CORPORATE GOVERNANCE AND ECONOMIC EFFICIENCY: WHEN DO INSTITUTIONS MATTER?

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Until the 1980s, corporate governance was largely the province of lawyers. It was a world of specific rules—more or less precise statutory requirements governing shareholder meetings, the election of directors, notice requirements and the like—that were essentially unrelated to what corporations actually do. From this perspective, the corporation's productive activity was simply a black box onto which standard governance structures were superimposed with little effect on what took place within. Corporate law was "trivial" or, as Bayless Manning so evocatively portrayed it, simply "great empty corporation statutes—towering skyscrapers of rusted girders internally welded together and containing nothing but wind."²

The turmoil of the 1980s brought corporate governance out of the shadow of purely legal analysis. Economists became interested in how corporations make decisions, the incentives and utility functions of the decision makers, and the feedback mechanisms by which corporate performance is evaluated and responsively adjusted. The new attention was motivated by the growing perception of a link between corporate governance and corporate performance. According to the hypothesis, better governance yields more efficient production.

Large institutional differences between the corporate governance systems of the three most successful industrial economies made salient the possible

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^{1.} Bernard Black, Is Corporate Law Trivial? A Political and Economic Analysis, 84 Nw. U. L. Rev. 542 (1990).

^{2.} Bayless Manning, The Shareholder's Appraisal Remedy: An Essay for Frank Coker, 72 YALE L.J. 223, 245 n.37 (1962).

link between governance and efficiency. German corporate governance is said to be bank-centered: Universal banks simultaneously serve as lenders, shareholders, investment fund managers, investment bankers and supervisory board members. Those who favor bank-centered corporate governance argue that the bank's multi-dimensional role allows both more efficient lending, because the bank's special position reduces the information asymmetries between the company and the capital market, and more effective monitoring of management, because of the access and incentives that result from the bank's multiple roles.3 Japanese governance is also said to be bank-centered but with the addition of cross-shareholdings among a group of corporations that, because shareholdings often parallel intra-group product sales, provide an additional monitoring mechanism.⁴ And in both Germany and Japan, capital market monitoring through hostile takeovers, characteristic of United States stock market-centered governnce, is virtually absent. Perhaps, analysts thought, differences in economic performance between the countries might be explained by institutional differences in their governance systems.

I want to make clear at the outset that the existence of an important link between corporate governance and corporate performance is not self-evident. Rather, it is a hypothesis, not a revealed truth. One Japanese economist underscored the uncertainty concerning the link's significance with some especially vivid comments at a meeting devoted to comparative corporate governance. After listening patiently to a non-Japanese speaker emphasize the importance of the *keiretsu* structure to Japan's post-World War II economic development, the economist rejected the notion that Japan's competitive success was based on a corporate governance gimmick.

^{3.} The hypothesis that bank-centered capital markets are potentially more efficient than stock exchange based capital markets is effectively set out in JEREMY EDWARDS & KLAUS FISCHER, BANKS, FINANCE AND INVESTMENT IN GERMANY ch. 2 (1994). For present purposes, I will not pursue the debate over whether the large German banks actually play the hypothesized role. Compare EDWARDS & FISCHER, supra (arguing that empirical evidence does not support the hypothesis that German banks play an important governance role) with GARY GORTON & FRANK SCHMID, UNIVERSAL BANKING AND THE PERFORMANCE OF GERMAN FIRMS, (National Bureau of Economic Research Working Paper No. 5453, 1996) (providing empirical evidence supporting the hypothesis that bank governance involvement is positively related to firm performance).

^{4.} See Erik Bergloff & Enrico Perotti, The Governance Structure of the Japanese Financial Keiretsu, 36 J. Fin. Econ. 259, 260 (1994); Ronald Gilson & Mark Roe, Understanding the Japanese Keiretsu: Overlaps Between Corporate Governance and Industrial Organization, 102 Yale L.J. 871, 875 (1993). See generally Michael Gerlach, Alliance Capitalism: The Social Organization of Japanese Business (1993); Masahiko Aoki, Toward an Economic Model of the Japanese Firm, 28 J. Econ. Lit. 1 (1990).

Instead, he argued that the post-war miracle resulted from both the character of the Japanese people and the situation in which Japan found itself. After World War II, Japan had a very well educated, highly motivated, and low-wage work force. The economist argued that these were sufficient conditions for economic success, independent of corporate governance institutions. More generally, one need not entirely disregard corporate governance in order to question the relative magnitude of its importance. For example, how does the impact of corporate governance compare with, say, national savings rates or tax policies?⁵

In this paper, I seek to examine the hypothesized link between corporate governance and economic efficiency through two different lenses that highlight the role of national institutions: path dependency and industrial organization. The point that I want to make is that institutions matter, but only sometimes. The critical task facing theorists is to continue the positive project of identifying *when* institutional differences influence economic efficiency in aid of the normative project of improving the productivity of national corporate governance systems.

I. PATH DEPENDENCY AND CORPORATE GOVERNANCE

In a path dependent environment, the influence of factors such as increasing returns and network externalities means that an observed equilibrium may not be the "most" efficient. Initial conditions, determined by fortuitous events or factors traditionally viewed as non-economic, such as culture or politics, can move the system down a particular path. Later

^{5.} The balance of the empirical evidence measuring the importance of corporate governance as an influence on economic performance depends on how one frames the question. Limiting the inquiry to the American system, the object of the vast majority of studies seeking to link governance and performance, some governance techniques, like hostile leveraged buy-outs, friendly leveraged buy-outs, or self-initiated recapitalizations initiated to preempt a feared hostile bid, have had significant positive effects on operating performance. See RONALD J. GILSON & BERNARD S. BLACK, THE LAW AND FINANCE OF CORPORATE ACQUISITIONS 398-453 (2d ed. 1995) (collecting studies).

