The Increasing Role of Empirical Research in Corporate Law Scholarship


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Mark Roe is one of the leading American corporate law theorists. His intellectual contributions are widely regarded as changing the way scholars think about corporate governance, regulatory competition, bankruptcy, and other subjects. In his latest book, Political Determinants of Corporate Governance (hereinafter Political Determinants), Professor Roe continues his important theoretical contributions, but also adds another dimension to his scholarship—an empirical one—that reflects both his own development as a scholar and, more broadly, a shift in the nature of scholarship in the corporate field.

For many years, modern corporate law scholarship has been split into two broad categories, theoretical and empirical, with little overlap between them. Scholars employing a wide range of theoretical approaches, including contractarians, communitarians, team production advocates, director primacy proponents, and many others, have employed different perspectives to try to generalize about the origins, current state, and future of corporate law. These pieces are provocative and illuminating, but they rarely seek to test the theories developed

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6. See, e.g., Frank H. Easterbrook & Daniel R. Fischel, The Economic Structure of Corporate Law (1991). This is the classic book expounding the contractarian view of corporate law, although numerous other scholars have made significant contributions in this area.
against empirical evidence. Legal empiricists, on the other hand, have generally eschewed "big theory" and focused their efforts on narrower, testable hypotheses. Their articles look more like those published in economics and finance journals, and that is often where they are found.10

In recent years, however, there has been an explosion in the number of theoretical articles that combine theoretical and empirical elements. Younger scholars such as John Coates,11 Guhan Subramanian,12 Rob Daines,13 and Steve Choi,14 as well as more senior authors like Roberta Romano,15 Bernard Black,16 and Robert Thompson,17 have published major pieces of scholarship both developing and empirically testing theories. Roe's *Political Determinants* moves him into this growing group of empirically oriented corporate law theorists.

Yet Roe's move is not without peril. Quantitative legal scholars must be conscious that they are tilling well-plowed ground. The legal academy's sometimes whimsical march into empirical research has attracted strong criticism by some academics18 and equally impassioned defenses by others.19 While these

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18. See Lee Epstein & Gary King, The Rules of Inference, 69 U. CHI. L. REV. 1, 6 (2002) (claiming that "the current state of empirical legal scholarship is deeply flawed" because the legal literature pays little attention to "the rules of inference that guide empirical research in the social and natural sciences").
battles have largely ignored corporate law scholarship, it behooves corporate scholars to reflect on our empirical work to avoid some of the pitfalls identified.\(^{20}\) A legitimate argument can be made that corporate law scholarship needs better methodology and better testing of its theories before claiming to have succeeded in proving (or disproving) anything.

In this regard, it is illuminating to compare Professor Roe’s analysis in *Political Determinants* with that employed by Professors La Porta, Lopez-de-Silanes, Shleifer, and Vishny (hereinafter LLSV). These four well-known economists have developed a major competing theory about the determinants of corporate governance.\(^{21}\) Consistent with the methodology of economics scholarship, LLSV seek to validate their theory by thorough empirical testing with a well-specified model and lots of data. Roe is quite critical of LLSV’s work on a number of persuasive theoretical grounds, and for their unsophisticated understanding of legal institutions. Roe also claims that their empirical results do not support their theoretical conclusions. But LLSV could easily turn the tables on Professor Roe and attack him for failing to rigorously test his hypotheses.

Herein lies the problem for the new empirical corporate law scholarship: Once we begin to claim that we are empiricists, we will be held up to the methodological standards for empirical research that have been developed by generations of social science researchers, at least when our work is read by academics in those fields. In this regard, LLSV’s empirical methodology is a reasonable benchmark against which legal scholars can measure their work.

At the same time, what legal scholars can bring to the party that other disciplines lack is our rich understanding of the economic, political, and social forces that shape law, and law’s effect on them. This deep background should permit legally trained empiricists to formulate hypotheses that take into account more of the factors that affect the creation of law and its effects and to define richer variable that do a better job of capturing law’s impact. When we add to this deep theoretical skill set a rigorous quantitative orientation, then our research will carry much more weight—not only in legal circles, but elsewhere in the academy as well.

This book review seeks to accomplish two goals. First, in Part I, it summarizes the theoretical arguments made in *Political Determinants* and critiques the empirical support marshaled by Professor Roe in support of them. Then, in Part II, it develops an alternative model that could be used to test both Professor Roe

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\(^{21}\) Among the numerous articles LLSV have published, a few are particularly relevant here. See, e.g., Rafael La Porta et al., *Investor Protection and Corporate Governance*, 58 J. FIN. ECON. 3 (2000); Rafael La Porta et al., *Law and Finance*, 106 J. POL. ECON. 1113 (1998) [hereinafter La Porta et al., *Law and Finance*]; Rafael La Porta et al., *Legal Determinants of External Finance*, 52 J. FIN. 1131 (1997).
and LLSV's theories about the determinants of corporate governance. Finally, it offers a few concluding remarks about the future of empirical legal scholarship.

