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# DO SOME OUTSIDE DIRECTORS PLAY A POLITICAL ROLE?\*

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### ABSTRACT

If outside directors with backgrounds in politics and in law play a political role, they will be more important on the boards of firms for which politics matters more. We conduct three tests. First, for a sample of manufacturing firms, we find that politically experienced directors are more prevalent in firms where sales to government, exports, and lobbying are greater; lawyer-directors are more prevalent in firms where costs of environmental regulation are higher; and both are more prevalent in larger firms. Second, for a sample of electric utilities during the 1990s, when the advent of retail competition made politics more important, we find increased incidence of politically experienced directors. Finally, we explore whether a governmental taste for diversity creates a political role for women directors. Although we document increased incidence of women directors over time, we find little evidence that women directors play a political role.

# I. Introduction

WITHIN an agency framework, outside directors on corporate boards serve an important function. They select, monitor, and reward or punish managers. Performed effectively, these activities help to align managerial and shareholder interests and so work to resolve the fundamental agency problem facing firms. But outside directors likely do more. In bringing expertise in business problem

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<sup>1</sup> See Eugene F. Fama & Michael C. Jensen, Separation of Ownership and Control, 26 J. Law & Econ. 301 (1983).

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solving and knowledge of technologies and markets unfamiliar to inside managers, they can also play an important role in formulating business strategy.<sup>2</sup>

Both of these roles suggest that outside directors will have considerable business acumen and skill in decision making. It is no surprise, then, that many outside directors are senior managers in other firms. Nor is it surprising to find successful investors or business consultants serving as outside directors. In fact, most outside directors fit this business-specialist mold. But a significant number do not. This second group has important nonbusiness experience in government, academe, the arts, and law. Particularly striking among these is the number of outside directors with backgrounds in law or in politics. Why are such directors valuable to boards? That is, what is their role?

We argue that where politics is an important determinant of firm profitability, lawyers and the politically experienced aid the firm with their knowledge of government procedures and their insight in predicting government actions. More directly, they may also act to enlist government in the firm's interest or to forestall government actions inimical to the firm. That is, we argue that these directors play a political role. Examples of situations where politics is important are where trade policy opens previously protected foreign markets; where the government is, itself, an important customer; and where the regulatory actions of the Food and Drug Administration, the Environmental Protection Agency, or the Equal Employment Opportunity Commission can have important consequences.

If outside directors with backgrounds in law and in politics do play a political role, we should observe the incidence of such directors to be positively related to direct measures of the importance of politics to firms. For a sample of large U.S. manufacturing firms and using both general and specific measures of the importance of politics, we find this to be true. Further evidence of this political role is found in an examination of the boards of electric utilities. During the 1990s, retail competition in electricity became an increasingly important political issue, to which electric utilities responded by adjusting board composition. Over this time period, outside directors with political backgrounds increased in number and importance on the boards of these utilities. Finally, we consider the possibility that women board members may play a political role. This would be the case if the presence of women as outside directors satisfies a political demand for diversity. Although we document an increase in the importance of women directors over time, we find little evidence that women directors are more numerous on the boards of firms for which politics is more important. This suggests that women directors do not play a political role.

Section II describes the firms in our primary sample and the size and composition of their boards, focusing on those outside directors with backgrounds in law and in politics. It also develops direct measures of the importance of politics to firms. Section III tests for a political role for outside directors with

<sup>&</sup>lt;sup>2</sup> See *id.*; and James A. Brickley & Christopher M. James, The Takeover Market, Corporate Board Composition, and Ownership Structure: The Case of Banking, 30 J. Law & Econ. 161 (1987).

backgrounds in law and in politics by examining the relation between the incidence of these directors and the importance of politics to firms, first cross-sectionally and then over time. It also explores the possibility that women directors may play a political role. Section IV concludes.

# II. POLITICS AND POLITICALLY USEFUL DIRECTORS: EMPIRICAL MEASURES

# A. The Size and Composition of Corporate Boards

Our sample begins with the set of "Forbes 800" firms for the year 1987. These are firms that appear in any of the four lists, made by *Forbes* magazine in May 1988,<sup>3</sup> of the 500 largest firms as measured by sales, total assets, market value of equity, or profits. Together the four lists include about 800 firms. From these lists, we select all manufacturing firms (primary Standard Industrial Classification (SIC) codes 20–39). Our primary sample consists of these 264 manufacturing firms. The reason that we look only at manufacturing firms is that several of the empirical variables that we employ to measure the importance of politics are available only for manufacturing firms.

For each sample firm, we examined the 1988 proxy statement using the LEXIS-NEXIS database (we chose 1988 proxies rather than 1987 ones because this is the earliest year for which proxies are generally available in LEXIS-NEXIS). From the biographical descriptions of directors in these proxies, we identified each board member or nominee as an inside (currently employed by the company or a subsidiary) director or an outside (all others) director. Table 1 provides means (medians) for board size and the proportion of outside directors. We do this for the entire sample and for the sample broken into 11 industry groups using the classification introduced by Moon H. Song and Ralph A. Walkling.<sup>4</sup> The median firm has a board with 12 directors, just less than three-fourths of whom are outsiders. There are no striking differences across industries.

# B. Politically Useful Directors

We now narrow our focus to those outside directors who may play a political role. Directors adept at politics can aid in the political dealings of a firm by using their skill to predict (or, perhaps, to affect) government actions.<sup>5</sup> Such skill can arise via two pathways. First, it can come from prior participation in gov-

<sup>&</sup>lt;sup>3</sup> Corporate America's Most Powerful People, Forbes, May 30, 1988, at 154.

<sup>&</sup>lt;sup>4</sup> Moon H. Song & Ralph A. Walkling, The Impact of Managerial Ownership on Acquisition Attempts and Target Shareholder Wealth, 28 J. Fin. & Quant. Analysis 439 (1993).

<sup>&</sup>lt;sup>5</sup> April Klein, Affiliated Directors: Puppets of Management or Effective Directors? (working paper, New York Univ., Stern Sch. Bus., January 1998), argues that an economic benefits hypothesis better explains board composition than a CEO influence hypothesis. Our assertion of a political role for outside directors with backgrounds in law or in politics emphasizes a particular economic benefit that these directors may provide and so is complementary to Klein's framework.