Evidence on the influence of particular internal governance structures is mixed. For example, the influence of the presence of independent directors is, at best, more subtle. See Sanjai Bhagat & Bernard Black, Do Independent Directors Matter? (Jan. 1996) (working paper on file with author). But this may also be the result of imprecisely specified hypotheses concerning the mechanisms through which independent directors influence performance. See April Klein, Firm Productivity and Board Committee Structure (Apr. 1995) (working paper on file with author).

To the extent that the influence of internal governance techniques is context specific and the tested hypotheses and underlying theory do not predict which contexts matter, the empirical results will reflect a pooling of different samples. For an interesting study that addresses this problem, see Jennifer Francis & Abbie Smith, Agency Costs and Innovation: Some Empirical Evidence, 19 J. ACCT. & ECON. 383 (1995) (linking ownership concentration and innovation).

deviation from that path may be extremely difficult despite the existence of alternatives that, absent transition costs, would be more efficient.⁶ Institutions that develop in response to conditions along the path represent the physical embodiment of the dependency, serving in effect as the guard rails that keep us on course. As Douglass North stated in his Nobel lecture, "[i]nstitutions form the incentive structure of a society, and the political and economic institutions, in consequence, are the underlying determinants of economic performance." The difference between a traditional and path dependent analysis of corporate governance can be seen from the recent academic history of American corporate governance.

In 1932, Adolph Berle and Gardiner Means, two Columbia University professors, announced that the central feature of American corporate governance was the separation of ownership and control.⁸ Although Berle and Means had in mind a radically different agenda,⁹ scholars as different

In his insightful study of agrarian development in Kenya, Robert Bates follows North's lead in stressing the dynamic role of institutions in understanding economic change: "[W]hat we learn most clearly is the importance of institutions. Rarely do we find a direct and obvious relation between economic change and political outcomes. Rather, we find the effects refracted, as it were, through society's institutional endowment." ROBERT BATES, BEYOND THE MIRACLE OF THE MARKET: THE POLITICAL ECONOMY OF AGRARIAN DEVELOPMENT IN KENYA 10 (1989).

^{6.} W. Brian Arthur, Positive Feedbacks in the Economy, Sci. Am., Feb. 1990, at 92-99 (providing an accessible survey of the concept). For present purposes, I need not distinguish between three different types of path dependency: 1) that sensitivity to starting points exists but present conditions are not thereby rendered inefficient, i.e, history matters; 2) that sensitivity to starting points both exists and has resulted in an inefficient condition, but that we could not have known that an alternative starting point would have been better when we made the choice; and 3) that the initial starting point has resulted in inefficiency that could be remedied, either by having made an alternative choice at the outset or by changes now, but the inefficient conditions remain. Mark Roe refers to these levels of path dependency as weak-form, semi-strong-form, and strong-form path dependencies. Mark Roe, Chaos and Evolution in Law and Economics, 109 HARV. L. REV. 641, 647-53 (1996). See also S. J. Leibowitz & Stephen Margolis, Path Dependence, Lock-In, and History, 11 J.L. ECON. & ORG. 205, 206-08 (1995). A second level inquiry is also not pursued here: the nature of the mechanisms that lead to different types of path dependency. See Michael Klausner, Corporations, Corporate Law, and Networks of Contracts, 81 VA. L. REV. 757 (1995).

^{7.} Douglass C. North, *Economic Performance Through Time*, Acceptance Speech upon receiving the Alfred Nobel Memorial Prize in Economic Sciences (Dec. 9, 1993), in 84 Am. Econ. Rev. 359, 359 (1994) [hereinafter North, *Performance Through Time*]. See generally DOUGLASS C. NORTH, INSTITUTIONS, INSTITUTIONAL CHANGE AND ECONOMIC PERFORMANCE (1990) [hereinafter NORTH, INSTITUTIONS].

^{8.} ADOLPH A. BERLE, JR. & GARDINER C. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY 4-9 (1932).

^{9.} For Berle and Means, the separation of ownership and control left managers of large enterprises in possession of great economic power but accountable to no one. Their normative agenda was consistent with the general thrust of New Deal legislative efforts: government intervention to ameliorate perceived market failures. *Id.*

as free market financial economists, concerned with excessive managerial discretion on the one hand, ¹⁰ and business historian Alfred Chandler, who presents management as the principal engine of American industry on the other, ¹¹ saw this separation as efficient specialization. An increasingly complete capital market allowed shareholders to diversify their portfolios through the stock market and thereby specialize in risk bearing. The presence of specialized risk bearers, in turn, opened the executive suite's door to professional managers, who lacked the resources for ownership but who specialized in managing.

There was one small problem with this story of evolving efficiency. Managers and shareholders had potentially different interests: what economists call the agency problem. Thus, for the next sixty years, the intellectual mission of American corporate governance took the form of a search for the organizational Holy Grail, a technique that bridged the separation of ownership and control by aligning the interests of shareholders and managers.