I. THE "POLITICS MATTERS" THEORY

The basic thesis of Political Determinants is that politics matters in determining how a country's corporate governance structure evolves over time. The "politics matters" thesis can be simply stated as follows: Social democracies,\(^\text{22}\) such as those in continental Europe, pressure corporate managers to protect workers by expanding employment levels, avoiding downsizing, and being overly risk-averse in their investment strategies.\(^\text{23}\) At the same time, these countries "denigrate the modern pro-shareholder tools—such as incentive compensation, hostile takeovers, shareholder wealth maximization norms, etc.—because it is not their policy to promote purely shareholder values."\(^\text{24}\) Owners of capital respond by concentrating ownership to ensure that managers act in the interests of the firm's owners rather than give away the store to workers.\(^\text{25}\)

A. THE BASIC THEORY

This simple summary of the theory, however, obscures the real depth of analysis in Political Determinants. The initial portion of the book explores the claim that "strong social democracies widen the gap between managers and distant shareholders, and impede firms from developing the tools that would close up that gap."\(^\text{26}\) Roe begins by noting that in a modern economy, a political predicate for large-scale production is sufficient social peace for firms to produce and sell their products. To understand how countries have achieved such peace, he argues, we must examine the deal cut among capital, labor, and managers.\(^\text{27}\)

In any democratic society, Roe asserts, the government will be pressured by voters to protect labor against the effects of unbridled shareholder wealth maximization. In some countries, notably the European social democracies, Roe claims that the state has sided with employees in order to resolve social conflicts. These social democracies have pushed firms to stabilize employment, expand firm size, and avoid changes that would adversely affect the quality of the workplace.\(^\text{28}\) But these goals, Roe observes, are similar to those of self-interested managers acting without concern for shareholder interests. In effect, the political pressures from a social democracy reinforce managerial tendencies

\(^{22}\) Roe defines social democracies as those "nations committed to private property but whose governments play a large role in the economy, emphasize distributional considerations, and favor employees over capital-owners when the two conflict." \textit{Roe, supra} note 5, at 24.

\(^{23}\) \textit{Id.} at 2, 14.

\(^{24}\) \textit{Id.} at 4–5 (emphasis omitted).

\(^{25}\) \textit{Id.} at 6.

\(^{26}\) \textit{Id.} at 49.

\(^{27}\) \textit{Id.} at 11–12.

\(^{28}\) \textit{Id.} at 4, 24.
to act in a self-interested way, thereby increasing managerial agency costs for shareholders.  

This leads owners of capital to seek ways of reducing these agency costs. In particular, Roe claims that outside the United States, owners of capital have concentrated their ownership of securities in order to protect capital's share of the pie and permit shareholders to monitor managers closely, thus limiting their discretion. Roe believes that some of the other alternatives for aligning shareholder and manager interests, such as those employed today in the United States, were rejected in these social democracies because they conflicted with labor groups', and sometimes managers' interests. For example, incentive compensation was slow to develop in Europe because labor viewed it both as creating unfair and inequitable compensation differentials between workers and managers, and as tying managers too closely to owners. Shareholder wealth maximization norms were supplanted by a stakeholder orientation through pressure exerted on managers by governments. Transparent accounting was not valued by owners, who preferred that employees not get a full picture of the firm's finances so that the firm could avoid having to pay them more money when it was doing well. Nor did governments push for better corporate disclosure rules because, although such rules might help labor, they might also lead to the development of a shareholder-oriented culture. Similarly, governments blocked hostile takeovers to protect employees from losing their jobs, even though capital owners might reap tremendous gains from them.

By comparison, Roe argues, these social democratic pressures were weaker in the United States, and the agency costs that they created were smaller. Managers faced less pressure to protect labor's interests. Markets were also bigger and more competitive, so that rents evaporated more quickly. These factors constrained managers' ability to shirk their duties to shareholders. Furthermore, the large size of the American market led to the creation of larger firms with far bigger capital needs than could be satisfied by individual families, however wealthy. Securities markets developed to meet these capital demands, and other institutions and norms arose to tie owners and managers together. As a result, Roe claims, the United States has a relatively small percentage of public firms in which individual shareholders control large blocks of stock.

