Politics, Legal Origins, and the Roots of Modern Economic Institutions

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Abstract: *Scholars have proffered a number of theoretical explanations for the phenomenon that corporate ownership is diffuse in some countries and highly concentrated in others. One explanation, the social democracy theory, holds that leftist ideology weakens a variety of corporate governance mechanisms and thus prevents the separation of ownership from control in social democracies, where leftist ideology is particularly prevalent. Another explanation emphasizes the role of legal systems and rules, and argues that the origin of a country's laws determines whether ownership and control will separate in that country. This "legal origins" theory has recently been employed to explain a wide variety of modern economic institutions beyond the context of corporate governance. Specifically, scholars have empirically linked legal origins to labor regulations, going so far as to claim that legal origins have a larger impact than political ideology on labor law. This paper employs political ideology variables to explore empirically the relative impacts of political ideology and legal origins on corporate ownership structure and on employment, collective relations, and social security laws. Quantitative analysis confirms that leftist ideology is empirically linked both to concentrated corporate ownership and to strict employment, collective relations, and social security regulations. Thus, this paper provides some support for the social democracy theory. However, even when controlling for political ideology, legal origins variables have a strong impact on corporate ownership dispersion, employment law, and collective relations law. This paper thus also provides empirical support for the legal origins theory. The results suggest the possibility that civil law may facilitate the transformation of leftist ideology into leftist government policy.*

I. Introduction

The widely noted phenomenon that corporate ownership has separated from control in some advanced economies but not in others has given rise to a large body of theoretical and empirical scholarship, and two dominant bodies of theory have emerged as potential explanations for divergent corporate ownership structures. One body of theory places politics at the heart of the failure of ownership to separate from control in much of the world. The most prominent political explanation of corporate ownership structure is Mark Roe's social democracy theory, which posits that leftist ideology tends to weaken a wide variety of corporate governance mechanisms that serve to align managerial and shareholder interests in relatively conservative societies.[1] The second body of theory, legal origins theory, argues that legal systems and traditions determine corporate ownership structure.[2] Legal origins theorists have not reached a consensus about the precise mechanism through which legal origins affect corporate ownership structure, but the empirical results linking legal origins to financial development are quite impressive. In general, the empirical results suggest that common law countries are more financially developed than civil law countries and that countries whose laws originated from the French Civil Code have particularly weak financial development.[3]

In recent years, legal origins theorists have begun to employ legal origins theory to explain a wide variety of economic and social phenomena beyond the context of corporate governance. For example, scholars have linked legal origins to literacy rates, infant mortality rates, and the general extent of government intervention in the private sector.[4] Most recently, Juan Botero and coauthors (Botero) have demonstrated that legal origin categories strongly correlate with employment, collective relations, and social security regulations (Botero refers to these three categories of regulations collectively as "labor

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[1] *See* MARK J. ROE, POLITICAL DETERMINANTS OF CORPORATE GOVERNANCE: POLITICAL CONTEXT, CORPORATE IMPACT (2003).
[2] *See*, *e.g.*, Rafael La Porta et al., *Law and Finance*, 106 J. POL. ECONY. 1113 (1998); Paul Mahoney, *The Common Law and Economic Growth*, 30 J. LEGAL STUD. 503 (2001).
[3] *See* La Porta et al., *supra* note 2, at 1146-48.
[4] Rafael La Porta et al., *The Quality of Government*, 15 J. L. ECON. & ORG. 222, 261-62 (1999)

regulations," and this paper adopts his shorthand).[5] Common law countries, according to Botero, regulate labor to a lesser extent than civil law countries, while French civil law countries regulate labor the most vigorously of all. Botero's analysis goes a step beyond linking labor regulation to legal origins and purports to demonstrate that legal origins play a much stronger role than political ideology in determining the extent to which a society regulates labor. Thus, Botero concludes that legal origins theory is superior to social democracy theory as a general explanation of institutional origins.

Botero's analysis is quite dubious because his political ideology variables are unlikely to measure ideology accurately. Two out of the three ideology variables employed by Botero code a country as being leftist whenever its legislative and executive branches are controlled by political parties that are at either the left or the center of that country's political spectrum.[6] Thus, according to Botero's variables, the U.S. under Bill Clinton and the Democratic Congress in 1993 was a leftist country, while Germany under Helmut Kohl was a right-wing country. This coding is dubious at best, and calls into serious question the accuracy of Botero's results.

This paper seeks to improve on the analysis of Botero by developing accurate political ideology variables and employing them to test empirically the relative impacts of political ideology and legal origins on corporate ownership structures and labor regulation. As measures of political ideology, this paper adopts ideological indices calculated using data developed by the Manifesto Research Group, a group of political scientists that has painstakingly analyzed party manifestos in twenty-five countries in order to ascertain party positions on a variety of issues. In general, regression analysis using the Manifesto Research Group data demonstrates that political ideology does in fact have a significant impact on both corporate ownership structure and labor regulation. However, the inclusion of legal origins variables generally reduces the explanatory power of the political ideology variables and removes their statistical significance. Because of sample size and multicollinearity problems, these results do not demonstrate that ideology is unrelated to institutional development. Rather, the analysis simply

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[5] Juan Botero et al., *The Regulation of Labor*, 119 Q. J. ECON. 1139 (2004).
[6] *See* Botero et al., *supra* note 5, at 1357.

establishes that legal origins play a large role in determining labor law and corporate ownership structures. The results suggest that civil law, and French civil law in particular, may facilitate the transformation of leftist ideology into leftist government policy.

This paper is organized as follows. Section II describes the various political theories that have been offered as explanations for the divergent patterns of corporate ownership observed in modern economies. Section III describes the legal origins theory and identifies three channels through which legal origins theorists have argued that legal origins may impact economic institutions. Section IV describes the insufficiency of political ideology variables that have been employed in previous studies of institutional origins. Section V describes the Manifesto Research Group ideological data and argues that these data are the best available measures of comparative political ideology. Section VI presents regression analyses that evaluate the relative impacts of political ideology and legal origins on the development of corporate ownership structures and labor law. Section VII concludes.

II. Political Theories

A. Social Democracy Theory

Political theorists have posited a number of explanations for the failure of corporate ownership to separate from control in most of the developed world, and the most prominent such theory is Roe's social democracy theory. Roe's theory posits that leftist ideology exacerbates agency costs, which in turn prevent controlling shareholders from selling their shares to diffuse investors.[7] Roe argues that the relatively high political power of the left in European social democracies[8] severs the "delicate threads that tie managers to distant shareholders" in more conservative countries.[9] Social democracy severs these threads in part by eviscerating at least five potentially important agency cost reducing corporate governance mechanisms.[10]

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[7] ROE, *supra* note 1, at 3.
[8] Roe describes social democracies as "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." ROE, *supra* note 1, at 24.
[9] ROE, *supra* note 1, at 2.
[10] *Id.* at 38.

First, the norm of shareholder wealth maximization, one of the most important mechanisms for controlling agency costs in the United States, is not generally viable in social democracies. As Roe argues, social democratic culture disparages shareholder primacy, thus informally pressuring managers to exercise their discretion to sacrifice shareholder returns in order to pursue broader social interests.[11] The absence of a shareholder primacy norm in social democracies also reduces shareholders' ability to pressure managers to increase profits at the expense of other constituencies.[12] There is substantial empirical support for the proposition that shareholder primacy has relatively weak saliency in European social democracies. A 2000 survey of senior corporate managers found that, in the prototypical social democracies of Germany and France, 82.7 and 78.0 percent of respondents respectively replied that corporations belong to all stakeholders.[13] In the United States, in contrast, 75.6 percent of managers identified shareholders as the sole owners of corporations.[14]

A second agency cost reducing mechanism that, according to Roe, is unavailable in social democracies is vigorous incentive compensation.[15] High compensation is disfavored in many social democracies because of the possibility that it will create tensions between capital and labor, and in at least one social democracy, Sweden, stock options are considered ethically questionable.[16] The same social democratic impulses that discourage incentive compensation also limit the viability of hostile takeovers, as managers in social democracies, to a greater extent than managers in other countries, can fend of potential acquirers by citing concerns for labor.[17] In Germany, as late as 1999, not a single hostile takeover had ever occurred.[18] In France, the government must approve proposed takeovers, and it generally withholds support unless the acquirers adopt a social plan renouncing layoffs and thus making

[11] *Id*. at 2.
[12] *Id.* at 39. Roe notes that most French managers are trained at one of two business schools, both of which encourage managers to "think more of national progress than of shareholder-profit maximization." *Id.* at 68.
[13] Marco Pagano & Paolo Volpin, *The Political Economy of Finance,* 17 OXFORD REV. ECON. POL'Y. 502, 507 (2001) (reporting data from F. Allen & D. Gale, *Corporate Governance and Competition*, *in* CORPORATE GOVERNANCE: THEORETICAL AND EMPIRICAL PERSPECTIVES (X. Vives, ed., 2000)).
[14] Pagano & Volpin, *supra* note 13, at 507.
[15] ROE, *supra* note 1, at 41-43.
[16] *Id.* at 43.
[17] *Id*.
[18] ROE, *supra* note 1, at 44.

restructuring more difficult.[19] Social democracy also may reduce the quality of a country's accounting system, another key element of any corporate governance regime. As Roe argues, firms may prefer opaque accounting systems if the disclosure of high profits is likely to lead to increased calls for concessions to labor, as is likely the case in many social democracies.[20]

In at least one social democracy, Germany, left-leaning politics have undeniably undermined the potential effectiveness of the board of directors itself.[21] Since the 1976 passage of Germany's codetermination law, large German corporations have been required to dedicate half of the seats on their supervisory boards to labor representatives.[22] The division of boards into rival benches decreased the boards' capacities to cooperate for the purpose of monitoring management, and has provided corporations with incentives to take various actions designed to limit board power.[23] Most notably, co-determination has led corporations to restrict substantially the flow of information to boards and to decrease the frequency of board meetings.[24] Co-determination has also increased the size of many supervisory boards, thus reducing individual directors' incentives to prepare for meetings and to actively monitor management.[25] Under co-determination, potential minority shareholders likely find boards to be either very weak at best, or, at worst, dominated by labor.[26] Thus, co-determination, a clear example of social democracy in practice, may stymie the sale of equity to would-be diffuse shareholders of large German corporations.

In addition to undermining several important corporate governance mechanisms, social democracy may contribute to managerial agency costs by strengthening the hand of managers when their interests conflict with the interests of shareholders.[27] The fact that managerial interests often dovetail with labor interests is well established. Because both workers and managers make undiversified human

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[19] *Id*.
[20] *Id*. at 40.
[21] *Id*. at 77.
[22] Katharina Pistor, *Codetermination: A Sociopolitical Model with Governance Externalities, in* EMPLOYEES AND CORPORATE GOVERNANCE, 163, 172 (Blair & Roe, eds., 1999).
[23] *Id.* at 190.
[24] ROE, *supra* note 1, at 73-74.
[25] *Id.* at 75.
[26] *Id.* at 81.
[27] *See Id.* at 39.

capital investments in firms, both labor and management tend to be adverse to firm risk.[28] Also, given the well-documented tendency of managers to engage in "empire building" even when expansion does not yield optimal returns to shareholders,[29] managerial interests often coincide with workers' interests in expanding employment opportunities and employment stability.[30] Managers also may find their jobs more pleasant if labor strife is minimized by the payment of above-market wages, regardless of whether high wages are optimal for shareholders.[31] Furthermore, if high wages are locked in by explicit or implicit contracts, they may effectively turn employees into a poison pill, reducing the firm's attractiveness to potential acquirers and thus ensuring management's tenure.[32] It is thus plausible that managers may take advantage of leftist political values to further their own interests at the expense of shareholders.