In the meantime, the corporate governance systems of other nations were largely ignored¹² because the American system was thought to represent the evolutionary pinnacle of corporate governance. Other systems, with different institutional characteristics, were either further behind the Darwinian path, or at evolutionary dead ends; neither laggards nor neanderthals compelled significant academic attention.¹³

Two developments changed all that. The first, which like Berle & Means' original insight came from Columbia, was Mark Roe's demonstration that the Berle-Means characterization of American corporate governance—dispersed shareholders, correspondingly more powerful professional managers, a pervasive stock market, and a limited governance role for financial intermediaries—was politically and historically contingent, a path dependent artifact of populist politics and a federal system. ¹⁴ Statutory

^{10.} See, e.g., Michael C. Jensen, Eclipse of the Public Corporation, HARV. BUS. REV., Sept.-Oct. 1989, at 61.

^{11.} See generally Alfred Chandler, Scale and Scope: The Dynamics of Industrial Capitalism (1990) [hereinafter Chandler, Scale and Scope]; Alfred Chandler, The Visible Hand: The Managerial Revolution in American Business 381-498 (1977).

^{12.} A short flurry of interest in the German two-tier board system was the primary exception. See, e.g., Detlev F. Vagts, Reforming the "Modern" Corporation: Perspectives From the German, 80 HARV. L. REV. 23, 48-89 (1966).

^{13.} Gilson & Roe, supra note 4, at 873.

^{14.} MARK J. ROE, STRONG MANAGERS, WEAK OWNERS: THE POLITICAL ROOTS OF AMERICAN CORPORATE FINANCE 7-8 (1994). In commenting on an earlier version of this article, Michael Klausner observed that the path dependent influence of politics reflects not only protective constituencies that

restrictions on the structure and activities of banks, insurance companies, mutual funds and pension funds prevented the development of large financial intermediaries that could serve the governance role ascribed to German and Japanese banks.

Second, global competition developed, underscoring recognition of the path dependency of the American system. Competition appeared to be not just between products but also between governance systems, and, at least for a period, the American system did not seem to be winning. If a different path resulted in more effective institutions and more efficient production, the need to reform domestic governance institutions was indicated. Hostile takeovers were criticized as leading to short-term investment horizons for American managers. This short-term perspective contrasted sharply with the long-term, relational investment said to be characteristic of the German and Japanese systems. Influential study groups urged the restructuring of the American financial system to more closely parallel those of its competitors. From this perspective, institutional differences, dictated by the political and historical contingencies that influence the shape of each nation's corporate governance system, matter a great deal.

At this point, however, we confront the second half of path dependency analysis. Initial conditions may select the path, but the institutions that emerge in response are subject to powerful environmental selection mechanisms. If the institutions created along the path cannot function effectively in comparison with those of competitors, they will not survive. Thus, the path dependent characteristics of a given national governance system confront the disciplining effects of the operative selection mechanisms. In the end, institutions are shaped by a form of corporate governance plate tectonics, in which the demands of current circumstances grind against the influence of initial conditions. This interaction, what Douglass North calls "adaptive efficiency," serves to limit the extent to which

develop, but also that politically generated institutions, like most institutions, exhibit increasing returns.

^{15.} Peter Drucker's remarks capture the thesis: "[A] good many experienced business leaders I know hold takeover fear to be a main cause of the decline in America's competitive strength in the world economy...[i]t contributes to the obsession with the short term." Peter F. Drucker, Drucker on Management: Taming the Corporate Takeover, WALL St. J., Oct. 30, 1984, at 30.

^{16.} See, e.g., Michael E. Porter, Capital Disadvantage: America's Failing Capital Investment System, HARV. BUS. REV., Sept.-Oct. 1992, at 43, 43-66.

^{17.} NORTH, INSTITUTIONS, supra note 7, at 80.

institutional differences matter; 18 that is, the extent to which institutional differences result in differing economic performance.

The adaptive force of selection on different corporate governance systems is illustrated by recent empirical research on the German, Japanese and American governance systems. The German and Japanese systems are said to be long-term oriented, so that corporate managers can ignore short-term swings in stock prices and accounting profits and pursue projects with longer payback periods. The long-term, multi-dimensional relationship between banks and corporations in bank-centered systems may provide better information concerning actual corporate performance than short-term stock price and accounting measures. In contrast, the American system is said to be short-term oriented so that managers must invest in projects that provide short-term returns readily observable by one-dimensional stock market investors who have no other sources of information. The systems are said to be short-term returns readily observable by one-dimensional stock market investors who have no other sources of information.

The institutional characteristics of all three systems, strong financial intermediaries in the German and Japanese systems and weak financial intermediaries in the American system, are clearly path dependent. However, whether these institutional differences matter—whether they influence corporate performance in the predicted direction—is testable. For example, any successful system must have the means to replace poorly performing managers. If institutional differences matter, the dismissal of American managers should be more sensitive to short-term movements in stock prices and accounting earnings than the dismissal of German and Japanese managers.

Empirical studies, however, do not support the hypothesized difference between national governance systems. Despite the striking institutional differences in their corporate governance systems, chief executive officers in all three countries are replaced in response to poor performance, whether measured by stock market returns or accounting earnings.²¹ While these

^{18.} For an argument that the influence of path dependency is typically outweighed by adaptive mechanisms, see Charles Sabel, Intelligible Differences on Deliberate Strategy and the Exploration of the Possible in Economic Life (Sept. 1995) (working paper, on file with author).

^{19.} See, e.g., Porter, supra note 16, at 67.