In Roe's view, the political constraints imposed on managerial actions by

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29. See id. at 36–37.
30. See id. at 42–43.
31. See id. at 43.
32. Rents can be "thought of as a return to the scarce factor [of production] that makes the monopoly possible—i.e., the factor that serves as a barrier to entry." Hal R. Varian, Microeconomic Analysis 92 (2d ed. 1984).
33. Examples include the shareholder wealth maximization norm, incentive pay for managers, transparent accounting, and hostile takeovers.
34. See Roe, supra note 5, at 17, 50 tbl.6.2.
social democracies were more powerful and easier to implement when markets were smaller and more localized. In such conditions, monopoly power and the rents it generated were easier to maintain. When rents were high, Roe argues, managers had difficulty resisting pressures to divert some of them to labor. Today, Roe believes, globalization and the integration of the European Union have led to competitive capital, product and labor markets that will over time reduce the social democracies' political pressure on managers to favor labor interests.\(^{35}\) Shrinking rents will leave managers with less discretionary income to share with workers. Thus, in Roe's view it is not surprising that we see movement in the social democracies toward less protection of labor's interests, a weakening of control block ownership and the nascent development of alternative methods of tying shareholders and managers together.\(^{36}\)

In Part III of his book, Professor Roe tests his theory by running some simple regressions.\(^{37}\) Drawing on the political science and finance literature for data, he takes different indices for measuring national politics and regresses them for individual countries against measures of ownership dispersion in those countries. For instance, Roe regresses an index of left-right political placement for sixteen industrialized Western countries against each country's percentage of mid-sized public firms without a twenty percent blockholder, and finds a statistically significant correlation between the two variables.\(^{38}\) Substituting a variety of different measures for the strength of a social democracy, such as the degree of employment protection or of income inequality, or the percentage of gross domestic product that is government spending, does not diminish this correlation. Similarly, strong correlations exist between measures of social democracy and alternative measures of ownership concentration, including the size of each nation's stock market in proportion to its economy or the percentage of large firms without substantial block holders.\(^{39}\)

This statistical evidence, Roe claims, creates a "prima-facie case" that politics affects ownership structure.\(^{40}\) To his credit, he does not overstate the importance of these results. A variety of other statistical issues would need to be

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35. See id. at 36.
36. See id. at 140–41.
37. For a good introduction to regression analysis for non-quantitatively oriented readers, see ALAN O. SYKES, AN INTRODUCTION TO REGRESSION ANALYSIS (Univ. of Chi. Law Sch. John M. Olin Program in Law & Econ., 2d Ser., Working Paper No. 20, 1993), at http://www.law.uchicago.edu/Lawecon/WkngPprs_01-25/20.Sykes.Regression.pdf. Professor Sykes begins his discussion with a good description of what regression analysis is: "Regression analysis is a statistical tool for the investigation of relationships between variables. Usually, the investigator seeks to ascertain the causal effect of one variable upon another . . . . To explore such issues, the investigator assembles data on the underlying variables of interest and employs regression to estimate the quantitative effect of the causal variables upon the variable that they influence. The investigator also typically assesses the 'statistical significance' of the estimated relationships, that is, the degree of confidence that the true relationship is close to the estimated relationship." Id. at 1.
38. See Roe, supra note 5, at 51, graph 6.1.
39. See id. at 56–61.
40. See id. at 56.
addressed before his theory could be claimed to have been empirically validated, some of which he discusses briefly at various points in the book. For example, he notes that the causal relationships between ownership concentration and social democracy may be interactive, so that each one brings about changes in the other.\footnote{Both Roe and LLSV use linear regression techniques in their work, but neither has stated why, as a theoretical matter, it is the proper form of equation for these purposes.} Econometrically, this suggests that we need to deploy more sophisticated modeling techniques, such as specifying and estimating a simultaneous equations model, in order to capture accurately these interactive effects.\footnote{When economic models involve a set of relationships between several endogenous variables that are simultaneously determined, then single-equation estimation techniques yield incorrect (or, technically speaking, inconsistent) results. It is therefore necessary to model these relationships using several equations in which the behavior of the variables is jointly determined. These models are called simultaneous equation models. For a technical discussion of these models, see Multi-Equation Simulation Models, P. 2 of ROBERT S. PINDYCK & DANIEL L. RUBINFELD, ECONOMETRIC MODELS AND ECONOMIC FORECASTS (2d ed. 1981). Roe does note that simultaneity is a problem with unpacking the influences of different institutions on one another in theorizing about the determinants of corporate governance. ROE, supra note 5, at 152–53.} Even if the causal link runs only from politics to corporate concentration, however, a careful statistician would need to specify all the possible independent variables that would affect ownership levels, and include them in a multivariate analysis. Selecting an appropriate model would depend on the shape of the relationship between the variables: The simple regression model that Roe deploys assumes a linear relationship between the variables, but that might not be the case.\footnote{See id. at 51.} Furthermore, some of the independent variables could have lagged effects, so that, for example, employment protections five or ten years ago would have an effect on ownership concentration today.\footnote{See id. at 53, 150.} Finally, even once such a model was specified, the fact that there are only sixteen observations in Roe’s sample might make it impossible to estimate, as Roe notes. Generating additional data could take a lot of time and effort, if it were even possible. For all of these reasons, we are left at the end of Part III (and ultimately at the end of Roe’s book) with empirical results that suggest a relationship, but do not provide conclusive proof.

