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F. HODGE O'NEAL CORPORATE AND SECURITIES LAW SYMPOSIUM: PATH DEPENDENCE AND COMPARATIVE CORPORATE GOVERNANCE

FOREWORD

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I. THE PATH DEPENDENCE CONCEPT

The study of institutions, and particularly the study of institutions that societies use to govern business enterprises, is at a point of transition. In the last two or three decades, scholars focusing on economic principles to define appropriate legal rules and corporate institutions rose up to challenge the traditional orthodoxy of corporate governance found in the Berle and Means corporation.

One of the most exciting trends in the literature rests upon the "increas-

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ing marginal returns" school of economics associated with Brian Arthur and the Santa Fe Institute. The traditional neoclassical economic theory of production, familiar from decades of undergraduate and graduate courses in microeconomic theory, focuses on competition between products in terms of decreasing marginal returns. The idea is that the economy will settle to a competitive (and optimal) equilibrium at the point where the decreasing marginal returns that sellers can obtain from increasing production just equal the increasing marginal costs of producing more and more units of a given product. As a producer increases the amount of production of a given product, it must sell to purchasers less excited about the product. Demand for additional units decreases, which in turn decreases marginal revenue.

For the last fifteen years, however, the noted Stanford economist Brian Arthur has been advancing an alternative to the traditional neoclassical economic perspective. Arthur focuses on areas of the economy in which marginal returns to production are *increasing*, not decreasing.[1] He argues that in many situations a producer that increases production actually increases the marginal revenue from the marginal unit. The general mechanism for that increase is the "network" or "adoption" externality, commonly associated with cutting-edge technologies. Think of the compact-disc player in the late 1980s. Each person that purchased a compact-disc player provided a benefit to every other purchaser by (among other things) increasing the market for compact discs, thus increasing the incentive for compact-disc manufacturers to produce musical recordings in that format. That benefit—the network or adoption externality—drives the increasing marginal returns to production that differentiate Arthur's approach from neoclassical explanations.[2] An important insight of this work is that the equilibrium into which production settles depends upon the path through which a producer travels: The ultimate equilibrium is path dependent.[3] The path dependence of the production equilibrium suggests, among other

1. *See, e.g.*, W. BRIAN ARTHUR, INCREASING RETURNS AND PATH DEPENDENCE IN THE ECONOMY 1-32 (1994). For a lay summary of Brian Arthur's role in the development of this area of thought, see M. MITCHELL WALDROP, COMPLEXITY: THE EMERGING SCIENCE AT THE EDGE OF ORDER AND CHAOS 15-51 (1992).

2. Among the leading early papers in the economic literature that discuss network or adoption externality are Philip H. Dybvig & Chester S. Spatt, *Adoption Externalities as Public Goods*, 20 J. PUB. ECON. 231 (1983); Joseph Farrell & Garth Saloner, *Standardization, Compatibility, and Innovation*, 16 RAND J. ECON. 70 (1985); and Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424 (1985).

3. *See, e.g.*, ARTHUR, *supra* note 1, at 111-29.

things, that we can have little confidence that the equilibrium position is in fact the optimal position.

Arthur's ideas have ignited an extensive debate in the economic literature, as various scholars assess the extent to which his analysis provides the best explanation for a variety of historical phenomena ranging from the adoption of the QWERTY typewriter keyboard, to the success of the VHS over the competing Betamax technology, to the development of particular types of nuclear reactors.[4] A related and equally important part of the development has come from the work of Nobel laureate Douglass North, who has applied similar tools in the area of institutional economics.[5] In his recent collaboration with Arthur Denzau, North broadened the reach of Arthur's perspective by showing how cognitive and heuristic limitations can pose obstacles to change that have the same effects as the economic obstacles that Arthur identified.[6]

More importantly for the present context, prominent corporate law scholars have begun applying the insights of Arthur's analysis to issues related to corporate institutions. In that vein, the work of Michael Klausner and Marcel Kahan is of particular significance for this issue. Klausner and Kahan have undertaken to examine the mechanisms that lead to path dependence in corporate contracts and institutions. Klausner began by showing how the network externalities associated with corporate contracts call into question the conventional notion that economic forces promote the development of optimal corporate contracting.[7] Klausner and Kahan's article in this issue,[8] together with a current working paper,[9] have expanded that analysis to consider how learning effects, informational cascades,

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4. *Compare* W. Brian Arthur, *Competing Technologies, Increasing Returns, and Lock-In by Historical Events*, 99 ECON. J. 116 (1989) (arguing that the phenomenon is common) *with* S.J. Liebowitz & Stephen E. Margolis, *Network Externality: An Uncommon Tragedy*, J. ECON. PERSP., Spring 1994, at 133 (arguing that the phenomenon is rare).