^{20.} Jeremy C. Stein, *Takeover Threats and Managerial Myopia*, 96 J. Pol. Econ. 61, 64-78 (1988) (modeling such a process).

^{21.} See Steven Kaplan, Top Executive Rewards and Firm Performance: A Comparison of Japan and the U.S., 102 J. Pol. Econ. 510 (1994); Steven Kaplan, Top Executive, Turnover and Firm Performance in Germany, 10 J.L. Econ. & Org. 142 (1994); Jun-Koo Kang & Anil Shivdasani, Firm Performance, Corporate Governance, and Top Executive Turnover in Japan, 38 J. FIN. Econ. 29 (1995).

results might seem startling at first in light of popular assumptions concerning the three systems' differing time horizons, the similarity of their experiences can be explained by the simple impact of selection on path dependent systems. Any corporate governance system must solve the basic monitoring problem to succeed. A system that allows poor managers to remain in control of corporate assets will not flourish. That the three leading industrial economies remove senior executives under approximately the same circumstances, despite their sharply different institutional characteristics, reflects an outcome that is, quite literally, the result of a selection bias: By limiting the sample only to successful systems, we observe only systems that have solved the problem. From this perspective, institutions do not matter in functional terms.

This is not, however, a convergence story. Each system solves the problem in the peculiar context of its own path dependent institutions. In evolutionary theorist Stephen Jay Gould's terms, the solutions are "jury-rigged from a limited set of available components." Put differently, selection demands the solution, and the pre-existing shape of path dependent institutions constrains the character of the solution. In Gould's terms again, we have "a contraption not a lovely contrivance." 23

Thus, we have two competing forces whose interaction frames the question concerning the link between corporate governance and economic efficiency. Path dependency makes institutions matter, but selection acts to reduce the functional significance of path dependent institutional differences. Therefore, to understand the governance-efficiency link, we must understand when institutions matter despite selection; that is, when the forces of adaptive efficiency are less than fully effective.²⁴ This leads to the second prism through which I want to examine the link between corporate governance and economic efficiency: corporate governance as an aspect of industrial organization.

II. CORPORATE GOVERNANCE AND INDUSTRIAL ORGANIZATION

Path dependency suggests that particular governance structures develop because of the accident of initial conditions. In this section, I focus on a particular initial condition: the industrial organization of the corporation's

STEPHEN J. GOULD, THE PANDA'S THUMB: MORE REFLECTIONS IN NATURAL HISTORY 20 (1980).

^{23.} Id. at 24.

^{24.} In Professor Black's terms, the question is when corporate governance is not trivial. Black, supra note 1, at 562-77.

productive activities. Mark Roe and I have argued elsewhere that corporate governance institutions operate not only to harmonize relations among the corporation and its shareholders, executives and employees, but also to directly facilitate productive efficiency. Thus, the nature of the production process influences the shape of corporate governance institutions.²⁵ Understanding the interaction of path dependency and industrial organization then sets the stage for this Article's final inquiry: When do national corporate governance institutions matter?

Imagine that efficient production requires employees to make large, firm-specific human capital investments; that is, investments that would be of significantly lower value in the external labor market. The skills demanded of employees in a lean manufacturing system are an example.²⁶ Once made, however, such investments are subject to employer opportunism. Specifically, the company has an incentive to renege on the return promised to employees for their firm-specific investment because, once made, the employees' investment is essentially sunk.²⁷ In this circumstance, efficient production requires a means by which a company can credibly commit to forgo opportunistic behavior and thereby assure the job stability necessary for an optimal level of employee firm-specific investment. Corporate governance institutions can provide this means.²⁸

From this perspective, consider bank-centered governance systems, whose principal characteristic is said to be a long-term controlling party uninfluenced by short-run changes in market prices or fear of takeovers. Precisely because of their long-term participation, the main or universal bank is thought to be less likely to behave opportunistically toward employees than dispersed shareholders who may accept a proffered takeover bid even though the associated premium will be financed by anticipated wage and employment reductions.

Economists will recognize this analysis as a combination of two ideas:

^{25.} Gilson & Roe, supra note 4, at 874.

See JAMES P. WOMACK ET AL., THE MACHINE THAT CHANGED THE WORLD 48-69 (1990) (explaining development of lean production methods in Japanese auto industry).

^{27.} See generally Andrei Shleifer & Lawrence Summers, Breach of Trust in Hostile Takeovers, in CORPORATE TAKEOVERS: CAUSES AND CONSEQUENCES 33 (Alan J. Auerbach ed., 1988); Charles Knoeber, Golden Parachutes, Shark Repellents, and Hostile Takeovers, 76 Am. ECON. REV. 155 (1986).

^{28.} A similar problem is presented when employees opportunistically threaten to quit as a means of extracting the firm's expected returns on its sunk employee-specific investment. Post-employment covenants not to compete address this problem, as would inter-employer agreements to suppress an external labor market. Industrial districts combined with employee immobility may also serve as a response to the fear of employee opportunism.

the concern that takeovers may represent a wealth transfer from employees to shareholders,²⁹ and Julian Franks and Colin Mayer's argument that a system of inside, as opposed to market, ownership, is better suited to support implicit contracts.³⁰ It follows from this analysis that where productive activity requires significant, firm-specific investment by employees (i.e., the initial condition), the corporate governance system will move in a direction that results in compatible, credibility enhancing, governance institutions.