Roe has marshaled empirical support for the social democracy theory in a number of ways. He has conducted simple regressions using several different proxies for leftist ideology.[33] These proxies include a left-right index derived from an international survey of political scientists,[34] an index of labor protections, the Gini Index of income inequality, and government spending relative to G.N.P. In general, Roe's regressions indicate that the power of the left correlates negatively with the separation of corporate

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[28] ROE, *supra* note 1, at 34.
[29] *See*, *e.g.*, Michael Jensen, *Agency Costs of Free Cash Flow, Corporate Finance and Takeovers*, 76 AMER. ECON. REV. 323, 323 (1986).
[30] ROE*, supra* note 1, at 34.
[31] Pagano & Volpin, *supra* note 13, at 510. See *also* Michael Jensen & William Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, in THE ECONOMIC NATURE OF THE FIRM: A READER 322 (Louis Putterman & Randal S. Kroszner, eds., 2d ed. 1996).
[32] Pagano & Volpin, *supra* note 13, at 510. Roe notes that even in the United States, managers in states with relatively strong anti-takeover legislation tend to concede higher wages than their counterparts in other states. ROE, *supra* note 1, at 34 (citing Marianne Bertrand and Sendhil Mullainathan, *Is there Discertion in Wage Setting? A Test Using Takeover Legislation*, 30 RAND J. ECON. 535, 537 (1999)). *Cf.* Edward B. Rock, *Encountering the Scarlet Women of Wall Street: Speculative Comments on at the End of the Century*, 2 THEORETICAL INQUIRIES IN LAW 1, 26 (2001) (noting that during the 1980s takeover battles in the U.S., management and labor colluded to pressure state legislatures for anti-takeover legislation).
[33] *See* ROE, *supra* note 1, at 49-61.
[34] The survey is described in Francis G. Castles & Peter Mair, *Left-Right Political Scales: Some" Expert" Judgments*, 12 EUR. J. POL. RES. 73 (1984). The data used by Roe are compiled in Thomas R. Cusack, *Partisan Politics and Public Finance: Changes in Public Spending in the Industrialized Democracies, 1955-1989*, 91 PUB. CHOICE 375, 383-84 (1997). These data are discussed *infra*, page 23.

ownership from control.[35] Unfortunately, econometric evaluation of the social democracy theory in the context of ownership separation must be confined to a few major western economies, simply because few economies outside the west are sufficiently well developed to give rise to the demand for separated ownership and control.[36]

By far the most convincing empirical support that has been marshaled for the social democracy theory stems from qualitative descriptions of the history of corporate finance in industrialized nations. Roe emphasizes that securities markets in many countries that are now European social democracies were more robust than securities markets in the United States prior to the First World War.[37] As social democracy developed in Europe after the wars, securities markets there declined, while the opposite occurred in the U.S., which was much more isolated from social democratic pressures.[38] Even in the United Kingdom, which was certainly not isolated from social democracy in the post-war period, family ownership of firms was dominant perhaps through the 1970s, and only abated after Margaret Thatcher steered British economic policy sharply to the right in the 1980s.[39] In addition, as discussed above, the case of German co-determination provides an explicit and undeniable example of social democracy weakening ties between shareholders and managers and thus thwarting the separation of corporate ownership and control.[40]

B. Alternative Political Theories

Although the focus of this paper is on the social democracy theory, at least three other political theories have been proposed as explanations for divergent corporate ownership patterns in modern economies. Rajan and Zingales argue that a country's level of corporate ownership separation depends

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[35] *Id.*
[36] *Id.* at 106.
[37] Mark J. Roe, *Political Preconditions to Separating Ownership from Corporate Control*, 53 STAN. L. REV. 539, 588 (2000). *See also* Raghuram G. Rajan & Luigi Zingales, *The Great Reversals: the Politics of Financial Development in the Twentieth Century*, 69 J. FIN. ECON. 5, 15 (2003).
[38] *Id.* at 583.
[39] *Id.* at 574-75.
[40] *See supra* notes 21 through 26 and surrounding text.

upon the interests and political power of incumbent majority shareholders.[41] They posit that incumbents often disfavor financial development because financial development may give rise to competition that reduces the rents of incumbent firms.[42] However, if economies are open to trade and capital flows, incumbents will have little incentive to oppose financial development because foreign competition will eliminate anti-competitive rents.[43] In accord with their theory, Rajan and Zingales demonstrate that financial development during the twentieth century correlates positively with trade openness and cross-border capital flows, which, they argue, are not entirely endogenous.[44]

Perotti and von Thadden advocate a second political economy theory of financial market development. According to their theory, because corporate governance affects the welfare of voters, the economic interests of electoral majorities determine corporate governance structures.[45] In their model, voters whose wealth is tied up exclusively in human capital cannot diversify, and such voters protect their investments by voting for corporate governance structures that reduce corporate risk taking.[46] Specifically, according to Perotti and von Thadden, these voters will prefer systems of corporate governance that grant banks, which also disfavor corporate risk, a relatively large role in governing firms.[47] In contrast, voters who own significant financial wealth can diversify to mitigate risk, and they thus favor corporate governance systems that emphasize equity control and facilitate corporate risk taking and higher financial returns.[48] Perotti and von Thadden support their theory with the empirical observation that in the U.S. and in the U.K., where equity markets are most developed, voters in the median voter group own shares at much higher rates than in other developed economies.[49]

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[41] Rajan & Zingales, *supra* note 37, at 7.
[42] *Id.*
[43] *Id.*
[44] *Id.* at 36.
[45] ENRICO C. PEROTTI & ERNST-LUDWIG VON THADDEN, THE POLITICAL ECONOMY OF BANK- AND MARKET DOMINANCE 2 (European Corporate Governance Inst., Finance Working Paper No. 21/2003, Sept. 2003).
[46] *Id.* at 3.
[47] *Id.*
[48] *Id.* at 3-4.
[49] PEROTTI & VON THADDEN, *supra* note 45, at 28. For example, Perotti and von Thadden show that in the United States and the United Kingdom, the average household had about fifty percent of its wealth in shares in 1994, whereas that rate stood at only around fifteen percent in Germany, Japan, and France. *Id.*

Pagano and Volpin offer a third political economy model of corporate governance structures.[50] In their model, majority owners of established firms seek to limit shareholder protection in order to maximize private benefits of control, while workers seek high degrees of employment protection.[51] They argue that if workers and blockholders can cooperate politically, they will strike a political deal according to which both groups will favor low investor protections and high labor protections.[52] Such a bargain is possible, they argue, in European democracies with large numbers of political parties, but is less feasible in Anglo-Saxon countries with narrower party systems.[53]

III. The Legal Origins Theory

The legal origins theory is not so much one unified theory as it is a diverse assortment of several distinct theories that attempt to explain several impressive empirical results. These empirical results arguably suggest that a country's legal origin forms an integral part of its D.N.A. and impacts the development of a breathtaking array of political, legal, and economic institutions. Most versions of legal origins theory share at least two common assumptions. First, the theories assume that most countries' legal systems fit into one of two major families, common law and civil law, which date back as far as the twelfth century.[54] Common law developed first in England, and emphasizes judicial discretion and the following of judicial precedents.[55] Civil law, in contrast, originated in Roman law with the Justinian Code, and was reinvigorated by the great state-builders Napoleon and Bismarck.[56] The modern civil law is typically divided into three families, French, German, and Scandinavian.[57] The second common assumption of legal origins theories is that most countries receive their legal systems involuntarily, as through conquest or imperialism.[58] From this observation, legal origins theorists deduce that legal origin

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[50] MARCO PAGANO & PAOLO VOLPIN, THE POLITICAL ECONOMY OF CORPORATE GOVERNANCE (Università di Salerno, Center For Studies in Economics and Finance Working Paper No. 29, Mar. 2000).
[51] *Id.* at 7.
[52] *Id.* at 8.
[53] *Id.* at 24.
[54] *See*, *e.g.*, La Porta et al., *supra* note 2, at 1118.
[55] *Id.* at 1119.
[56] Thorsten Beck & Ross Levine, *Legal Theories of Financial Development*, 17 OXFORD REV. ECON. POL'Y. 483, 486-87 (2001).
[57] La Porta, et al., *supra* note 2, at 1118.
[58] *Id.* at 1126.

is determined exogenously.[59] Beyond these common assumptions, the several versions of legal origins theory begin to diverge from one another. Because empirical results have been driving the development of legal origins theory, this paper will first discuss the major empirical findings of legal origins scholars, and then will attempt to categorize of the various theories that scholars have offered to explain the empirical results.

The recent boom in legal origins scholarship began in 1997 when Rafael La Porta and coauthors reported that common law countries tend to have broader equity markets, as measured by the ratio of market capitalization to G.N.P., than all categories of civil law countries, and French civil law countries in particular.[60] The authors also compiled an "anti-director rights" index in an attempt to capture the level of legal shareholder protections in each sample country. This index increases in value by 1.0 if a country's corporate law provides for any of the following: proxy voting by mail, cumulative voting, oppressed minorities mechanisms (such as shareholder lawsuits), and the calling of a shareholders' meeting by a vote of no more than ten percent of a firm's shareholders.[61] The index also increases by 1.0 if shareholders are not required to deposit their shares prior to regularly scheduled shareholders' meetings.[62] Looking at a sample of forty-nine countries, La Porta and coauthors found the highest levels of anti-director rights in common law countries, low levels of anti-director rights in French civil law countries, and medium levels of anti-director rights in German and Scandinavian civil law countries.[63] In regression analysis, both anti-director rights and legal origin dummy variables were found to be significant determinants of equity market breadth.[64]

La Porta and coauthors further advanced the empirical literature in 1998 when, again investigating a sample of forty-nine countries, they demonstrated that corporate ownership concentration

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[59] *Id.*
[60] Rafael La Porta et al., *Legal Determinants of External Finance*, 52 J. FIN. 1131, 1137 (1997).
[61] *Id.* at 1134.
[62] *Id.*
[63] *Id.* at 1137.
[64] La Porta et al., *supra* note 60, at 1142.

has persisted to a much greater degree in French civil law countries than in common law countries.[65] They also found that a slightly reformulated anti-director rights index[66] correlates strongly and positively with ownership dispersion.[67] In fact, when accompanied in regression analysis with controls for accounting quality and rule of law, the anti-director rights index wipes out the statistical significance of legal origins dummy variables as determinants of ownership concentration.[68] This analysis was further advanced in 1999, when La Porta and coauthors developed greatly improved measures of corporate ownership concentration in twenty-seven wealthy democracies.[69] The refined measures indicate that countries with higher levels of legal protection, as reflected by the anti-director index, have more corporate ownership dispersion.[70]