Industry	N	Board Size	Proportion of Outside Directors
All firms	264	12.2 (12)	.72 (.73)
Food processing	30	13.0 (13)	.68 (.68)
Textiles	6	10.8 (11.5)	.66 (.71)
Forest products	42	12.7 (13)	.73 (.78)
Chemicals	40	13.0 (13)	.70 (.73)
Petroleum	20	12.3 (11.5)	.71 (.70)
Leather	8	13.3 (14.5)	.73 (.70)
Metal fabrication	20	12.2 (12)	.68 (.72)
Nonelectrical machinery	37	10.6 (10)	.74 (.76)
Electrical machinery	25	11.3 (11)	.73 (.71)
Transport equipment	19	12.4 (12)	.74 (.75)
Instruments	17	12.6 (13)	.77 (.79)

TABLE 1

MEAN (Median) BOARD SIZE AND COMPOSITION

NOTE.—The sample consists of the 264 manufacturing firms (primary SIC codes 20–39) in the Forbes 800 list for the year 1987. Industry classification follows Moon H. Song & Ralph A. Walkling, The Impact of Managerial Ownership on Acquisition Attempts and Shareholder Wealth, 28 J. Fin. & Quant. Analysis 439 (1993). N = sample size.

ernment and so knowledge of procedures as well as friendships with important decision makers. Second, it can arise from experience dealing with government as an adversary in administrative or legal proceedings. We adopt prior employment in government (or a political party) as a proxy for the first pathway and a degree in law as a proxy for the second. We use the biographies in the proxy statements of our sample firms to identify outside directors with either of these two politically useful characteristics.<sup>6</sup>

Table 2 provides means (medians) for the number of outside directors who have political experience and the number who have law degrees. In addition, the table details the proportions (of all directors) that these groups comprise. As in Table 1, we do this for the entire sample and for industry subgroups. The average firm has 1.5 outside directors that we classify as being politically useful. These are about equally likely to be those with prior political experience and those

<sup>&</sup>lt;sup>6</sup> A few examples from our sample may provide a feel for the nature of those outside directors that we classify as being politically useful. On the board of Martin Marietta Corporation, an aerospace and defense firm, were Griffin Bell, a former attorney general of the United States (Mr. Bell counts both as having political experience and as having a law degree); Melvin Laird, a former congressman and former secretary of defense; and John Vessey, a former army general and former chairman of the Joint Chiefs of Staff (Mr. Vessey was elected to Martin Marietta's board immediately upon retiring as chairman of the Joint Chiefs of Staff). Similarly, on Lockheed Corporation's (another aerospace and defense firm) board was Warren Christopher, an attorney and former high-ranking official in the State Department (Mr. Christopher later returned to government and became the secretary of state). On the board of American Cyanamid Company, a pharmaceutical firm, were Alexander Schmidt, a former commissioner of the Food and Drug Administration, and Anne Wexler, chairman of a Washington government relations firm and former high-ranking official in the Commerce Department. Similarly, Upjohn Company's (another pharmaceutical firm) board included Mark Novitch, a former deputy commissioner of the Food and Drug Administration, and Kathryn Eickhoff, a former high-ranking official in the Office of Management and Budget.

TABLE 2
MEAN (Median) NUMBER AND PROPORTION OF DIRECTORS
WITH POLITICAL AND LEGAL BACKGROUNDS

		POLITICAL :	Background	Law I	Degree
Industry	N	Number	Proportion	Number	Proportion
All firms	264	.73 (0)	.06 (0)	.76 (1)	.06 (.06)
Food processing	30	.79 (0)	.06 (0)	.68 (0)	.05 (0)
Textiles	6	.17 (0)	.02 (0)	.83 (1)	.08 (.09)
Forest products	42	.5 (0)	.04 (0)	.93 (1)	.07 (.07)
Chemicals	40	.85 (1)	.07 (.06)	.67 (0)	.06 (0)
Petroleum	20	.6 (.5)	.05 (.03)	.7 (.5)	.06 (.02)
Leather	8	.62 (.5)	.04 (.03)	1.75 (1.5)	.13 (.13)
Metal fabrication	20	.60 (0)	.05 (0)	.60 (.5)	.05 (.02)
Nonelectrical machinery	37	.75 (0)	.06 (0)	.69 (0)	.06 (0)
Electrical machinery	25	.76 (0)	.06 (0)	.80 (0)	.07 (0)
Transport equipment	19	1.11 (1)	.09 (.06)	.58 (0)	.05 (0)
Instruments	17	.94 (1)	.07 (.07)	.71 (0)	.05 (0)

NOTE.—The sample consists of the 264 manufacturing firms (primary SIC codes 20–39) in the Forbes 800 list for the year 1987. Industry classification follows Moon H. Song & Ralph A. Walkling, The Impact of Managerial Ownership on Acquisition Attempts and Shareholder Wealth, 28 J. Fin. & Quant. Analysis 439 (1993). N = sample size.

with law degrees. Again, there are few striking differences across industries. Textile firms are less likely to have directors with political backgrounds on their boards, and both transport equipment firms and instrument firms are a bit more likely to have such directors. Leather firms are more likely to have lawyers on their boards.

## C. Measures of the Importance of Politics

We assume that prior political experience and a law degree are characteristics of directors that are politically useful and argue that these directors, in part, play a political role. If this is true, those firms for which politics is most important should also be the firms whose boards contain the most outside directors with these politically useful characteristics. To investigate this, we construct three kinds of measures of the importance of politics to a firm.