What makes the problem interesting, however, is that the need to commit to stability, made easier by the influence of path dependency, is only one of the links between governance and efficient production. A second link focuses on just the opposite institutional characteristic. A company also needs the capacity to respond quickly to changes in the competitive environment, what I have referred to elsewhere as "mutability." Here too, the governance system plays a critical role in relation to the corporation's productive activity. But now the need is for mutability, not stability.

From this perspective, the corporate governance system serves as an equilibrating device, an agent of adaptive efficiency that forces the corporation to respond when a change in the environment disrupts a previously stable pattern. Imagine that we begin with the nexus of contracts comprising the firm in equilibrium; that is, agency costs are at an irreducible minimum and intra-firm incentives, including commitments to stability, lead to efficient levels of investment. This is a world where the traditional function of corporate governance, to provide an external check on operating management, is decidedly second order because everything is working well.

Now, suppose that an unexpected change occurs in the economic environment. For any number of reasons, internal adaptive mechanisms

^{29.} This argument is made most forcefully by Shleifer & Summers, supra note 27, at 33. See also GILSON & BLACK, supra note 5, at 610-38.

^{30.} Julian Franks & Colin Mayer, Capital Markets and Corporate Control: A Study of France, Germany and the UK, 10 ECON. POL'Y 189 (1990); Julian Franks & Colin Mayer, Corporate Control: A Synthesis of the International Evidence (Nov. 1992) (working paper, on file with author). Masahiko Aoki credits the Japanese main banks with the same virtue. Aoki, supra note 4, at 14-17; MASAHIKO AOKI, THE JAPANESE FIRM AS A SYSTEM OF ATTRIBUTES: A SURVEY AND RESEARCH AGENDA (Center for Economic Policy Research Working Paper No. 288, 1992) [hereinafter AOKI, THE JAPANESE FIRM AS A SYSTEM OF ATTRIBUTES]. At least with respect to takeovers, this analysis is not without its problems. See GILSON & BLACK, supra note 5, at 610-38.

^{31.} Ronald J. Gilson, The Political Ecology of Takeovers: Thoughts on Harmonizing the European Corporate Governance Environment, 61 FORDHAM L. REV. 161, 162 (1992).

may fail. For example, the change may alter the relative value of different participants' firm-specific investments. If the investments of internal decision makers would be devalued by adaptation to the new circumstances, or if labor resists changes advanced by management,³² the corporation may not respond to the change as quickly as it should and in many markets these days, there are only the quick and the dead. Alternatively, some changes in the competitive or economic landscape are difficult to see from the inside. As a result, restructuring that requires reconceptualizing the corporation is less likely to be initiated internally.³³

In these settings, the availability of external governance techniques, especially a takeover market or outside investor pressure, provides an important means of adaptive efficiency. For example, a broad range of economists acknowledge that what some commentators thought of as the worst of the 1980s style takeovers—junk-bond financed, front-end loaded, two-tiered, bust-up takeovers³⁴—served quite effectively to dismantle economically inefficient conglomerates and other companies characterized by free cash flow, even though these companies were not "unprofitable" measured other than in terms of opportunity cost.³⁵ The restructuring that was under way in the United States by the mid-1980s put American companies ahead of Japanese and German companies that seem only now to be confronting the need to downsize. Moreover, without adaptive pressure of external governance mechanisms, Japanese and German

For example, both phenomena seem to be at work in imposing barriers to efforts to restructure
French state-owned enterprise.

^{33.} Randall Mork et al. provide interesting empirical evidence concerning when a company's poor performance leads to an internal governance response; that is, where the incumbent board replaces operating management as opposed to the external governance response of a hostile takeover. Randall Mork et al., Alternative Mechanisms for Corporate Control, 79 Am. ECON. Rev. 842 (1989). Tracking a sample of 454 of the 1980 Fortune 500 companies over the period 1981 to 1985, the authors conclude that an internal governance response is more likely when a company performs poorly compared to industry competitors. Id. Hostile takeovers, in contrast, are more likely when poor performance is industry-wide. Id. In short, hostile acquisitions appear to be associated with paradigmatic changes concerning the nature of a target company's business. See Gilson, supra note 31, at 169-70.

^{34.} See, e.g., Martin Lipton, Corporate Governance in the Age of Finance Corporatism, 136 U. PA. L. REV. 1, 11 (1987).

^{35.} See, e.g., Sanjai Bhagat et al., Hostile Takeovers in the 1980s: The Return to Corporate Specialization, in Brookings Papers on Economic Activity: Microeconomics 1 (Martin N. Baily & Clifford Winston eds., 1990); William Long & David Ravenscraft, Decade of Debt: Lessons from LBOs in the 1980s, in The Deal Decade: What Takeovers and Leveraged Buyouts Mean for Corporate Governance 205 (Margaret Blair ed. 1993).

companies seem to be doing so quite slowly.36

The existence of external governance mechanisms as agents of adaptive efficiency also may be seen as a path dependent response to initial conditions of industrial organization. In a stylized industrial history of the United States, the organization of production concentrated on fully capturing economies of scale.³⁷ Because the American domestic market was so large, production runs were long enough that specialized production equipment could be fully amortized over a product's lifetime. Having specialized equipment meant that producers did not need highly trained labor and required little employee firm-specific investment. Further, industrial capital, as opposed to firm-specific human capital, was easier for impersonal markets to finance, an outcome consistent with the underdeveloped character of American financial intermediaries. The result was a corporate governance system that was stock market dominated—thereby exposing the corporation to outsider initiated market mechanisms that forced the corporation to adapt, due to the simultaneous influence of history and technology. To be sure, the resulting corporate governance system did not facilitate the credible commitment to stability necessary for workers to make firm-specific investments. However, this failing was without serious consequences so long as the dominant organization of production favored specialized machinery and unspecialized labor.³⁸