La Porta and colleagues have since expanded the scope of their research away from corporate finance to demonstrate that legal origins powerfully correlate with a variety of other outcomes, ranging from the formalism of court procedures[71] to literacy rates, infant mortality rates, and the general extent of government intervention in the private sector.[72] Most recently, Juan Botero joined La Porta and coauthors to investigate empirical links between legal origins and several core tenets of social democracy, including labor rights, collective relations laws,[73] and social security provision.[74] Botero and coauthors (Botero) posit that, in regulating labor markets and crafting social safety nets, governments will follow general "styles of social control" utilized by other countries in their legal family.[75] Botero's empirical analysis, which covers a sample of eighty-five countries, confirms that all civil law families, and the French civil

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[65] La Porta et al., *supra* note 2, at 1146-48.
[66] La Porta and coauthors added an additional component to the anti-director rights index whereby the index value for a particular country increases by 1.0 if that country's corporate law vests shareholders with preemptive rights that can only be waived by a shareholder vote. *Id.* at 1145.
[67] *Id.* at 1149-50.
[68] *Id.*
[69] Rafael La Porta et al., *Corporate Ownership Around the World*, 54 J. FIN. 471, 472 (1999).
[70] *Id.* at 496.
[71] RAFAEL LA PORTA ET AL., COURTS 7 (Yale ICF Working Paper No. 02-18; Harvard Institute of Economic Research Paper No. 1951, Mar. 2002).
[72] La Porta et al., *supra* note 4, at 261-62.
[73] Collective relations laws "regulate the bargaining, adoption, and enforcement of collective agreements, the organization of trade unions, and the industrial action by workers and employers." Botero et al., *supra* note 5, at 1339.
[74] Botero et al., *supra* note 5, at 1370.
[75] *Id.* at 1346.

law family in particular, regulate employment and collective relations to a greater extent than do common law countries, while all civil law groups except German civil law have more generous social safety nets than common law countries.[76] Botero argues that evaluating the roots of labor regulation provides a unique opportunity to gauge the relative impacts of politics and legal origins on institutional development, given that leftist governments should be expected to regulate to benefit their worker supporters.[77] In order to test the theories, Botero constructed three crude "left-power" variables[78] and employed them alongside legal origins dummies as independent variables in "horse race" regressions covering a sample of sixty-six countries.[79] Botero's results establish that, even after controlling for left power, legal origins variables retain their explanatory power.[80] Furthermore, in six out of Botero's nine regressions, the political variables are statistically insignificant.[81] Thus, Botero advocates the rejection of Roe's "extreme hypothesis that law is just a proxy for social democracy."[82]

Having described the basic assumptions and empirical findings of legal origins scholars, it is now possible to set forth the various theories that have been offered to explain why legal origins have such a strong effect on institutional outcomes. Although other commentators have identified only two

[76] *Id.* at 1365. Botero, et al. also included a dummy variable for "socialist legal origin" countries. The inclusion of socialism as a legal origin for modern countries is quite dubious. In general, the legal origins theory emphasizes the existence of deeply rooted legal structures that go back centuries. *See supra* note 54, and surrounding text. The socialist legal family, to the extent that such a family exists, only arose in the twentieth century, and it arose only as a direct result of a political (if not democratic) will to confiscate private property and centrally manage economies. Thus, the inclusion of a socialist legal origin variable likely confounds the effects of politics and legal origins. Even if there were an identifiable socialist legal family as a historical matter, the continuing existence of such a family after the fall of the Iron Curtain should not be taken for granted, given the rapid changes in fundamental governmental changes in former Communist countries in the 1990s. *See generally* John C. Coffee, *The Rise of Dispersed Ownership: The Role of Law in the Separation of Ownership and Control*, 111 YALE L.J. 1, 13-14 (2001) (noting recent adoptions of common law-style rules in former Communist countries); Rafael La Porta et al., *Investor Protection and Corporate Governance*, 58 J. FINANCIAL ECON. 3, 8 (2000) (reasoning that rapid changes in the laws of transition economies after the fall of Communism made it inappropriate to consider socialism as a legal origin in econometric analysis of financial development).
[77] Botero et al., *supra* note 5, at 1341.
[78] The inadequacy of these variables is discussed *infra*, pages 18-22.
[79] Botero appropriately does not include former Communist countries in the "horse race" regressions. Botero et al., *supra* note 5, at 1370.
[80] Botero et al., *supra* note 5, at 1370.
[81] *Id*.
[82] *Id.* at 1371. This strongly worded characterization is ironic considering that Botero's co-author, Rafael La Porta, has elsewhere used legal origin variables as "proxies for the political orientation of governments." La Porta et al., *supra* note 4, at 232.

competing legal origins theories,[83] there are at least three distinct channels through which theorists have argued legal origins may affect institutional development. These channels are not necessarily mutually exclusive and are set forth and briefly evaluated in the following paragraphs.

A. The Judicial Flexibility Channel

Advocates of the judicial flexibility channel observe that gaps generally exist between the needs of an economy and the ability of a legal system to meet those needs, and they argue that, because the common law is more flexible than civil law, it is better at filling those gaps.[84] Thus, common law is better able consistently to guard property rights and protect investors.[85] Beck and Levine, advocates of this channel, explain observed differences in financial market development between the various civil law families by noting that the French civil law system is particularly rigid, while the designers of German civil law opted for a more dynamic version of civil law.[86] A recent empirical analysis of court formalism in 109 countries provides indirect support for this observation, demonstrating that courts in all civil law families, but particularly in French civil law countries, use more formalistic procedure than common law courts.[87] In spite of these findings, recent convergence between practices in civil law and common law countries undermines the persuasiveness of the judicial flexibility channel.[88] Also, the judicial flexibility channel is weak in that it cannot explain what motivates common law judges to use their discretion to

[83] *See* Beck & Levine, *supra* note 56, at 484 (identifying a "political channel" and a "legal adaptability channel"); *See also* La Porta, *supra* note 76, at 9-12 (identifying two categories of explanations: "judicial explanations" and "political explanations").
[84] *See*, *e.g.*, Beck & Levine, *supra* note 56, at 484. The conclusion that common law systems are inherently more flexible is accepted by most commentators, but not all. Mahoney, for example, has observed that, because common law judges are bound to follow precedent to a greater extent than their civil law counterparts, the common law could actually be more static than civil law. Mahoney, *supra* note 2, at 506.
[85] *See id.* at 484.
[86] *Id.*
[87] La Porta et al., *supra* note 71, at 7 (measuring court formalism by examining procedures necessary to collect a bounced check and to evict a non-paying tenant).
[88] *See generally* KATJA FUNKEN, THE BEST OF BOTH WORLDS: THE TREND TOWARDS CONVERGENCE OF THE CIVIL LAW AND THE COMMON SYSTEM 5-15 (LA732 Comparative Legal Essay, 2003) (noting a growing tendency of common law courts to rely on statutes and a corresponding movement in civil law countries toward judicial activism and the application of *stare decisis*). *See also* Colin Mayer & Oren Sussman, *The Assessment: Finance, Law, and Growth*, 17 OXFORD REV. ECON. POL'Y. 457, 463 (2001) (observing that differences in legal systems are sometimes greater between common law countries than between civil law and common law countries).

protect property rights or minority investors.[89] Because of this inability, the judicial flexibility channel is less satisfying than the political framework channel, which is discussed next.

B. The Political Framework Channel

Paul Mahoney has provided perhaps the best explication of the political framework channel argument.[90] Mahoney argues that the various legal families were created not because of narrow views about how to govern particular business transactions, but rather in order to realize broad and dramatically different visions about the proper role of government in the economy.[91] Mahoney demonstrates that English common law judges, being ideologically aligned with private landowners against the crown, crafted the common law in order to protect private property and contract rights.[92] Indeed, as Parliament consolidated power in the wake of the Civil War, one of the ways in which it sought to ensure enduring protection of property rights was to grant common law judges life tenure and substantial salaries.[93] The Napoleonic Code, on the other hand, was from the beginning an instrument designed to facilitate state alteration of property rights without judicial interference.[94] In the words of the Code's principal drafter, the Code sought to embody the "overriding desire to sacrifice all rights to political ends and no longer consider anything but the mysterious and variable interests of the State."[95] Thus, although both systems provide good protections of property and contract rights against incursions by private actors, Mahoney argues that the drastically different historical roots of the common law and the Napoleonic Code have led French civil law to provide much weaker protection of property rights against interference by the state.[96]

[89] La Porta et al., *supra* note 76, at 9. Discretion can clearly cut both ways. For example, the British Parliament in 1948 passed a bill authorizing legal actions by all aggrieved minority shareholders, but judicial interpretation cabined the bill and rendered it practically applicable only to minority shareholders in closely held corporations. Brian Cheffins, *Does Law Matter? The Separation of Ownership and Control in the United Kingdom*, 30 J. LEGAL STUDIES 459, 477-78 (2001).
[90] Mahoney, *supra* note 2.
[91] *Id.* at 504.
[92] *Id.* at 508-509.
[93] *Id.* at 509.
[94] Mahoney, *supra* note 2, at 505. The Napoleonic Code sought to respond to widespread excesses of judges in France in the 1700s. Beck & Levine, *supra* note 56, at 487.
[95] Mahoney, *supra* note 2, at 510 (quoting "Discours préliminaire prononcé par Portalis, le 24 thermidor an 8, lors de la presentation du projet arête par las commission du gouvernement, in P.A. Fenet, Recueil Complet des Travaux Preparatoires du Code Civil 465 (1968) (1867)).
[96] *Id.* at 507.

Thus, the political framework channel holds that common law establishes a broad framework that fragments power between the sovereign and judges, whereas French civil law places no effective limits on sovereign authority.[97] The fragmentation of power in common law countries, according to Mahoney, gave private actors the space they needed to develop financial markets and spur economic growth.[98] Some of the extensive empirical work by La Porta and coauthors supports the political framework channel. For example, they demonstrate that French legal origin countries, and, to a lesser extent, other civil law countries, have governments that regulate economic activity more and protect private property rights less than their common law counterparts.[99] They further bolster the plausibility of the political framework channel by demonstrating that, *ceteris paribus*, countries with more independent judiciaries[100] tend to have higher levels of economic freedom and protection of property rights.[101]

C. The Politics and Rules Channel

Although La Porta and coauthors have provided some empirical support for the political framework channel, they, to a large extent, advocate a channel best described as the "politics and rules" channel as their preferred theoretical explanation of legal origins' impacts on institutional development.[102] La Porta and coauthors agree with Mahoney that the history of the common law imbued it with a bias toward protecting private property against expropriation by the government, whereas the opposite was the

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[97] *Id.*

[98] *Id.* at 523. *See also* Coffee, *supra* note 76, at 8-9. Coffee argues that the key advantage of the common law world in financial market development was the early development of a private sector that was free from close control by the sovereign. *Id.* Whereas the French and German governments smothered securities markets with regulation and government interference, securities markets in the United States and Great Britain were able to develop, in spite of the absence of robust corporate law, because the governments in those countries did not interfere with private ordering that occurred through stock exchange rules and private bonding mechanisms. *Id.* at 29, 39, 47, 58. Coffee also observes that securities markets developed in Holland, a *civil law country*, even before robust equity markets emerged in London. *Id.* at 9. He explains this phenomenon by observing that Holland was a "pluralistic, decentralized society in which the private sector was relatively autonomous and free from direct state supervision." Coffee, *supra* note 76, at 9-10.