The first is firm size. It follows from the argument of Ross Watts and Jerold Zimmerman that larger firms face more intensive political oversight. Decifically, greater firm size engenders greater political visibility and so a greater general importance of politics. The advantage of this measure is that it broadly measures the importance of politics. The disadvantage is that it is not a peculiarly political measure. The second group of measures focuses on three specific pathways through which politics might affect firm performance: government purchases, trade policy, and environmental regulation. The advantage of these measures is

<sup>&</sup>lt;sup>7</sup> Ross Watts & Jerold Zimmerman, Towards a Positive Theory of the Determination of Accounting Standards, 53 Acct. Rev. 112 (1978).

that they are direct; the disadvantage is that they do not encompass all the ways in which politics may matter. The third type of measure focuses on lobbying activity. Lobbying may occur for many reasons, not just to influence government purchases, trade policy, or environmental regulation, and so lobbying broadly measures the importance of politics. This is an advantage. A disadvantage is that these measures are indirect. Lobbying occurs where both politics matters and lobbying is the method chosen to address political concerns. Since other methods for dealing with government exist, specifically litigation, measures of this third type must be interpreted with caution.

We use the book value of total assets (in millions of dollars) for 1987 reported in COMPUSTAT as a measure of firm size and label this measure SIZE. To measure the importance of government as a customer, we first identify the primary four-digit SIC industry of each firm. We then divide the 1987 dollar value of that industry's shipments to government (federal, state, and local combined) by the dollar value of total shipments. Multiplying by 100 yields the percentage of sales to government for the firm's industry, PSGOVT. The source for this measure is the 1987 Census of Manufactures report entitled Distribution of Sales by Class of Customer. Our measure of the importance of international trade policy is industry exports. From the U.S. Department of Commerce report entitled Exports from Manufacturing Establishments: 1987, we determined export shipments for the primary three-digit SIC industry of each firm, divided by the industry's total shipments, and multiplied by 100. This yields the percentage of exports in the firm's industry, PEXPORT.8 To measure the effect of environmental regulation, we use the 1988 U.S. Department of Commerce report entitled Manufacturers' Pollution Abatement Capital Expenditures and Operating Costs to calculate the sum of capital expenditures and operating costs related to pollution abatement divided by shipments for the primary four-digit SIC industry of each firm and multiply by 100. We call this measure the percentage of pollution abatement expenditure, PPAE.

We construct two measures tied to an individual firm's lobbying activity. From the 1988 edition of the *National Directory of Corporate Public Affairs*, we identify those firms that, in 1988, maintained a public affairs office in Washington, D.C., and the number of employees in this office. Our first measure of firm lobbying is a dummy variable indicating the presence of a public affairs office in Washington, D.C. (DCOFFICE equals one for firms with such an office and zero for other firms). The second, labeled NDCEMP, is the number of employees in the firm's public affairs office in Washington, D.C. This equals zero for those firms without such an office. Finally, we construct a third, industry-based, measure of lobbying. Using data presented by Larry Makinson apportioning political action committee (PAC) contributions made by both industry PACs and company

<sup>&</sup>lt;sup>8</sup> We assume that the relation between the share of exports and the importance of politics is monotonic. This ignores the possibility that a highly protected inefficient industry will have zero PEXPORT but be heavily reliant on politics.

PACs during the 1987–88 federal election cycle to industry groups, we divide the dollar value of PAC contributions for each three-digit SIC industry by the 1987 total value of industry shipments measured in millions of dollars. This industry-wide ratio (PACS) is assigned to firms on the basis of their identified primary industry.

Table 3 presents means (medians) for each of these measures of the importance of politics for our entire sample and for the industries described in Table 1. The typical (median) firm has assets of about \$2 billion and is in an industry with about 1.3 percent of its sales to government, with exports equal to about 6.9 percent of shipments, and with pollution abatement expenditures equal to about .6 percent of shipments. About 56 percent of the sample firms have a public affairs office in Washington, D.C. The typical firm has just one person employed there, although many have multiple employees. Contributions by PACs are about \$5.6 per million dollars of shipments. The importance of politics does seem to vary by industry. Transport equipment manufacturers are relatively large, and textile and leather firms are relatively small. Sales to government are small for textile and forest products firms and very large for makers of transport equipment. Exports are large for machinery manufacturers and small for forest products, petroleum, and leather firms. Pollution abatement expenditures are large for petroleum and leather firms and small for transport equipment and food-processing firms. Textile firms have no public affairs offices in Washington, D.C.; transport equipment manufacturers have substantially more employees in these Washington offices than do other firms; and both the chemical and transport equipment industries have more active PACs.

# III. POLITICS AND POLITICALLY USEFUL DIRECTORS: EMPIRICAL TESTS

# A. The Importance of Politics and the Incidence of Politically Useful Directors

To test for the relation of politics to board composition, we regress the number of outside directors with political experience (NPOL) and the number with law degrees (NLAW) on our measures of the importance of politics. We also include board size (the total number of directors, BDSIZE) as a control in these regressions. Controlling for board size serves two purposes. First, larger firms tend to have larger boards. As a consequence, larger firms will likely have more directors of any type, including those that we have identified as being politically useful. Controlling for board size eliminates the possibility of a spurious positive relation between firm size and the incidence of politically useful directors and allows a straightforward interpretation of the coefficient on firm size. Second, controlling for board size allows us to interpret the coefficients on all of the importance of

<sup>&</sup>lt;sup>9</sup> Larry Makinson, Open Secrets: The Dollar Power of PACs in Congress, Appendix A (1990).