To buttress his empirical evidence, Professor Roe goes on in Part IV of the book to discuss how his theory applies in seven different countries: France, Germany, Italy, Japan, Sweden, the United Kingdom, and the United States. His discussions of Germany and Japan are particularly good illustrations of his thesis that social democratic policies lead to concentrated ownership.

Under the German co-determination system, labor in larger firms gets half of the seats on the firms’ supervisory boards. Labor’s strong presence on the supervisory boards leads owners of capital, who fear that labor may divert the firm’s resources to itself, to try to limit these boards’ powers. As a result,
German company boards have been made weak. A weak board makes it hard for dispersed shareholders to effectively monitor managers and ensure that they are not giving labor too large a share of the firm's rents.

Large block ownership acts as an effective counterweight to labor's pressure on managers: Capital uses alternative methods of getting information from managers, such as informal discussions, control over the board chairmanship, meeting with managers outside of the boardroom, and holding both debt and equity in the firm. The combination of concentrated ownership and alternative information channels reduces managerial agency costs.

In the case of Japan, Roe's analysis focuses on the political rationale for that country's system of lifetime employment. He claims that lifetime employment arose in the wake of vicious labor strife in post-World War II Japan as an attempt to maintain morale in the factories after management crushed an aggressive worker movement. Lifetime employment can therefore be seen as a political compromise that helped to buy social peace, but it also shaped developing corporate governance structures. Lifetime employment eliminated workers' fear of losing their jobs, creating a need for different methods to encourage workers to maintain their productivity. Japanese firms' ownership structure grew in a way that complemented the lifetime employment system's aversion to rapid change and risk. Instead of aggressive American-style shareholders, Japanese shareholders were normally creditors of the company as well. Such "banker-shareholders," Roe claims, could monitor managers to some degree, but without threatening to overturn the implicit contracts inherent in a lifetime employment system.

B. THE IMPORTANCE OF PRODUCT MARKET RENTS

Having set forth his basic theory and presented supporting evidence, Professor Roe turns to the effect of product market rents on corporate governance. Roe claims that greater monopoly profits should result in higher potential management agency costs for firms because such rents create a bigger pot of

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45. Roe claims that boards are too big to function effectively, they meet infrequently, they are poorly informed, and the shareholder directors on them are unwilling to criticize management in front of the labor directors. Id. at 72–74.
46. See id. at 73–76.
47. See id. at 77. The combination also led to an absence of diffuse ownership and weak securities markets. Prospective stock purchasers discounted the value of stock offered by controlling shareholders to adjust for the higher agency costs that would arise if capital owners (the controlling shareholders) were less able to monitor managers closely. Controlling shareholders were thus less likely to offer stock at all, and prospective purchasers would fully value stock only if they could acquire large blocks. These constraints on the workings of supply and demand meant little need for liquid securities markets. Id. at 76–77.
48. See id. at 89.
49. Id. at 90. Roe argues that internal labor markets adjusted in several ways. In some instances, internal promotional tournaments developed, offering seats on large corporate boards as top prizes for the best employees at the end of their careers of exemplary service. Id.
50. See id. at 93.
51. Id.
assets that managers can divert for their own purposes.\textsuperscript{52} Higher profits will also lead employees to seek higher compensation, improved working conditions, and perhaps a greater voice in corporate governance. At least some of labor’s goals are consistent with managers’ self-interested predisposition and may therefore encounter little managerial resistance when profits are high.\textsuperscript{53}

Politics also enters into the equation when social democratic institutions insist that labor receive a fair share of the monopoly profits. Faced with this threat to their investment returns, shareholders may lobby vigorously for such things as tighter fiduciary duties, incentive compensation, a shareholder primacy norm, and improved disclosures, in order to tie managers more closely to the interests of owners. At the same time, shareholders may also increase the level of their ownership or family control, to tighten their grip on the firm’s management.\textsuperscript{54}

Strong product market competition, perhaps stemming from globalization of markets, Roe argues, will constrain these costs.\textsuperscript{55} Managers will have a smaller pie to divide, and they may fear losing their jobs if profits shrink too much. As managers’ ability and interest in diverting value away from shareholders drops, shareholders will no longer need to invest so heavily in constraining managerial agency costs; therefore, they can reduce their block size and enjoy the benefits of greater liquidity and better diversification of their portfolios.\textsuperscript{56} Similarly, Roe claims, workers have less to gain from investing in political institutions that seek to increase labor’s share of a smaller pie. This weakens social democratic parties, resulting in a shift to the right in social democracies, making it politically possible to create some of the institutions (incentive compensation, for example) that shareholders use to bind managers more closely to their cause.\textsuperscript{57}