[99] La Porta et al., *supra* note 4, at 262.

[100] The authors use judicial tenure in office and the binding nature of judicial precedent as proxies for judicial independence. RAFAEL LA PORTA ET AL., THE GUARANTEES OF FREEDOM 3 (Harvard Institute of Economic Research Paper No. 1943, Jan. 2002).

[101] LA PORTA ET AL., *supra* note 71, at 4.

[102] *See* La Porta et al., *supra* note 76, at 9-12.

case for civil law.[103] However, according to La Porta, the political biases of the civil law and common law did not affect institutional development primarily through their effects on the structures of judicial systems (i.e. the extent to which judicial systems are independent of other branches). Rather, they argue, legal origins affect institutional development because civil law countries and common law countries tend to adopt distinct substantive rules in order to further their innate political preferences.[104] La Porta and coauthors heavily emphasize the importance of particular rules in *Law and Finance*, where they argue that specific "anti-director" rights capture all of the effects of legal origins on corporate ownership concentration.[105]

Although the explanatory power of the anti-director index provides some quantitative support for the politics and rules channel, qualitative support for the rules channel is quite weak, if not nonexistent. Indeed, many commentators question the relevance of the particular provisions that constitute the anti-director index.[106] Legal systems often use different mechanisms to achieve similar ends, and the narrow anti-director index is unlikely to capture the full scope of shareholder protection.[107] Also, as Roe

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[103] *Id.* at 12.

[104] *See*, *e.g.*, *id.* at 9. *Cf.* Botero et al., *supra* note 5, at 1345. Botero speculates that "basic laws, the institutions for enforcing those laws, and human capital of law enforcers are all shaped by… legal tradition." *Id.* Thus, according to Botero, when the state wants to regulate in a new area it will adopt approaches similar to "that of the mother country." *Id.*

[105] La Porta et al., *supra* note 2, at 1114, 1150. *See also* La Porta et al., *supra* note 69, at 512 (exhibiting implicit adoption of rules channel by arguing that, in order to promote equity markets many countries should seek "radical" legal reforms, such as giving shareholders "explicit rights to either prevent expropriation or seek remedy when it occurs"); La Porta et al., *supra* note 76, at 9 (explicitly stating that legal origins affect financial development because they correlate with particular laws, which then determine the extent of market development).

[106] *See*, *e.g.*, Coffee, *supra* note 76, at 8 ("The specific 'anti-director' rights… strike many legal commentators as only tangentially related to effective legal protection for minority shareholders.").

[107] ERIK BERGLÖF & ERNST-LUDWIG VON THADDEN, THE CHANGING CORPORATE GOVERNANCE PARADIGM: IMPLICATIONS FOR TRANSITION AND DEVELOPING COUNTRIES, 9 (Working Paper, 1999). For example, La Porta et al. assume that mandatory dividends, common in French civil law countries but not elsewhere, are not core elements of corporate law, but rather are responses to the inadequacy of French civil law countries' core corporate laws as defined by the anti-director index. La Porta et al., *supra* note 2, at 1116. They dismiss the potential positive impact of mandatory dividends by noting that profits can be misrepresented, *id.* at 1128, but they fail to acknowledge that management's misrepresentation of a firm's financial condition could also eviscerate the effectiveness of many of the provisions that are considered in calculating the anti-director index. In addition, many potentially important legal constraints on management, including takeover laws and disclosure requirements, are left out of the index. *See id.* at 1120. The inadequacy of the anti-director index is underscored by the empirical analysis of Dyck & Zingales, who find that, although anti-director rights have some positive impact in reducing the private benefits of control, the effects of other variables, including quality of law enforcement, accounting quality, newspaper circulation, and tax compliance, are substantially greater. Alexander Dyck & Luigi Zingales, *Private Benefits of Control: An International Comparison*, 59 J. FIN. 537, 582-86 (2004). Even if the anti-director index were a perfect measure of

observes, it is unclear that good corporate law would necessarily give rise to ownership separation, since quality law could facilitate blockholding by protecting minority shareholders' interests from expropriation at the hands of dominant shareholders.[108] Perhaps the strongest evidence against the politics and rules channel, however, is the fact that corporate law was quite weak when ownership began separating from control in the U.S. and Great Britain.[109]

IV. <u>Advancing the Empirical Debate Requires A New Political Ideology Variable</u>

Until now, quantitative empirical studies that attempt to gauge the effects of political ideology on institutional development have relied on data that do not accurately reflect ideological orientation. Botero's study of the determinants of labor law is particularly lacking in this regard. Botero attempts to capture left power with three separate variables, none of which adequately measures ideology. The first Botero political variable is the fraction of years between 1928 and 1995 during which a party of leftist or centrist orientation controlled both the highest executive office and the legislature of a country.[110] The second Botero variable is the same as the first, except covering only 1975 through 1995.[111] Botero's third variable consists of the percentage of workers in each country in 1997 that were members of labor unions.[112]

The first two Botero variables in particular are not well designed to capture the leftist orientation of a country. As an initial matter, it is unclear why parties of centrist origin should be counted as leftist parties. Such coding surely waters down the effect of the left power variable. More fundamentally, however, simply observing whether the party in power in a particular country is on the left or right side of

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the quality of a country's corporate law, it would not be surprising if it only weakly reduced agency costs, given that even U.S. corporate law, through the business judgment rule, refuses to regulate a huge swath of managerial decisionmaking. ROE, *supra* note 1, at 162.

108 ROE, *supra* note 1, at 164.

109 *See* Coffee, *supra* note 76, at 10 (noting that corporate ownership began to separate from control during an era of judicial corruption and regulatory arbitrage and in spite of a lack of federal securities laws); Rock, *supra* note 32 (documenting such corruption and regulatory arbitrage); Cheffins, *supra* note 89 (arguing that corporate law was weak in the U.K. during much of the twentieth century and attributing the separation of ownership and control in that country to private ordering by stock exchanges and finance houses).

110 Botero, et al., *supra* note 5, at 1357. In earlier drafts of the article, Botero used other permutations of the politics variable, including variables that looked only to the orientation of the legislature or the executive. The variables employed in the published paper provide the strongest results for the political theories. *Id.*

111 *Id*.

112 *Id*.

the political spectrum *in that country* provides very little if any information about the ideology of voters or government officials in that country. Presumably, in order to garner votes and survive politically, the major parties that operate in a country must tailor their ideological positions so that they fall within a particular range of the political values of voters in that country. If voters in a country lean heavily and persistently to the left, both the rightmost and the leftmost major parties in that country may take ideological positions to the left of all major parties in a country where voters lean consistently to the right.

Casual observations of the actions of political parties in major democracies confirm that a right wing party in one country may actually take many positions to the left of a "leftist" party in another country. Particularly in European social democracies, with respect to issues like labor rights that are close to the core of social democratic ideology, major political parties often fall to the left of both U.S. parties, regardless of whether they fall on the right or the left side of their countries' political spectra.

Consider, for example, Germany's Christian Democratic Union (C.D.U.), which is on the right side of the political spectrum in that country. In its statement of "Principles and Program," the C.D.U. makes repeated references to the desirability of an "ecological and social market economy," which the party defines as an economy that creates distributional justice and incorporates robust collective bargaining rights, codetermination, and employee shareholding.[113] In 1998, Germany's long-time Christian Democratic Chancellor, Helmut Kohl, during the run-up to a contentions election, instituted a make-work program that provided temporary jobs to hundreds of thousands of unemployed workers.[114] Although many claimed, quite plausibly, that Kohl's actions did not reflect his true preferences but rather were an election year ploy to deflect criticism from the Social Democrats, this is precisely the point: a right wing party simply cannot stick to right wing policies and successfully operate in a democracy where voter preferences are concentrated on the left end of the political spectrum. Based on these observations, the C.D.U. is clearly to the left of the U.S. Republican Party with respect to labor and economic

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[113] CHRISTIAN DEMOCRATIC UNION OF GERMANY, PRINCIPLES AND PROGRAM OF THE CHRISTIAN DEMOCRATIC UNION OF GERMANY, ENGLISH VERSION, 20-21 (Feb. 1994), *available at* http://www.cdu.de/en/3440.htm.
[114] Edmund L. Andrews, *Gift from Kohl in an Election Year: Temporary Work for East's Jobless*, N.Y. TIMES, Sept. 10, 1998, at A12. Some of the jobs created by Kohl were dedicated to the manufacture of hundreds of wooden crates for the storage of gasoline tanks that were no longer even in use. *Id.*

regulation, and may also lie to the left of the U.S. Democratic Party, at least if the position of the Democratic Party is measured by the moderate economic policies of the most recent Democratic administration. Botero's first two politics variables, however, code the C.D.U. as ideologically equivalent to the Republican Party.

In addition to their failure to adjust for the fact that the concepts of left and right do not have the same meanings across countries, Botero's first two politics variables also fail to reflect shifts in a particular country's ideological spectrum over time. To illustrate, conventional wisdom holds that the Democratic Party in the United States has moved substantially to the right in the decades since the War on Poverty and the Great Society marked the zenith of the welfare state in America. Botero's first political variables cannot reflect this shift in ideology over time.

Finally, Botero's first two political variables do not allocate parties to the left, right, or center based only on the parties' economic policies, but rather they presumably consider parties' positions on a broad range of topics, including international relations, civil rights, and criminal justice, which are probably irrelevant to the development of economic institutions like corporate finance and labor law. The failure to focus on economic ideology alone will likely have major distorting effects with regard to some countries, where parties' positions on social issues are on one side of the political spectrum while their positions on economic regulation are on the other side.

Given the numerous theoretical reasons to doubt the ability of Botero's left-power variables to reflect countries' actual ideological orientations, it is not surprising that Botero's first two variables correlate quite poorly with other indicators of left power. One would expect leftist countries to have higher levels of taxation and government spending than countries that lean more to the political right. Botero's first politics variable (i.e. the fraction of years between 1928 and 1995 that a leftist or centrist party controlled both the chief executive's office and the legislature) has correlations of –0.14 and –0.18 respectively with government revenues and government spending as percentages of gross domestic product.[115] Botero's second politics variable (i.e. the same variable as the first variable but covering only 1975-1995) also correlates negatively with taxation and government spending.[116] These results implausibly suggest that leftist countries tax less and spend less than politically conservative countries. Furthermore, one would also expect populations in leftist countries to disapprove of America's highly capitalist business practices in greater numbers than populations in more conservative countries. When compared to recent survey data on attitudes toward American business, however, Botero's variables again do not deliver expected results. His first and second politics variables have correlations of –0.32 and –0.35 with the percentages of countries' populations that disapprove of U.S. business practices, as reflected in a recent survey by the Pew Research Center.[117] The implication of these correlations is that leftist countries approve of American business practices more than conservative nations. The implausibility of these results significantly undermines these variables' claims to validity.