TABLE 3

MEANS (Medians) OF THE MEASURES OF THE IMPORTANCE OF POLITICS	N SIZE PSGOVT PEXPORT PPAE DCOFFICE NDCEMP PACS	64 3,991 (1,978) 5.78 (1.29) 9.07 (6.92) 1.19 (.60) .56 (1) 2.02 (1) 11.62 (5.64)	(0)	1,187 (1,084) .12 (.09) 4.87 (5.46) .55 (.55) .00 (0) .00 (0)	2,811 (2,012) .54 (.33) 3.90 (2.38) 1.64 (.57) .44 (0)	3,499 (2,642) 1.60 (1.46) 9.14 (7.30) 1.60 (.60) .76 (1)	$\equiv$		(E)	5,285 (1,508) 6.29 (4.73) 22.36 (21.34) .65 (.73)	.62 (1)	19 10,830 (3,124) 42.21 (51.38) 13.56 (8,99) .40 (36) .72 (1) 5.11 (5.5) 22.49 (5.26)	17 2,711 (1,440) 2.78 (1.19) 11.12 (9.12) .74 (.74) .46 (0) 1.08 (0) 11.56 (.00)	NOTE.—SIZE equals the book value of total assets in millions of dollars. PSGOVT is the percentage of shipments to federal, state, or local government in the four-digit SIC industry of a firm. PPAE measures the sum of pollution abatement capital expenditures and operating costs as a percentage of shipments in the four-digit SIC industry of a firm. DCOFFICE equals one if a firm has a public affairs office in Washington, D.C., and zero otherwise. NDCEMP is the number of employees in that office. PACS measures political action committee contributions in dollars per million dollars of shipments in the three-digit SIC industry of a firm. Industry classification follows Moon H. Song & Ralph A. Walkling, The Impact of Managerial Ownership on Acquisition Attempts and Shareholder Wealth, 28 J. Fin. & Quant. Analysis 439 (1993). The sample consists of 264 manufacturing firms (primary SIC codes 20–39) in the Forbes 800 list for the year 1987. Sample sizes range from 172 to 264 for the various variables, depending on the availability of data. A is the maximum sample size for the row.
MEANS (Medians) OF THE ME		_	_	(1,084) .12	_	(2,642) 1	(2,067) 1.58	(1,054) 1.80	(2,651) 1.24	5,285 (1,508)	2,484 (1,796) 2.54	•	(1,440) 2.78	ue of total assets in millions of dollars. PSGOVT ge of export sales in the three-digit SIC industry four-digit SIC industry of a firm. DCOFFICE eq frifice. PACS measures political action committee H. Song & Ralph A. Walkling. The Impact of M. H. Song & Ralph A. Walkling. The Impact of M. H. Gong & Ralph A. Walkling. To Codes 20 ity of data. N is the maximum sample size for the second
	Industry	All firms 264	cessing		roducts					ery			Instruments 17	Note.—SIZE equals the book valor a firm. PEXPORT is the percenta as a percentage of shipments in the is the number of employees in that of Industry classification follows Moon 439 (1993). The sample consists of variables, depending on the availabil

politics variables as measuring the importance and not just the frequency of politically useful outside directors. 10

Results are presented in Table 4 (panel A for directors with political experience and panel B for directors with law degrees). The regressions reported here employ the Poisson model and maximum-likelihood methods. This incorporates the count data feature of the dependent variable. In addition, we estimated, but do not report, the Table 4 regressions using both ordinary least squares and a logit model in which the dependent variable took a value of one if any of the outside directors had political experience (or had a law degree for the panel B regressions) and zero otherwise. Only minor differences exist between the results obtained by each of the estimation methods.

Column 1 of Table 4 tests the relation between the incidence of politically useful directors and firm size (transformed to its natural log form, LSIZE). In panel A, the number of outside directors with political experience is positively and strongly related to firm size. Controlling for board size, a 1 standard deviation increase in firm size results in an increase of .28 in the number of outside directors with political experience. This represents a 39 percent increase compared to the mean number, .73, of such directors. A similar but slightly weaker result is shown in panel B. Controlling for board size, a 1 standard deviation increase in LSIZE leads to an increase of .11 in the number of outside directors with legal backgrounds (a 15 percent increase compared to the mean number, .76, of such directors). As politics becomes generally more important to firms, the incidence of politically useful directors increases.

Columns 2–4 of Table 4 focus on the relation between the incidence of politically useful directors and the specific measures of the importance of politics, PSGOVT, PEXPORT, and PPAE. In panel A, both the percentage of sales to government (PSGOVT) and the percentage of export shipments (PEXPORT) are significantly positively related to the number of outside directors with political experience. A 1 standard deviation increase in the percentage of sales to government leads to an increase of .15 (or 21 percent of the mean) in the number of politically experienced directors. Similarly, a 1 standard deviation increase in the percentage of export sales leads to an increase of .11 (or 15 percent of the

<sup>&</sup>lt;sup>10</sup> An alternative approach is to divide NPOL and NLAW by board size to first create measures of the importance on the board of politically useful directors and then to regress these on our measures of the importance of politics (without any control for board size). Although we do not present these results in a table, regressions using this approach yield coefficient signs and significance levels nearly identical to those in Table 4. We chose the method described in the text because it allows us to account statistically for the fact that the numbers of directors with political and legal backgrounds take on just a few values (0, 1, and 2 comprised the vast majority).

<sup>&</sup>lt;sup>11</sup> See John Neter et al., Applied Linear Statistical Models 610–14 (4th ed. 1996).

<sup>&</sup>lt;sup>12</sup> The marginal effect (not shown in the table) for a continuous explanatory variable is calculated as the partial derivative of the expected value of the dependent variable with respect to the explanatory variable, evaluated at the mean values of the explanatory variables. The marginal effect for the binary explanatory variable, DCOFFICE, is calculated as the difference in the predicted value of the dependent variable when DCOFFICE equals one versus when it equals zero, using mean values of all other explanatory variables.

TABLE 4

EFFECT OF MEASURES OF THE IMPORTANCE OF POLITICS ON THE INCIDENCE OF DIRECTORS WITH POLITICAL AND LEGAL BACKGROUNDS

(-7.380) .386** (5.139)	(2) -1.830** (-4.813) .012** (3.843)	(3) -1.787** (-6.536) .019*	(4) -2.005** (-4.460)	(5) -1.577** (-5.526) (	(6) (7) -1.231** -1.537** (-4.364) (-6.214)	1 1 +	(8) -2.189** (-4.578) .002 (.215) .000	(9) (-3.913** (-5.180) (0.5.180) (0.837) (0.025) (0.025)	(10) -3.283** (-3.735) .149 (1.162) 004 (-431) .168)	(11) -6.034** (-4.530) .542** (3.222) .005 (.595) .022	(12) -3.916** (-5.149) .304** (2.838) .001 .067)
			.042 (.647)	**77			.029 .029 (.434)	.041	(1.108) .012 (.159) 756**	.057 .057 (.774)	9. (5.
				(4.242)	.075**				(2.650)	110 <sup>+</sup> (-1.849)	
1. (3.9 197	.108** (3.916) 197	.100** (5.807) 260	.123** (3.869) 169	.065** (3.252) 216	.063** (2.983) 216	.001 (.370) .094** (5.391) 260	.126** (3.921) 159	.072* (1.829) 151	.083* (1.919) 133	.097* (2.320) 133	0004 (072) .072* (1.821)

