Anindya Sen ed., 1996) (noting that managers operating within the U-form structure are unable to "identify with or contribute to the realization of global goals" and instead attend "to what they perceive[d] to be operational subgoals").

¹⁰¹ See ANTHONY DOWNS, *INSIDE BUREAUCRACY* 117 (1967) (discussing the

misunderstandings, mistakes, and omissions when they are relayed through as few as three or four people, even when all individuals possess the very best of intentions.¹⁰² When people are in a management hierarchy, however, it is usually not in their best interest to report information to a superior that may reflect adversely on his or her own performance.¹⁰³ This provides an incentive for biases, distortions, and omissions in communications in both public and private sector organizations.¹⁰⁴ Furthermore, the need to interpret information sent down a chain of command and condense information reported back up only increases the problems of control and monitoring.

In a five-level hierarchy, it is assumed that the biases of officials result in 10% of the true meaning of the information being lost each time it is relayed through a level of management.¹⁰⁵ Furthermore, it is assumed that 5% of the true meaning is lost from errors in transmission,¹⁰⁶ thus reducing correct information by 15% per level. As a result, correct information represents only 85% of that which was condensed by 50% at each level.¹⁰⁷ The results of cumulative compounding in a five-level hierarchy, where each level has a five-person span of control, are shown in the "correct" and "missing" columns of Figure 6.¹⁰⁸ Complicating

necessity of condensing information and the amount of information eliminated through such processes); WILLIAMSON, *MARKETS*, *supra* note 14, at 134 (1975) (noting that "[i]nformation flows rarely take the form of simple serial reproduction").

¹⁰² See DOWNS, *supra* note 101, at 117-18; see also DAVID G. BOWERS, *SYSTEMS OF ORGANIZATION: MANAGEMENT OF THE HUMAN RESOURCE* 40-41 (1976) (discussing factors that interfere with the comprehension of the message and its reception such as "the identity and reputation of the sender," and whether the senders' past messages were harsh or not).

¹⁰³ See DOWNS, *supra* note 101, at 116-18; KENNETH D. GEORGE AND CAROLINE JOLL, *INDUSTRIAL ORGANISATION: COMPETITION, GROWTH AND STRUCTURAL CHANGE* 103 (3d ed. 1981) (noting that the flow of information between the head office and shop floor will be distorted by those seeking to protect their own positions); WILLIAMSON, *MARKETS*, *supra* note 14, at 135 noting that "[d]eliberate distortions will be introduced into the hierarchial information exchange process in support of subgoals").

¹⁰⁴ See DOWNS, *supra* note 101, at 116-18; see also *infra* fig. 6 app. at 161 (illustrating the loss of information in various hierarchies).

¹⁰⁵ See DOWNS, *supra* note 101, at 118.

¹⁰⁶ See *id.*

¹⁰⁷ See *id.* at 117.

¹⁰⁸ See *infra* fig. 6 app. at 161 (showing a sharp increase in the amount of information either missing or received with an incorrect meaning as the information moves from lower-level workers through middle and senior management, and ultimately to CEO's and board directors); DOWNS, *supra* note 101, at 118 (calculating that, if a corporation had to pass information through six levels, and each level resulted in a distortion in meaning of 10% due to differing points of view and 5% due to errors in

matters further is the possibility that a company's chief executive officer (CEO) may not even have the information required to control the corporation.¹⁰⁹

C. Information Overload

To avoid overloading senior management and directors of unitary boards, information must be condensed, resulting in a loss of information.¹¹⁰ In the beginning of this century, large U.S. firms addressed this issue by changing from unitary form to multi-divisional form structures to avoid information overload.¹¹¹ As noted earlier, the analysis of information problems in complex enterprise operations can be applied when comparing unitary boards with compound boards.¹¹²

As unitary form firms grew in size and complexity, the quantity of information that had to be processed by top officers became unmanageable.¹¹³ The multi-divisional form reduces the

transmission, the information which emerged would only accurately reflect 38% of the original information).

¹⁰⁹ See WILLIAMSON, MARKETS, *supra* note 14, at 135 (discussing the possible loss of control by the CEO when the firm expands and when the flow of information is not smooth); see also *infra* fig. 6 app. at 161 (calculating that 96.7% of the information that a CEO receives is either missing or has a wrong meaning). The resulting "[s]erious information problems limit the effectiveness of board members in the typical large corporation." Jensen, *supra* note 12, at 864 (discussing the board's inability to properly evaluate the performance of a CEO when the CEO controls the information given to the board); GEORGE AND JOLL, *supra* note 103, at 102-03 (noting that communication problems can "render the task of the chief executive impossible"). An alternative to strict hierarchial methods of communicating information has been successfully attempted by the Denmark-based company, Onitcon. See Polly Labarre, *This Organization is Dis-Organization* (visited Nov. 11, 1999) <<http://www.fastcompany.com/online/03/oticon.html>>. Emphasis on face-to-face communication between workers and management contributed to a deeply troubled hearing aid manufacturer doubling their revenue and increasing their operating profits ten times over a five-year period. See *id.*

¹¹⁰ See WILLIAMSON, MARKETS, *supra* note 14, at 133-35 (discussing the summary of data along the information chain and the resulting lack of ability to properly control the firm).

¹¹¹ See CHANDLER, *supra* note 51, at 2-3 (discussing the move by U.S. firms to a "decentralized" form to better deal with diverse activities); Williamson, *supra* note 100, at 71 (recognizing a rapid adoption by American firms of the multi-form structure from 1945-1960). Multi-form organizations "achieve greater internal efficiency" than unitary form organizations "of similar size." GEORGE AND JOLL, *supra* note 103, at 103-04; see also *infra* note 124 (discussing the influx of M-form firms in the United States).

¹¹² See CHANDLER, *supra* note 51, at 2-3.

¹¹³ See *id.* (discussing the numerous decisions left to just a few top members of a centralized firm); WILLIAMSON, MARKETS, *supra* note 14, at 134 (discussing the inability of managers to handle the "demands placed upon it").

volume of information processed by top management by filtering out the higher frequency (i.e. short-run) information. Such information is made the responsibility of the lower operating divisions.¹¹⁴ Top management is then able to limit their information processing to lower frequency (i.e. long-run) strategic decision information.¹¹⁵

The advantage of the multi-divisional form can be explained in terms of the division of decision-making labor.¹¹⁶ The cybernetic significance of technical and temporal specialization of organizational information is reflected by the theory that the survival of any organism under natural selection is dependent upon developing two readily distinguishable feedbacks.¹¹⁷ Cybernetic analysis demonstrates that double feedback is an essential feature for the self-regulation of any living thing, machine, device, or organization.¹¹⁸

A division of decision-making labor in multi-divisional form firms becomes possible because such a form allows organizations to be decomposed "into relatively independent subsystems, each one

¹¹⁴ See CHANDLER, *supra* note 51, at 11 (discussing the division of decision-making power between executives and departments); WILLIAMSON, CAPITALISM, *supra* note 50 (discussing the allocation of higher frequency dynamics to lower levels of the organization). Because of the large degree of autonomy that each operational division is granted in a multi-divisional firm, each division resembles a quasi-firm managed to achieve a specific objective. See JACQUEMIN, *supra* note 99, at 143.

¹¹⁵ See CHANDLER, *supra* note 51, at 11; see also WILLIAMSON, CAPITALISM, *supra* note 50, at 283 (discussing the allocation of lower frequency dynamics to higher levels of the organization).

¹¹⁶ See WILLIAMSON, CAPITALISM, *supra* note 50, at 282 (explaining that division of decision-making allows independent subsystems to concentrate on a specific aspect of the organization with minimal concern for the other aspects of the organization); see also Bernard Black & Reinier Kraakman, *A Self-Enforcing Model of Corporate Law*, 109 HARV. L. REV. 1911, 1943-44 (1996) (discussing the benefit of the allocation of decision-making power between the board, managers, and shareholders); Herbert A. Simon, *The Architecture of Complexity*, 106 AM. PHIL. SOC'Y 467, 467-82 (1962).

¹¹⁷ See ASHBY, BEHAVIOUR, *supra* note 88, at 130-31 (discussing the adaptation of organisms to bi-modal disturbances described as either "frequent" or "occasional"); WILLIAMSON, CAPITALISM, *supra* note 50, at 282 (discussing Ashby's theory of double feedback in terms of the division of labor).

¹¹⁸ See ASHBY, BEHAVIOUR, *supra* note 88, at 131 (discussing stabilization and subsequent survival of organisms through double feedback); WILLIAMSON, CAPITALISM, *supra* note 50, at 282 (stating that Ashby's theory "established that all adaptive systems that have a capacity to respond to a bimodal distribution of disturbances-some being disturbances in degree: other[s] being disturbances in kind-will be characterized by double feedback"). See generally STAFFORD BEER, THE HEART OF ENTERPRISE 62-63 (1979) [hereinafter BEER, ENTERPRISE] (discussing feedback and its role in self-regulation).

of which can be designed with only minimal concern for its interaction with the others."¹¹⁹ Decomposition can create what is now recognized as holonic architecture, which evolves in nature to create and manage complexity.¹²⁰ It has been observed that "the problem of organization is precisely one of decomposing the enterprise in efficient information processing respects."¹²¹ It has been further noted that "[i]mitation of the [multi-]form innovation was at first rather slow,"¹²² and "prior to 1968, most large European companies administered their domestic operations through U-form or holding company internal structures."¹²³ There was, however, less need for large European firms to adopt the multi-divisional form architecture because their operating and strategic decisions were already separated.¹²⁴ This decomposition of decision-making was an inherent feature in large European firms because they possessed compound boards with two or more control centers.¹²⁵

Many scholars have analyzed the failure of unitary boards to control or even sustain the economic viability of a business.¹²⁶ U.S.

¹¹⁹ WILLIAMSON, CAPITALISM, *supra* note 50, at 282-83 (citation omitted); *see also* JACOB MARSCHAK & ROY RADNER, ECONOMIC THEORY OF TEAMS 187 (1972) (discussing decentralization of groups and the lack of communication between the sub-groups); BOWERS, *supra* note 102, at 52-59 (discussing decentralization of groups and lack of communication between sub-groups).

¹²⁰ *See* John Mathews, *Holonic Organisational Architecture*, in HUMAN SYSTEMS MANAGEMENT 15, 27-54 (1996) (on file with author); *see also* Sandra Harding, *John Mathews, Catching the Wave: Workplace Reform in Australia*, 17 COMP. LAB. L.J. 589, 590 (1996) (book review) (describing Mathews's holonic architecture as the development of intelligent organizations or networks of organizations that are "cellular" or "modular" and which "bring together tools, logistics, and people in a flexible, integrated whole").

¹²¹ WILLIAMSON, CAPITALISM, *supra* note 50, at 283 (citations omitted). Multi-divisional firms efficiently process information through decomposition and thus make provisions to deal with the opportunism that is not taken into account by the team theory. *See id.*; *see also* BOWERS, *supra* note 102, at 52-59 (discussing the importance of communication between groups in an organization).

¹²² WILLIAMSON, MARKETS, *supra* note 14, at 140.

¹²³ *Id.* at 141 (citation omitted).

¹²⁴ "The M-form revolution, which began in the U.S. in the 1920's, involved a steady metamorphosis of the differentiated, multi-division organization out of the nondivisionalized (U-form) organization in large firms." Barry D. Baysinger & Henry N. Butler, *Antitakeover Amendments, Managerial Entrenchment, and the Contractual Theory of the Corporation*, 71 VA. L. REV. 1257, 1273 n.69 (1985) (citation omitted). Also, in an M-form firm, long-run entrepreneurial activities are handle by a different office and staff than handle day-to-day activities. *See id.* (citation omitted); *see also infra* fig. 10 app. at 165.

¹²⁵ *See supra* note 124.

¹²⁶ *See, e.g.*, WILLIAMSON, MARKETS, *supra* note 14, at 134-35; Richard M.

scholars, however, have not explained these failures because most have neglected to compare the conflicts of self-interest and power relationships in unitary boards with those in compound boards found in non-Anglophile countries. One problem is the lack of interest in compound boards and a lack of methodology,¹²⁷ which is considered below. An exception to this apathy is Lynne L. Dallas, who bases her arguments for "a dual board" on an interdisciplinary approach using accepted theories of the firm, empirical studies, law, and psychology.¹²⁸

D. *The Problems of Self-Regulation and Self-Governance in Hierarchies*

The words "control," "regulate," and "govern," as used in Figure 7¹²⁹ have been defined with the related concepts of "self-control," "self-regulation," and "self-governance."¹³⁰ As Figure 7 illustrates, neither self-regulation nor self-governance can be achieved without effective regulation or governance.¹³¹ It has been said that power corrupts, and "absolute power corrupts absolutely."¹³² The solution to such potential corruption, with respect to the context addressed herein, is to divide power in order to create a system of checks and balances.¹³³ An analysis of the problem is based on political structures in which the controllers may be seeking advantages of power, status, and influence, rather

Buxbaum, *Institutional Owners and Corporate Managers: A Comparative Perspective*, 57 BROOK. L. REV. 1, 44 (1991).

¹²⁷ See Michael C. Jensen & William H. Meckling, *Rights and Production Functions: An Application to Labor-managed Firms and Codetermination*, 52 J. BUS. 469, 503 (1979) (explaining the lack of effort in evaluating codetermined firms).

¹²⁸ Dallas, *supra* note 93, at 97.

¹²⁹ See Fig. 7 app. at 162.

¹³⁰ Turnbull, *Corporate Governance*, *supra* note 3, at 81.

¹³¹ See generally Yevgeniy V. Nikulin, *The New Self-Enforcing Model of Corporate Law: Myth or Reality*, 6 DET. C.L. J. INT'L L. & PRAC. 347 (1997) (discussing the functioning of self-governance and self-enforcement through a regulatory structure developed by Black & Kraakman); see also *infra* fig. 7 app. at 162 (reflecting the possibility of self-governance and self-regulation).

¹³² OXFORD DICTIONARY OF QUOTATIONS (3d ed. 1979) (quoting Lord Acton in a letter to Bishop Creighton, April 3, 1887).

¹³³ See WILLIAMSON, *CAPITALISM*, *supra* note 50, at 299 (noting that, in large corporations, those in control will operate the organization for the benefit of their own interests rather than those of the owners); T. Persson et al., *Separation of Powers and Accountability: Towards a Formal Approach to Comparative Politics* (July 1996) (unpublished manuscript on file with the Innocenzo Gasparini Institute for Economic Research).

than just economic benefits.¹³⁴ By introducing an appropriate division of powers, the welfare of stakeholders can be increased as compared to the welfare of stockholders under unitary control.¹³⁵ Identifying an "appropriate" division of power for corporate charters is critical because, without one, it is not possible for corporations to provide "independent processes."¹³⁶ Further, the information and control channels required to achieve self-regulation and self-governance also provide the ability to improve competitive advantages.

E. Gaps in Corporate Governance Scholarship

Compound boards have been neglected by U.S. scholars in the field because they admittedly "do not have a theory that . . . tell[s] us how supervisory boards . . . behave...."¹³⁷ Another reason why U.S. scholars have neglected the study of alternative systems of governance is that "the American system seem[s] to represent the evolutionary pinnacle of corporate governance, so other systems [are] either less far along the Darwinist path, or evolutionary deadends; neither lagards nor neanderthals ma[k]e interesting objects of study."¹³⁸ As noted earlier, the lack of scholarship on compound boards is also explained by both the lack of an accepted theoretical framework for comparing systems of corporate governance within or between cultures, and the problem of developing a viable theory of organizations. Another problem is that cultural specificities exist with respect to theories and practice of corporate governance.¹³⁹ The cybernetic perspective, however, offers a way to fill the research gap and overcome the cultural

¹³⁴ See Persson et al., *supra* note 133; see also John Pound, *The Rise of the Political Model of Corporate Governance and Corporate Control*, 68 N.Y.U. L. REV. 1003, 1027-32 (1993) (discussing the advantages and disadvantages of the political model of corporations).