Botero's third ideology variable, which measures union density in 1997, is likely a much better measure of political orientation than the first two variables, but it is also problematic. First of all, in regressions that seek to explain labor and employment law, union density is likely to be endogenous, given that labor law generally defines the appropriate scope of union activities in a country. Second, it is unclear as a theoretical matter than union membership will correlate with left power. Although a left-leaning electorate is probably more likely than a conservative electorate to tolerate a large role for unions in society, if there is a firmly rooted social democratic consensus in a country, labor laws may mandate stringent terms and conditions of employment and thus obviate the need for unions and collective bargaining. In fact, Botero's data indicate that France has a lower union density that the U.S., the U.K., Australia, and Canada.[118] Surely this does not indicate that France is further to the right than these other

[115] The taxation, revenue and G.D.P. numbers used in these calculations are taken from THE WORLD BANK, 2004 WORLD DEVELOPMENT INDICATORS 222-225 (2004). These correlations are reported in Appendix A, Table A2, *infra* page 88.
[116] *See* Table 4, *infra* page 40.
[117] The survey data are taken from The Pew Research Center for the People and the Press, WHAT THE WORLD THINKS IN 2002: HOW GLOBAL PUBLICS VIEW: THEIR LIVES, THEIR COUNTRIES, THE WORLD, AMERICA T-56 (2002). These correlations are reported in Table 4, *infra* page 40 and in Appendix A, Table A2, *infra* page 88.
[118] Botero's data are posted at http://iicg.som.yale.edu/.

countries with respect to labor policy. Rather, it is probably the case that employees have less need for labor unions in France because of that country's famously strict labor and employment laws.

Even if labor laws are not sufficiently strict to obviate the need for labor unions, union density figures may understate the power of labor (and thus left power) if labor laws in a country extend collective bargaining agreements to cover entire industries, regardless of whether particular workers are union members. Likewise, union density data may understate labor power if labor law allows for the quick and easy organization of labor, thus pressuring non-union employers to provide above-market compensation to employees in order to stave off unionization. In spite of the many theoretical reasons for doubting the ability of union density data to capture left power, Botero's union density variable does generally correlate with other indicators of left power in accordance with *a priori* expectations.[119] Thus, union density, although highly problematic as an indicator of left power, is likely a better ideological orientation variable than Botero's first two left power variables.

In Roe's regression analyses that examine the relationship between politics and corporate ownership separation, Roe employs several variables that are well-suited for ranking government behavior on a left-right spectrum, but his political variables do not directly or accurately measure the actual ideological preferences of political parties or electorates. Roe employs a wide variety of politics variables in his analysis, including an index based on surveys of political scientists, an index of employment protection laws, the Gini Index of income inequality, and government spending as a percentage of G.D.P.[120] All of Roe's variables, with the possible exception of the survey rankings, are based on governmental or economic outcomes, not raw ideology. In light of the wide variety of institutional outcomes that have been linked to legal origins,[121] all of Roe's variables that reflect outcomes (i.e., the Gini Index, the employment laws index and government spending) are likely to be endogenous in this paper, which seeks to evaluate the relative effects of political ideology and legal origins on corporate ownership structure and labor regulation.

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[119] *See* Table 4, *infra* page 40 and Appendix A, Table A2, *infra* page 88.
[120] ROE, *supra* note 1, at 49-61.
[121] *See supra* notes 71 through 74 and surrounding text.

The expert survey utilized by Roe, the Castles and Mair survey,[122] has a much better claim to exogeneity than Roe's other variables, but it too may also be endogenous. As critics have observed, the Castles and Mair survey (along with all other expert surveys that have sought to measure party ideology) failed to specify the criteria by which respondents were to evaluate a party's ideological position.[123] Indeed, the Castles and Mair survey contained only one question, which asked a handful of political scientists in each country to assign ideological scores, ranging from zero for far left parties to ten for far right parties, to each party represented in their country's legislature.[124] Thus, it is reasonable to assume that many respondents to the Castles and Mair survey rated parties according to their actual government behavior as opposed to the preferences of parties as expressed in political campaigns.[125] Although the logic of revealed preferences may suggest that actual behavior is a more accurate indicator of ideology than verbally expressed preferences, the actions and achievements of political actors are likely determined by a host of factors other than the ideological preferences of constituents. Such factors may include politicians' self-interests, strategic considerations, and possibly even the type legal system that regulates their political actions.[126]

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[122] *See supra,* note 34.
[123] *See*, *e.g.*, Ian Budge, *Theory and Measurement of Party Policy Positions*, *in* MAPPING POLICY PREFERENCES: ESTIMATES FOR PARTIES, ELECTORS, AND GOVERNMENTS 1945-1998, 75 (Ian Budge, et al. eds., 2001)
[124] Castles & Mair, *supra* note 34, at 75. The other leading expert survey, by Huber & Inglehart, invited respondents to specify a dimension other than left-right on which to array parties, but then aggregated the diverse responses into left-right indices based on uncertain criteria. John Huber & Ronald Inglehart, *Expert Interpretations of Party Space and Party Locations in 42 Societies*, 1 PARTY POLITICS 73 (1995).
[125] Budge, *supra* note 123, at 75.
[126] There is also substantial reason to doubt that the Castles and Mair Index provides a sound basis for international party comparisons. The Castles and Mair survey did not ask experts to rank parties in their countries relative to parties in other countries. Thus, the rankings reflect each party's position on its country's idiosyncratic left-right spectrum. Moreover, the range of party rankings for each country is likely determined not only by the actual range of ideological positions taken by parties in that country, but also by the number of parties that experts in a country are required to rank. If an expert is required to place nine parties on an ideological scale, as was the case for French experts responding to the original Castles and Mair survey, the expert will necessarily have to spread to parties out into the extremes of the scale in order to fit them all onto the scale. A respondent who only has to score two parties, however, will have much more flexibility. It is thus not surprising that the Castles and Mair data at times rank parties in unexpected ways. For example, the Castles and Mair survey ranks the U.S. Republican Party a full 1.4 points to the left of the French Gaullist Party. Castles & Mair, *supra* note 34, at 78, 83. The arbitrariness of the Castels and Mair scale and its limitations as a comparative measure are further underscored by the wide variety of scores assigned to U.S. political parties by the six U.S. political scientists that participated in the original survey. Although all six political scientists agreed that the Republican Party lies to the right of the Democratic Party on the political spectrum, the respondents differed substantially about the appropriate absolute scores to assign to each

Thus, a political index that ranks political parties even in part based on government behavior is likely to be endogenous in a model that seeks to sort out the relative effects of legal origins and political ideology. Fortunately, better political ideology data exist, and these data are described in the next section.

V. **The Manifesto Research Group Data Provide the Best Measure of Comparative Political Ideology**

The Manifesto Research Group (M.R.G.) has developed the only measure of political party ideology that allows for comparative analysis across countries and over time.[127] The M.R.G., which began its work in 1979, rigorously analyzed post-war political party manifestos for all major parties in twenty-five democracies.[128] The researchers divided each party manifesto into sentences and "quasi-sentences," and then applied detailed coding rules to place each sentence into one of fifty-four policy categories.[129] Subsequent researchers have aggregated the coding data into broader indices. For example, Budge and Klingemann have used the M.R.G. data to place each party on a general left-right scale and on specific scales reflecting parties' positions on international peace, the welfare state, and the desirability of a planned or market economy.[130] Kim and Fording have used these scales and electoral returns data to estimate the political preferences of median voters in each election covered by the M.R.G. data.[131] The following paragraphs discuss the rationale and methodology underlying the M.R.G. ideological mapping process.

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party. Indeed, some respondents placed the Republicans to the left of other respondents' placements of the Democrats. *Id.* at 83.

[127] *See generally* Ian Budge & Hans-Dieter Klingemann, *Finally! Comparative Over-Time Mapping of Party Policy Movement*, *in* MAPPING POLICY PREFERENCES: ESTIMATES FOR PARTIES, ELECTORS, AND GOVERNMENTS 1945-1998, 19 (Ian Budge, et al. eds., 2001).

[128] The M.R.G. morphed into the Comparative Manifestos Project in 1989, and has since been working to expand the sample to twenty-seven new countries, mostly recently democratized countries in Latin American and Eastern Europe. Andrea Volkens, *Quantifying the Election Programmes: Coding Procedures and Controls*, *in* MAPPING POLICY PREFERENCES: ESTIMATES FOR PARTIES, ELECTORS, AND GOVERNMENTS 1945-1998, 93, 95 (Ian Budge, et al. eds., 2001). Unfortunately, the data for the twenty-seven new countries are not yet available. For simplicity, this paper will refer to both the Manifesto Research Group and the Comparative Manifestos Project as either the Manifesto Research Group or the M.R.G.

[129] Ian Budge & Judith Bara, *Introduction: Content Analysis and Political Texts*, *in* MAPPING POLICY PREFERENCES: ESTIMATES FOR PARTIES, ELECTORS, AND GOVERNMENTS 1945-1998, 1, 4 (Ian Budge, et al. eds., 2001).

[130] *See* Budge & Klingemann, *supra* note 127.

[131] Hee-Min Kim & Richard C. Fording, *Extending Party Estimates to Governments and Electors*, *in* MAPPING POLICY PREFERENCES: ESTIMATES FOR PARTIES, ELECTORS, AND GOVERNMENTS 1945-1998, 157 (Ian Budge, et al. eds., 2001).

The Manifesto Research Group's principals chose to base their research on party manifestos for a variety of reasons. First, they reasoned that party manifestos are parties' clearest and most authoritative statements of policy, and that manifestos are often the only documents that parties themselves ever issue.[132] Second, because manifestos are adopted at exact points of time, generally after a comprehensive consultation process involving a broad base of party supporters, manifestos are the only documents likely to capture the full range of party positions at a particular time.[133] Parties also generally seek carefully to balance emphasis in manifestos between various policy issues, and if greater emphasis is placed on one issue than another, one may reasonably infer that it is more central to the core of party ideology.[134]

A. Saliency Theory and the M.R.G. Coding Process

The M.R.G. to a large extent structured its research based on the theory that party ideology can best be inferred not by analyzing specific positions taken by a party, but rather by evaluating the relative emphasis that a party places on different issues. This theory, known in political science as saliency theory, holds that parties compete not by taking stands directly opposed to those of their opponents, but rather by placing heavy emphasis on issues that they "own."[135] As saliency theorist Ian Budge argues, "[p]arties do not square up to each other, landing heavy blows on each others' strong points, like a pair of inexperienced pugilists. Instead they duck and weave, avoiding direct hits from their opponents, while seeking an opening for their own blow to a weak spot."[136]

Saliency theory assumes that party strategists view voters as generally favoring one outcome on most issues.[137] For example, a party might assume that all voters favor a clean environment, economic growth, poverty eradication, physical security, civil liberties, and stable employment. Of course, while none of these goals are objectionable to most voters in and of themselves, the pursuit of one goal will often require trading-off another goal. Many voters will not clearly understand the tradeoffs between

[132] Budge & Bara, *supra* note 129, at 6.
[133] *Id.* at 12.
[134] *Id.* at 7.
[135] Matthew J. Gabel & John D. Huber, *Putting Parties in Their Place: Inferring Party Left-Right Ideological Positions from Party Manifestos Data*, 44 AMN. J. POL. SCI. 94, 96 (2000).
[136] Ian Budge, *supra* note 123 at 75, 85.
[137] *Id.* at 82.

different goals, but political parties likely favor one particular set of tradeoffs over others. For example, one party may wish to trade off economic growth in favor of stable employment. In order to garner votes, politicians will emphasize what they seek to gain in their proposed tradeoff (e.g. stable employment), but will not denigrate the goals that their policies would sacrifice (e.g. economic growth).