					B. Depend	B. Dependent Variable: NLAW	E: NLAW					
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
Constant	-2.096**	-1.405**	-1.272**	-1.107**	-1.149**	-1.046**	-1.134**	-1.273**	ĺ	-1.994*	−2.322+	-1.675*
	(-3.819)	$\overline{}$		$\overline{}$	_	$\overline{}$	_		ن	(-2.015)	(-1.868)	(-2.108)
LSIZE	.148+								.054	.136	.167	.057
	(1.878)								(.474)	(.965)	(1.011)	(.506)
PSGOVT		0005						600	010	007	900'-	.00
		(101)						(861)	(911)	(649)	(585)	(.114)
PEXPORT			.007					.013	(.013)	800:	010	.015
			(.789)					(998.)	(698.)	(.484)	(.639)	(1.118)
PPAE				.139**				.120*	.118*	.123	.116	.195**
				(2.666)				(2.084)	(1.997)	(1.865)	(1.806)	(2.817)
DCOFFICE					620.					241		
					(.475)					(961)		
NDCEMP						.046*					052	
						(2.077)					(860)	
PACS							007					017*
							(-1.653)					(-2.309)
BDSIZE	.052*	.084**	.074**	.049	.064**	.051**	.074**	.054	.041	.038	.04	.054
	(2.318)	(3.095)	(3.994)	Ξ	(3.024)	(2.278)	(4.148)		(1.047)	(868.)	(.948)	(1.355)
N	249	197	260	169	216	216	260		151	133	133	151

expenditures and operating costs as a percentage of shipments in the four-digit SIC industry of a firm. DCOFFICE equals one if a firm has a public affairs office in NOTE.—Coefficient estimates (z-values) from the Poisson regression of the number of directors with backgrounds in politics or government (NPOL) or with law degrees (NLAW) on the importance of politics, as measured by the variables LSIZE, PSGOVT, PEXPORT, PPAE, DCOFFICE, NDČEMP, and PACS, LSIZE equals the natural log of the book value of total assets in millions of dollars. PSGOVT is the percentage of shipments to federal, state, or local government in the four-digit SIC industry of a firm. PEXPORT is the percentage of export sales in the three-digit SIC industry of a firm. PPAE measures the sum of pollution abatement capital Washington, D.C., and zero otherwise. NDCEMP is the number of employees in that office. PACS is political action committee contributions in dollars per million dollars of shipments in the three-digit SIC industry of a firm. BDSIZE is the number of members on the board of directors. The sample consists of the 264 manufacturing firms (primary SIC codes 20-39) in the Forbes 800 list for the year 1987. Sample sizes vary across the regressions, as shown, depending on the availability of data.

<sup>+</sup> Statistically significant at the 10% level in two-tailed tests.

\*\* Statistically significant at the 1% level in two-tailed tests.

<sup>\*</sup> Statistically significant at the 5% level in two-tailed tests.

mean) in politically experienced directors. Pollution abatement expenditure (PPAE), however, is unrelated to the number of such directors. In panel B, which examines the incidence of outside directors with law degrees, the reverse is true. Greater pollution abatement expenditure leads to a greater number of directors with legal backgrounds—an increase of .13 or 17 percent for a 1 standard deviation increase in pollution abatement costs as a percentage of shipments—but increased sales to government and increased exports have no effect.

Columns 5-7 of Table 4 examine the effect of lobbying, measured by DCOFFICE, NDCEMP, and PACS. In panel A, each of these measures is positively related to the number of outside directors with political experience. Although the effect of industry lobbying expenditure, PACS, is insignificantly different from zero, the effects of the existence of a firm's public affairs office in Washington, D.C. (DCOFFICE), and the number of employees in this office (NDCEMP) are quite strong. The presence of a public affairs office in Washington, D.C., results in .53 (73 percent) more politically experienced directors; a 1 standard deviation increase in the number of employees in this office results in .18 (25 percent) more politically experienced directors. Results in panel B are less tidy. There is a weak negative effect of industry lobbying expenditure, PACS, on the incidence of directors with backgrounds in law. A 1 standard deviation increase in PAC expenditure results in a decrease of .10 (13 percent) in the number of lawyer-directors. Moreover, the positive effects of DCOFFICE and NDCEMP are substantially weaker for lawyer-directors than for politically experienced directors.

The final five columns of Table 4 introduce the measures of the importance of politics in combination. The three specific measures (PSGOVT, PEXPORT, and PPAE) are included together in column 8. Column 9 adds firm size, LSIZE. Columns 10–12 add individually the three lobbying measures, DCOFFICE, NDCEMP, and PACS. These results reproduce much of those in the earlier columns. The primary differences in panel A are that the positive effect of sales to government (PSGOVT) and export sales (PEXPORT) on the number of politically experienced directors is weakened and the positive effect of the size of a firm's Washington, D.C., public affairs office (NDCEMP) is reversed (although the positive effect of the existence of such an office, DCOFFICE, persists). The primary differences in panel B are that the positive effect of LSIZE on the number of lawyer-directors is weakened and the negative effect of industry lobbying (PACS) is strengthened. Once again, the positive effect of NDCEMP is reversed and becomes insignificant.