¹³⁵ See WILLIAMSON, *CAPITALISM*, *supra* note 50, at 283-84 (discussing how the multi-division form makes provisions for opportunism of managers through a division of power); Pound, *supra* note 134, at 1029 (stating that the mere existence of the shareholders' power to vote out the board allows them to control and monitor the board in a wide variety of ways).

¹³⁶ See *infra* fig. 7 app. at 162 (showing the requirements show the necessary checks that must be exercised by stakeholders in order to participate in governance).

¹³⁷ Jensen & Meckling, *supra* note 127, at 503.

¹³⁸ Ronald J. Gilson, *Corporate Governance and Economic Efficiency*, in ASPECTS OF CORPORATE GOVERNANCE 131, 132 (M. Isaksson & R. Skog eds., 1994) (on file with author).

¹³⁹ See *supra* notes 20-21, 124 and accompanying text (discussing various organizational approaches throughout the world).

specificities in existing theories based on culturally-specific social constructs. Examples have been given of a cybernetic approach to corporate governance,¹⁴⁰ including a suggestion of design criteria for social institutions.¹⁴¹

III. CYBERNETIC ANALYSIS OF COMPOUND BOARDS

A. *Requisite Variety in Control*

A fundamental law of cybernetics is that "control can be obtained only if the variety of the controller (and in this case of all the parts of the controller) is at least as great as the variety of the situation to be controlled."¹⁴² William Ross Ashby's Law of Requisite Variety ("Ashby's Law") states that the variety of a regulator must equal that of the disturbances whose effect it is to negate.¹⁴³ Unfortunately, Ashby's Law remains poorly understood.¹⁴⁴ To overcome this problem, a number of examples have been developed to communicate its meaning,¹⁴⁵ including a football team metaphor used to explain the law.¹⁴⁶ In order to have the chance to control the players of an opposing team and compete effectively, the same number of players are required on each team.¹⁴⁷ Teams that do not have sufficient players, i.e.

¹⁴⁰ See generally SHANN TURNBULL, DEPT OF ABORIGINAL AFFAIRS, ECONOMIC DEVELOPMENT OF ABORIGINAL COMMUNITIES IN THE NORTHERN TERRITORY: A STUDY IN TWO PARTS (1980); see also Shann Turnbull, *Stakeholder Governance: A Cybernetic and Property Rights Analyses*, CORP. GOVERNANCE: AN INT'L REV., Jan. 1997, at 11-23 [hereinafter Turnbull, *Stakeholder Governance*]. Full text at <<http://cog.kent.edu/lib/turnbull6/turnbull6.html>>. Shann Turnbull, *Stakeholder Cooperation*, 29 J. COOPERATIVE STUD. 18 (1997). Full text at <http://papers.ssrn.com/sol3/paper.taf?ABSTRACT_ID=26238>; Shann Turnbull, *Stakeholder Democracy: Redesigning the Governance of Firms and Bureaucracies*, 23 J. SOC. ECON. 321, 328 (1994); Shann Turnbull, *The Application of Cybernetic Knowledge in Governing Society*, Address Before the International Conference on Knowledge, Economy and Society, University of Montreal (July 3, 1997) (unpublished manuscript on file with the author) (offering suggested design criteria for social institutions).

¹⁴¹ See *supra* note 140.

¹⁴² STAFFORD BEER, *BRAIN OF THE FIRM* 41 (2d ed. 1981).

¹⁴³ See ASHBY, *CYBERNETICS* *supra* note 15, at 206-07.

¹⁴⁴ See BEER, *ENTERPRISE*, *supra* note 118, at 84 (comparing the misunderstandings of Ashby's theory to Newton's theory of gravity and Einstein's theory of relativity).

¹⁴⁵ See *id.* at 84-96 (providing various examples of the workings of the Law of Requisite Variety).

¹⁴⁶ See STAFFORD BEER, *DECISION AND CONTROL: THE MEANING OF OPERATIONAL RESEARCH AND MANAGEMENT CYBERNETICS* (1994).

¹⁴⁷ See *id.*

requisite variety, become uncompetitive.¹⁴⁸ Similarly, without sufficient members, firms are unable to compete.¹⁴⁹

With respect to corporations, Ashby's Law means that if the competitive standing of a company is affected by performance-type variables in its environment, then, at the least, corporate controllers need performance-type responses to remain competitive.¹⁵⁰ If the conformance requirements of the board require that conformance-type activities be regulated, then directors need at least conformance-type control mechanisms.¹⁵¹ For directors to effectively carry out either their performance or conformance roles, they need requisite variety in their control system to manage all performance and conformance variables.¹⁵² Consequently, parts of a control system designed to manage performance variables will also manage some conformance variables and vice versa.¹⁵³ As a result, the control systems needed to improve competitiveness and self-regulation support each other,¹⁵⁴ leading Ashby to state that "only variety can destroy [and thereby control] variety."¹⁵⁵ Another formulation of the law is that complexity is required to manage complexity.¹⁵⁶ Non-trivial firms with unitary boards do not meet the test of possessing requisite variety, and so their competitive capabilities cannot match those with an appropriately designed compound boards.¹⁵⁷

B. *Requisite Variety in Information*

A related cybernetic theorem established by Claude E. Shannon in 1949 posits that accurate information can be obtained even when noise, distortion, and bias exist in a communication

¹⁴⁸ See *id.*

¹⁴⁹ See *id.*

¹⁵⁰ See BEER, ENTERPRISE, *supra* note 118, at 96 (discussing the need to raise performance levels to deal with more variety).

¹⁵¹ See *id.*

¹⁵² See *id.* at 96-99.

¹⁵³ See *id.*

¹⁵⁴ See *id.*

¹⁵⁵ ASHBY, CYBERNETICS, *supra* note 15, at 207; see also BEER, *supra* note 142, at 41 (applying Ashby's law of requisite variety).

¹⁵⁶ See BEER, ENTERPRISE, *supra* note 118, at 32. As business systems become more complex, managers must employ complex responses to deal with the increasing variety of possibilities that may occur. See *id.* The goal is to maintain balance, which managers accomplish by countering variety with practices aimed at destroying it. See *id.* at 39.

¹⁵⁷ See *infra* notes 159 and 170-71 and accompanying text.

channel by establishing variety in information channels.¹⁵⁸ Establishing variety in information channels is necessary because "if . . . management were compelled to rely on the information it acquired through 'orthodox' channels of communications, it would certainly never have anything like requisite variety for controlling the company for the simple reason that the orthodox channels could not transmit it."¹⁵⁹

It has been noted that

before Shannon's work it was thought that any channel, with a little more skill, could be modified to carry a little more information. He showed that the engineer's duty is to get reasonably near the maximum, for beyond it no-one can go. The law of Requisite Variety enforces a similar strategy on the would-be regulator and controller: he should try to get near his maximum—beyond that he cannot go.¹⁶⁰

Limitations in communicating complex information, however, can be overcome to a certain extent by amplification.¹⁶¹

C. *Amplification of Regulation to Change the Role of Government*

Vice President Al Gore has suggested that amplification strategy be used to change the role of government. In a speech to scientists, he identified the role of governmental policy as being

¹⁵⁸ See Claude E. Shannon, *Communications Theory of Secrecy Systems*, 28 BELL SYS. TECHNICAL J. 656 (1949).

¹⁵⁹ STAFFORD BEER, *DECISION AND CONTROL: THE MEANING OF OPERATIONAL RESEARCH AND MANAGEMENT CYBERNETICS* 282 (1994); see also Donald C. Langevoort, *The Epistemology of Corporate-Securities Lawyering: Beliefs, Biases and Organizational Behavior*, 63 BROOK. L. REV. 629, 639–40 (1997) (explaining the phenomenon of cognitive simplification). Humans must simplify their thought provisions in order to deal with the multitude of daily issues. Consequently, individuals develop stock explanations that are equally applicable to a wide-range of situations. Thus, managers are deprived of individually relevant facts. See *id.*

¹⁶⁰ ASHBY, *CYBERNETICS*, *supra* note 15, at 245.

¹⁶¹ See *id.* at 265. Amplifiers work "by having available a generous reservoir of what is to be emitted, and then using the input to act as controller to the flow from the reservoir." *Id.* It is by this process that information can be communicated simply in the seeds of plants and embryos of animals to provide instructions for nature to build complex, self-regulating living things. Furthermore, it has application to police services. See BEER, *ENTERPRISE*, *supra* note 118, at 90. Assume, for example, that if there is one police officer for every 500 citizens, then the officer must increase his information base 500-fold. To accomplish this, a variety of informational devices are implemented, including fingerprint technology. Fingerprinting creates a generous reservoir of information. Accordingly, the officer can use a single set of fingerprints to isolate a specific record in the database. See *id.*

akin to "imprinting the DNA" of social institutions.¹⁶² Ashby also observed that "the gene-pattern must act as determinant to the living organism's mechanism for adaptation."¹⁶³ Thus, it seems that genetic structures communicate information on how an organism is designed to regulate itself much in the same way as corporate charters and by-laws dictate how corporations govern themselves.

The Gore strategy would not involve establishing government regulations on how commercial enterprises should operate or behave.¹⁶⁴ Instead, government would act indirectly by specifying basic design criteria for corporate charters. Assuming this strategy would be successful in introducing self-regulation, it would allow simplification of corporate law through reducing the need for governments and regulatory agencies to adopt prescriptive laws and regulations.¹⁶⁵

The most effective, complete, and efficient regulation can be achieved by building as much self-regulation as possible into the

¹⁶² Gore, *supra* note 15 (urging the United States to "update [its] notions of self-government and bring them into harmony with the information age").

¹⁶³ ASHBY, CYBERNETICS, *supra* note 15, at 134-37.

¹⁶⁴ See Gore, *supra* note 15 (proposing that regulations be based on science and not suspicion). Not only would Gore's strategy not involve new regulations, but it would not even involve the adoption of any new procedures or processes as advocated by Sir Adrian Cadbury, J.P. Hawley and A.T. Williams. See *id.*; see also *The Report of the Cadbury Committee on the Financial Aspects of Corporate Governance: The Code of Best Practice*, in INTERNATIONAL CORPORATE GOVERNANCE: TEXT, READINGS AND CASES 576 (Robert I. Tricker ed., 1994) (advocating a voluntary "code of best practice"); A.T. Williams, *Corporate Governance in the United States: The Rise of Fiduciary Capitalism* (1996) (unpublished manuscript, on file with author); Richard Wachman, *Code According to Cadbury: A Lashing from Labour*, EVENING STANDARD (London), May 27, 1992, at 32 (suggesting that adoption of a voluntary code of best practice might result in avoidance or earlier detection of a number of company failures and instances of management fraud); *Soft-Centered*, ECONOMIST, Dec. 5, 1992, at 78 (arguing that it is for the stockholders to apply pressure on the company to adopt a code of best practice, although legislation may be necessary if companies do not respond); Paul Durman, *Cadbury Presents 19-Point Code for Company Practice*, INDEPENDENT (London), May 28, 1992, at 24 (reporting that the voluntary code, which is based on principles of openness, integrity, and accountability, has been warmly received as an effort to improve corporate governance); Erik Ipsen, *Outside Directors Seen as Fraud Cure in U.K.*, INT'L HERALD TRIB. (France), Dec. 2, 1992 (arguing that it is necessary to maintain a balance of power where no one individual has total discretion).

¹⁶⁵ See generally Geoffrey Miller, *Political Structure and Corporate Governance: Some Points of Contrast Between the United States and England*, 1998 COLUM. BUS. L. R. 51 (1998) (comparing the various methods used as a form of corporate governance). One of the chief tools used in the United States is the derivative lawsuit brought by shareholders. See *id.* Its effect, however, of curbing abuse by managers is questionable and it is expensive to bring. See *id.*

basic units of society and, in particular, business enterprises.¹⁶⁶ "Imprinting the DNA"¹⁶⁷ of firms has been carried out in the 150 stakeholder-controlled cooperatives established around the town of Mondragón in Spain during the last forty years.¹⁶⁸ Funding to establish these firms was provided by a bank created and owned by the cooperatives on the condition that the firms adopt charters that divided power into five centers.¹⁶⁹ Figure 9 illustrates how such "imprinting" distributes the functions of a unitary board into a compound board with five independently constituted centers.¹⁷⁰

D. Case Study of Amplification and Requisite Variety

Unlike the sub-committees found in a unitary board, the control centers of a Mondragón compound board are appointed by different constituencies in order to create a division of power as well as increase function.¹⁷¹ In this way, power differentials are substantially reduced to permit self-regulation without relying on the idiosyncratic behavior of individuals to act as self-less stewards rather than as self-interested agents.¹⁷²

A division of power creates a very persuasive basis for "trust based coordination mechanisms."¹⁷³ Scholars have long identified the operating advantages of establishing trust with employees and

¹⁶⁶ See Arthur R. Pinto, *Corporate Governance: Monitoring the Board of Directors in American Corporations*, 46 AM. J. COMP. L. 317, 326 (1998) (illustrating the effectiveness of corporate governance provisions). All corporations generate agency costs. See *id.* Initiatives to reduce such costs are also a cost, thus, effectiveness can be judged by the net reduction in cost. See *id.*

¹⁶⁷ Gore, *supra* note 15.

¹⁶⁸ See Shann Turnbull, *Innovations in Corporate Governance: The Mondragón Experience*, 3 CORP. GOVERNANCE: AN INT'L REV. 167, 167-80 (1995) [hereinafter Turnbull, *Innovations*].

¹⁶⁹ See *infra* tbls.9, 12 app. at A-9, A-12; see also A. Campbell et al., *Worker-Owners: The Mondragón Achievement*, in ANGLO-GERMAN FOUNDATION FOR THE STUDY OF SOCIETY (1977) (detailing the charters employed by these firms); CAJA LABORAL POPULAR, 1992 ANNUAL REPORT (1992); MCC, 1992 ANNUAL REPORT (1992); T. MOLLNER, *THE PROPHET OF THE PYRENNES: THE SEARCH FOR THE RELATIONSHIP AGE* (1991); ROY MORRISON ET AL., *MAKING MONDRAGÓN: THE GROWTH AND DYNAMICS OF THE WORKER COOPERATIVE COMPLEX* (1998).

¹⁷⁰ See *infra* fig. 9 app. at 164; *The Report of the Cadbury Committee on the Financial Aspects of Corporate Governance: The Code of Best Practice*, *supra* note 164, at 577.

¹⁷¹ See HENK THOMAS & CHRIS LOGAN, *MONDRAGÓN: AN ECONOMIC ANALYSIS* 182-88 (1982) [hereinafter THOMAS & LOGAN].

¹⁷² See *id.* (discussing the criteria of self-management).