Roe then proceeds to test some of these claims using simple regression techniques. First, he examines whether the degree of ownership concentration is correlated with the amount of pressure that social democracies put on managers to protect labor’s share of the pie (as measured by an index of national employment protection). He finds that the degree of employment protection is a good predictor of the level of ownership concentration.\textsuperscript{58} Second, he uses a measure of monopoly profits as a predictor of ownership concentration, and finds a strong correlation between these variables.\textsuperscript{59} Roe concludes in each case

\textsuperscript{52} Id. at 126.
\textsuperscript{53} Id. at 131.
\textsuperscript{54} Id. at 132.
\textsuperscript{55} See id. at 136.
\textsuperscript{56} Id.
\textsuperscript{57} Id.
\textsuperscript{58} See id. at 137–39. For example, Table 19.1 displays data on the level of employment protection in sixteen industrialized countries as well as the portion of mid-sized public firms without a twenty percent stockholder. Id. at 137. Figure 19.1 illustrates the strong correlation between these two measures. Id. at 138.
\textsuperscript{59} Id. at 149 graph 20.1.
that this is crude evidence in support of his thesis.

What should we make of these regressions? As Roe himself admits, not too much.\(^6\) Once again, simultaneity rears its ugly head: If the two sets of variables are interactive, and both affect each other, then we need to estimate a model that can take these interactive effects into account. We cannot sort out the direction of the effects if we only look at one side of the interaction.\(^6\) Moreover, we again have the problem of specification: There are a wide variety of variables that need to be factored into the calculus, and these equations only examine a few of them at a time.\(^6\) Finally, as Roe acknowledges, there is the problem of changes over time. Political parties change over time, which should lead, probably with some lag, to changes in ownership patterns. We would need time series data to examine these effects, and at present, such data do not exist.\(^6\)

Professor Roe concludes this section with a short set of empirical tests that are designed to show that, even when we include measures of the quality of a nation’s corporate laws, politics still affects corporate governance. Roe makes the point that adding different measures of politics as explanatory variables increases the power of simple models that try to explain ownership separation as a function of corporate law variables. Using first a correlation matrix, and then some single and two-variable regression models, Roe finds support for this claim.\(^6\)

Here again it bears repeating that much more would need to be done to test this claim rigorously. Correlation matrices provide a general overview of the degree of correlation between different variables and are widely used as a means of detecting variables that exhibit a high degree of multicollinearity.\(^6\) Here the correlation matrix is used for the much simpler task of illustrating the likely explanatory value of different measures of politics and corporate law quality as predictors of ownership concentration. Furthermore, the regression models estimated are incomplete versions of a well-specified model for either the “politics matters” or the “quality of corporate law” theory. A full-blown test of either theory, or of their relative merits, would require adding many additional independent variables and addressing the issue of the direction of causality more completely.

C. ROE’S COMPETITOR: THE QUALITY OF CORPORATE LAW HYPOTHESIS

In the concluding section of the book, Professor Roe engages in a critical comparison of the “politics matters” thesis with LLSV’s “quality of corporate

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60. See id. at 155 (characterizing tests as “suggestive”).
61. See id. at 152–53.
62. As we will see in Part II, economists typically use multivariate models in making this analysis.
63. See Roe, supra note 5, at 150.
64. See id. at 155–58.
65. Multicollinearity is a problem that can adversely affect the predictive power of the affected variables, forcing researchers to use more sophisticated estimation techniques. See Sykes, supra note 38, at 28–31, for a nontechnical discussion of this problem.
law” theory. LLSV postulate that good corporate law is the critical precondition to the development of modern securities markets. Once such a corporate law is in place in wealthy countries, ownership of stock will become diffuse and large corporations will prosper. This influential theory is one of the principal competitors to the “politics matters” thesis.66

Roe criticizes the application of this theory to modern industrialized countries. First, he notes that there are several rich European countries that have had very good corporate law for many years yet continue to have concentrated ownership patterns.67 The explanation for this is that good corporate law does little to control the costs of managers dissipating shareholder value—it only stops managers from diverting assets to themselves.68 Only concentrated ownership can police these costs, as capital owners step in to make the crucial decisions that affect the firm’s future. Thus, the first limitation on the “quality of corporate law” thesis is that “a good core of corporate law—that attacks and destroys insider thievery—is not enough to induce separation.”69

The second problem with the “quality of corporate law” thesis, Roe claims, is that the effects of good corporate law on ownership concentration are indeterminate.70 In companies where controlling shareholders own large blocks of stock, good corporate law can protect minority shareholders from blockholder diversions. When minority investors are protected by good corporate law they will be willing to pay more for their shares in the market, which makes it possible for the controlling shareholder to sell its block into the market and get full value for it. The “quality of corporate law” thesis maintains that this will lead to greater separation of ownership and control. However, this effect does not unambiguously lead to greater dispersion of stock ownership. Good corporate law could also result in increased concentration if it leads controlling shareholders to engage in better monitoring of managers to increase information flows from the firm to the shareholders, and to make implicit contracts with other stakeholders when they are efficient. All of these activities increase the value of the firm. In short, if corporate law becomes good, it could reduce the amount that blockholders steal from minority shareholders. Therefore, the value of the firm may rise with an improvement of corporate law, which could lead blockholders to want to increase their holdings.