The story in Table 4 is that where politics is more important, the incidence of those outside directors with political backgrounds and those with law degrees is greater. This is consistent with these directors playing, at least in part, a political role. But Table 4 also shows differences in the determinants of politically experienced directors and lawyer-directors. Both are more prevalent in larger firms. But only politically experienced directors are more prevalent where sales to government or exports are greater, and only lawyer-directors are more prevalent

where environmental regulation costs are greater. Moreover, lobbying seems more positively related to the incidence of politically experienced directors than to that of lawyer-directors. This suggests that the political roles played by these two sorts of directors may differ. That is, they may not be substitutes. As one test, we calculated correlation coefficients between the residuals from the panel A and panel B versions of each regression. If the politically experienced and lawyers are substitutes on boards, we would expect these residuals to be negatively correlated. They are not. Each correlation coefficient is significantly positive (with a typical value of .3), suggesting that the roles played by politically experienced directors and by lawyer-directors may be complementary. One possibility is that politically experienced directors help to cajole government (and so are useful where sales to government, export policy, and lobbying are more important) and lawyer-directors help to confront government (and so are useful where environmental regulation is more important) and that these activities go hand in hand as carrots and sticks.

# B. The Changing Importance of Politics: Retail Competition in Electricity

Recent changes in the electric utility industry provide a natural experiment that allows for a time-series test for the impact of politics on board composition. Traditionally, electric utilities have been regulated by the states. This regulation entails the assignment of geographic markets to single utilities and the requirement that the designated utility provide all of the electricity demanded at prices set by the regulators. Unlike manufacturing firms for which politics matters in multiple ways, the primary locus of political importance for electric utilities has been the state regulatory commissions that set prices and approve new investments in generation and transmission facilities.

Two federal acts began (quite slowly, at first) substantial change that is now occurring in the structure of the electric utility industry.<sup>13</sup> In 1978, the Public Utilities Regulatory Policy Act required utilities to purchase power generated by small generating facilities and cogenerators. This allowed modest entry into power generation. Later, in 1992, the Energy Policy Act required utilities to provide access to their transmission facilities to other power generators. This allowed geographic competition for the power produced by generators. What is more important, these changes led to pressure to alter the structure of state regulation. Indeed, this pressure is to deregulate electricity prices and to allow retail customers to purchase power from any generator, with the power delivered over existing transmission facilities. Beginning in the mid-1990s, states began to introduce programs to phase in (sometimes over many years, typically leaving the current retail price regulated) such retail competition in electricity. California, Massachusetts, and Pennsylvania were among the first states to enact legislation

<sup>&</sup>lt;sup>13</sup> For a general discussion of the beginning of this change, see Timothy J. Brennan *et al.*, A Shock to the System: Restructuring America's Electricity Industry (1996).

introducing retail competition in electricity. By 1997, 10 states had enacted legislation (or imposed a comprehensive regulatory order) introducing retail competition. By March of 2000, the number had risen to 24, and pressure is strong in most other states to follow suit.

The ongoing movement from traditional regulation of electric utilities toward retail competition that began in the 1990s has increased the role of politics in this industry. Prior to this movement, politics affected electric utilities largely through state regulatory commissions. Now, substantial wealth stands to be gained or lost with the advent of retail competition. The process by which competition is introduced (for example, provisions for recovering the costs of non-economic generating facilities or "stranded costs") is of great importance to electric utilities. Accordingly, we should see increased incidence of politically experienced directors on the boards of electric utilities during the 1990s. <sup>14</sup>

Our test begins with the set of "Forbes 800" firms in 1987 (from which the sample of manufacturing firms examined in the preceding subsection was constructed). We first identified the 43 firms that were electric utilities (SIC = 491). For each of these firms, we also selected a manufacturing firm closest in size as measured by total assets as a control firm. For each of the 43 firms in the utility sample and for each of the 43 firms in the control (manufacturing) sample, we examined 1988 proxy statements to determine the number of inside directors, the number of outside directors, the number of outside directors with political experience, and the number of outside directors with law degrees. We then repeated this procedure for each of these firms that remained as independent public companies in 1999. Thirty-one of the 43 electric utilities remained in 1999, and 35 of the 43 control (manufacturing) firms remained. This gave us information about the size and composition of corporate boards and the political characteristics of outside directors for both the utility sample and the control sample at two moments in time, prior to the movement toward retail competition in electricity (1988) and during this movement (1999).

The first two rows of Table 5 describe board size and the proportion of outside directors for our sample firms. In 1988, average board size for the electric utility sample was about 12.5, and that for the manufacturing (control) sample was about 13.8. The boards of utilities were significantly smaller than those of similarly sized manufacturing firms. Moreover, utility boards were significantly more dominated by outsiders. Seventy-nine percent of utility directors were outsiders compared to only 72 percent of manufacturing directors. By 1999, boards of both electric utilities and manufacturing firms had shrunk. Utility boards averaged about 11 members, and manufacturing boards averaged about 11.9 members. In both cases the decline was primarily the result of fewer inside directors. By 1999, the percentage of outside directors rose to 85 percent for utilities and to 83

<sup>&</sup>lt;sup>14</sup> Once the transition to retail competition is completed, the importance of politics should fall and so also should the incidence of politically experienced directors on the boards of electric utilities.

# TABLE 5

# BOARD COMPOSITION OF PUBLIC UTILITIES AND A CONTROL SAMPLE BEFORE AND DURING THE TRANSITION TO RETAIL COMPETITION

		UTILITIES		-	Manufacturing	<b>7 I</b>	t Manufa	t-Statistic for Manufacturing — Utilities	FILITIES
	1988 ( $N = 43$ )	1999 $(N = 31)$	t-Statistic <sup>a</sup>	1988 ( $N = 43$ )	1999 ( $N = 35$ )	t-Statistic <sup>4</sup>	1988 <sup>b</sup>	36661	1999 – 1988
All directors:									
Mean board size	12.53	10.97	-2.93**	13.83	11.89	-3.39**	2.21*	1.74	49
Proportion of outsiders	62.	.85	3.61**	.72	.83	3.91**	-3.20**	92	1.53
Political directors:									
Mean number	.51	77.	1.21	1.02	.54	-2.38*	2.67**	-1.05	-2.51*
Proportion of board size	40.	.07	1.71	.07	.05	-1.90	2.50*	-1.32	-2.44*
Proportion of firms with > 0 <sup>d</sup>	.40	.42	.21	.62	.46	-1.42	2.06*	.31	-1.12
Legal directors:									
Mean number	98.	.87	.05	1.00	69:	-1.49	49.	06	-1.10
Proportion of board size	.07	80.	.57	.07	90:	68'-	.29	-1.11	96'-
Proportion of firms with $> 0^d$	09:	.58	21	09:	.57	21	09	08	90.–
t-statistic for legal - political*:									
Mean number	2.63**	.45		13	.87				
Proportion of board size	2.81**	.38		08	.93				
Proportion of firms with $> 0^d$	1.94	1.27		22	96				

NOTE.—The 1988 samples consist of all 43 electric utilities (SIC = 491) in the Forbes 800 list in 1988 and a control sample of manufacturing firms (SIC = 2 or 3) matched by total assets. The 1999 samples consist of all firms out of these groups that remain as public companies.