The 2004 United States presidential election provides anecdotal confirmation of saliency theory. George W. Bush devoted a huge percentage of his campaign to speaking about security, while John Kerry emphasized economic issues more heavily. Although the candidates disagreed on the margins about many issues, the candidates seldom directly challenged the core goals of the other party. Neither candidate questioned the desirability of strong defense, civil liberties, balanced budgets, affordable health care, or job creation. Rather, for the most part, it was only through relative emphasis that the candidates made their priorities known.

Saliency theory provided the intellectual backdrop to the design of the Manifesto Research Group's coding process. The founding members of the M.R.G. were strong proponents of the theory, and they originally set up the M.R.G. for the express purpose of testing its validity.[138] Thus, some of the fifty-four coding categories do not require that a manifesto sentence express any particular view about a given issue, but rather they simply require that the issue be mentioned. For example, the M.R.G. coders would have placed a sentence in the "law and order" category if the sentence had to do with "[e]nforcement of all laws; actions against crime; support and resources for police; tougher attitudes in court."[139] Likewise, the "controlled economy" category is broad enough to encompass all manifesto statements, regardless of point of view, addressing the "[g]eneral need for direct government control of economy; control over prices, wages, rents, etc; state intervention into the economic system."[140]

Not all of the fifty-four coding categories were based on the saliency theory, however. From the beginning of the M.R.G., skeptics pushed the saliency theorists to divide twelve categories, where

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[138] Budge & Bara, *supra* note 129, at 6; Gabel & Huber, *supra* note 135, at 96.
[139] IAN BUDGE ET AL., MAPPING POLICY PREFERENCES: ESTIMATES FOR PARTIES, ELECTORS, AND GOVERNMENTS 1945-1998, 227 (2001).
[140] *Id.* at 225.

substantive confrontation between parties was thought to be particularly likely, into positive and negative subcategories.[141] For example, references to labor groups, social services expansion, protectionism, and internationalism were split in this way.[142] Ironically, the presence of the divided subcategories, originally opposed by saliency purists, ended up dramatically confirming the saliency theory. In only two of the twelve positive versus negative categories, protectionism and military spending, were the percentages of manifesto sentences evenly split between pro and con.[143] The results in the "labour groups" category were more typical, with almost all references to labor groups being positive.[144]

With the fifty-four coding categories set, the Manifesto Research Group employed a methodical and rigorous approach known as content analysis in order to place each sentence into a category. The M.R.G. drew upon a body of content analysis procedure that has been developing since the 1930s, when U.S. intelligence successfully used content analysis of foreign newspapers to forecast international events in the run-up to World War II.[145] In the coding process, M.R.G. coders were subjected to stability and inter-coder reliability tests, and the project maintained strong central supervision and checks on the coding process.[146]

B. Developing Ideological Indices from the M.R.G. Data

The proper process for aggregating the M.R.G. sentence classifications into broader political indices has been a matter of some controversy, although the practical differences between various methods of calculation appear to be small.[147] Perhaps the most authoritative political indices to be derived from the M.R.G. data were calculated by Budge and Klingemann, who placed each party covered

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[141] Budge, *supra* note 123, at 78.
[142] *Id.* at 83.
[143] *Id.*
[144] *Id.* Although the labor groups category would seem to be a good independent variable for this paper, it proved to narrow to form the basis of a good ideological measure. Even true leftist parties often made no references that fit into the M.R.G. labor category.
[145] Budge & Bara, *supra* note 129, at 4. U.S. intelligence presaged the Molotov-Ribbentropp Pact by methodically documenting a decline in negative references to the U.S.S.R. in German newspapers and a corresponding decline in negative references about Germany in Pravda. *Id.*
[146] *Id*. at 14. For a detailed description of the M.R.G. coding procedure, s*ee* Andrea Volkens, *Quantifying the Election Programmes: Coding Procedures and Controls*, *in* MAPPING POLICY PREFERENCES: ESTIMATES FOR PARTIES, ELECTORS, AND GOVERNMENTS 1945-1998, 93 (Ian Budge, et al. eds., 2001).
[147] *See*, *e.g.,* Gabel & Huber, *supra* note 135.

by the M.R.G. data on a general left-right scale and on narrower scales covering the parties' positions on the appropriate role of the market economy, the desirability of a planned economy, the welfare state, and other indices.[148] In order to calculate their general left-right index, Budge and Klingemann first consulted Marxist writings and the political philosophies of prominent right wing leaders like Reagan and Thatcher in order to define *a priori* the general positions of the left and the right.[149] Based on this research, they next created two groupings of M.R.G. categories, one associated with leftist principles and the other with the right.[150] They then checked the accuracy of the groupings by conducting a factor analysis that ensured that the categories in each grouping had high degrees of covariance.[151] Budge and Klingemann next determined the percentages of sentences and quasi-sentences in each manifesto that fit into the left and right categories, and they subtracted the total percentage of left statements from the total percentage of right statements.[152] Thus, in the resulting index, if a party devoted all statements in its manifesto to leftist issues, its score would be –100. A pure right-wing manifesto, in contrast, would earn a score of +100.

Of course, one of the great virtues of the M.R.G. data is that they can be used to measure and compare party positions on issue ranges narrower than undifferentiated left-right ideology. Budge and Klingemann have calculated several narrower indices, three of which are relevant for this paper. The first is the market economy index, which consists of the percentage of a party's manifesto statements dedicated to either of two M.R.G. categories, "free enterprise" and "economic orthodoxy."[153] The second

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[148] Budge & Klingemann, *supra* note 127.
[149] *Id.* at 22.
[150] *Id.* at 21. The M.R.G. categories placed in the "right" grouping include the following: (1) "Military: positive," (2) "Freedom, human rights," (3) "Constitutionalism: positive," (4) "Effective authority," (5) "Free enterprise," (6) "Economic incentives," (7) "Protectionism: negative," (8) "Economic orthodoxy," (9) "Social Services limitation," (10) "National way of life: positive," (11) "Traditional morality: positive," (12) "Law and order," and (13) "Social harmony." The categories in the "left" grouping include the following: (1) "Decolonization," (2) "Military: negative," (3) "Peace," (4) "Internationalism: positive," (5) "Democracy," (6) "Regulate Capitalism," (7) "Economic planning," (8) "Protectionism: positive," (9) "Controlled economy," (10) "Nationalization," (11) "Social Services: expansion," (12) "Education: expansion," and (13) "Labour groups: positive." *Id.* at 22.
[151] Budge & Klingemann, *supra* note 127, at 22.
[152] *Id.* at 21.
[153] BUDGE, *supra* note 139, at 228. The "free enterprise" category consists of "favourable mentions of free enterprise capitalism; superiority of individual enterprise over state and control systems; favourable mentions of private property rights, personal enterprise and initiative; need for unhampered individual enterprises." *Id.* at 224. The "economic orthodoxy" category consists of statements regarding the "[n]eed for traditional economic

relevant index is the planned economy index, which consists of the percentage of a party's manifesto statements falling into one of three M.R.G. categories, "market regulation," "economic planning," and "controlled economy."[154] Unfortunately, some of the statement categories in these categories do not seem to be indicators of leftist ideology. For example, statements indicating the desirability of encouraging economic competition and statements advocating antitrust regulation are categorized as "market regulation" statements, and thus feed into the planned economy index, even though vigorous antitrust policy is perhaps more consistent with right-wing ideology than left-wing ideology. Thus, it is likely that the planned economy index will not capture left power as well as other indices. Finally, the welfare index consists of the percentage of manifesto statements falling into one of two M.R.G. categories, "welfare state expansion" and "social justice."[155]

C. Testing the M.R.G. Data

The M.R.G. indices calculated by Budge and Klingemann have been subjected to a great deal of testing, and they have generally been found to accurately reflect party ideology. The reliability of the indices is supported, first of all, by the fact that they track casual impressions of historical movements of party policy quite well. Budge and Klingemann graph the M.R.G. indices over time for each party in several countries, and conclude that the changes in the ideological scales track well with qualitative histories of party politics in each country.[156] Figure 1 displays the general left-right M.R.G. index for the

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orthodoxy, e.g. reduction of budget deficits, retrenchment in crisis, thrift and savings; support for traditional economic institutions such as stock market and banking system; support for strong currency." *Id.* at 225.

[154] *Id.* at 228. The "market regulation" category consists of statements addressing the "[n]eed for regulations designed to make private enterprises work better; actions against monopolies and trusts, and in defence of consumer and small business; encouraging economic competition; social market economy." *Id.* at 224. The "economic planning" category consists of "[f]avourable mentions of long-standing economic planning of a consultative or indicative nature, need for government to create such a plan." *Id.* The "controlled economy" category consists of statements addressing the "[g]eneral need for direct government control of economy; control over prices, wages, rents, etc; state intervention into the economic system." *Id.* at 225.

[155] *Id.* at 228. The "welfare state expansion" category consists of "[f]avourable mentions of need to introduce, maintain or expand any social service or social security scheme; support for social services such as heath service or social housing," but not education. *Id*. at 226. The "social justice" category consists of statements emphasizing the "[c]oncept of equality; need for fair treatment of all people; special protection for underprivileged; need for fair distribution of resources; removal of class barriers; end of discrimination such as racial or sexual discrimination, etc." *Id.*

[156] Budge & Klingemann, *supra* note 127.

major U.S. political parties in presidential elections from 1948 to 1996.[157] As one would expect, Figure 1 shows that the Republican Party has consistently been more conservative than the Democratic Party since 1948. Also in accordance with expectations, Figure 1 shows that the Democratic Party stayed in a moderately leftist position throughout the years of the Fair Deal and the Great Society, with the exception of a brief lunge to the center during Humphrey's candidacy in 1968.[158] The M.R.G. index also captures Goldwater's hard-line 1964 candidacy, showing a sharp rightward lunge in Republican policy in that year.[159] The Reagan Revolution also is visible on the graph, followed by rightward movements by the Democratic Party beginning in 1984 and culminating with Clinton's moderate platforms in 1992 and 1996.[160]

The M.R.G. indices also generally array the relative ideological positions of major world political parties in accordance with subjective impressions of party policy. Figure 2 shows the average left-right positions of selected major political parties from 1945 to 1998 according to the M.R.G. indices. Conservative parties are consistently located to the right of the left-leaning parties in their countries. Not surprisingly, Figure 2 reveals that the U.S. Republicans are the rightmost party in the sample. The French Socialist Party's position at the left of the range is also not surprising, and nor is the Gaullist Party's position to the left of all other "conservative" parties. Figure 2 does contain some surprising results, however. For example, although the U.S. Democrats are located to the right of all but one of the "leftist" parties in the sample, conventional wisdom would place the Democrats to the right of some of the European "conservative" parties. At least some of the disparity between the conventional wisdom and the Democrats' position in Figure 2 is likely due to the dramatic movement of the Democratic Party to the right over recent decades, as shown in Figure 1. In fact, if the sample is restricted to elections in the last decade of the available data (i.e. 1988-1998), the Democratic Party's position relative to other parties

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157 Figure 1 is a reproduction of Figure 1.1 in Budge & Klingemann, *supra* note 127, at 25. The underlying data are taken from a compact disc accompanying IAN BUDGE ET AL., MAPPING POLICY PREFERENCES: ESTIMATES FOR PARTIES, ELECTORS, AND GOVERNMENTS 1945-1998 (2001).
158 Budge & Klingemann, *supra* note 127, at 24.
159 *Id.*
160 *Id.*

Figure 1
Ideological Positions of Republicans and Democrats in U.S. Elections, 1948-1996
(This graph is a reproduction of Figure 1.1 in Budge & Klingemann, supra note 127, at 25).