¹⁷³ Charles F. Sabel, *Constitutional Orders: Trust Building and Response to Change*, in CONTEMPORARY CAPITALISM: THE EMBEDDEDNESS OF INSTITUTIONS 155 (J. Rogers Hollingsworth & Robert Boyer eds., 1997).

other stakeholders.¹⁷⁴ When information and power is shared with customers and suppliers, as occurs in a Keiretsu and Mondragón firm, different boundaries of the firm can be established to provide strategic advantages.¹⁷⁵

In a Mondragón industrial firm, its general assembly of members elect the Watchdog Council and members of the Supervisory Board.¹⁷⁶ The Supervisory Board appoints the CEO and department heads who then serve as members of the Management Council.¹⁷⁷ Work groups, which meet weekly, appoint a delegate to the Social Council.¹⁷⁸ Individual firms are associated with Relationship Associations, or simply Groups, which act like a meta firm with its own division of powers.¹⁷⁹ The twelve groups combine to create the Mondragón Corporación Cooperativa (MCC) with its own information and control feedback loops. The MCC involves its own constituencies of individuals and support firms¹⁸⁰ and has the effect of creating a "holarchy."¹⁸¹

The Mondragón Holarchy has three levels of "concatated holons" to illustrate the three levels of learning.¹⁸² Furthermore, it has lateral recursive support holons.¹⁸³ Evidence that this is the most robust way to create or manage complexity is provided by evolution developing holonic architecture in all living things,¹⁸⁴ and the mathematical analysis provided by Herbert A. Simon.¹⁸⁵ When first exposed to the complexity of the Mondragón

¹⁷⁴ See S. HELPER ET AL., *THE BOUNDARIES OF THE FIRM AS A DESIGN PROBLEM* (1997) (unpublished working paper, on file with author); J.M. PODOLNY & K.J. PAGE, *NETWORK FORMS OF ORGANIZATION* (1997) (working paper, on file with author); M. Van Alstyne, *The State of Network Organization: A Survey in Three Frameworks*, 7 J. ORG. COMPUTING 3 (1997).

¹⁷⁵ See generally Sabel, *supra* note 173.

¹⁷⁶ See THOMAS & LOGAN, *supra* note 171, at 29 (noting that members of the Watchdog Council serve four-year terms while members of the Supervisory Board serve one-year terms).

¹⁷⁷ See *id.* (noting that Management Council members serve four-year terms).

¹⁷⁸ See Turnbull, *Innovations*, *supra* note 168 (noting that Social Council members serve three-year terms).

¹⁷⁹ See *infra* fig. 11 app. at 166-67.

¹⁸⁰ See *infra* fig. 9 app. at 164.

¹⁸¹ See *infra* fig. 8 app. at 163; see also ARTHUR KOESTLER, *THE GHOST IN THE MACHINE* 208-09 (1967).

¹⁸² J. Mathews, *Holonic Organisational Architectures*, 15 HUM. SYS. MGMT. 27-54 (1996) [hereinafter *Holonic*].

¹⁸³ See Turnbull, *Innovations*, *supra* note 168; see also *infra* fig. 7 app. at 162.

¹⁸⁴ See J.C. SMUTS, *HOLISM AND EVOLUTION* 160-61 (1926).

¹⁸⁵ See generally Herbert A. Simon, *The Architecture of Complexity*, 106 PROC. AM. PHIL. SOC'Y 467 (1962).

cooperative, many scholars and business people believed it would be extremely difficult to manage and would result in competitive disadvantages. Empirical evidence¹⁸⁶ and cybernetic analysis,¹⁸⁷ however, show that this is not the case.

Business executives are also concerned that the Mondragón cooperative's multiple centers of control would result in managers attending endless meetings. This assumption, however, is based upon their experiences in a command and control hierarchy that makes managers responsible and accountable for all subordinate activities. One may posit that managers across the spectrum of corporate forms establish joint ventures, alliances, and other forms of network relationships so as to focus on core competencies without distractions from activities carried out by subordinate entities. Similar advantages of specialization arise within the construct of a compound board.¹⁸⁸ As such, endless meetings do not occur because managers are not responsible for the activities of all subordinates.

The sharing of power in a Mondragón firm also introduces the sharing of responsibility and accountability. This, in turn, introduces self-management at all levels and reduces the work load at higher levels, much like the way multidivisional-form firms provide advantages over unitary-form firms.¹⁸⁹ For example, the evaluation and remuneration of workers is not the responsibility of line managers—this is self-managed by work groups and the Social Council.¹⁹⁰

Self-regulation of the MCC system is woven into its constituent firms. Ashby stated:

[T]he provision of a small regulator at the first stage may lead to the final establishment of a much bigger regulator (i.e. one of larger capacity) so that the process shows amplification.

This is the sense in which "amplifying" regulation is to be understood. The law of Requisite Variety, like the law of Conservation of Energy, absolutely prohibits any direct and

¹⁸⁶ See discussion *infra* Part IV.

¹⁸⁷ See Turnbull, *Innovations*, *supra* note 168; see also ASHBY, *CYBERNETICS*, *supra* note 15, at 4–6 (discussing the uses of cybernetics and complex systems); Heylighen, *supra* note 1.

¹⁸⁸ See *infra* fig. 9 app. at 164; INTERNATIONAL CORPORATE GOVERNANCE: TEXT, READINGS AND CASES, *supra* note 164, at 245, 287.

¹⁸⁹ See WILLIAMSON, *CAPITALISM*, *supra* note 50, at 281–83; see also THOMAS & LOGAN, *supra* note 171, at 66–68 (discussing various aspects of labor and work load).

¹⁹⁰ See Turnbull, *Innovations*, *supra* note 168, at 167–80.

simple magnification but it does not prohibit supplementation.¹⁹¹

This observation is diametrically opposed to the way in which governments seek to regulate firms, organizations, and activities in society generally. One of the reasons for the failure of "corporate internal control mechanisms"¹⁹² is excessive regulation.¹⁹³ To counter these problems, the "SEC has sought to strengthen 'broadbased participation in corporate governance.'"¹⁹⁴ This is consistent with the recommendations of other scholars who agree there is a need to involve customers, employees, and suppliers in the governance of large U.S. corporations.¹⁹⁵ Figures 11 and 12 provide examples of customers, employees, and suppliers participating in the control of firms in the Mondragón and Japanese Keiretsu systems.¹⁹⁶

E. Simplifying the Role of Directors

The involvement of a greater number of individuals in the processes of decision-making and control reduces the work load on individuals. The degree to which this is achieved in Mondragón is illustrated at the bottom of Figure 9.¹⁹⁷ This indicates that the total number of members in a Mondragón compound board could be around forty, compared with around ten sitting on a unitary

¹⁹¹ ASHBY, CYBERNETICS, *supra* note 15, at 268.

¹⁹² Michael C. Jensen, *The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems*, 48 J. FIN. 831, 833 (1993).

¹⁹³ See Amar Bhidé, *Efficient Markets, Deficient Governance*, HARV. BUS. REV., Nov.-Dec. 1994, at 129 (noting that the "system nurtures market liquidity at the expense of good governance" and that such system "foster[s] antagonistic, arm's-length relationships between shareholders and managers.").

¹⁹⁴ *Id.* at 137-38 (quoting former SEC chairman Richard Breeden).

¹⁹⁵ See, e.g., MARGARET M. BLAIR, OWNERSHIP AND CONTROL: RETHINKING CORPORATE GOVERNANCE FOR THE TWENTY-FIRST CENTURY 322 (1995) (referring to the interests of critical stakeholders); MITSUHIRO FUKAO, FINANCIAL INTEGRATION, CORPORATE GOVERNANCE, AND THE PERFORMANCE OF MULTINATIONAL COMPANIES 74, 77-78 (1995) (discussing harmonization of various business rules as part of a solution); M.E. Porter, *Capital Choices: Changing the Way America Invests in Industry*, Research Report Presented to the Council on Competitiveness and the Harvard Business School (1997) (on file with author); Shann Turnbull, *Corporate Governance*, HARV. BUS. REV., May-June 1995, at 169 (considering "most directors com[ing] from outside the company" to be "a defect in the U.S. system of corporate governance") (internal quotations omitted).

¹⁹⁶ See *infra* tbls.11, 12 app. at A-11, A-12. It is important to note that independent directors are not present in Mondragón firms, and few are found in the Japanese Keiretsu.

¹⁹⁷ See *infra* fig. 9 app. at 164.

Anglo board.¹⁹⁸ This not only allows greater participation in decision-making, but also specialization in the knowledge and processes of decision-making. It is by this means that ordinary people can achieve extraordinary results.¹⁹⁹ In addition:

Various indicators have been used to explore the economic efficiency of the Mondrag[ó]n group of cooperatives. During more than two decades[,] a considerable number of cooperative factories have functioned at a level equal or superior in efficiency to that of capitalist enterprises. The compatibility question in this case has been solved without doubt. Efficiency in terms of the use made of scarce resources has been higher in the cooperatives; their growth record of sales, exports[,] and employment, under both favorable and adverse economic conditions, has been superior to that of capitalist enterprises.²⁰⁰

The international competitiveness of both Mondragón and Japanese firms does not rely on independent directors that are promoted by the U.S. Council of Institutional Investors,²⁰¹ the Cadbury Committee,²⁰² and the Australian Investment Managers Association.²⁰³ Indeed, the Mondragón and Japanese firms provide evidence of the value of involving related parties with inside expert knowledge and authority with a long-term interest and commitment to a firm.²⁰⁴ It is the existence of a compound board that allows the related party interests to be used constructively.²⁰⁵

A commercial enterprise cannot exist without customers, employees, and suppliers. Such groups, because of their critical role in the very existence of a firm, have been described as strategic stakeholders.²⁰⁶ When strategic stakeholders have

¹⁹⁸ See *id.*; INTERNATIONAL CORPORATE GOVERNANCE: TEXT, READINGS AND CASES, *supra* note 164, at 245, 287.

¹⁹⁹ See THOMAS & LOGAN, *supra* note 171, at 109. (noting that the "cooperatives are more efficient than many private enterprises," and that while there have been occasional fluctuations, on the whole, "there can be no doubt that the cooperatives have been more profitable than capitalist enterprises").

²⁰⁰ *Id.* at 126-27.

²⁰¹ See Council of Institutional Investors, *Explanatory Notes* (visited Nov. 12, 1999) <<http://www.ciicentral.com/ciicentral/notes.htm>> (defining an "independent director" as "a person whose directorship constitutes his or her only connection to the corporation").

²⁰² See *The Report of the Cadbury Committee on the Financial Aspects of Corporate Governance: The Code of Best Practice*, *supra* note 164, at 576.

²⁰³ See AUSTRALIAN INVESTMENT MANAGERS' ASSOCIATION, *CORPORATE GOVERNANCE: AN INTERNATIONAL REVIEW* (1995).

²⁰⁴ See Turnbull, *Innovations*, *supra* note 168, at 167-80.

²⁰⁵ See generally THOMAS & LOGAN, *supra* note 171.

²⁰⁶ See Shann Turnbull, *Stakeholder Cooperation*, 29 J. COOPERATIVE STUD. 18,

informed and expert information, they can provide management with a strong opposition perspective.²⁰⁷ Stakeholders can introduce the prospect of "insurgency" and "contestability" to management in order to establish competition for control through the boardroom rather than through the much more expensive, slower, and problematic competition for control that can occur through the stock market.²⁰⁸ This raises a fundamental question of whether the most competitive form of corporate governance requires a company to be publicly-traded. It may well turn out, however, that privately held entities provide the most efficacious form of enterprise. In fact, the two-tiered compound boards created by privately-held leveraged buy out associations and privately-owned Mondragón firms represent proven models of corporate governance structure with outstanding records.²⁰⁹

The point has been made that, "[i]nformation, particularly proprietary and technically complex information, could flow better from inside the company to a holder of a nonsaleable, illiquid block of stock than to scattered traders on the stock market."²¹⁰ Thus, corporate governance reform may lead unlisted firms, in either the private or public sector, to become more competitive than publicly-traded corporations. This suggests that when government-owned enterprises are slated to be privatized, corporate governance reform of their boards should be carried out beforehand.²¹¹ There

18-52 (1997). Full text at <http://papers.ssrn.com/sol3/paper.taf?ABSTRACT_ID=26238>; Shann Turnbull, *Stakeholder Governance: A Cybernetic and Property Rights Analysis*, CORP. GOVERNANCE: AN INT'L REV., Jan. 1997, at 11-23. Full text at <<http://cog.kent.edu/lib/turnbull6/turnbull6.html>>.

²⁰⁷ See John Pound, *Creating Relationship Institutional Investors and Corporations: A Proposal to Restore Balance in the American Corporate Governance Process*, Address Before the Columbia University Law School's Center for Law and Economic Studies at the Conference on Relationship Investing: Possibilities, Patterns and Problems (May 6-7, 1993) [hereinafter Pound, Address] (on file with author).

²⁰⁸ *Id.*

²⁰⁹ See Jensen, *supra* note 191, at 869. For an analysis of the comparative advantages of networks with hierarchies, see M. Van Alstyne, *The State of Network Organization: A Survey in Three Frameworks*, 7 J. ORG. COMPUTING 3 (1997) and Joel M. Podolny & Karen L. Page, *Network Forms of Organization* (1998) (visited Feb. 15, 2000) <<http://papers.ssrn.com>> (working paper, Stanford University, Graduate School of Business).

²¹⁰ Mark Roe, *Comparative Corporate Governance*, in THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 339, 340 (Peter Newman ed., 1998).

²¹¹ See SHANN TURNBULL & J. GUTHRIE, PUBLIC INTEREST WHISTLE-BLOWERS 909-1003 (1994) (discussing material originally presented as oral testimony before the Australian Senate Select Committee on Public Sector Whistle Blowing, March 7, 1994) [hereinafter PUBLIC INTEREST]; see also Turnbull, *Audit Committees*, *supra* note 95, at

are also theoretical grounds to support the possibility that privately-held firms could be made superior to publicly-traded firms. It has been established that firms exist because the market fails to minimize the costs of governing transactions.²¹² The advantage of using markets rather than organizations to govern transactions is reduced, however, as the structure of organizations are improved to increase their economy, efficiency, and effectiveness.²¹³ It has been suggested "that markets exists because organizations have failed to utilize holonic structures," i.e., to utilize the most robust and economic method of communicating complex information in the simple ways found in Mondragón, and even in DNA and throughout the universe.²¹⁴

IV. CORPORATE CHARTERS WITH COMPETITIVE ADVANTAGES

After a fifteen year study of boards, certain scholars have concluded that "[a]t this point in history, existing mechanisms for governing corporations are no longer adequate. The scale, complexity, importance, and risks of corporate activity have overrun our institutions."²¹⁵ As such, "[t]he need for rethinking the system design parameters of modern corporations is apparent," more today than ever before.²¹⁶ Further, it has been argued that there is a need for a "shareholder panel"²¹⁷ to supervise directors in a manner consistent with the role of the "corporate senate" advocated by this author and other scholars.²¹⁸

In discussing the prevalence of shareholder panels and committees, it has been noted that, "[c]urrently, there is a resurgence of this activity," and that such committees "can act like

78-79; Shann Turnbull, *Best Practice in the Governance of GBEs*, in THE AUSTRALIAN PUBLIC SECTOR: PATHWAYS TO CHANGE IN THE 1990S, 99-109 (J. Guthrie ed., 1995) [hereinafter PATHWAYS].

²¹² See Coase, *supra* note 26, at 21.

²¹³ See Turnbull, *Self-Regulation*, *supra* note 8.

²¹⁴ See Turnbull, *Corporate Governance*, *supra* note 3, at 180-205.

²¹⁵ DEMB & NEUBAUER, *supra* note 9, at 1.

²¹⁶ See The corporate concept: Redesigning a successful system, HUMAN SYSTEMS MANAGEMENT 9, 65-76, 1990.

²¹⁷ D.J. Hatherly, *The Case for the Shareholder Panel in the U.K.*, EUR. ACCT. REV., 4:3, 1994, at 535-53.