Professor Roe formalizes his insights into a simple model, which illustrates the point that better corporate law will not necessarily lead to more diffuse ownership.71 This model explicitly incorporates the observation that corporate law affects managerial stealing, not bad decision-making. Roe also factors in the point that controlling shareholders are likely to have better incentives to

66. See supra note 21 for citations to some of this work.
67. Roe, supra note 5, at 162.
68. Id. at 162–63.
69. Id. at 163.
70. See id. at 164.
71. See id. at 169–71.
make business decisions because they bear more of the costs of bad decisions than would professional managers who own little, if any, of the company's stock. In the end, what the model and several examples (especially Table 24.2) show is that the effects of good corporate law on shareholder dispersion are ambiguous. 

This result leads Roe to discuss the data problems that affect tests of the "quality of corporate law" theory. The first is the obvious question of how to define and measure "good" corporate law. Finance economists have come up with indices, but none of them make a lot of sense to lawyers. Assuming that we can resolve that issue, a second major problem Roe identifies is that, by several measures of the quality of corporate law, such as the size of the premium for control blocks and voting premium for dual class stock, many countries that have concentrated ownership also have good corporate law. These data are consistent with anecdotal evidence to the same effect. In short, the "quality of corporate law" thesis fails to explain why, in many countries with high quality corporate law, ownership remains highly concentrated.

Professor Roe concludes his argument by stating that high-quality corporate law is good for society because it helps to prevent managerial diversions of wealth from the firm. Having high quality corporate law is a precondition for the separation of ownership and control, and helps to lowers the agency costs arising in large firms. Yet it is in Roe's eyes only a tool for building these enterprises, not their foundation. Rather, it is politics that determines whether ownership remains concentrated, as in Europe, or becomes diffuse, as in the United States.

II. EMPIRICALLY TESTING THE "POLITICS MATTERS" THESIS

A trenchant if somewhat unfair way of comparing legal scholarship to that in the social sciences is that while lawyers tell stories, social scientists test hypotheses. Thus, while legal scholars sometimes illustrate their articles with pictures, graphs, and tables, their work looks little like the equation-laden pieces published by economists, political scientists, and finance professors. For the most part, this is not a problem—social scientists have a different audience and objectives than we do, and our differing methodologies reflect that. Moreover,

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72. See id. at 180–81. Table 24.2, id. at 181, is especially representative of this point.
74. See Roe, supra note 5, at 186–90.
75. See id. at 190.
76. The clearest example of this in the legal academy comes out of critical race theory. See, for example, P. II of CRITICAL RACE THEORY: THE CUTTING EDGE (Richard Delgado ed., 1995), for an extensive set of readings. However, a plausible argument has been made that courts, such as the Delaware Supreme Court, use judicial opinions to tell stories in the corporate arena. See, e.g., Edward Rock, Saints and Sinners: How Does Delaware Corporate Law Work?, 44 UCLA L. REV. 1009 (1997).
77. For a discussion of hypothesis testing, see PINDYCK & RUBINFELD, supra note 42, at 36–39.
78. See Goldsmith & Vermeule, supra note 19, at 153–54.
our approach has at least one great virtue in that we are free to theorize about
the way the world works using a broad variety of techniques drawn from every
field of study from anthropology\textsuperscript{79} to zoology.\textsuperscript{80} The end result is that a
thousand flowers can blossom. Over time, the strongest claims rise to the top.
But when we start to claim that we are proving or disproving these theories
based on limited, and sometimes flawed, quantitative evidence, then the fur
begins to fly.

Lee Epstein and Gary King have been the most aggressive in attacking
empirical legal research. Their scathing critique has already been the subject of
numerous articles, to which I have no wish to add.\textsuperscript{81} The main point that I draw
from that debate is that legal scholars doing quantitative scholarship should
carefully consider the methodologies employed in other disciplines, especially
the social sciences, in designing their own empirical studies. For sure, there may
be good reasons to reject certain aspects of those methodologies in some cases,
but they should nevertheless inform our use of empirical techniques.