- <sup>4</sup> For the difference between 1999 and 1988, assuming independent samples.
  <sup>b</sup> For the difference in 1988 between the matched pairs of manufacturing and utilities firms.
  <sup>c</sup> For the difference in 1999 between the manufacturing and utilities firms, assuming independent samples.
  <sup>d</sup> This row shows the proportion of firms that have at least one such director. The test statistic for this row is the z-statistic for the difference in the proportions between the

<sup>e</sup> Using matched pairs. relevant groups.

- \* Statistically significant at the 10% level in two-tailed tests. \* Statistically significant at the 5% level in two-tailed tests. \*\* Statistically significant at the 1% level in two-tailed tests.

percent for manufacturers. In 1999, the boards of electric utilities looked very similar to the boards of manufacturing firms.

The remainder of Table 5 addresses our prediction that the increased importance of politics to electric utilities brought on by the 1990s move toward retail competition will lead to greater incidence of politically experienced outside directors. To begin, consider the picture in 1988 prior to the movement toward retail competition in electricity. The typical utility board included about .9 lawyer-directors and only about .5 politically experienced directors. Lawyers made up 7 percent of board members, while those with political backgrounds made up only 4 percent. Lawyers were significantly more important than those with political experience on utility boards. This difference is peculiar to electric utilities. The typical manufacturing firm at the time had one lawyer-director and one director with political experience (each making up 7 percent of the board).

In 1999, during the movement toward retail competition, the average number of politically experienced directors on electric utility boards rose to about .8, and the percentage of board members made up by these directors rose to 7 percent. No change occurred in the incidence of lawyer-directors. In contrast, in 1999 the average number of politically experienced directors on the boards of manufacturing firms fell to just .5 and the percentage of such directors also fell to 5 percent. The difference between these intertemporal changes in the incidence of politically experienced directors for utilities and for manufacturing firms is statistically significant (see the last column of Table 5). Accordingly, Table 5 provides evidence consistent with the increased importance of politics among electric utilities in the 1990s leading to greater incidence of politically experienced directors. This time-series evidence confirms the cross-sectional evidence on the role of politics in board composition.

## C. A Political Role for Women Directors?

We have argued that outside directors with backgrounds in politics or the law play a political role by providing advice and insight into the political dealings of firms and perhaps by acting on the firm's behalf. But there also may be an entirely different political role for outside directors. If diversity is particularly valued by those in government (as it seems to be valued by some institutional investors), 15 board diversity may work directly to curry political favor.

To assess this possibility, we used the proxy statements for both the manufacturing and the utilities samples to identify the number of outside directors who were women (relying primarily on names and gender-specific pronouns in the biographical descriptions). Using this variable, NWOMEN, we repeat the tests reported in Tables 4 and 5. If women directors play a political role, their incidence should be greater on the boards of firms for which politics is more

<sup>&</sup>lt;sup>15</sup> See Willard T. Carleton, James M. Nelson, & Michael S. Weisbach, The Influence of Institutions on Corporate Governance through Private Negotiations: Evidence from TIAA-CREF, 53 J. Fin. 1335 (1998).

important. Among manufacturing firms, this should be the case where firm size (LSIZE) is larger, sales to government (PSGOVT) are greater, exports (PEXPORT) are greater, environmental regulation (PPAE) is more important, and lobbying (DCOFFICE, NDCEMP, or PACS) is more important. For electric utilities, this should be the case in 1999 during the move toward retail competition.

Panel A of Table 6 provides results for regressions like those in Table 4, but with NWOMEN as the dependent variable. As was the case for politically experienced directors and lawyer-directors, controlling for board size, larger firms have more women outside directors. The coefficient estimate in column 1 implies that a 1 standard deviation increase in LSIZE results in .17 (26 percent) more women directors. But the other political variables are never significantly positively related to the incidence of women directors.

Panel B of Table 6 summarizes the number of women directors on the boards of electric utilities and on the boards of similarly sized manufacturing firms, both in 1988 and in 1999. For both electric utilities and manufacturing firms, the incidence of women directors increased between 1988 and 1999 but by approximately the same amount. <sup>16</sup> For both types of firms, the average number of women directors rose from about .9 to about 1.5. This similarity suggests that politics was not driving the increase in the incidence of women directors.

### IV. CONCLUSION

Those outside directors with backgrounds in politics or government and those with backgrounds in law are more numerous on the boards of firms for which politics is more important. Confirmation comes from cross-sectional regressions of the number of such politically useful directors in U.S. manufacturing firms on several measures of the importance of politics and from the intertemporal increase in the number of politically experienced directors on the boards of electric utilities during the current move toward retail competition in electricity. This evidence that politics affects board composition suggests that some outside directors do play a political role, a possibility that has not been examined in prior research. Lack of similar evidence for women directors suggests that they do not play a political role. Extensions of this research to other countries or to other time periods where the importance of politics differs are interesting topics for future research.

<sup>&</sup>lt;sup>16</sup> The percentage of electric utilities with any women outside directors did rise (to 100 percent in 1999) relative to the percentage of manufacturing firms with any women outside directors.