A similarly stylized history of post-World War II Japanese industrial patterns suggests a similar path dependent coincidence between history and technology. In that case, however, the coincidence occurred between governance institutions that supported a stable commitment to labor and production technology that required substantial firm-specific employee investment. The Japanese corporate governance system, particularly the main bank structure, initially developed in World War II when defense industry companies (essentially all large companies during the war) were

^{36.} See Peter Gumbel, Job Losses Soar While Germans Fumble Real Reform, WALL St. J., Feb. 2, 1996, at A6; Lean Enough?, THE ECONOMIST. Feb. 10, 1996, at 59.

^{37.} See generally CHANDLER, SCALE AND SCOPE, supra note 11.

^{38.} The American stock market system also fostered another external engine of adaptive efficiency not found in bank-centered systems—a venture capital market in which entirely new entrants, not the product of an industry's path dependency, are financed. Bernard Black and I are engaged in a project that focuses on understanding the link between venture capital markets and stock markets. For a survey of the impact of venture capital financed new organizational forms in the pharmaceutical industry, see Walter Powell, *Inter-Organizational Collaboration in the Biotechnology Industry*, 152 J. INST. & THEO. ECON. 197 (1996).

authoritatively assigned to main banks by the government.³⁹ A high percentage of current main bank relationships date to the war years.⁴⁰ Moreover, the influence of financial intermediaries was reinforced during the post-war period when occupier-influenced defaults by Japanese companies on war-related bonds soured individual investors on direct investment, leaving only the banks to finance the rebuilding of the economy.⁴¹ The result was an intermediary dominated corporate governance system that, incidentally, lent itself to assuring certain classes of workers lifetime employment and, it is argued, the stability necessary to encourage worker investment in firm-specific human capital.⁴²

The historically influenced main bank system of corporate governance fit nicely with the manufacturing technology Japan came to rely upon in the post-war period. How could Japanese companies succeed against American competitors who could capture economies of scale when Japanese companies could not? One approach was to focus on niche markets too small for American competitors to challenge. A niche strategy, in turn, led to the development of capabilities that proved to be consistent with flexible manufacturing. Niches open and close quickly. Thus, product life spans are too short to amortize specialized machinery. But, less specialized machinery requires more skilled operators. Employees, in turn, require credible commitments of stability to make the necessary levels of firm-specific human capital investment. Again, national corporate governance institutions are shaped by a path dependent coincidence of history and technology. 44

III. WHEN DO INSTITUTIONS MATTER?

The argument set out in the previous sections claims that the gross institutional characteristics of national corporate governance systems are

^{39.} Takeo Hoshi, Evolution of the Main Bank System in Japan, (Sept. 1993) (working paper, on file with author); see also MASAHIKO AOKI, UNINTENDED FIT: ORGANIZATIONAL EVOLUTION AND GOVERNMENT DESIGN OF INSTITUTIONS IN JAPAN (Center for Economic Policy Research Paper No. 434, 1995).

^{40.} See Hoshi, supra note 39; AOKI, supra note 39.

^{41.} Id. The role of financial intermediaries was further strengthened by later government regulation that restricted direct investment by individuals through the capital market. See Mark J. Roe, Some Differences in Corporate Governance in Germany, Japan and America, 102 YALE L.J. 1927, 1962-65 (1993).

^{42.} See generally Aoki, supra note 4; AOKI, THE JAPANESE FIRM AS A SYSTEM OF ATTRIBUTES, supra note 30.

^{43.} See generally Aoki, supra note 4; AOKI, supra note 39.

^{44.} Richard Nelson, The Coevolution of Technology, Industrial Structure, and Supporting Institutions (Nov. 1993) (working paper, on file with author) (reviewing the literature relying on this form of analysis).

path dependent, shaped by the historical and political contingencies of particular national systems. The success of a national system, in turn, depends on selection: The system's ability to discharge, through a "contraption" crafted from the elements made available by history and politics, those basic functions (like replacing senior executives) necessary to efficient production.

But, success also depends on fortuity—how governance institutions delivered by history and politics fit with the particular industrial state of the world in which that nation's corporations are required to compete. Particular institutional characteristics matter because their fit with the dominant character of industrial production is an important determinant of economic success. Thus, we have seen two quite different governance systems that fit well with the different industrial conditions each confronted. The American stock market-centered system meshed with both the path dependent weakness of financial intermediaries and an industrial organization driven by securing scale economies. In contrast, the Japanese bank-centered system meshed with both the path dependent centrality of financial intermediaries and an industrial organization characterized by the flexibility to respond to changing niche markets that results from providing employment stability to a critical part of the work force.

The experience of the same national systems, however, illustrates a different way in which the particular characteristics of national governance institutions are important. When one set of industrial conditions shapes institutional characteristics, the very aspects that accounted for success under those prior conditions may turn out to be a barrier to success when industrial conditions change.⁴⁶

The limited ability of the American governance system to encourage workers to make firm-specific investments was of little consequence when production runs were large enough to amortize investment in specialized machinery. However, this limitation became more serious in the 1980s, when customer demand shifted in favor of a greater number of more specialized products, and more rapid technological change reduced product

^{45.} See Douglass C. North & John Wallis, Integrating Institutional Change and Technical Change in Economic History: A Transaction Cost Approach, 150 J. INST. & THEO. ECON. 609 (1994) (exploring more generally the interaction between technology and institutions, or in their terms, between transformation and transaction costs).