If we take that point and apply it to empirical corporate law scholarship, and
more particularly to testing theories about the determinants of corporate gover-
nance, then what should we use as a model? One convenient choice is that used
by LLSV in testing their theories. For example, in one of their many papers in
the area, they test the claim that "companies in countries with poor investor
protection have more concentrated ownership of their shares."\textsuperscript{82} They theorize
that this effect may arise from two sources: first, in countries with poor investor
protections, large shareholders will need to own more shares to exercise their
control rights and prevent managers from expropriating resources from the firm;
and second, in these same countries, small investors will be unwilling to buy the
company's stock except at such low prices that it is unattractive for firms to sell
new stock to the public.\textsuperscript{83} To test their claim, they assemble data for forty-five
countries on ownership concentration levels at domestic nonfinancial publicly
traded firms without government ownership to create their dependent variable,
ownership concentration. They then collect data on gross national product
(GNP) per capita, total GNP, and Gini coefficients,\textsuperscript{84} plus several variables on
the origins of each country's legal system to use as control variables. Finally,
they gather data and construct several different measures of legal protections for

\textsuperscript{79} See, e.g., \textsc{William M. O'Barr & John M. Conley, Fortune and Folly: The Wealth and Power

\textsuperscript{80} Professor Owen Jones's work on behavioral biology may be the best example. \textsc{See Owen D.
Jones, Time-Shifted Rationality and the Law of Law's Leverage: Behavioral Economics Meets Behav-
ioral Biology, 95 Nw. U. L. Rev. 1141 (2001).}

\textsuperscript{81} See, e.g., \textsc{Lee Epstein & Gary King, Exchange: Empirical Research and the Goals of Legal
Scholarship, 69 U. Chi. L. Rev. 1 (2002).}

\textsuperscript{82} \textsc{La Porta et al., Law and Finance, supra note 21, at 1145.}

\textsuperscript{83} \textsc{Id.}

\textsuperscript{84} \textsc{Id.} at 1148. "The Gini coefficient of national income inequality roughly quantifies the richest
nations' relative tolerance for inequality and, hence, the relative strength of social democracy." \textsc{Roe,
supra note 5, at 54.}
investors to include as additional explanatory variables. They then use a multivariate regression analysis to try and sort out the effects of these different independent variables on ownership concentration. This is a well-accepted economists' approach to hypothesis testing.

Are there good reasons for Professor Roe to deviate from LLSV’s approach to testing theories about the determinants of corporate governance? Roe’s main reason for limiting his statistical analysis is lack of data. For instance, Roe states that “a sample of the world’s sixteen richest nations is not big enough to readily test out the comparative power of other explanations. But we cannot extend the sample, because the poorer nations are not economically ‘ripe’ for large public firms.”

Later, Professor Roe again stresses that his quantitative analyses are limited by the lack of data because “the number of nations we have to deal with is so small that our discussion must be qualitative.”

Could he overcome these data deficiencies? For some aspects of his theory, Professor Roe says that it is conceivable that additional data could be gathered, but that this could take years as such data is not currently available in an aggregated form. Yet the principal problem remains that his sample in its entirety will, for the foreseeable future, remain small because he excludes developing countries and countries without well-developed securities markets from his consideration. In short, Roe claims that his theory only has explanatory value for Europe, Japan, and the United States, and this automatically limits his data set.

Perhaps there is a way for Professor Roe to test his theory using a larger number of countries. In this regard, it is important to note that while Professor Roe criticizes LLSV’s theory as an explanation of corporate governance in the highly developed economies of Europe, Japan and the United States, he acknowledges that the LLSV model may offer a good explanation of what happens in less economically developed countries. This suggests that the relationship between ownership concentration and politics changes as a country moves up the developmental path. At low levels of economic activity, strong corporate law is a necessary condition to permit the creation of securities markets and diffuse ownership. However, as economic activity expands, good corporate law is not enough to explain why ownership does or does not separate from control; rather, we need to add in political factors in order to model what happens.

Suppose we can articulate when that shift should occur from a theoretical perspective, and that we can model the causal connection as running only in one

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85. Roe, supra note 5, at 55 (emphasis omitted).
86. Id. at 156.
87. Roe, supra note 5, at 55, 106–07.
88. Id. at 159 (“Surely, when an economically-weak society lacks regularity—a gap manifested by weak or poorly-enforced corporate law—that lack of regularity and that lack of economic strength preclude complex institutions like securities markets and diffusely-owned public firms.”).
direction, from politics to corporate governance. Assume that there are two measurable variables, $A$ and $B$, that theory tells us are critical in determining the level of ownership concentration (which we will call $Y$). Variable $A$ matters a lot for highly developed economies (say the level of social democracy), and only a little bit for other countries, while variable $B$ is the critical variable influencing ownership concentration in less wealthy economies (for instance, a measure of the quality of corporate law) but has minimal effects for the European countries, the United States, and Japan. We should be able to specify a model to run with the pooled sample of all countries which will allow us to sort out the different effects of $A$ and $B$ among the two different types of countries with the help of some dummy variables. In particular, we could estimate the following model:

$$Y = \alpha + \beta A + \gamma B + d(G \times A) + \eta(G \times B) + e,$$

where $G$ is a dummy variable that has a value of zero for less wealthy countries and one for the highly developed countries.