²¹⁸ Turnbull, *Vacant*, *supra* note 95 at 3; see also ROBERT A.G. MONKS & NELL MINOW, WATCHING THE WATCHERS: CORPORATE GOVERNANCE FOR THE 21ST CENTURY 317 (1996); N.E. RENTON, COMPANY DIRECTORS: MASTERS OR SERVANTS (1994); ROBERT I. TRICKER, POCKET DIRECTOR (2d ed. 1998); Turnbull, *Audit Committees*, *supra* note 95; Turnbull, *Diploma Course*, *supra* note 5; Turnbull, *Flaws and Remedies*, *supra* note 95, at 227-52.

a shadow cabinet in a parliamentary system, offering shareholders independent analysis and an alternative agenda."²¹⁹ The win-win results associated with creating loyal opposition to management have been well documented.²²⁰ Furthermore, it has been stated that "the non-executive board of directors is, by its design, an ineffective control device" and that "the whole rationale for having a board becomes suspect."²²¹ In addition, "one of Canada's best-known business leaders suggested . . . that boards of directors should be abolished and replaced by a formal committee of advisers."²²²

From the issues considered herein, it must be concluded that adherence to unitary boards by federal and state governments, regulators, stock exchanges, institutional investors, and professional associations is perpetuating a corrupt, inefficient, and non-competitive system of corporate governance. It is time to use common sense and blow the whistle on what seems to be a conspiracy of denial regarding the fundamental weakness of unitary boards and the current mindless, expensive, and counter-productive "band-aid" processes and rituals that are used to obscure its inherent problems.

Although changing the corporate law will not likely be required to introduce reform,²²³ this view is not without dissenters. Consider that the Revised Model Business Corporations Act of the United States and "state corporation statutes do not contemplate two-board systems"—thus, reform would require changes in state corporation law.²²⁴ Australian federal and state laws likewise do not contemplate dual boards, but this does not deny their creation.²²⁵

²¹⁹ John Pound, *Beyond Takeovers: Politics Comes to Corporate Control*, HARV. BUS. REV., Mar.-Apr. 1992, at 83, 91 [hereinafter Pound, *Takeovers*].

²²⁰ See BETH GIVENS, *CITIZENS' UTILITY BOARDS: BECAUSE UTILITIES BEAR WATCHING* (1991) (describing the operation of such boards in the United States) [hereinafter *UTILITIES*]; see also Dallas, *supra* note 93, at 97 (advocating the need for both a "dual board" and a "board ombudsperson").

²²¹ L. Donaldson & J.H. Davis, *Boards and Company Performance-Research Challenges the Conventional Wisdom*, 2 CORP. GOVERNANCE: AN INT'L REV. 149, 151-60 (1994).

²²² J. Brewer, Editorial, CORP. GOVERNANCE Q., Mar. 1996, at 1. The Central Bank of New Zealand is governed in this manner.

²²³ See Lipton et al., *supra* note 80, at 1163.

²²⁴ Dallas, *supra* note 93, at 130.

²²⁵ For an example of a dual board that the author established see *infra* fig. 9 app. at 164.

In any event, governments could, and should, use privatization²²⁶ and corporatization of government departments²²⁷ to provide role models of compound boards. These situations could be used to demonstrate to the private sector the processes necessary to provide directors with the will, power, and knowledge to add value for shareholders and protect shareholders and stakeholders from mismanagement and/or appropriation of value.²²⁸ In this way, corporations would become more competitive while reducing the role and cost of government monitoring and regulation.²²⁹

Self-regulation provides competitive advantages while privatizing the cost of government regulation.²³⁰ The existing system can corrupt management and directors, and also impede corporate performance and competitiveness.²³¹ Corruption is an inherent feature of unitary boards because it provides directors with excessive powers in many areas and absolute power in managing their own conflicts of self-interest.²³² As power corrupts and absolute power corrupts absolutely, it is no wonder that many companies either indulge CEOs with excessive compensation, and/or either underperform or fail from mismanagement or corruption.²³³ The solution is simple—introduce a division of power to create checks and balances.²³⁴ Only in this way can management and directors systematically obtain the knowledge, will, power, and capability to excel.²³⁵

To provide directors with the knowledge to act, directors need a system for obtaining inside expert information from sources

²²⁶ See Turnbull, *Flaws and Remedies*, *supra* note 95; Turnbull, *Competitiveness*, *supra* note 16, at 80–86.

²²⁷ See PATHWAYS, *supra* note 211.

²²⁸ See generally Turnbull, *Competitiveness*, *supra* note 16.

²²⁹ See *id.* at 82 (discussing how establishment of independent supervisory boards could both “allow simpler and more effective corporate laws and . . . reduce the cost of both external and internal governance to enhance competitiveness”).

²³⁰ See generally Turnbull, *Self-Regulation*, *supra* note 8.

²³¹ See Turnbull, *Competitiveness*, *supra* note 16, at 82.

²³² See generally Turnbull, *Self-Regulation*, *supra* note 8.

²³³ See *id.*

²³⁴ See Cunningham, *supra* note 3, at 1173, 1185; Carol Goforth, *Proxy Reform as a Means of Increasing Shareholder Participation in Corporate Governance: Too Little, But Not Too Late*, 43 AM. U. L. REV. 379, 416–18 (1994) (reporting the high compensation of executives and the SEC’s revised disclosure requirements for reporting executive pay).

²³⁵ See Turnbull, *Competitiveness*, *supra* note 16; see also *supra* note 233.

other than management.²³⁶ For directors to obtain the will to act, they need to be appointed on a basis that secures their board position independently of management or even a controlling shareholder.²³⁷ To provide directors with the power to act, an independently appointed watchdog board with veto power is required.²³⁸ To provide directors with the capability to act, their roles, duties, and responsibilities need to be simplified. Only with a compound board can all these objectives be achieved on a systemic basis.²³⁹

The centralization of corporate power in a single board is the biggest governance problem for both minority shareholders and other stakeholders, especially when the firm has excessive market power with suppliers and/or customers.²⁴⁰ The next biggest problem is the view that a majority of directors should be independent.²⁴¹ It is in the self-interest of management, and those wanting prestigious sinecures, to promote the idea that a majority of directors should be from outside of the company so as to be "independent." This approach protects management in two ways: (i) it nearly always insures that the outside directors have little or no corporate or industry-specific knowledge to challenge management; and (ii) it makes directors captive to management for information and consequently means that they lose their independence.²⁴² In the end, so-called independent directors are incapable of providing meaningful oversight.

It has been said that "[e]mpirical evidence corroborates the frequent weaknesses of the board mechanism absent a potential threat of pressure from shareholders, despite the many attempts by the SEC, the New York Stock Exchange, and other organizations to enforce adequate board conduct."²⁴³ In addition, the suggestion that "boards should be vigorous and that shareholders should therefore remain passive is similar to the

²³⁶ See Turnbull, *Corporate Governance*, *supra* note 3.

²³⁷ See *id.*

²³⁸ See *id.*

²³⁹ See *id.*

²⁴⁰ See generally Turnbull, *Competitiveness*, *supra* note 16 (discussing the inherent problems with unitary boards).

²⁴¹ See G.P. Stapledon & Jeffrey Lawrence, *Board Composition, Structure and Independence in Australia's Largest Listed Companies*, 21 MELB. U. L. REV. 150 (1997) (discussing corporate governance as it relates to Australian boards of directors).

²⁴² See *id.*

²⁴³ Pound, *supra* note 134, at 1062.

suggestion that democracy could work well without elections.”²⁴⁴ Thus, the appointment of “independent” directors cannot and should not be relied upon to protect investors.²⁴⁵

A. *Providing Directors with the Knowledge to Act—The Stakeholder Council*

Other than advising management, perhaps the most important function served by directors is the hiring and firing of management.²⁴⁶ As courts and others are now beginning to recognize, directors cannot carry out their fiduciary duty to the shareholders with the requisite vigilance and due diligence when limited to the information provided by management.²⁴⁷ Directors also cannot reliably obtain expert information, independent of management, via occasional visits to operating facilities and meetings with customers.²⁴⁸ Such visits and meetings may not be conducive to obtaining unbiased information because many of the people involved in this process may be either obligated, or loyal to management.²⁴⁹ The need for corporate takeovers to improve efficiency, however, would be avoided if directors could obtain the same timely and comprehensive information on inefficiencies that may be made available to an acquirer.²⁵⁰

Shareholders have a right to expect a director to put in place processes to systematically collect and review informed expert evaluations of management, independent of management—otherwise, why have a board? It would be simpler and cheaper, after all, for management to merely appoint an advisory committee or consultants. If directors are to lead and motivate management, however, they must be able to authoritatively contest the views of management and expose the tenure of management to market forces. It is far more efficient and effective for corporate control to be exercised through the boardroom than through the stock market.

²⁴⁴ *Id.* at 1063.

²⁴⁵ Despite the ineffectiveness of independent directors, the Reserve Bank of Australia requires the appointment of such directors to the boards of licensed banks as part of their prudential requirements.

²⁴⁶ See generally Stapledon & Lawrence, *supra* note 241.

²⁴⁷ See *id.*

²⁴⁸ See Turnbull, *Corporate Governance*, *supra* note 3, at 180–205.

²⁴⁹ See *id.*

²⁵⁰ See *id.*; Pound, *supra* note 134, at 1017–35.

John Pound has described at length the efficiency of creating competition for corporate control through the boardroom rather than through the market.²⁵¹ Pound maintained that a "political model" of corporate governance "represents a more sustained and organic approach to governance than the highly disruptive and episodic" one driven by takeovers.²⁵² Pound further stated:

[T]he ongoing, incremental monitoring generated within the political model of corporate governance avoids a series of costs associated with takeovers. It obviates both the need to pay huge fees to intermediaries for brokering the sale of assets and the need to arrange financing or impose a new financial structure on the corporation in order to remedy problems that are in reality based on operating policies. Perhaps the most significant savings associated with the political model is that it avoids the costly cycle in which new owners buy the corporation only to make serious mistakes of their own and be forced to sell the corporation to a new set of owners.²⁵³

This argument suggests that it is in the national interest to introduce what Pound describes as the threat of "insurgency" to management.²⁵⁴ In order for independent directors to obtain expert information from sources other than from management to monitor and even challenge management, they need to establish advisory councils elected by strategic stakeholders such as customers, suppliers, and employees.²⁵⁵ In Japan, a Keiretsu council carries out this function.²⁵⁶ In Mondragón, feedback information and control from strategic stakeholders are achieved through the Relationship Association, or Group,²⁵⁷ which is

²⁵¹ See Pound, *Takeovers*, *supra* note 219, at 83; Pound, *Address*, *supra* note 206; Pound, *supra* note 134, at 1003-71.

²⁵² Pound, *supra* note 134, at 1032.

²⁵³ *Id.* at 1031.

²⁵⁴ See *supra* notes 207-08 and accompanying text.

²⁵⁵ See Turnbull, *Corporate Governance*, *supra* note 3, at 180-205. "In 1963, the Stanford Research Institute defined . . . stakeholders [as] 'those groups without whose support the organisation would cease to exist.' This class of stakeholders [is] described as . . . 'strategic stakeholders' as strategic issues concern the ability of a firm to exist." *Id.* (quoting same).

²⁵⁶ See *infra* fig. 12 app. at 168. See generally Ronald J. Gilson & Mark J. Roe, *Understanding the Japanese Keiretsu: Overlaps Between Corporate Governance and Industrial Organization*, 102 YALE L.J. 871 (1993) (discussing corporate governance and monitoring management performance and comparing independent directors with the Japanese keiretsu).

²⁵⁷ See *infra* fig. 12 app. at 168; see also WILLIAM FOOTE WHYTE & KATHLEEN KING WHYTE, *MAKING MONDRAGÓN* 205-07 (1988).

constituted somewhat like a Keiretsu. In some hybrid cooperatives, stakeholder participation is built into the composition of the supervisory board.²⁵⁸

A Keiretsu council may meet monthly or even weekly.²⁵⁹ Its members are the chief executives of supplier and customer companies as well as representatives of the lead banker and trading house.²⁶⁰ These strategic stakeholders have access to inside expert information independent of management.²⁶¹ In this way, a Keiretsu council can access information that may not even be available to management in order to provide management with loyal opposition in the manner of a "shadow cabinet."²⁶² Consequently, the council is able to further its goal of improving corporate performance.

Corporations in Anglo countries lack the processes described above and, as such, also lack the corresponding competitive advantages.²⁶³ No change in corporate law is required for a company to establish advisory stakeholder councils elected by customers, suppliers, and employees.²⁶⁴ Stakeholder councils are required so that independent directors may add value by carrying out their intended performance role. Their introduction in the private sector could be left to market forces, but their establishment in public sector firms needs to become a matter of policy. In the public sector arena, stakeholder councils provide a political way of improving both competitiveness and self-regulation without the need for privatization. Privatization of public monopolies without stakeholder involvement could be counter-

²⁵⁸ See Turnbull, *Innovations*, *supra* note 168, at 172-73, 178 (describing the makeup of hybrid cooperatives, including the existence of operational stakeholders as part of the supervisory board); Turnbull, *Self-Regulation*, *supra* note 8; *see also infra* fig. 4 app. at 159.

²⁵⁹ See Turnbull, *Self-Regulation*, *supra* note 8 ("The CEO's of each strategic stakeholder meet monthly, and sometimes even weekly, as a Keiretsu Council."). *See generally* NICHOLAS DIMSDALE AND MARTHA PREVEZER, *CAPITAL MARKETS AND CORPORATE GOVERNANCE* (1994) (stating that keiretsu groups are organizations that engage in monthly meetings of top management).

²⁶⁰ *See supra* note 256 and accompanying text. *See generally* Gilson & Roe, *supra* note 256 (discussing the makeup of the keiretsu).

²⁶¹ See Turnbull, *Self-Regulation*, *supra* note 8 ("One advantage of the keiretsu architecture is that the controlling shareholders obtain expert inside information, independent of management, on the performance of management.").

²⁶² Pound, *Takeovers*, *supra* note 219, at 91.

²⁶³ *See infra* tbls.11, 12 app. at A-11, A-12.

²⁶⁴ *See infra* app. A at 153; fig. 16 app. at 172-73; *see also supra* notes 223-25 and accompanying text.

productive. Government regulation, therefore, must be introduced to replace regulation by the market in the public arena.

B. Providing Directors With the Will to Act—Cumulative Voting

The lack of will to act is a problem in the governance of corporations in the United States.²⁶⁵ This problem can be reduced through the use of cumulative voting and the establishment of independent watchdog boards to nominate directors. Cumulative voting allows the composition of the board to reflect the composition of the shareholders and minority interests.²⁶⁶ The re-election of directors would depend upon their disclosing to the watchdog board any self-dealing by their colleagues that could affect the interest of shareholders. The existence of a watchdog board increases the will to act because a director can now blow the whistle privately without the odium of making the matter public. A watchdog board in the form of a corporate senate, discussed below, is able to represent minority interests because it is elected on the basis of one vote per shareholder instead of one vote per share.²⁶⁷ This would not appear to be the case with conflict boards, which seek to overcome conflicts of loyalty by having an ombudsperson appointed.²⁶⁸

With cumulative voting, all directors are elected each year and each share obtains as many votes as there are board vacancies.²⁶⁹ Shareholders can distribute the votes of each share over a number

²⁶⁵ See Edward V. Regan, *The Will to Act*, Report of the Sub-Council on Corporate Governance and Financial Markets to the Competitiveness Policy Council (1993).