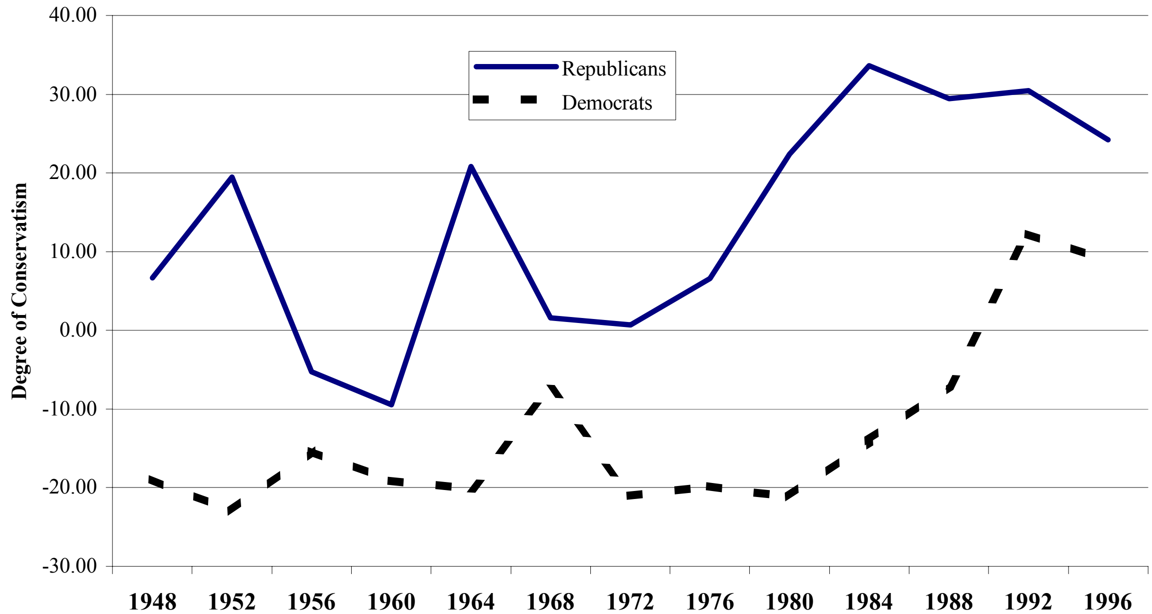
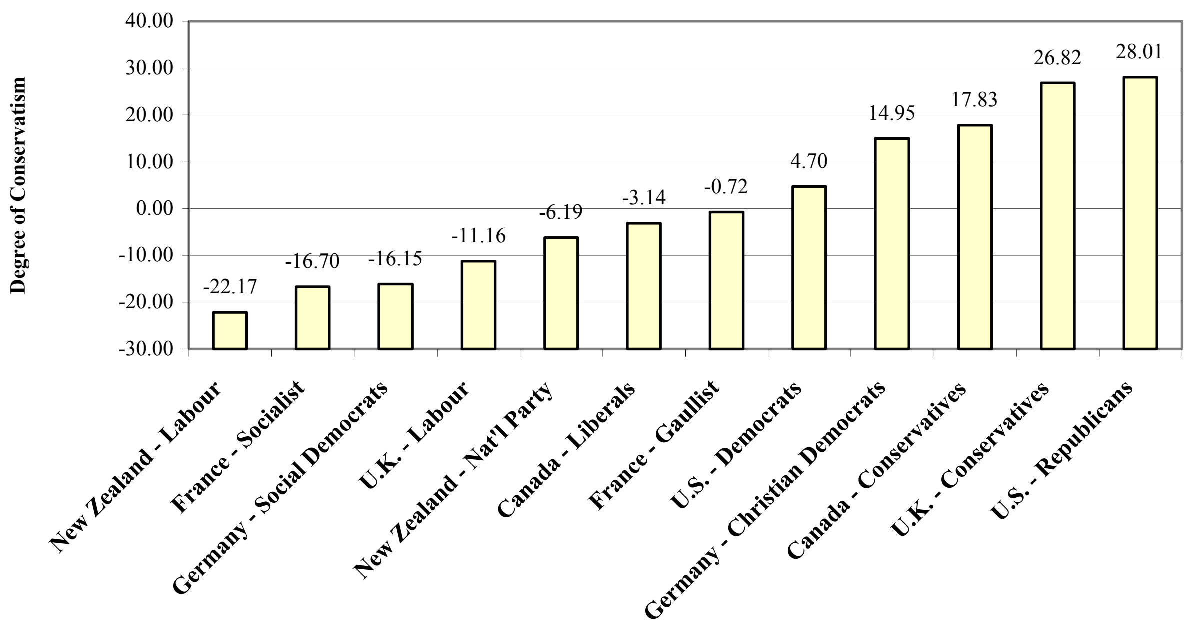


Figure 2
Average Party Left-Right Positions in All Elections, 1945-1998



moves strongly to the right, placing it to the right of both the Gaullist Party and the National Party of New Zealand. Restricting the sample to the last decade of available data also moves the German Christian Democrats to the left in relative terms, placing them to the left of the conservative parties in the U.S., the U.K. and Canada.

Figures 3 through 5 show the parties' relative ideological positions according to narrower indices, again averaged over the time period from 1945 to 1998. Figure 3 reveals the parties' preferences for maintaining a market economy, and the relative positions of the parties more or less match those in Figure 2. Again, the position of the U.S. Democrats seems too far to the left and the German Christian Democrats may be too far to the right, but in general the parties' relative locations are plausible. Figure 4 arrays the parties according to their preferences for a planned economy. There, the parties' relative positions seem entirely plausible. Note that the U.S. Republicans are again the rightmost party, and that the U.S. Democrats are to the right of a number of European "conservative" parties, including the German Christian Democrats and the French Gaullists. The results are even more dramatic in Figure 5, which arrays the parties according to their positions on welfare. Here, the Republicans are again the rightmost party, and by a substantial margin. The U.S. Democrats are located to the right of every single "conservative" party in the sample besides the British Conservatives and the Republicans. These results lay bare the folly of Botero's attempt to construct a left power index by simply observing whether ruling parties are on the right or left of their countries' ideological spectra.[161]

Given that this paper seeks to evaluate the role of politics in shaping institutions in various countries, the party-level M.R.G. indices must be aggregated into country-level indices. Three methods of aggregation are possible. First, the country-level figures could simply consist of the ideological scores of the party in power. However, because the policies of governments are generally constrained by political preferences of the population as a whole and the relative popularity of other parties, and because governing responsibilities are often split between parties in complex ways, a better method would seek to derive the average ideological position of the typical voter in each country. Kim and Fording have

[161] *See supra*, note 110 and surrounding text.