When we estimate this model using data from all of the countries for which there is data, we get the following results. For less wealthy countries, this reduces to equation (2):

$$Y = \alpha + \beta A + \gamma B,$$

because $G = 0$ and the other terms drop out. For Europe, Japan, and the United States, we wind up with estimates of equation (3):

$$Y = a + (\beta + d)A + (\gamma + \eta)B,$$

because when $G = 1$ the effect of $A$ (social democracy) on $Y$ is measured by the sum of the coefficients $\beta$ and $d$, while the effect of $B$ (quality of corporate law) on $Y$ is measured by the sum of the coefficients $\gamma$ and $\eta$.

If there is a difference in the size of these effects for the two different groups of countries, then we should be able to measure it by comparing the coefficients in these two estimates. If, as Roe believes, the quality of corporate law matters only for less wealthy countries, then we should find that the $\beta$ coefficient in equation (2) is insignificant while the $\gamma$ coefficient is significant. However, the result for developed countries as shown by equation (3) should be the opposite—

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89. If the causality runs in both directions, we would need to use a simultaneous equations approach to model it. This would complicate the discussion in the text, but would not change the basic point.

90. The individual coefficient attached to an independent variable can be thought of as a measure of the estimated effect of that variable on the dependent variable. For example, in equation (2), the $B$ regression coefficient will measure the effect that variable $A$ (the level of social democracy) has on the dependent variable $Y$ (the level of ownership concentration). See Pindyck & Rubinfeld, supra note 42, at 75–78, for a technical discussion of the interpretation of regression coefficients.
the joint coefficient \((\beta + d)\) should be significant, while the joint coefficient \((\gamma + \eta)\) should be insignificant. If, on the other hand, LLSV are correct, and their theory explains the determinants of corporate governance at all levels of development, then the patterns shown in the two equations should be the same—the joint coefficient \((\beta + d)\) shown in equation (3) should be insignificant, as should the \(\beta\) coefficient in equation (2). By contrast, the joint coefficient \((\gamma + \eta)\) in equation (3) and the \(\gamma\) coefficient in equation (2) should both be significant.

This approach would represent a significant improvement over the approach used by Roe in *Political Determinants*, and by LLSV in their series of papers, as it would allow researchers to test the joint theory and to use a larger data set. This larger data set, in turn, would permit the inclusion of more explanatory variables in the model.

This approach does not, however, completely free us from data constraints. Suppose, for example, that we can only measure the effects of the quality of corporate law if we use two distinct variables. If we believe that these variables are independent factors, then we need to add a third explanatory variable \(C\) to equation (1) as well as at least one more dummy variable \((G \times C)\) to our equation (1).\(^{91}\) In other words, our theory may lead us to increase the number of potential explanatory variables, which will multiply the number of alternative effects we need to consider. As a practical matter, this creates a potential problem: We will need to increase the number of explanatory variables at least twice as fast as the factors that theory tells us to incorporate, quickly leading to strenuous data demands.

Furthermore, there is almost certainly a set of other influences that we need to hold constant. For instance, LLSV look in one of their studies at the determinants of ownership concentration using GNP per capita, total GNP, and the Gini coefficient as independent explanatory variables in an effort to eliminate other important influences on corporate ownership concentration levels.\(^{92}\) Adding these terms into our equation, while necessary, will again increase the amount of data we need in order to estimate the model.

It seems likely that these adjustments could be made to the model without exceeding the available information. LLSV, for instance, generated complete data on forty-five countries to estimate their model. Assembling the needed information undoubtedly would require substantial work, but using this model should allow us to test directly Roe’s claim that the determinants of existing corporate governance structures vary across the level of economic development.

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91. More complex theoretical relationships would require a more sophisticated model to capture the expected effects. However, the basic point would be the same.

92. La Porta et al., *Law and Finance, supra note 21*, at 1148–49. LLSV use the logarithm of GNP per capita to control for potential differences in ownership levels among richer countries; the logarithm of total GNP to control for larger economies’ having larger firms, and therefore lower concentration; and the Gini coefficient to control for whether societies with more unequal income levels have a higher ownership concentration.
CONCLUSION

*Political Determinants* is a must-read book for scholars interested in understanding how modern corporate governance structures have developed and continue to evolve. Professor Roe makes a strong theoretical case, and offers numerous helpful case studies in support of his thesis that politics trumps corporate law in more advanced corporate governance systems. The book also offers some empirical evidence to support the thesis that “politics matters.” Professor Roe is modest in his claims about the nature of this support and recognizes there is room for an expanded empirical agenda. This review suggests that there is more he could do to test his theories against his competitors, and offers one possible model that might help him achieve that goal.

More generally, as corporate law scholars move from the purely theoretical to attempting to prove, or disprove, their theories using numbers, we need to pay more attention to the methodologies developed by economists, political scientists and others. We should view this challenge as an opportunity to translate our deep knowledge of the forces that shape law into highly persuasive models that capture our views and yet are susceptible to rigorous testing.