TABLE 6
POLITICS AND WOMEN DIRECTORS

	(12)	-3.360**	(-4.232)	.211	(1.906)	005	(411)	$036^{+}$	(-1.773)	150	(-1.536)					800.	(1.237)	.120**	(2.964)	151
	(11)	-3.463**	(-2.837)	.240	(1.488)	0002	(021)	031	(-1.587)	092	(932)			034	(596)					133
	(10)	-2.864**	_	.161	(1.254)	001	(136)	$033^{+}$	(-1.744)	097	(979)	.040	(.158)					.118**	(2.842)	133
	(6)	-3.376**	(-4.334)	.208	(1.912)	001	(076)	$032^{+}$	(-1.669)	132	(-1.347)							.126**	(3.143)	151
_	(8)		(-4.764)			0003	(032)	025	(-1.350)	122	(-1.284)							.177**	(5.294)	159
:: NWOMEN	(7)	-1.956**	(-7.885)													.002				260
A. Dependent Variable: NWOMEN	(9)	-1.822**	(-6.986)											610.	(.832)			.110**	(5.987)	216
A. Depende	(5)		(-7.142)									.168	(.964)					**601	(6.101)	216
	(4)	-2.622**	(-5.358)							1711	(-1.814)							.178**	(5.443)	691
	(3)	-1.807**	(-6.671)					011	(-1.060)									.114**	(6.801)	260
	(2)	-2.884**	(-7.175)			007	(-1.169)											**681.	(6.854)	197
	(1)	-3.560**	(-6.242)	.255**	(3.273)													**420.	(4.217)	249
		Constant		LSIZE		PSGOVT		PEXPORT		PPAE		DCOFFICE		NDCEMP		PACS		BDSIZE		N

Women directors: Mean number Pronortion of hoard size	B. INCIDENCE OF  UTILITI  1988 1999 $(N = 43)  (N = 3)$ 93 1.48  08 14	Uтилтея 1999 (N = 31) 1.48	B. Incidence of Women Directors by Type of Firm  UTILITIES  WANUFACTI  988 1999 1988 1999  = 43) (N = 31) t-Statistic <sup>a</sup> (N = 43) (N = 3)  98 1.48 3.83** .90 1.54  08 14 4 56** 06 1.7	ORS BY TYPE $M$ $1988$ $(N = 43)$ $90$	MANUFACTURING  1999  10 (N = 35) F:  1.54	B. Incidence of Women Directors by Type of Firm  Utilities  WANUFACTURING    1988   1999	MANUFA 1988b 27 135	### ##################################	NRING — UTILITIES 1999° 1999 — 1988 26 32 73 07
Proportion of firms with > 0 <sup>d</sup>	.74	1.00	3.05**	.67	8.	1.31	78	-2.63**	-1.09

measures the sum of pollution abatement capital expenditures and operating costs as a percentage of shipments in the four-digit SIC industry of a firm. DCOFFICE equals one if a firm has a public affairs office in Washington, D.C., and zero otherwise. NDCEMP is the number of employees in that office. PACS is political action PPAE, DCOFFICE, NDCEMP, and PACS. LSIZE equals the natural log of the book value of total assets in millions of dollars. PSGOVT is the percentage of shipments to federal, state, or local government in the four-digit SIC industry of a firm. PEXPORT is the percentage of export sales in the three-digit SIC industry of a firm. PPAE The sample consists of the 264 manufacturing firms (primary SIC codes 20-39) in the Forbes 800 list for the year 1987. Sample sizes vary across the regressions, as shown, depending on the availability of data. Panel B examines the incidence of women directors in electric utilities and a control sample before and during the transition to retail competition. Here, the 1988 samples consist of all 43 electric utilities (SIC = 491) in the Forbes 800 list in 1988 and a control sample of manufacturing firms NOTE. - Panel A examines the effect of measures of the importance of politics on the incidence of women directors. The panel shows coefficient estimates (z-values) committee contributions in dollars per million dollars of shipments in the three-digit SIC industry of a firm. BDSIZE is the number of members on the board of directors. from the Poisson regression of the number of women directors (NWOMEN) on the importance of politics, as measured by the variables LSIZE, PSGOVT, PEXPORT, (SIC = 2 or 3) matched by total assets. The 1999 samples consist of all firms out of these groups that remain as public companies.

<sup>a</sup> For the difference between 1999 and 1988, assuming independent samples.

<sup>b</sup> For the difference in 1988 between the matched pairs of manufacturing and utilities firms.

<sup>d</sup> This row shows the proportion of firms that have at least one such director. The test statistic for this row is the z-statistic for the difference in the proportions between <sup>e</sup> For the difference in 1999 between the manufacturing and utilities firms, assuming independent samples. the relevant groups.

\* Statistically significant at the 10% level in two-tailed tests.

\*\* Statistically significant at the 1% level in two-tailed tests.

### **BIBLIOGRAPHY**

- Brennan, Timothy J., et al. A Shock to the System: Restructuring America's Electricity Industry. Washington, D.C.: Resources for the Future, 1996.
- Brickley, James A., and James, Christopher M. "The Takeover Market, Corporate Board Composition, and Ownership Structure: The Case of Banking." *Journal of Law and Economics* 30 (1987): 161–80.
- Carleton, Willard T.; Nelson, James M.; and Weisbach, Michael S. "The Influence of Institutions on Corporate Governance through Private Negotiations: Evidence from TIAA-CREF." *Journal of Finance* 53 (1998): 1335–62.
- Fama, Eugene F., and Jensen, Michael C. "Separation of Ownership and Control." *Journal of Law and Economics* 26 (1983): 301–25.
- Klein, April. "Affiliated Directors: Puppets of Management or Effective Directors?" Working paper. New York: New York University, Stern School of Business, 1998.
- Makinson, Larry. Open Secrets: The Dollar Power of PACs in Congress. Washington, D.C.: Congressional Quarterly, Inc., 1990.
- Neter, John, et al. Applied Linear Statistical Models. 4th ed. Chicago: Irwin, 1996.
- Song, Moon H., and Walkling, Ralph A. "The Impact of Managerial Ownership on Acquisition Attempts and Target Shareholder Wealth." *Journal of Financial and Quantitative Analysis* 28 (1993): 439–57.
- Watts, Ross, and Zimmerman, Jerold. "Towards a Positive Theory of the Determination of Accounting Standards." *Accounting Review* 53 (1978): 112–34.