²⁶⁶ See *infra* fig. 13 app. at 169; Sanjai Bhagat & James A. Brickley, *Cumulative Voting: The Value of Minority Shareholder Voting Rights*, 27 J.L. & ECON. 339, 339–40 (1984) [hereinafter *Voting Rights*] (stating that empirical study has revealed that cumulative voting is important in proxy fights that tend to benefit shareholders); Gordon, *supra* note 18, at 127 (revealing that cumulative voting is a vehicle for proportional board representation of significant shareholder minorities); Bernard Black and Reineier Kraakman, *A Self-Enforcing Model of Corporate Law*, 109 HARV. L. REV. 1911, 1912, 1916 (1966) (stating that cumulative voting allows for the election of outside directors who represent shareholder interests).

²⁶⁷ See George Freeman & Patrick Green, *Let Shareholders Fix Directors' Pay: Justice in Self-Awarded Salaries*, THE INDEP. (London), Feb. 9, 1995, at 18 ("Senates are elected with one vote per shareholder"); Turnbull, *Competitiveness*, *supra* note 16, at 80, 83 (discussing the fact that cumulative voting for senators allows minority shareholders to be represented on the board and to act without fear of not being re-elected).

²⁶⁸ See Dallas, *supra* note 93, at 133 (stating that the role of the ombudsperson is to provide an outlet for whistle blowers).

²⁶⁹ See *Voting Rights*, *supra* note 266, at 339.

of directors or accumulate them for one or more directors.²⁷⁰ In this way, a shareholder with ten percent of the shares can always appoint at least one director on a board of ten people. This system of proportional voting allows minority interests to elect directors even if the company is controlled by a parent entity.²⁷¹

When a company trades with a controlling entity, it is essential that such transactions are subject to the scrutiny of individuals whose board positions are not subject to the power of those who have a conflict of self-interest. The so-called independent directors, however, hold their board positions at the grace and favor of the control group.²⁷² It is unrealistic, therefore, to expect independent directors to bite the hand that feeds them in an effort to protect investors.²⁷³ It may even be unrealistic for an independent director to try to protect investors if support is not available from a majority of board members. Often, a director does not have the power to act, even if he or she has the knowledge to do so.²⁷⁴

C. *Providing Directors With the Power to Act—The Corporate Senate*

Directors of a unitary board possess a number of powers that create conflicts of self-interest and which are not needed to add value for shareholders.²⁷⁵ This situation is unacceptable for shareholders and should also be unacceptable for any conscientious director. The situation should likewise be unacceptable to any director, conscientious or otherwise, who wants to minimize personal exposure to litigation. It certainly should be unacceptable to regulators, stock exchanges, governments, auditors, investors, accountants, and lawyers.

When directors are exposed to conflicts of self-interest, they are placed in a similar position to that of an accused in a court of

²⁷⁰ See *id.*

²⁷¹ See *id.*

²⁷² See Dallas, *supra* note 93, at 114–15 (discussing a recommendation of criterion for membership in the class of independent directors that would decrease conflicts and increase objectivity).

²⁷³ See *id.*

²⁷⁴ See Turnbull, *Self-Regulation*, *supra* note 8. “Even if independent directors on a unitary board have the knowledge to act, they may not have the will and power to act because they are loyal or obligated to management and/or hold their position at the grace and favour of management. . . .” *Id.*

²⁷⁵ See Turnbull, *Competitiveness*, *supra* note 16, at 82; see also *infra* fig. 5 app. at 160; *supra* notes 92–93 and accompanying text.

law. Courts maintain the highest ethical standards through the strict separation of relationships between the accused, judge, jury, witnesses, and lawmakers.²⁷⁶ There are corresponding relationships between company directors, auditors, investors, independent experts, and financial reporters.²⁷⁷ The existing Anglo corporate relationships would be considered unethical and unacceptable if considered in light of the ethical standards required in a court of law.

To provide directors with the power to act they need the assistance of a watchdog committee to veto actions involving conflicts that are in the directors' self-interests but that are not in the best interests of the company or its investors. If a watchdog committee, or corporate senate, is to protect minority investors against a control group, or even a parent company, it needs to be elected on the basis of one vote per investor.²⁷⁸ While a senate veto could be overturned by shareholders voting on the basis of one share per vote, the need to raise such issues at a general meeting would seemingly have the effect of avoiding the most blatant frauds on the minority. The above process could also be used to expose to market forces the excessive salaries and equity benefits of management.

The most contentious and unavoidable conflicts of self-interest for directors on a unitary board are their own remuneration and reappointment, and the accounting procedures used for calculating profits.²⁷⁹ Directors cannot contract out of conflicts of self-interest by delegating these responsibilities to a board subcommittee, as any such subcommittee must ultimately report to the board. Since the shareholders, rather than the directors, appoint a senate, they can use it to manage all board conflicts of self-interest. This allows the senate to protect the reputation of directors and to simplify their roles, duties, and personal contingent liabilities.

Conflicts of self-interest of directors can reduce shareholder value in several ways, including direct appropriation, related party transactions, and/or reduced competitiveness. A senate, however, can safeguard against such losses while simultaneously reducing

²⁷⁶ See *infra* fig. 14 app. at 170.

²⁷⁷ See *id.*

²⁷⁸ See *infra* fig. 13 app. at 169; see also *supra* note 267 and accompanying text.

²⁷⁹ See Turnbull, *Structure and Ethics*, *supra* note 19 (listing examples of powers of directors on unitary boards that cause conflicts of interest); Turnbull, *Self-Regulation*, *supra* note 8.

the role and responsibilities of directors without reducing their power.²⁸⁰ The end result is that senates add value for shareholders.

D. *The Ability to Act Constructively*

An additional advantage of a division of power is that the role, responsibilities, and workload of directors are both reduced and simplified.²⁸¹ The division of corporate powers into a compound board made up of directors, a watchdog committee or senate, and advisory councils of committed experts introduces “distributed intelligence” and information-processing to corporate governance.²⁸² By this means, compound boards, such as those found in Mondragón, reduce information overload in order to provide ordinary people with the ability to achieve extraordinary results.²⁸³

With a compound board, the roles and responsibilities of directors are “decomposed” and distributed to five different centers, as with the stakeholder-controlled firms of Mondragón.²⁸⁴ This division of decision-making labor introduces a reduction in the workload, knowledge, and responsibilities of any one individual.²⁸⁵ Furthermore, it allows many more people to participate in controlling the firm, thereby enhancing motivation and commitment.²⁸⁶

²⁸⁰ See Turnbull, *Vacant*, *supra* note 95, at 2–6; Turnbull, *Structure and Ethics*, *supra* note 19, at 1–4 (discussing limited duties of corporate senates and mentioning a correlating benefit); Turnbull, *Competitiveness*, *supra* note 16, at 80–86 (discussing generally the benefits of corporate senates over unitary boards).

²⁸¹ See Turnbull, *Structure and Ethics*, *supra* note 19 (“The division of corporate power into two boards can also be used to substantially reduce the complexity, duties, skill and obligations of company directors.”). Full text at <<http://www.worldbank.org/de/vforum/files/struc-and-eth.pdf>>.

²⁸² See Turnbull, *Stakeholder Governance*, *supra* note 140 (discussing multiple board organization and how this system solves information problems that exist within the unitary board structure).

²⁸³ See *id.* (discussing how controlling the availability of information to individuals will increase efficiency by analogy to information-processing in computer chips).

²⁸⁴ See *infra* fig. 9 app. at 164.

²⁸⁵ See *id.*

²⁸⁶ See generally Turnbull, *Structure and Ethics*, *supra* note 19.

E. Other Advantages of Compound Boards

1. Improved Competitiveness

The division of power among stakeholders introduces checks and balances to minimize and control conflicts, corruption, and the corrosion of competitiveness.²⁸⁷ They increase the variety in both the information and control systems of firms to improve competitiveness and self-regulation.²⁸⁸ While corporate senates introduce a division of power to minimize corruption, stakeholder councils provide information to improve performance.²⁸⁹ In other words, corporate senates are required for corporate controllers to carry out their conformance roles, while stakeholder councils are required to allow directors to systematically carry out their performance duties. By controlling corruption, senates can also increase performance.²⁹⁰

2. Self-Regulation

Stakeholder councils, which share power as well as information, could be used to protect consumers, employees, and suppliers against abuse and exploitation. In this way, stakeholder councils can reduce the need for laws, regulations, and bureaucracies in order to protect customers, employees, and suppliers.²⁹¹ Stakeholder Councils can be especially useful for firms that have a monopoly or hold a dominant market position. The feedback information provided by such strategic stakeholders also provides a way to improve competitiveness.²⁹² Thus, there are strong arguments for governments to require firms to adopt corporate charters or constitutions that share power with their stakeholders,²⁹³ and then leave the firms to regulate themselves.

²⁸⁷ See *id.* One way of establishing a dual board is with a corporate senate. See *id.* "It is in the self-interest of all parties, except rogues, to support the introduction of corporate senates." *Id.*

²⁸⁸ See *id.*

²⁸⁹ See *id.*; Turnbull, *Stakeholder Governance*, *supra* note 140 (discussing how power results from its availability and strategic distribution).

²⁹⁰ See Turnbull, *Competitiveness*, *supra* note 16, at 85-86.

²⁹¹ See generally Turnbull, *Self-Regulation*, *supra* note 8 (stating that unitary boards increase the need for governmental regulation and discussing the differences that could develop from the introduction of dual boards and stakeholder councils).

²⁹² See generally UTILITIES, *supra* note 220.

²⁹³ See generally Turnbull, *Self-Regulation*, *supra* note 8 (discussing advantages of stakeholder power in corporate governance, including decentralizing information, protecting minority stakeholder interests, decreasing conflicts of interest, and

3. Changing the Role of Government

Direct intervention and “imprinting” the constitutions of social institutions can improve self-regulation and provide operating advantages.²⁹⁴ This is consistent with the idea that corporate law in emerging markets should be created anew, using the mistakes and failures of more established markets as guideposts so as to create a better scheme of corporate law.²⁹⁵

4. Improving the Extent and Quality of Democracy

The creation of one or more stakeholder associations for influential social institutions, be they in the private or public sector, provides a way to extend and deepen citizen participation and democratic processes.²⁹⁶

5. Establishing a Control Process for “Democratizing the Wealth of Nations”

The compound board illustrated in Figure 16²⁹⁷ provides a way to control the process for legitimating stakeholder participation in control with stakeholder participation in ownership.²⁹⁸ Tax incentives are required to provide the attraction for firms and investors to change their corporate charters, and to transfer their property rights to stakeholders without charge.²⁹⁹ In this way, tax incentives can be used to “amplify regulation” and “imprint” corporate charters for all types of firms *on a voluntary basis*.³⁰⁰

improving the overall performance of the entity); PATHWAYS, *supra* note 211, at 99–109; Turnbull, *Democracy*, *supra* note 4, at 321–60.

²⁹⁴ See generally Gore, *supra* note 15 (explaining the importance of incorporating science and technology into our modern methods of distributing intelligence).

²⁹⁵ See generally Black & Kraakman, *supra* note 116 (discussing an innovative approach to corporate law in emerging markets that focuses on voluntary compliance with such laws and increased communication between managers and stockholders).

²⁹⁶ See Turnbull, *Democracy*, *supra* note 4; Turnbull, *Flaws and Remedies*, *supra* note 95; UTILITIES, *supra* note 220.

²⁹⁷ See *infra* fig. 16 app. at 172–73.

²⁹⁸ See Shann Turnbull, *Re-Inventing Corporations*, 10 HUM. SYS. MGMT. 169 (1991).

²⁹⁹ See generally Turnbull, *Stakeholder Governance*, *supra* note 140, at 11–23; Turnbull, *Democracy*, *supra* note 4; Shann Turnbull, *Democratizing the Wealth of Nations*, COMPANY DIRECTORS ASSOCIATION OF AUSTRALIA (1975) [hereinafter Turnbull, *Wealth*]. Full text available at <<http://cog.kent.edu/Author/Author.htm>>; Shann Turnbull, *Time Limited Corporations*, 9 ABACUS: A J. OF BUS. AND ACCT. STUD. 28 (1973).

³⁰⁰ Turnbull, *Wealth*, *supra* note 299.

6. Distributing Monopoly Control and Profits to Those Subject to Exploitation

The transfer of ownership and control from firms and investors to others without compensation has now become accepted practice for financing infra-structure projects.³⁰¹ Examples of such transfers include the Sydney Harbor Tunnel and the Hong Kong Harbor Tunnel, and projects associated with the supply of water and electricity in Australia and the United Kingdom.³⁰² Investment institutions find the limited life returns from these Build-Own-Operate-Transfer (BOOT) projects competitive with investments in perpetual claims.³⁰³ In most cases, residual ownership reverts back to the government. There are arguments that even better returns and lower risk can be achieved from limited life investments by gradually transferring ownership and control to their strategic stakeholders.³⁰⁴ In addition, any monopoly profits would be shared with those subject to exploitation. By these means, the scope, size, and costs of laws and regulatory agencies concerned with anti-trust, anti-competition, fair trading, and monitoring trade practices could be substantially reduced.³⁰⁵

7. Assuring Auditor Independence

There have been many failures by auditors to protect investors. These failures, which are documented in the academic literature, describe the differences between their role and reality as the "audit expectation gap."³⁰⁶ In order to obtain value from auditors, they need to be controlled by a watchdog committee, independent of both directors and management.³⁰⁷ Otherwise,

³⁰¹ See Peter Montagnon, *Export Finance 2: Revival in the Project Market*, FIN. TIMES (London), June 1, 1989, at II (noting that "build-own-operate" projects, in which "private sector sponsors . . . take on the risk and the responsibility for financing projects," are beginning to generate significant business).

³⁰² See *id.* (providing examples of such projects, including the East Harbor crossing in Hong Kong, the Dartford Bridge, and the Channel tunnel); Shann Turnbull, *Should Ownership Last Forever?*, 27 J. OF SOCIO-ECON. 341 (1998) Full text at <http://papers.ssrn.com/paper.taf?abstract_id=137382> (discussing various BOOT projects).

³⁰³ See Turnbull, *supra* note 302 (noting that BOOT projects "attract private foreign investment on the basis that the ownership of the enterprise is transferred to the government after an agreed period").

³⁰⁴ See Turnbull, *Corporate Governance*, *supra* note 3, at 180-205.

³⁰⁵ See *id.*

³⁰⁶ See Turnbull, *Audit Committees*, *supra* note 95, at 78-89.

³⁰⁷ See ROBERT I. TRICKER, INTERNATIONAL CORPORATE GOVERNANCE 99, 100

when left unchecked, directors and management can, so to speak, write and mark their own examinations.³⁰⁸ Reasons why independent auditors are ineffective with respect to unitary boards include:³⁰⁹

a. the tendency for people tend to be less concerned about harming a statistical victim than a known victim. An auditor does not really know who will be harmed by misinformation. The auditor, however, does know the people in the firm who would be harmed by a negative audit;

b. the fact that the adverse consequences of a negative opinion in an audit are immediate, e.g., loss of contract or employment;

c. the long-standing relationships auditors have with the companies they audit;

d. the flexibility or ambiguity of reporting standards;

e. the fact that people can mislead themselves about the nature of trade-offs and rationalize their behavior.

It is evident that the mandating of auditors to further self-regulation is no longer effective. The objective would be better served by authorizing a watch-dog board, like a corporate senate, which could then choose to retain some type of independent investigator, or not. Accounting may not always be the most appropriate profession to provide assurance on the integrity of information provided to investors. It may be more relevant to appoint a risk assessor, engineer, property consultant, or geologist, according to the nature of the business. Stakeholder councils could also play a role in assuring the integrity of the information reported by management.