^{46.} Rebecca Henderson and Kim Clark illustrate this phenomenon on a micro-scale in their study of shifting market leadership for successive generations of chip manufacturing technology. Rebecca Henderson & Kim Clark, Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Existing Firms, 35 ADMIN. Sci. Q. 9 (1990).

life span. Both of these factors reduced the output necessary to achieve economies of scale in certain industries. In this environment, flexible manufacturing, requiring more highly trained labor and less specialized machinery, had a substantial comparative advantage. Neither the American governance system, nor its dominant manufacturing technology, was well suited for this new state of the world.

The Japanese system also came to suffer from a problematic mismatch between the institutional attributes that made for success in one industrial environment and those needed when the industrial environment changed. Like the American governance system, the success of the Japanese system along one governance dimension, facilitating commitment to stability, was a barrier when new industrial conditions required different attributes, ones that facilitated adaptability.

Masahiko Aoki, the most prominent student of Japanese corporate governance, has offered just such an analysis. He concludes that the Japanese system does not adapt well to rapid technological change.⁴⁷ The current difficulties of the Japanese system in reducing employment levels in order to compete in the leaner environment of the 1990s, demonstrate the problem posed when governance institutions do not provide an external mechanism to force an effective response to paradigmatic changes in industrial conditions. The cost of stability is less adaptive efficiency.

So when do institutions matter? First, institutions matter when they fit existing industrial technology, a happy result of the coincidence of path dependency and selection. Second, institutions matter when they do not fit with the industrial technology demanded in a state of the world different from that which gave rise to the governance institutions in the first place. This suggests that, in the future, a critical characteristic of a national governance system will be the ability to mutate in response to an ever more quickly changing world.

From this perspective, the goal is not necessarily to seek the optimal governance institutions for existing industrial conditions. Rather, reform of national governance systems should strive to assure that institutional structure facilitates prompt and low-cost organizational responses to changes in industrial technology.⁴⁸ This can be achieved either through facilitating the change of existing organizations, as with the leveraged buyout phenomenon, or by encouraging the formation of entirely new

^{47.} See Aoki, supra note 4, at 6-14.

^{48.} See Gilson, supra note 31, at 174-75.

competitors through venture capital, as with the challenge to IBM by the personal computer.

Governance institutions that promote adaptive efficiency will matter a great deal. Of course, this could be left to the selection process. But here, self-interest counsels in favor of self-conscious, proactive reform. No one is indifferent to *which* national systems successfully navigate these obstacles. National governance systems provide wealth and employment to citizens of particular nations. Each of us wants our own system to succeed.

IV. THE CHALLENGE OF POST-MODERN CORPORATE GOVERNANCE

The analysis thus ends in a dilemma: The simultaneous influence of history and industrial technology has led to quite different national governance systems in which the particular strength of each is matched by a corresponding weakness, latent in one state of the world, patent in another. We observe either commitment or adaptability, but not both. This dichotomy frames the current quandary: Competitive success in the future seems to require both commitment and adaptability. The central challenge to architects seeking to remodel existing corporate governance institutions, or design new ones, will be how to manage the tradeoff, a balance no existing system has yet achieved.

I want to close by offering some tentative suggestions about the shape of that tradeoff, but with an important caveat. My suggestions are functional, not institutional. The institutional characteristics of particular national systems will continue to be shaped by the shadow of their unique histories. In Gould's words, responses will be jury rigged from the circumstances of existing path dependent institutions.⁴⁹ But with that qualification, one prediction seems reasonably straightforward: The structure of future governance systems will be dictated by increasingly rapid economic change and the success of any particular national system will be influenced by how well it encourages adaptability. Because product life cycles continue to shrink, companies, and therefore national governance systems, must adapt to succeed. Yet, scholars of firm capabilities stress that dynamic change is any company's single most difficult task.⁵⁰ Thus, corporate governance systems have a special role to play in facilitating adaptive efficiency, regardless of the historical characteristics of a particular

^{49.} GOULD, supra note 22, at 20.

^{50.} See, e.g., David Teece et al., Dynamic Capabilities and Strategic Management (June 1992) (working paper, on file with author).

national system's institutions.

This special role for governance systems in minimizing barriers to adaptability has some straightforward implications for the redesign of institutions. A brief example suggests the character of the analysis. Consider two institutional structures common outside of the United States and the United Kingdom, whose desirability has been an object of heated debate: (i) capped voting, which limits the number of votes that may be cast by a single shareholder regardless of the number of shares held; and (ii) dual class voting, in which different classes of shares have different voting rights.