5. *See, e.g.*, DOUGLASS C. NORTH, INSTITUTIONS, INSTITUTIONAL CHANGE AND ECONOMIC PERFORMANCE 93-95 (1990).

6. Arthur T. Denzau & Douglass C. North, *Shared Mental Models: Ideologies and Institutions*, 47 KYKLOS 3 (1994). For an ambitious application of North's analysis to the general problem of legal change, see Lynn M. LoPucki, *Legal Culture, Legal Strategy, and the Law in Lawyers' Heads*, 90 NW. U. L. REV. (forthcoming 1996).

7. Michael Klausner, *Corporations, Corporate Law, and Networks of Contracts*, 81 VA. L. REV. 757 (1995).

8. Marcel Kahan & Michael Klausner, *Path Dependence in Corporate Contracting: Increasing Returns, Herd Behavior and Cognitive Biases*, 74 WASH. U. L.Q. 347 (1996).

9. Marcel Kahan & Michael Klausner, Corporate Contracting: Innovation, Standardization, and the Role of Contracting Agents (1996) (unpublished manuscript, on file with authors).

and herd behavior among lawyers all can combine to lead rational, utility-maximizing actors down a socially suboptimal path. The article in this issue, in turn, extends that analysis to consider how cognitive biases can contribute to that same effect.[10] From a different perspective, Mark Roe's recent *Harvard Law Review* commentary on *Chaos and Evolution in Law and Economics*[11] articulates a typology of the different ways in which the externalities that arise from historical patterns can affect the development of governance systems.

This symposium issue of the *Washington University Law Quarterly* focuses the application of path dependence to corporate institutions on a natural topic: comparative corporate governance. Inherent in the concept of path dependence is the point that no set of institutions should be regarded as perfect just because they are the result of the ungoverned operation of the marketplace. Historical, ideological, and behavioral settings matter because they set the path upon which institutions are formed. That point, in turn, naturally suggests the value of comparing the ways in which corporate institutions develop: the ways they develop in different settings around the world, and the ways they develop as the sophistication of the players increases within our own economy. That project is important not only because it increases our knowledge of how corporate institutions function, but also because it helps us to see how we might improve existing institutions.

II. THE CONTRIBUTION OF PATH DEPENDENCE TO CORPORATE GOVERNANCE SCHOLARSHIP

For all of its explanatory power, the concept of path dependence appears remarkably commonplace, at least in hindsight. It is hardly controversial to suggest that initial conditions matter, that ideologies and accidents affect the design of institutions, and that past decisions shape current choices. Historians and cognitive psychologists, among others, have been telling us this for some time.[12]

The implications of those relatively uncontroversial suggestions for corporate governance, however, have been dramatic. Corporate laws and institutions may persist not because they have withstood a Darwinian

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10. Kahan & Klausner, *supra* note 8, at 359-65.

11. Mark J. Roe, *Chaos and Evolution in Law and Economics*, 109 HARV. L. REV. 641 (1996).

12. *See* Charles M. Yablon, *Judicial Drag: An Essay on Wigs, Robes and Legal Change*, 1995 WIS. L. REV. 1129, 1147 n.51 ("'[P]ath dependent' is the term economists use because they can't bring themselves to say the word 'history.'").

struggle for survival (thereby demonstrating their efficiency), but because chance events have selected and then locked them into a particular path.[13] Search costs can create inertia toward remaining with a solution that is "good enough" though not the "best" alternative.[14] The renaissance in corporate law scholarship in the United States began when Mark Roe stripped away the "Berle and Means blinders"[15] to show that the "modern corporation" Berle and Means had described in the 1930s was more the product of political ideology and historical circumstance than the pinnacle of economic development.[16]

Edward Rock's article in this symposium issue[17] directly addresses the question of how path dependence contributes to corporate governance scholarship. Rock identifies two claims based on path dependence that appear in the recent comparative corporate governance literature, one positive and one normative. The positive claim is that American corporate governance structures are historically and politically contingent. Japan and Germany demonstrate that highly successful market economies can develop with governance structures markedly different from our own. Normatively, what Rock calls the reformist claim follows from the recognition that alternatives to the U.S. system are possible: Perhaps the United States would benefit by adopting the alternative mechanisms that may have contributed to the competitiveness of the Japanese and German economies. At the very least, the alternatives should be allowed to compete within the U.S. economic system.