8. Assuring Disclosure Without the Need for Accounting Standards

Just as the presence of an auditor may provide false security, so can adherence to generally accepted accounting standards.³¹⁰

(1994) (discussing the idea of a "watch dog" that can provide independent checks).

³⁰⁸ See *id.* at 99.

³⁰⁹ See Max H. Bazerman et al., *The Impossibility of Auditor Independence*, 38 SLOAN MGMT. REV. 89 (1997) (discussing the psychological difficulties that auditors have in remaining impartial).

³¹⁰ See Graeme W. Dean & Frank L. Clarke, *Creative Accounting, Compliance and Financial Commonsense*, 7 AUSTL. J. OF CORP. L. 366, 367 (1997) (noting that "[e]xisting accounting standards . . . have failed to match the admirable claims of the leaders of the profession"); Walter P. Schuetze, A Mountain or a Molehill, Address Before the Twenty-First Annual National Conference of the American Institute of

Accounting standards cannot be used to provide integrity in either the reported profit or net worth of a firm. This is because both are subject to how management values the assets and allocates costs and revenues over accounting periods, as noted at the bottom of Figure 15. If judgments are to be made, then these should be done independently of the directors responsible for the performance of the business. This is another role for a watchdog board and provides an illustration of the principle of amplification of regulation. The mandating of one feature can remove the need to regulate or specify many other features in the law, regulations, listing rules, and accounting standards.

CONCLUSION

A. *Compounds Boards and Stakeholder Control*

Empirical evidence suggests that the existence of non-trivial stakeholder-owned firms, which are not professional partnerships, is dependent upon the presence of compound boards.³¹¹ This is especially remarkable in the United States and the United Kingdom, where unitary boards are the norm,³¹² and strongly suggests that worker ownership is not sustainable with a unitary board.³¹³ When a hierarchy becomes non-trivial in a worker controlled firm with a unitary board, the power differential between workers and management can lead to misuse of power

Certified Public Accountants (AICPA) (Jan. 11, 1994), in NAT'L MORTGAGE NEWS, Jan. 17, 1994, at 4 (referring to proposals by the American Institute of Certified Public Accountants as "wrong" and "incredible").

³¹¹ See generally PAUL BERNSTEIN, *WORKPLACE DEMOCRATIZATION: ITS INTERNAL DYNAMICS* (1980) (discussing an international survey of employee-owned firms with compound boards and an analysis of their successes).

³¹² See Thomas J. André, Jr., *Some Reflections on German Corporate Governance: A Glimpse at German Supervisory Boards*, 70 TUL. L. REV. 1819, 1821 (1996) (noting little movement in Germany towards the establishment of unitary boards, which are common in the United States and Britain); Jonathan Charkham, *The American Corporation and the Institutional Investor: Are There Lessons From Abroad?*, 1988 COLUM. BUS. L. REV. 765, 766 (1988) (discussing the common usage of unitary boards in U.S. and British corporate systems).

³¹³ See *infra* fig. 5 app. at 160 (supporting the view that worker-ownership is not sustainable with a unitary board because of inherent conflicts of interest).

and/or loss of trust.³¹⁴ The problem is exacerbated with the process of director and/or CEO succession.³¹⁵

If employee control is not viable with respect to unitary boards, then there is an immediate need to develop compound boards in the United States for the growing number of firms controlled by Employee Share Ownership Plans (ESOPs).³¹⁶ Tax incentives introduced in the United States since the 1970s,³¹⁷ and more recently in the United Kingdom, have led to "employees . . . becoming the largest voting block in many U.S. publicly traded corporations."³¹⁸ In fact, employee-owned firms are growing at such a rapid rate that of the "7,000 companies listed on American stock exchanges about 1,000 firms are at least 10% employee held."³¹⁹ As any one institution typically holds less than 5% of a firm, employees now represent the most significant control group in the United States.³²⁰ This trend is also occurring in other Anglo countries such as the United Kingdom and Australia.³²¹

B. *The Costs of Compound Boards*

No additional fees accrue to any of the individuals appointed to compound boards utilized by the stakeholder-controlled firms at Mondragón or any of the worker-controlled firms analyzed in an

³¹⁴ See Alan Hyde, *In Defense of Employee Ownership*, 67 CHI-KENT. L. REV. 159, 163-64 (1991) (noting that worker ownership can increase trust and be positive for firm productivity).

³¹⁵ See *id.*

³¹⁶ See Marleen A. O'Connor, *Restructuring the Corporation's Nexus of Contracts: Recognizing a Fiduciary Duty to Protect Displaced Workers*, 69 N.C. L. REV. 1189, 1220 (1991) (stating that one way to protect employees from displacement is for unions to encourage employee ownership of corporations). The "number of Employee Stock Ownership Plans (ESOPs) has escalated, and experts expect the number to continue to rise." *Id.* (footnote omitted).

³¹⁷ See generally JOSEPH RAPHAEL BLASI, *EMPLOYEE OWNERSHIP: REVOLUTION OR RIPOFF?* (1988) (discussing the positives and negatives associated with employee-ownership); see also WILLIAMSON, *CAPITALISM*, *supra* note 50, at 325 (noting that ESOPs "currently enjoy tax advantages").

³¹⁸ Turnbull, *Corporate Governance*, *supra* note 3; see also G. Tseo, *Employee Stock Ownership Firms, Popular Cooperatives, and the Forgotten Model of Mondragón*, 29 J. OF COOP. STUD. 1, 65-92 (1996).

³¹⁹ Tseo, *supra* note 318.

³²⁰ See *A Skeptical Look at Employees Share Schemes*, AUSTL. FIN. REV., Sept. 4, 1999, at 20 (noting that in the United States during 1985, "10,000 companies had granted stock to more than 10 million employees," and since then "the number of US workers who own a direct stake . . . has soared" due to "internet start-ups giving their employees stock").

³²¹ See Turnbull, *Corporate Governance*, *supra* note 3 (noting that this trend is developing in Australia).

international survey.³²² All members of these compound boards only receive their normal pay. As such, with the exception of non-executive directors, there are no additional costs. Consequently, employee-controlled compound boards can operate more economically than unitary boards.

Two types of costs of worker control have been identified in a collective choice mechanism: "First, there are the costs of inefficient decisions. Second, there are the costs of the decision-making process itself."³²³ It has been noted that "participation in governance of the firm through democratic institutions appears in fact to be its greatest liability."³²⁴ Worker control can be outstanding, as at Mondragón, when an appropriate corporate charter is in place.³²⁵ The utility of the alternative framework presented above can be empirically evaluated from its ability to provide design criteria for establishing appropriate charters.³²⁶

Non-executives could be involved with both corporate senates and stakeholder councils.³²⁷ A fee may not be needed for senators.³²⁸ Instead, lead investors would contribute their services to protect their investment. This approach is similar to the involvement undertaken by venture capitalists in the firms in which they have a financial stake.³²⁹ Likewise, U.S. organizations that utilize citizen utility boards have not had to pay the costs associated with the boards because funds are "donated" by the

³²² See generally BERNSTEIN *supra* note 311.

³²³ Henry Hansmann, *When Does Worker Ownership Work? ESOP's, Law Firms, Codetermination, and Economic Democracy*, 99 YALE L.J. 1749, 1781 (1990) (explaining that a larger number of participants in a decision making mechanism results in greater cost to make the decision).

³²⁴ *Id.* at 1816.

³²⁵ See Turnbull, *Innovations*, *supra* note 168, at 167-80 (explaining the governance of Mondragón firms and its underlying principles).

³²⁶ See *supra* notes 323-25 and accompanying text.

³²⁷ See *infra* app. A at 152 (noting that "[a]ny shareholder may nominate himself or herself for election to the senate"). But see William Lewis & David Wighton, *Tories Spoiling for Fight With Labour On Corporate Governance*, FIN. TIMES (London), Aug. 26, 1996, at 6 (discussing the Tories' attack on Labour's suggestion that companies appoint stakeholders, such as staff, as non-executive directors).

³²⁸ See *infra* app. A at 150 (stating that during the last ten years, no fees have been paid to any of the persons appointed as Senators of JAC Tractor Limited).

³²⁹ Salaries, however, are recommended by some commentators. See Ayub Mehar, *Dividend and Corporate Governance*, BUS. RECORDER, Oct. 21, 1999, at 2 (stating that salaries and benefits for corporate senators "should be correlated with the net profit of a company" and that "higher limit[s] . . . can be imposed in a manner mentioned for . . . the Venture Capitalists Ordinance for . . . funds managers").

customers at the rate of \$3 to \$10 per year.³³⁰ A borrower's association of a major Australian bank, and users of a major Australian telecommunications firm, also donated the costs of running their associations to further their interest as stakeholders.

All of the above examples involve retail customers who accept 90% or more of "free-riders" who do not participate. There is, however, evidence that even when only 10% of stakeholders donate funds, they can more than recover their costs in savings from lower prices. Moreover, the investors can also obtain higher returns through management being provoked into becoming more accountable and efficient.³³¹ The incentive for industrial stakeholders to participate in the governance of their supplier or customer is much greater. The cost of stakeholder councils is then likely to be negligible with regards to the possibility of producing a direct net savings by exposing any excessive costs of remunerating directors and the CEO.

Corporate senates would reduce the need for directors to meet as audit, remuneration, and nominating committees.³³² Attendance at such meetings is often rewarded with additional fees.³³³ The more directors are paid, the more they have to lose by becoming whistle blowers, thus risking their re-appointments. The less people are paid, the greater their incentive to protect the common interest of other stakeholders. Common sense dictates that the directors can lose the will to act if they have too much to lose.

The economy and viability of a corporate senate for a small, and even unlisted, company has been demonstrated by JAC

³³⁰ See GIVENS, *supra* note 220, at 21.

³³¹ See *id.*

³³² See Goforth, *supra* note 234, at 397, 437–38 (noting that while current law does not require the use of nominating committees, surveys of large public corporations show their widespread use as well as the use of independent audit, nominating, and compensation committees); Donald E. Pease, *Outside Directors: Their Importance to the Corporation and Protection from Liability*, 12 DEL. J. CORP. L. 25, 31 (1987) (noting that audit, compensation, and nominating committees are critical in the context of appointing outside directors); Stapledon & Lawrence, *supra* note 241, at 162 (discussing how audit, remuneration, and nomination committees have "institutionalised [sic] the role of independent directors as sovereign in situations where the interests of the executive management" conflict with the interests of shareholders).

³³³ See *Causeway Explains Renumeration Hike*, STRAITS TIMES, Aug. 1, 1992, at 47 (noting that Causeway Investment Ltd. reported a "\$19,000 director's fee for an Audit Committee member").

Tractor Limited.³³⁴ The survival of the company could not have been maintained without the senate to attract and reduce the cost of funds. Stock exchanges that mandate the establishment of audit, remuneration, and nomination committees as a listing requirement are adopting a more expensive and less effective way to protect investors.³³⁵ Senates offer superior protection, competitive advantages, and reduced costs.

C. *Building a Self-Governing Society*

The principle of amplification³³⁶ of regulation essentially means that, to create a self-governing society, self-governance needs to be built into even the smallest institutions. One of the conditions for social institutions to become self-governing is that they possess a division of power.³³⁷ A division of power similar to that found in the U.S. Constitution needs to be written into the charters of all social institutions.³³⁸ In other words, compound boards become a condition precedent for introducing self-governance into firms and other organizations, be they in the private or public sector.

Another condition for social institutions to become self-governing is that their control must be shared with those people, groups, or enterprises, known as stakeholders, who can or may be affected by its operations.³³⁹ Stakeholder governance then also becomes a condition precedent for self-governance. The building of

³³⁴ See *infra* app. A at 153 (discussing the history of JAC Tractor Limited and details of its corporate senate plan); see also Freeman & Green, *supra* note 267 (noting that the author "has successfully introduced 'Corporate Senates' to Australia).

³³⁵ See Francis T. Vincent, Jr., *Corporate Governance: Measures and Mythology*, 9 DEL. J. CORP. L. 572, 572 (1984) (speaking of the New York Stock Exchange's objection to the AIL's corporate governance recommendations with respect to disinterested directors, monitoring models, and audit committees despite the exchange having previously made similar recommendations as "guidelines").

³³⁶ See ASHBY, CYBERNETICS, *supra* note 15, at 265-67.

³³⁷ See Turnbull, *World Governance*, *supra* note 17.

³³⁸ See U.S. CONST. art. I-III (defining each branch of government and their respective powers); see also ROBERT I. TRICKER, INTERNATIONAL CORPORATE GOVERNANCE 99 (1994) (discussing the "responsibility of the board . . . [in] providing independent checks and balances").

³³⁹ See Simon Holberton, *Why They Do it Better in Japan*, FIN. TIMES (London), Jan. 24, 1991, at 20 (reviewing W. CARL KESTER, JAPANESE TAKEOVERS: THE GLOBAL CONTEST FOR CORPORATE CONTROL (1991)) (alluding to the inclusiveness of the stakeholder approach, which includes banks, employees, customers, and investors). *But cf.* Patrick Minford, *Economic View: Uncle Sam Shows How to Run a Rich Country*, DAILY TELEGRAPH (London), Jan. 18, 1999, at 26 (noting that the United States "is showing the world how a rich country should be run").

a self-governing society would lead to the creation of a "stakeholder economy."³⁴⁰ It is through the involvement of stakeholders that firms, and organizations in general, can obtain requisite variety in both information (Shannon's Law)³⁴¹ and control (Ashby's Law)³⁴² in order to obtain operating advantages and to become self-governing.³⁴³ Shared control, in turn, requires a corporate charter with *appropriate* divisions of power,³⁴⁴ which in turn reduces the information-processing load of participants.³⁴⁵ In firms, the processing of information economizes transaction costs.

The competitive advantages of *appropriate* involvement of stakeholders in the governance of firms are illustrated by the Mondragón and Japanese Keiretsu systems, and in a developing body of literature on network forms of organization.³⁴⁶ The competitive advantages of network relationships can be explained by the cybernetic framework of analysis outlined above.³⁴⁷ The establishment of stakeholder associations composed of employees, customers, suppliers, and members of the host communities can also be used by firms to add value, minimize mistakes, and reduce

³⁴⁰ Blair *Raises the Stake*, *ECONOMIST*, Jan. 13–19, 1996, at 53, 53 (discussing the implications of Tony Blair's desire to transform Britain into a "stakeholder economy").

³⁴¹ See Claude E. Shannon, *Communications Theory of Secrecy Systems*, 28 *BELL SYS. TECHNICAL J.* 656, 656–715 (1949).

³⁴² See generally ASHBY, *CYBERNETICS*, *supra* note 15.

³⁴³ See *id.*; Shannon, *supra* note 341.

³⁴⁴ See Richard M. Buxbaum, *The Internal Division of Powers in Corporate Governance*, 73 *CAL. L. REV.* 1671, 1674–1713 (1985) (detailing numerous obstacles to shareholder participation in corporate governance). *But see* Stephen M. Bainbridge, *Independent Directors and the ALI Corporate Governance Project*, 61 *GEO. WASH. L. REV.* 1034, 1052–53 (1993) (discussing the necessity of a centralized corporate decision-making power in management's hands for corporate business organizations to succeed); Bevis Longstreth, *Reflections on the State of Corporate Governance*, 57 *BROOK. L. REV.* 113, 114–20 (1991) (criticizing corporate governance proposals and developments that enhance shareholder participation).