Adaptability is facilitated by seeing that the economic consequences of a company's performance are visited upon the company's decision maker. Capped voting places ultimate control in management. Because the cap assures that voting power will be widely dispersed, no one is left to demand that management account for how the company has responded to change. Dual class voting, by contrast, leaves control in a group with a substantial equity investment, even if their voting power is disproportionate to their ownership. Thus, the decision maker at least remains exposed to the economic consequences of his or her decisions. ⁵²

Codetermination is a second institution that might warrant re-evaluation when considered from the perspective of a tradeoff between commitment and adaptability. The increasing pace of technological change likely will force workers to bear a higher level of risk with respect to their firm-specific human capital investments. In other words, competition simply may not allow subsidization of workers whose human capital has been devalued by technological change.⁵³ The problem posed by the tradeoff between commitment and adaptability results from the barriers to successful

^{51.} Capped voting has a different impact in Germany, where it serves to assure voting control in the large banks. Because the cap does not apply to shares held by the bank as custodian, and because the bulk of the bank's voting power comes from custodial shares, the bank's voting control is locked in. See generally Gorton & Schmid, supra note 3; Roe, Johannes Köndgen, Duties of Banks in Voting Their Clients' Stock, in INSTITUTIONAL INVESTORS AND CORPORATE GOVERNANCE 531 (Theodor Baums et al. eds., 1993). Whether German universal banks have the right incentives, or the power, to assure management responsiveness to quickly changing circumstances remains controversial. See supra note 3 and accompanying text.

^{52.} See Gilson, supra note 31, at 185.

^{53.} To avoid imposing greater risk on inefficient risk bearers and thereby decreasing the level of worker investment, the analysis also suggests that competition may force the shift of the risk sharing function from the company—by means of assured employment—to the state—by means of transition training and benefits. See Ronald Daniels, Stakeholders and Takeovers: Can Contractarianism Be Compassionate?, 43 U. TORONTO L.J. 315, 318-21 (1993).

bargaining when information asymmetries exist between the parties.

In this context, the corporate governance tradeoff is presented when company management announces that a technological change has devalued firm-specific worker investment. Capital and labor then bargain over the consequences for wage and employment levels. But, the bargaining is burdened by an information asymmetry along at least two dimensions: The parties have different information concerning both the existence and the impact of the technological change. Is management conscientiously responding to a changing competitive environment, or is management opportunistically seeking to transfer wealth from workers to shareholders by falsely representing that an unfavorable technological change has occurred at all? Has management fairly stated the impact of the change on the value of labor's firm-specific human capital, or has management opportunistically exaggerated the devaluation to favor shareholders at the expense of labor?

The informational differences between management and labor critically influence the corporate governance system's ability to facilitate the tradeoff between commitment and adaptability. Game theory literature demonstrates that the players in bargaining games with asymmetric information often fail to reach a resolution even though gains from trade are available. However, when information concerning the subject of the bargain is symmetric, the likelihood of success increases dramatically.⁵⁴ Governance systems could facilitate a tradeoff between commitment and adaptability by reducing the extent of information asymmetry between the bargaining parties. This is where the potential contribution of codetermination appears.

Board membership, whether supervisory or unitary, gives labor no formal power when capital retains ultimate voting control (as is the case in Germany, where tie-breaking power resides with the supervisory board chairman, who is chosen by shareholders). However, board membership for labor could serve to significantly reduce the information asymmetry that threatens a successful negotiation of the tradeoff. Suppose procedures were devised so that board membership assured labor of the identical information given shareholder representatives.⁵⁵ Although this would not eliminate

^{54.} See PAUL MILGROM & JOHN ROBERTS, ECONOMICS, ORGANIZATION & MANAGEMENT 140-43 (1992) (canvassing game-theory literature in an accessible fashion).

^{55.} In the United States, for example, this result would flow from the general rights of directors. Whether labor membership on the supervisory board actually serves this function depends on the character of information provided members. Edwards and Fischer suggest that only limited information is provided to the supervisory board, see EDWARDS & FISHER, supra note 3, at 129-30, 213-14, which

hard distributive negotiations between capital and labor over how losses from technological change would be shared, the bargaining game would be played under the more favorable conditions of symmetric information, with a corresponding increase in the likelihood of a favorable resolution.⁵⁶ In short, a particular corporate governance feature like labor board representation might facilitate the tradeoff between commitment and adaptability in a world of rapid technological change.

V. CONCLUDING OBSERVATIONS

The academic inquiry concerning the link between corporate governance and economic efficiency is at a very preliminary stage: Firm conclusions about the nature of that link remain very difficult to draw. Thus, I will end my commentary with an observation. Much of the existing corporate governance literature is static in character: What institutional structure best responds to a given problem? As we increasingly realize that history and politics, and therefore institutions, matter, I expect that the next generation of corporate governance scholarship will be dynamic: How do existing institutions come to respond to a changing array of problems? The shift in emphasis reflects an altered scholarly agenda—how a system moves from one equilibrium to the next may come to attract more interest than the characteristics of a particular equilibrium.⁵⁷ More important, it may turn out that equilibria are increasingly less important as the pace of change reduces the time spent in equilibrium and, hence, increases the importance of disequilibrium.⁵⁸

may result in bank members receiving information critical to bargaining through other facets of the bank's multi-dimensional relation with the firm, therefore reinforcing rather than reducing the information asymmetry between capital and labor.

^{56.} For an interesting analysis of post-deregulation employee ownership in the airline industry as a response to bargaining problems concerning the impact of deregulation on labor and capital, see Jeffrey Gordon, Employee Stock Ownership as a Transition Device: The Case of Airlines (Fall 1995) (working paper, on file with author). For example, where bargaining over the relative values of labor and capital contributions fails, an employee buyout, where the value of capitals' interest can be assessed by reference to an independent market price, may provide the better bargaining structure. *Id.*

^{57.} See North, Performance Through Time, supra note 7, at 360.

^{58.} See Gilson, supra note 31, at 174-75.