In the lead article,[18] Ronald Gilson tries to advance both the positive project (understanding when institutional differences influence economic efficiency) and the normative project (improving the productivity of national corporate governance systems). Gilson concludes that "path dependency makes institutions matter" only in two circumstances: when

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13. *See* ARTHUR, *supra* note 1, at 116-18. For a treatment of path dependence and evolution from a legal perspective, see Roe, *supra* note 11, at 641-62.

14. The tendency to stop searching upon finding an adequate, albeit possibly suboptimal solution is known as "satisficing." *See* HERBERT A. SIMON, ADMINISTRATIVE BEHAVIOR: A STUDY OF DECISION-MAKING PROCESSES IN ADMINISTRATIVE ORGANIZATION xxviii (3d ed. 1976).

15. Ronald J. Gilson & Mark J. Roe, *Understanding the Japanese Keiretsu: Overlaps Between Corporate Governance and Industrial Organization*, 102 YALE L.J. 871, 881 (1993).

16. Mark J. Roe, *A Political Theory of American Corporate Finance*, 91 COLUM. L. REV. 10 (1991).

17. Edward B. Rock, *America's Shifting Fascination with Comparative Corporate Governance*, 74 WASH U. L.Q. 367 (1996).

18. Ronald J. Gilson, *Corporate Governance and Economic Efficiency: When Do Institutions Matter?*, 74 WASH. U. L.Q. 327 (1996).

they fit the dominant character and technology of industrial production in a given economy, and when they act as "guardrails," continuously channelling movements along a well-worn path even though a different route would be optimal.[19] Gilson's description of corporate governance systems in major economies as involving a tradeoff between commitment (found in the Japanese system) and adaptability (a key feature of the U.S. system) frames his conclusion that future competitive success will require simultaneous achievement of those two goals within one system.

The article in this issue by Steven Kaplan and Mark Ramseyer[20] takes a different perspective, arguing that the positive project must be undertaken with considerable caution. Although the best of the literature in the field has scrupulously avoided the trap, uncritical application of the path dependence concept could obscure the economic constraints that influence firm monitoring and decisionmaking in market economies worldwide. Kaplan and Ramseyer thus rightly caution against the "easy application of path-dependence to corporate governance."[21] While accepting the historical and political contingency of the constraints in which firms operate, the authors cite comparative econometric data on managerial incentives and turnover to support their assertion that firms cannot escape "the basic logic of the product and capital markets."[22] This perspective suggests a more limited role for corporate institutions; whatever the precise form of those institutions (within broad ranges), firms that meet market challenges will succeed and firms that do not will fail.

Normatively, the ability to adopt promising alternate governance structures revealed by the newfound comparative perspective of corporate law scholarship is severely limited by the very path dependence of those structures. As the article by Hideki Kanda[23] illustrates, crucial facets of corporate governance are shaped by such vagaries as the unintended effects of corporate tax rules.[24] Moreover, as noted above, other recent scholarship by Klausner suggests that important features of corporate practice

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19. Gilson, *supra* note 18, at 341.

20. Steven N. Kaplan & J. Mark Ramseyer, *Those Japanese Firms with Their Disdain for Shareholders: Another Fable for the Academy*, 74 WASH U. L.Q. 403 (1996).

21. *Id.* at 407.

22. *Id.*

23. Hideki Kanda, *Taxes and the Structure of Japanese Firms: The Hidden Aspects of Income Taxation*, 74 WASH U. L.Q. 393 (1996).

24. *Id.* at 400 (suggesting that conflicting tax incentives may partially explain the Japanese *keiretsu* system).

persist due to network externalities.[25] In a world where rules and institutions develop chaotically, transplanting institutions formed in one social, political, and historical setting onto foreign soil is an exceedingly complex and unpredictable endeavor. The insights of path dependence support the longstanding skepticism of comparative lawyers and economic historians to the notion of transplantability.[26]

So what is the promise of path dependence for corporate scholarship? We assert that the key to both the positive and normative claims of this literature is their ability to render more transparent the logic (or illogic) that undergirds our legal and economic institutions. A path dependence perspective facilitates meaningful systems analysis of competing governance structures by unpacking the black box of culture and allowing us to see the choices (and non-choices) that shape the development of institutions. For example, an insight like the difficulty of transplanting flexible enabling statutes of the kind found in Delaware corporate law to countries with underdeveloped court systems[27] comes much more readily to a scholar looking at the world through the lens of path dependence. The reformist role for path dependence studies lies not in transplanting foreign institutions, but in improving our understanding of the ways in which our own choices are affected by cognitive biases, political ideologies, and historical accidents. Because information costs are a major barrier to reform,[28] a first step in re-engineering suboptimal rules and institutions is understanding how they arrived in their current form and recognizing that superior alternatives might be available.[29]

A second contribution of the literature is the liberation of corporate

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25. *See* Klausner, *supra* note 7.