³⁴⁵ See *supra* notes 42–56 and accompanying text (underscoring human limitations on the ability to receive, store, process, and transmit information, and that institutional arrangements, which economize the need for, and capture of, information, also economize costs).

³⁴⁶ See Van Alstyne, *supra* note 174, at 3; see also PODOLNY & PAGE, *supra* note 173 (stating that "network forms of organization foster learning, . . . provide a variety of economic benefits, facilitate the management of resource dependencies, and provide considerable autonomy for employees"); D.W. Craven et al., *New Organizational Forms for Competing in Highly Dynamic Environments: The Network Paradigm*, 7 *BRIT. J. MGMT.* 203–18 (1996); F. J. Richter, *The Emergence of Corporate Alliance Networks: Conversion to Self-Regulation*, 13 *HUM. SYS. MGMT.* 19–16 (1994).

³⁴⁷ See *supra* Part III.A (explaining the framework of cybernetics).

operating risks.³⁴⁸ Many network relationships create a holonic architecture.³⁴⁹ Some of the advantages of a network relationship that reflect a holonic architecture are leverage; speed; flexibility; shared risk; independence; faster growth; increased profits; sustainable customers; reduced capital requirements; quick failure recognition; and an increased ability to handle inevitable change.³⁵⁰ Compound boards provide the basis for establishing holonic network relationships *both within and between firms*.³⁵¹

Unitary boards represent a flawed system for the governance of both publicly traded corporations and public sector organizations.³⁵² Because the United States has the most powerful and successful economy in the world, the world is blindly adopting its inherently flawed corporate governance system.³⁵³ This is supported by the belief that markets provide the most effective form of self-regulation even though the ethnocentric U.S. theory of the firm posits that firms exist because markets fail.³⁵⁴

³⁴⁸ See generally Jacqueline Bhabha, *The Right to Community*, 64 U. CHI. L. REV. 1117, 1126 (1997) (reviewing ALAN GEWIRTH, *THE COMMUNITY OF RIGHTS* (1996)) (noting the success of "the worker cooperative experiment at Mondragón" in Northern Spain); William H. Simon, *Social-Republican Property*, 38 UCLA L. REV. 1335, 1370 (1991) ("The Mondragón model has inspired a variety of reform and promotion efforts, such as those of the Industrial Cooperative Association of Somerville, Massachusetts, and is reflected in recent state legislation designed to facilitate cooperatives.").

³⁴⁹ See *Holonic*, *supra* note 182.

³⁵⁰ See Sondra Harding, *John Mathews, Catching the Wave: Workplace Reform in Australia*, 17 COMP. LAB. L.J. 589, 590 (1996) (book review) (stating that according to Mathews, holonic organizations "bring together tools, logistics, and people in a flexible, integrated whole," and that organizations, "coupled with negotiated change processes, will be the successful organizations of the future"); PATRICK MCHUGH ET AL., *BEYOND BUSINESS PROCESS REENGINEERING: TOWARDS THE HOLONIC ENTERPRISE* (1995).

³⁵¹ See *infra* fig. 8 app. at 163 (presenting a hierarchy of complex subjects); see also Turnbull, *Governing Society*, *supra* note 57 (manuscript on file with author) (proposing that compound boards can provide operating advantages to organizations with complex operations or when operating in a complex environment); fig. 7 app. at 162 (analyzing the ability of hierarchies to control, regulate, or govern).

³⁵² See CHANDLER, *supra* note 16, at 41 (discussing the weakness of a centralized corporate structure); see also Buxbaum, *supra* note 16, at 44 (noting the limitations of unitary boards, which are "neither close enough to operational management to control it effectively nor detached enough to offer a[n] [objective] perspective," and their inability to be anything more than distant monitors of the self set goals of executive management).

³⁵³ See Bhidé, *supra* note 193, at 129 (emphasizing that the American economy "nurtures market liquidity at the expense of good governance" and that "[r]ules that protect investors and the integrity of markets also foster antagonistic, arm's-length relationships between shareholders and managers").

³⁵⁴ See Shann Turnbull, *Stakeholder Cooperation*, 29 J. CO-OPERATIVE STUD. 18, 18-32 (1997). Full text at <<http://papers.ssrn.com>>; Jeffery Atik, *Complex Enterprises*

The belief by most social scientists and commentators that self-regulation is not possible in firms and other social institutions arises from (i) the lack of understanding regarding the inherent flaws of unitary boards and centralized governance systems, which deny self-governance, and (ii) the lack of social institutions with appropriate divisions of powers to provide empirical examples of self-regulation. This flawed understanding accounts for the widespread belief that self-regulation can best be achieved through markets.

An immediate way to stop the imperialism of the flawed and unethical U.S. model of corporate governance is for all governments and development agencies to introduce compound boards. Compound boards provide a means of extending and strengthening the self-enforcing model of corporate law introduced into former socialist countries.³⁵⁵ Corporatization and privatization initiatives would provide an ideal opportunity for lawyers to draft corporate charters that can introduce self-governance and thus bring about competitive advantages for the firm.

The introduction of competitive self-governing corporate charters could also be made a condition for providing finance, as is the case in Mondragón. In this way, the World Bank and other international agencies could avoid the inherent defects of current corporate charters and impress competitive self-governing attributes upon both businesses and other types of social institutions. There exists a rewarding opportunity for scholars, lawyers, banks, investors, stakeholders, and others to initiate a program to design corporate charters with competitive advantages while also spreading a more enriched and efficient form of democracy throughout the world.

and Quasi-Public Goods, 16 U. PA. J. INT'L BUS. L. 1, 3-7 (1995) (discussing various theories on why ordinary firms exist, and noting that the transaction cost theory postulates that certain transactions "are more likely to be conducted efficiently within firms than across markets," hence resulting in the theory essentially "becom[ing] a catalogue of types of market failure").

³⁵⁵ See Black & Kraakman, *supra* note 116, at 1943-45 (arguing against a representative democracy, under which shareholders elect a board of directors to act on their behalf, because boards "can too easily become lazy or be captured by management"). Instead, the authors favor the introduction of a "self-enforcing" model of corporate governance that allocates managerial power to a board of directors, subject to shareholder review of particular actions. See *id.*

APPENDIX A

CORPORATE SENATE CASE STUDY

A. Background

Jefferson Approtrac Company Pty. Ltd. (JAC) was founded by the author in Vermont in 1984 on behalf of a group of U.S. investors. In 1986, JAC commenced operations in Sydney, Australia as a privately held company. JAC was formed to improve U.S. traction technology for vehicles operating over uneven terrain. Its funding led to the development by a U.S. inventor of the first Evaluation Vehicle (EV1), for which a U.S. patent was granted.

In 1986, JAC raised over \$800,000 from three Australian family-owned companies and a publicly-traded venture capitalist. JAC also entered into a development and manufacturing agreement with its largest shareholder with the understanding that the shareholder would obtain a \$250,000 research and development grant from the Australian government to contribute to the project. The grant was conditioned on JAC acquiring the rights to EV1's U.S. patent. JAC achieved this by issuing shares and options to both United States and Australian parties having an interest in the patent. When the EV1 and its U.S. inventor arrived in Australia in 1987, the company had five Australian corporate shareholders owing 53% of the company and twenty-two U.S. citizens owning 47%.

JAC's board consisted of three Australians and two Americans. An Australian engineer who had been President of the International Federation of Consulting Engineers was Chairman of the Board. The author was an executive director and company secretary. Another Australian executive director oversaw development and manufacturing contracts under the firm's largest shareholder. One U.S. director appointed the author's wife as his alternate. The other U.S. director was a former professor of agricultural engineering who held many patents. An observer representing the venture capitalist also attended board meetings and was also a senator. The senate is discussed in detail below.

B. The Transformation of JAC's Corporate Form

During production of EV2 in 1987, a fundamental change in design was proposed which required that additional funds be obtained. In order to attract additional funds from existing and new investors, the project was re-capitalized at an extraordinary general meeting of shareholders held on February 10, 1988. The purpose of this meeting was to amend the company's articles of association so as to establish a corporate senate with the power to veto any resolution made by a director with a conflict of interest. The amended articles of association included provisions to: (i) elect all directors each year by cumulative voting; (ii) allow the directors to form stakeholder associations and stakeholder councils, subject to approval by the senate; and (iii) require the approval of shareholders not to pay-out any current trading profits of the company. As a result of the meeting, the firm was transformed into a public company which assumed the name JAC Tractor Limited (JTL).³⁵⁶

One of the purposes of the above transformation, as stated in the notice sent to JAC's shareholders seeking approval for the above changes, was to "make management compete for new funds on a continual basis with all other alternative investment opportunities available to shareholders; that is, to encourage management 'glasnost' on the future prospects of the business."³⁵⁷

Soon after transforming the company, the development and manufacturing agreement with its largest shareholder was cancelled. Use of JTL's facilities was continued, however, on a rental basis in order to continue the development work. JTL also hired its first employees and a CEO and obtained its own research and development grant from the Australian government.

The success of the above changes was reflected in JTL's ability to raise \$1.1 million through the issuance of new shares. In addition, JTL was able to attract another institutional investor as a significant investor. In 1988, ownership of JTL by Australian investors grew to 57% of the outstanding shares, with 43% now held by overseas investors. Furthermore, JTL began to obtain world-wide patents for its traction technology. After completing EV3 in 1989, the company ceased conducting its own development

³⁵⁶ The articles of association for JAC Tractor Ltd. are on file with the Australian Securities Commission (visited Mar. 25, 2000) <<http://www.asc.gov.au/>>.

³⁵⁷ *Id.*

work and instead began to subcontract it out. Licensing agreements were entered into with other firms seeking to utilize the technology. By 1997, however, the licensing agreements had generated no revenue. In addition, the opportunity to activate the provisions in the articles of association providing for the establishment of stakeholder associations with stakeholder councils had not arisen.

C. Snap-Shot of JTL's Corporate Senate

JTL's senate has three members, all of whom are elected annually by postal voting immediately prior to the annual meeting of shareholders. Investors can nominate themselves and include a 200-word biography with the proxies. To date, JTL has never had a contested election. Senators are not paid a fee and generally oversee projects not otherwise managed by directors. One U.S. investor had to resign from the senate when he undertook fee-paying work for the company.

No more than a dozen resolutions have been considered by the senate in any one year. In addition, the senate has never met in person because of logistical considerations. This necessitates that all resolutions be voted upon by "flying minutes" that are faxed to each senator to be voted upon. Senators located outside of Australia base their voting decisions on phone discussions with other officers and shareholders of the company, among other things.

The annual report distributed to shareholders lists each matter considered by the senate and reports how each senator voted. A written report issued by the senate is also included in the annual report and is included between the statutory financial statements and the auditor's report.

For an Australian public company to change its auditor, the Australian Securities Commission (ASC) requires that a resolution to this effect be approved at a meeting of shareholders. In 1991, JTL sought to save costs by replacing its large, international auditing firm with a local firm. The existence of JTL's senate allowed JTL to avoid the need to convene a special meeting of shareholders to approve the change. This is so because JTL's senate provided a basis for the ASC to exercise its discretion and dispense with the requirement of a shareholder meeting. As such, JTL's senate illustrates the potential for both corporations and regulators to save time and money. Clearly, corporate senates, if

mandated, could simplify the law for all public companies and collective investment funds.

D. The Corporate Senate in Detail

CORPORATE SENATE

(ELECTED AUDIT COMMITTEE/SHAREHOLDERS COMMITTEE)

1. Three members elected by postal voting dispatched with the notice of AGM with each shareholder having one vote per vacancy on the senate rather than one vote per share per vacancy.
2. Any shareholder may nominate himself or herself for election to the senate by advising the company secretary at any time during the year to include his name in the ballot. Each nominee may have published up to 200 words setting out his or her qualifications or interests in the "how to vote" information sent out with the ballot, provided it is received before printing of the annual report.
3. No person can nominate or remain a member of the senate:
 - (a) Unless they or a company of which they are a director or secretary is the registered holder of at least 1,000 shares, or such a company has certified under seal that the individual has been appointed its representative pursuant to section 244(3) of the Companies Code.
 - (b) If they, their firm, or a company in which they have a substantial beneficial interest, receive any material revenues from the company. Payments of directors' fees to a director not employed by the company will not disqualify that person.
4. Casual vacancies will normally be filled by the nominee not elected at the previous election who had the next highest number of votes or, if there is no such nominee, the vacancy may be filled by a person appointed by the remaining members.
5. The senate is not required to meet. Resolutions may be voted on by signing a circulated minute as being for or

against the proposal or having no opinion. The senate may meet with a conference call. Decisions are by a majority vote.

6. The directors may reimburse the members of the senate for out-of-pocket expenses incurred by reason of business referred by the directors and details of such reimbursement (including the allocation between members) shall be included in the annual report for the year in which the reimbursement was paid.
7. The senate will have the following duties and powers:
 - (a) To nominate the auditors and any adviser whose advice is to be used in any report to shareholders such as: annual accounts, proposal for the acquisition of assets from interested parties, share issues, mergers or takeover proposal for/or from another company.
 - (b) To approve any issue of shares except pro-rata bonus issues.
 - (c) To determine the accounting policies to be used by the directors in the preparation of any report to shareholders.
 - (d) To approve and, if necessary, determine the form and content of all written reports to shareholders or the public by the directors, except those reports where the Code requires the directors to report directly.
 - (e) In the case of each member of the senate, to state his or her views on any proposal by the directors to change the articles of the company, authorized capital, issued capital, the number of directors, or on any proposal by the directors in relation to any merger, take-over, reconstruction, or the issuance of options or shares with such views to be circulated to shareholders.

- (f) To approve all matters in which a director has a conflict of interest, including all contracts in which a director has an interest.
 - (g) To receive all minutes of directors' meetings within seven days of their being ratified and to have the right to inspect all documents of the company.
 - (h) To have the right, individually, to have their views included in any report circulated to shareholders by the directors, but this would not include the right to make any reference to other views or qualifications of existing members of the senate or those seeking election.
 - (i) To approve any bylaws proposed by the directors for the management of stakeholder(s) councils.
- 8. Any director must disclose to the senate any matter in which he or she has a conflict of interest.
 - 9. The directors must report to the corporate senate no later than every six months on all benefits and reimbursements received by each director, or any interest in which the Director or the spouse or child of any director has a direct or indirect interest with details of the terms of any contracts with the company.
 - 10. In the event the directors cannot agree on how directors' fees should be allocated amongst themselves, it shall be decided by the senate.
 - 11. The senate must approve the remuneration paid to any director (other than the managing director) for additional services.
 - 12. The annual report to shareholders will include a summary of all matters on which the views of members of the senate have been recorded, and any other matter which has been referred to the senate.

13. Any shareholder will have the right to inspect any document listed in the senate's report.
14. The directors may recommend to shareholders how to vote for directors, subject to the inclusion of any views which members of the senate may wish to add.
15. If members of the senate fail to respond within thirty days after a matter has been referred to them in writing by the directors, the consent of the senate is not required.
16. Shareholders may, by special resolution, remove any or all members of the senate and reverse any of its decisions.

STAKEHOLDERS' ASSOCIATION(S)

The directors may form one or more associations of corporate stakeholders as set out in the bylaws of the company to assist the company in the procurement of goods and services and the development, promotion, servicing, or use of the company's products, services, or technology. Stakeholders are persons who either provide the company with goods or services directly or indirectly, or who are dealers, agents, customers, or users of the company's goods or services.

Stakeholders' association(s) will be managed by the directors who may delegate such powers as they think fit to a stakeholders council. The establishment and operation of the stakeholders council may be determined by the bylaws established by the directors with the approval of the senate.

Members of the stakeholders council may attend and speak at meetings of shareholders.

APPENDIX B

FIGURE 1

International Comparison of Control Architecture

FIGURE 2

Comparison Between Anglo and Japanese Dispersed Ownership and Control Architecture
(Few, if any, independent directors on a Japanese board)

FIGURE 3

FIGURE 4

CUMULATIVE VOTING
(Preferential voting)

One vote per share for each board vacancy
Number of board positions reflects pro-rata number of shares held
This permits representation of minority interests who can blow the whistle on majority or other dominant shareholders

Number of shares to be voted at meeting (V)

The minimum number of shares (X) necessary to elect a particular number of directors (N) is: $X = \frac{VN}{(D+1)} + 1$ where V is the number of shares to be voted at the meeting and D is the total number of directors to be elected.

When the board has D vacancies, then the votes (v% to nearest whole number) required to elect a majority of directors (M), or at least a single director (s%), is set out in the table below:

D	3	4	5	6	7	8	9	10	11	12	13	14	15
M	2	3	3	4	4	5	5	6	6	7	7	8	8
v%	51	61	51	58	51	56	51	56	51	55	51	54	51
s%	26	21	18	15	14	12	11	10	9	9	8	8	7

The number of directors (N) who can be elected by a group holding X shares is given by: $N = \frac{(X-1)(D+1)}{V}$

FIGURE 5

Ethical structure

Court of law with all parties kept independent

Unethical structure

Corporate accountability with unitary board

FIGURE 6

FIGURE 7

Stakeholder Governance for Publicly Traded Firms or Monopolies

FIGURE 8

Differences Between 'Economic' and Real People

	'ECONOMIC' PEOPLE	REAL PEOPLE
1	Unlimited appetite	Appetite determined and limited by the necessity of maintaining the organism in a state of dynamic equilibrium
2	Completely informed	Reduces, condenses, summarizes (and thus necessarily loses) information, in addition, an 'imperfect' communications network in the environment also restricts and attenuates the flow of information
3	Consistently orders his/her preferences between outcomes over time	Does not consistently order his/her preferences (i.e., changes his/her mind over time, may prefer A to B, B to C but C to A
4	Maximizes something (usually one thing)	Attempts to optimize with respect to a large number of criteria (needs)
5	Competitive	Sometimes competitive, sometimes collaborative; usually both
6	Requires a value system only in order to provide a criterion against which to maximize, e.g., profit, utility, prestige, power	Requires a value system in order to provide a framework for the ordering of needs, the selection of information, and the weighing of multiple decision criteria
7	Not explicitly related to the world as an element in interactive system and remains unchanged as a result of any interaction	Stands in an interactive cybernetic relationship to his/her community and environment and is changed as a result of any interaction
8	No significant differences between individuals	Differences between individuals are significant and important
9	No limits on information processing capacity, so is unaffected by differences in rates of change	Limited information processing capacity so prefers slow rates of change, i.e., nearly stable systems
10	Needs are simple and few	Needs are simple and many

FIGURE 9

Channels of Communication and Control (in order of evolutionary development)

METHOD	SENSORY	SEMIOTIC/SIGHT	VOICE/WORD	PRICES
Dependent upon:	Instincts	Cognitive processing of signs & symbols	Language & literacy	Numeracy
Basis of operation	Individual perception of people's needs and responses	Culturally determined rules of behavior of people and social institutions	For <i>hierarchy</i> *: requests & orders through a chain of command	Quantification of needs and responses in monetary values
Examples	Mother-child, kin, tribes, partnerships, work groups, cabals, etc.	Ownership, use, design of property & artifacts. Dress, behavior, tenure attributes in social institutions - church, government, firms	Corporations, bureaucracies & military	Exchanges between individuals, groups and other organizations in a market economy
Type of operations	Intuitive and spontaneous	Transformation and change in tenure relationships of people to property or social institutions	Command and obedience	Production and exchange of goods and services and negotiable assets
Motivating forces	Instincts	Social conditioning	Respect/use of power	Materialism
Means of communicating needs	Sensory (not sight)	Signs, symbols, aggregate behavior, e.g., usage, migration, votes, etc.	Requests and orders	Valuations, offers and bids
Data/sec	<15 bits/sec	1,000,000,000 bits/sec	100 bits/sec	100 bits/sec
Limits of communication	Few people & short distances	May lack operational response or be non-directive	Amount & accuracy of information	Non monetary characteristics
Limits of cooperation	Resources available	Requirements of minority	Time of response	Quality
Other limits	Personal relationships	Not specific in servicing needs	Lack of choice, flexibility & sensitivity	Insensitive to non-economic values and needs
Benefits of method	Speed of reaction	Managing the quality of social and physical environments	Precision of execution on a large scale	Speed with large numbers, precision, with sensitivity to preferences

* For expositional convenience other forms of organizations have been omitted.
Data/sec values obtained from Cochrane (1997)

FIGURE 10

Elements of Paradigm Shift

Framework of analysis	Coase/Williamson, et al.	Cybernetic (information and control architecture)
Type of social institution	For-profit firms not labor managed	Any social organization, including any type of firm
Subject of analysis	Transactions and their costs	People and quanta of information (bits/bytes)
Relationship of people	Master/servant or competitive	Any family, co-operative, competitive, associative, etc.
Social values	Self-interest	Any altruistic, self-interest, etc.

FIGURE 11

Towards a Science of Organization

The type in ***bold and italics*** is taken from a table contained in Bellon & Niosi (1997). Extensions to the table were developed by the author. Note 1, refer to Figure 2.

Boundary of analysis		Firms (<i>Contribution by Bellon & Niosi</i>) <i>Three divergent analysis of the firm & interfirm cooperation</i>			All organizations (Including firms)
Perspective of analysis variable		<i>Transaction Cost Economics (TCE)</i>	<i>Resource-based theories of firm (RBT)</i>	<i>Evolutionary theories (ET)</i>	Cybernetic (Science of information and control)
1	Modes of co-operation (Governance paradigm)	Markets, hierarchies (Coase 1937) & hybrid organizations (Williamson, 1975)	Markets, hierarchies & Associations (Ouchi 1980)	Markets & hierarchies	Individuals, families, clans, teams, groups, associations, communities, alliances, networks, hierarchies, markets, etc.
2	<i>Micro-foundations</i>	<i>Opportunism</i>	<i>Opportunism (Chi, 1994) & myopia (Conner, 1991)</i>	<i>Myopia (Nelson & Winter, 1982) & Constrained opportunism (Hunt, 1997)</i>	Information (Turnbull 1978b:52; 1994a; 1994c:329; 1997a)
3	<i>Starting point of analysis</i>	<i>Costs</i>	<i>Resources</i>	<i>Organizations, institutions</i>	Individuals (Turnbull 1978a:18; 1994a,b;1997b,e)
4	Objective	Minimizing costs & opportunism	Maximizing resources	Survival of fittest	Economizing information processing (Turnbull 1997e)
5	<i>Essence of organization</i>	<i>Bundle of imperfectly specified contracts</i>	<i>Bundle of assets, resources & competencies</i>	<i>Bundle of organizational routines</i>	Information processing capability (Turnbull 1997b,e)
6	Human character (1)	Competitive	Competitive	Competitive	Competitive &/or cooperative
7	<i>Role of management</i>	<i>Write and enforce adequate contracts</i>	<i>Build competencies</i>	<i>Select efficient routines and strategies</i>	Organizing information & developing or obtaining new knowledge
8	<i>Firm dynamics</i>	<i>Marginal</i>	<i>Central</i>	<i>Central</i>	<i>Central</i>

FIGURE 11 (cont'd)

9	<i>Nature of alliances</i>	<i>Hybrid form between markets and hierarchies</i>	<i>Research of complementary assets</i>	<i>New organizational routine related to environmental change</i>	Means to share tacit & other information and knowledge
10	Role of families & clans	Not recognized	Not recognized	Not recognized	Simplify information & control through rich tacit knowledge and bonding
11	Role of teams, groups, <i>alliances</i> , communities, & networks	<i>Reduce opportunism</i>	<i>Reduce opportunism and myopia</i>	<i>Reduce myopia and uncertainty</i>	Increase information, knowledge, & control while economizing individual information processing and exertion
12	Role of hierarchies	Reduce costs of transacting through markets	Capture additional resources	Dominate inputs of production	Condense data, intelligence, and extend control (Turnbull 1997e)
13	Role of markets	Organize transactions between a large number of agents	Allocate resources	Eliminate less effective organizations	Signals needs at the cost of reducing information, knowledge and meaning (Turnbull 1997e)
14	<i>Main role of competition</i>	<i>Increasing firm efficiency</i>	<i>Struggle for strategic assets</i>	<i>Selection of winners</i>	Reduces info to alienate cooperation & knowledge while firms search for superior knowledge

FIGURE 12

CORRUPTING POWERS OF A UNITARY BOARD

Directors have the power to:

1. Transfer value from the firm to themselves by:
 - (a) Determining their own remuneration and payments to associates;
 - (b) Directing business to interests associated with themselves.
2. Reduce shareholder value in the firm through:
 - (a) Issuing shares and options to themselves and/or associates at a discounted value;
 - (b) Selling firm assets to themselves or associates at a discount;
 - (c) Acquiring assets from themselves or associates at an inflated value.
3. Obtain other private benefits such as:
 - (a) The use of firm resources for their own pecuniary and non-pecuniary gain;
 - (b) The use of status and influence for pecuniary and non-pecuniary advantages.
4. Control independent advisers by:
 - (a) Awarding them work;
 - (b) Negotiating their fees;
 - (c) Determining their terms of reference to obtain support for directors' interests.
5. Control or influence the auditor by:
 - (a) Advising shareholders on the appointment or dismissal of the auditor;
 - (b) Negotiating their fees;
 - (c) Giving them more profitable non-audit business.
6. Determine reported profit by:
 - (a) Selecting basis for valuing trading assets (stock and debtors) and fixed assets;
 - (b) Determining the life of assets and the cost recognized for depreciation expenses;
 - (c) Selecting basis for recognizing revenues and costs in long term contracts;
 - (d) Selecting accounting policies within accepted accounting standards;
 - (e) Control of auditors and valuers.
7. Determine how their performance is reported by:
 - (a) Reporting on their own activities and deny, inhibit, or frustrate other reports;
 - (b) Controlling the auditor and other "independent" advisers;
 - (c) Controlling the conduct of shareholder meetings.
8. Retain power by:
 - (a) Reporting on their own performance;
 - (b) Filling casual board vacancies with individuals who support their own position;
 - (c) Nominating new directors who support them at shareholder meetings;
 - (d) Controlling the nomination and election procedures and processes;
 - (e) Controlling the conduct of shareholder meetings.

FIGURE 13

Loss of Information In A Hierarchy

Hierarchy (Public or Private Sector)	Information Upwards			Employees	
Legislature	Volume (50% lost level)	Correct (85% of lower level)	Missing or wrong meaning	Span of (5)	
Minister/shareholder(s)				per level	accum total
Board of Directors	3.1%	1.4%	98.6%		
Chief Executive Officer	6.3%	3.3%	96.7%	1	1
Senior Management	12.5%	7.7%	92.3%	5	6
Middle Managament	25.0%	18.1%	81.9%	25	31
Team Leaders	50.0%	42.5%	57.5%	125	156
Workers	100.00%	100.00%	0.0%	625	781

FIGURE 14

Evaluation of Hierarchies to Control, Regulate, or Govern

OBJECTIVE:	CONTROL (C) (Command only)	REGULATE (R) As for control plus:	GOVERN (G) As for regulate plus:
REQUIRE- MENTS	1 Obedience to commands	Meaningful monitoring of outcomes	Adequate information for governed to evaluate controllers or new nominees for election
	2 Accurate communications down hierarchy	Accurate reporting of outcomes up hierarchy	Independent processes for the governed (stakeholders) to reward or penalize controllers
	3 Meaningful operational implementation	Meaningful condensation of reports	Independent processes for the governed to appoint and retire controllers
	4 Timely implementation	Appropriate and timely responses to variations	Timely evaluations for rewards/penalties and review of appointment of controllers
PROBLEMS	1 Disobedience	Incomplete monitoring	Incomplete information or subject to bias from controllers
	2 Biases, distortion in relaying commands	Reporting slow, biased, missing, or incomplete	Controllers influencing or determining their own standards of performance and their own rewards and penalties
	3 Ineffectual operational implementation	Incomplete, inadequate analysis of variations	Controllers influencing or determining their own appointment and retirement
	4 Timeliness of implementation	Inappropriate responses to correct variations	Controllers influencing or determining the time of their own evaluation or retirement

FIGURE 15

Holarchy: Hierarchy of Complexity

Subject	First level	Second level	Third level
Physics	Particles	Atoms	Molecules
Chemistry	Molecules	Compounds	Bases
Genetics	Bases	DNA	Genes
Biology	Genes	Chromosomes	Cells
Anatomy	Cells	Organs	Individuals
Sociology	Individuals	Families	Communities
Government	Communities/Towns	Regions/States	Nations
Environment	Flora & Fauna	Ecological Systems	Ghaia
Engineering	Components	Sub-assemblies	Machines
Organizations	Autonomous Cells/Teams	Firms	Keiretsu/ Groups
Mondragón firm	Work Groups	Social Councils	Cooperatives
Mondragón system	Co-operative	Cooperative Groups	Corporación Cooperativa

FIGURE 16

Comparison of functions and activities: Unitary board & Mondragón compound board

Unitary Board

(Source: Tricker 1994:245 & 287)

	Conformance functions	Performance functions
External	<i>Accountability</i> • Reporting to shareholders • Ensuring statutes regulatory compliance • Reviewing audit reports	<i>Strategic thinking</i> • Reviewing and initiating strategic analysis • Formulating strategy • Setting corporate direction
	<div>Appointment and rewarding chief executive</div>	
Internal	<i>Supervision</i> • Reviewing key executive performance • Reviewing business results • Monitoring budgetary control and corrective actions	<i>Corporate policy</i> • Approving budgets • Determining compensation policy for senior executives • Creating corporate culture
	Short term	Long term

Mondragón Compound Board (no independent directors)

(Information source: Whyte & Whyte 1988)

External	<i>Watchdog Council</i> (Invites external intervention by bank and/or Group)	<i>Supervisory board</i> (Strategic stakeholders appoint & direct management board)
	<div>Management board (Allocates resources)</div>	
Internal	<i>Work unit</i> (Production & appoint delegates to Social Council)	<i>Social Council</i> (Working conditions, pay relativities and welfare)
	Short term	Long term

FIGURE 16 (cont'd)

Simplification of functions and activities in compound boards

(Division of information processing labor indicated by allocation of "X")

MONDRAGON COMPOUND BOARD						ANGLO
Control Centers	Watchdog Council	Supervisory Board	Management Board	Social Council	Work Unit	Unitary Board
Members	3	5-8	4-6	-5-25	-10-20	-4-12
Function ^o	Governance processes	Appoint Mgt. board	Organize operations	Worker welfare	Production & elect SC.	Manage
Activities	Efficacy & integrity of processes	Integrate strategic stakeholders	Efficient allocation of resources	Establish working conditions	Job organization & evaluation	Direct & control
Internal ^o	X		X	X	X	XXXX
External ^o	X	X				XX
Short term ^o	X		X		X	XXX
Long term ^o		X		X		XX

[^]Omits General Assembly which elects Watchdog Council and Supervisory board.

* Descriptions follows typology of Tricker (1994:244 & 287)