26. This skepticism can be traced back to Montesquieu: "The political and civil laws of each nation . . . must be so peculiar to the people for whom they are made; it is a very great accident should those of one Nation suit another." CHARLES DE SECONDAT MONTESQUIEU, 1 DE L'ESPIRIT DES LOIX 26 (Société les Belles Lettres 1950). For a more recent example, see O. Kahn-Freund, *On Uses and Misuses of Comparative Law*, 37 MOD. L. REV. 1, 27 (1974) ("[W]e cannot take for granted that rules or institutions are transplantable."). Economic theorists are similarly reluctant to embrace the notion of transplantability. *See* NORTH, *supra* note 5, at 6 ("Although formal rules may change overnight as the result of political or judicial decisions, informal constraints embodied in customs, traditions, and codes of conduct are much more impervious to deliberate policies."). For a more sanguine view, see ALAN WATSON, LEGAL TRANSPLANTS 100 (1974) ("[T]he creation of law for that precise society in which it is operating is neither always common nor very important.").

27. Rock, *supra* note 17, at 387.

28. Roe, *supra* note 11, at 659.

29. *See, e.g.*, Allen N. Berger et al., *The Transformation of the U.S. Banking Industry: What a Long, Strange Trip It's Been*, 2 BROOKINGS PAPERS ON ECON. ACTIVITY 55 (1995).

governance studies from their focus on static equilibrium responses to specific governance problems. Path dependence emphasizes the way in which constraints on firms are constantly, if often imperceptibly, shifting along with market, technological, legal, and social changes.[30] The evolution metaphor captures the constant shifting and grinding that occurs as some constraints are relegated to oblivion while others act as a brake on a changing world.[31]

Looking ahead, there is much to be done. Theorists have advanced the positive project to the point where we no longer take for granted the forces that shape corporate governance structures. We are beginning to discern possible linkages between institutional incentive structures and efficiency-enhancing responses to governance problems. To borrow Gilson's phrasing, we are beginning to understand when and how institutions matter in corporate governance. Nonetheless, we suspect that existing scholarship represents a fascinating research agenda rather than complete articulations of these concepts. And an even larger challenge awaits. It remains for scholars of corporate governance to identify the institutional frameworks that will encourage firms to adapt efficiently to the ever-accelerating developments in technology, information, and finance while strengthening credible commitments to beneficial structures. Identification of those frameworks, in turn, cannot proceed until scholars understand the mechanisms that translate those institutional frameworks into the actual practice of corporate governance,[32] a task that is likely to require a heavy dose of empirical inquiry.[33]

By grappling with the implications of path dependence in corporate

30. For a study of the shifting constraints on Japanese firms, see Curtis J. Milhaupt, *A Relational Theory of Japanese Corporate Governance: Contract, Culture, and the Rule of Law*, 37 HARV. INT'L L.J. 3 (1996).

31. *See* Roe, *supra* note 11. This dynamism exists notwithstanding potential "lock-in" of systems at a suboptimal equilibrium. For a discussion of the lock-in effect, see Arthur, *supra* note 4. The dichotomy between stability and dynamism is inherent in the related theories of chaos and complexity. *See* URI MERRY, COPING WITH UNCERTAINTY 51 (1995) ("Human history is made up of successive stages of relatively predictable stability and development along a particular path, separated by periods of instability during which the future of the system is decided by small, chance events which push it into one or another path."). For an evolutionary approach to economic change, see RICHARD R. NELSON & SIDNEY G. WINTER, AN EVOLUTIONARY THEORY OF ECONOMIC CHANGE (1982).

32. *Cf.* Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549 (1984) (undertaking that task with respect to capital markets).

33. One of us has taken some initial steps toward identifying such mechanisms in the context of the lending market. *See* Ronald J. Mann, *Explaining the Pattern of Secured Credit*, 110 HARV. L. REV. (forthcoming 1997).

governance, the contributions to this symposium demonstrate the promise of interdisciplinary research in the field as well as the vitality of the new comparativism in corporate law scholarship.