Figure 3
Average Party Emphasis on Market Economy in All Elections, 1945-1998

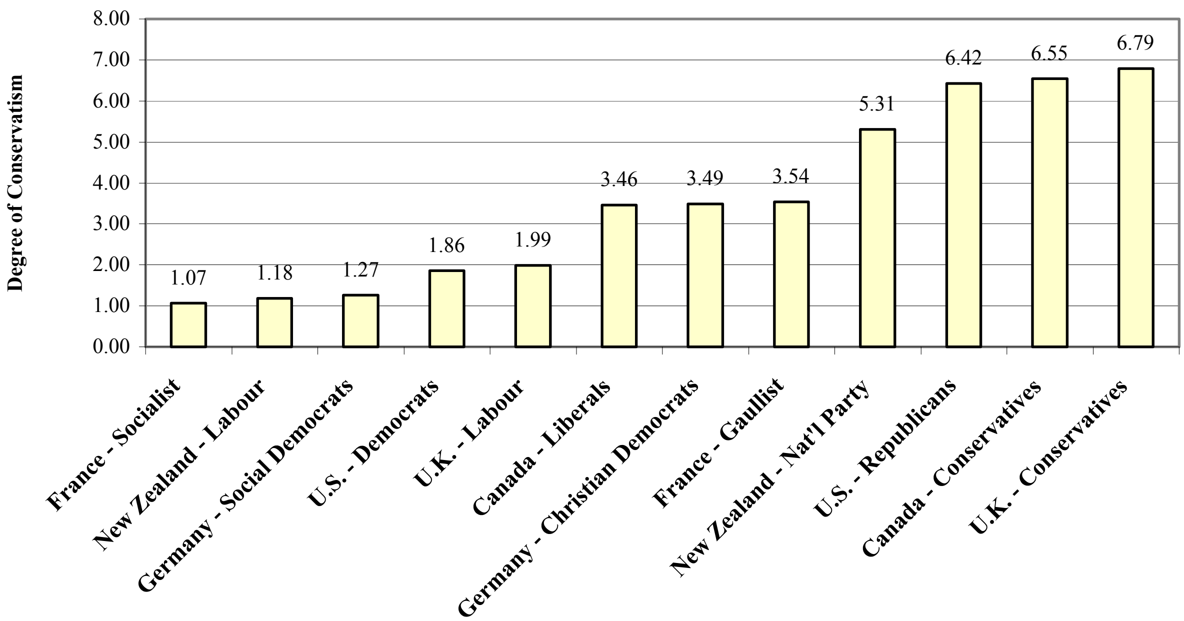


Figure 4
Average Party Emphasis on Planned Economy in All Elections, 1945-1998

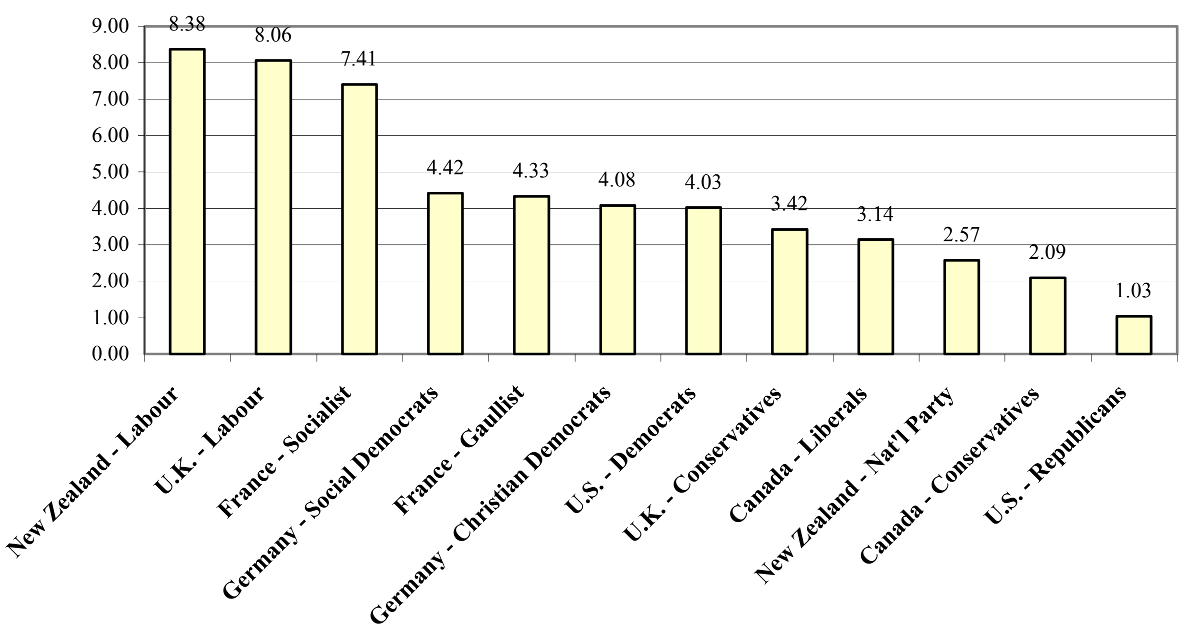
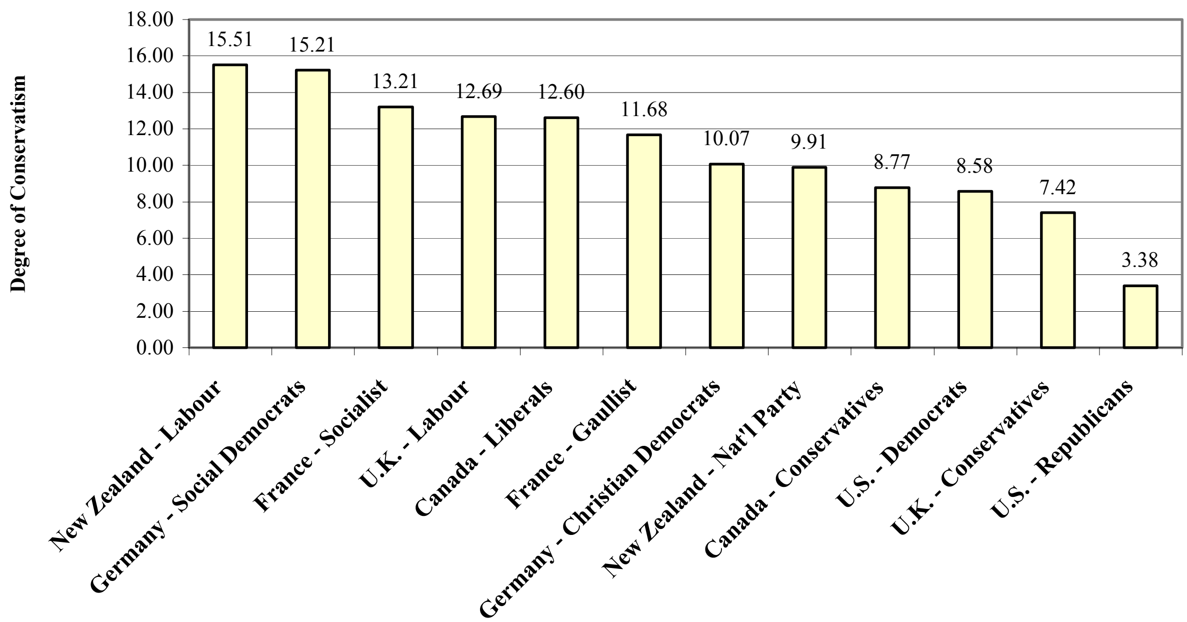


Figure 5
Average Party Emphasis on Welfare in All Elections, 1945-1998



developed a methodology for using election returns data to convert the M.R.G. indices into indices of median voter ideology.[162] Another method of aggregating the party-level indices is simply to average the party-level indices for each election year, weighting each party's position according to the percentage of votes it received. Both of these methods are employed to derive country-level ideological indices for this paper.[163]

D. Aggregating M.R.G. Data Across Time

Of course, because of the unavailability of good time series data on corporate ownership dispersion and labor law, for the purposes of this paper it is necessary to average the time series data

[162] *See* Kim & Fording, *supra* note 131. Kim and Fording calculate median voter preferences by finding the mid-point between each party and the party on either side of it and assuming that all who voted for a particular party had preferences falling between the midpoints on either side of a party. They then arrange the data into a grouped frequency distribution using the percentages of votes garnered by each party and employ a standard median estimation formula to derive median voter preferences. *See Id*. at 160-63.

[163] The weighted average calculations are based on ideological indices and election returns data provided on a compact disc that accompanies IAN BUDGE ET AL., MAPPING POLICY PREFERENCES: ESTIMATES FOR PARTIES, ELECTORS, AND GOVERNMENTS 1945-1998 (2001). The median voter data are taken directly from the same disc.

across years to derive one ideological score per country on each index. Following the approach of Botero, the M.R.G. ideological indices are averaged across two different time periods, from 1975 to 1998 and from 1945 to 1998.[164] Table 1 displays the average median voter data for each sample country[165] over the time period of 1975 to 1998.[166] Tables 2 and 3 provide descriptive statistics for each index. Figure 6 charts the left-right positions of all countries in the sample based on the median voter data, and Figure 7 charts left-right positions based on the party platform weighted averages. Not unexpectedly, Figures 6 and 7 generally show Scandinavian countries clustered at the left, with the U.S. and other English-speaking countries mostly on the right sides of the graphs. Because the graphs generally conform to subjective impressions of the various countries' ideological positions, these results further confirm the validity of the M.R.G. data.

Table 4 shows correlations among various ideological indices, with the M.R.G. indices averaged over the time period from 1975 to 1998.[167] For the most part, the indices correlate with one another in accordance with theoretical expectations. For example, unlike Botero's politics variables, the M.R.G. variables generally indicate that left-leaning politics correlate with higher. Table 4 also shows correlations of the politics variables with Pew Research Center survey results describing the percentages of several countries' populations that disapprove of U.S. business practices.[168] The M.R.G. variables correlate with these survey data in accordance with theoretical expectations. For example, the correlation between median voter preferences for a market economy and the incidence of disapproval of U.S. business was –0.63. Some results in Table 4 are, however, surprising. Median voter preferences for government welfare surprisingly correlate negatively with tax levels and government spending levels.[169]

[164] 1945 is the earliest year that M.R.G. data is available for the vast majority of countries. For countries that became democracies between 1945 and 1998 (e.g. Spain, Greece, Turkey and Portugal), the indices are simply averaged over all available years, and no adjustments are made.
[165] The sample consists of all M.R.G. countries minus Luxembourg and Iceland, which are excluded because corporate ownership dispersion data and labor law data are not available for these countries.
[166] Similar data covering 1945 to 1998 are displayed in Appendix A, Table A1, *infra* page 87.
[167] Another table of correlations using M.R.G. data averaged over the time period from 1945 to 1998 is included in Appendix A, *infra*, page 88.
[168] *See infra*, page 80 for a description of these data.
[169] Perhaps the failure of the welfare variable to correlate positively with government spending results from the fact that the index reflects not only party preferences for welfare programs but also party preferences against racial

Table 1

Political Ideology Indicators by Country, Based on Median Voter Data, 1975-1998

Country	Left-Right Index	Market Economy Preference	Planned Economy Preference	Welfare Preference
Australia	14.95	8.94	2.80	9.44
Austria	6.21	6.62	2.65	11.49
Belgium	-0.17	3.37	2.08	7.17
Canada	1.73	6.77	2.92	10.86
Denmark	-4.29	1.90	2.86	7.91
Finland	-17.85	1.42	8.72	19.79
France	-0.05	4.45	4.48	11.10
Germany	-0.59	4.69	2.33	11.32
Greece	1.47	2.81	2.72	7.85
Ireland	-3.08	3.30	4.54	11.99
Israel	16.10	3.15	10.29	8.09
Italy	3.69	4.06	3.85	3.97
Japan	-10.63	5.51	4.06	11.92
Netherlands	-9.29	3.75	3.52	10.41
New Zealand	-8.04	5.08	5.39	13.91
Norway	-18.69	1.12	3.77	13.57
Portugal	-0.35	3.72	2.23	10.22
Spain	-12.62	2.02	3.28	13.68
Sweden	-6.94	9.55	1.14	17.32
Switzerland	-0.82	4.88	4.77	12.08
Turkey	9.72	3.90	2.96	8.16
United Kingdom	1.62	5.45	3.23	8.98
United States	15.50	9.83	2.14	9.18

discrimination. *See supra* note 155. Unfortunately, it is not possible to remove only irrelevant statements from the broader index.

Table 2
Summary of Political Orientation Measures Based on Manifesto Research Group Median Voter Data

Variable	Mean	Standard Deviation	Maximum	Maximum Country	Minimum	Minimum Country
Panel A: Measures Based on Median Voter Indices from 1945-1998						
Left - Right Index	-2.43	8.67	11.29	United States	-23.27	Norway
Welfare Index	10.85	3.28	20.84	Sweden	5.29	Italy
Market Economy Index	4.63	2.40	11.10	United States	1.14	Norway
Planned Economy Index	4.16	1.37	7.02	Finland	2.23	Portugal
Panel B: Measures Based on Median Voter Indices from 1975-1998						
Left - Right Index	-0.97	9.59	16.10	Israel	-18.69	Norway
Welfare Index	10.89	3.39	19.79	Finland	3.97	Italy
Market Economy Index	4.62	2.41	9.83	United States	1.12	Norway
Planned Economy Index	3.77	2.08	10.29	Israel	1.14	Sweden

Table 3

Summary of Political Orientation Measures Based on Manifesto Research Group Party Platform Weighted Averages

Variable	Mean	Standard Deviation	Maximum	Maximum Country	Minimum	Minimum Country
Panel A: Measures Based on Party Platform Weighted Averages from 1945-1998						
Left-Right Index	-2.67	7.11	11.84	Israel	-14.58	Norway
Planned Economy Index	4.09	1.60	8.86	Finland	2.32	Israel
Market Economy Index	4.96	1.88	10.25	Sweden	2.77	Israel
Welfare Index	10.86	3.18	19.28	Sweden	5.88	United States
Panel B: Measures Based on Party Platform Weighted Averages from 1975-1998						
Left - Right Index	-0.52	8.26	14.98	Australia	-14.13	Japan
Planned Economy Index	3.53	1.66	9.44	Finland	1.74	Sweden
Market Economy Index	5.28	2.03	11.52	Sweden	2.55	Finland
Welfare Index	11.12	3.38	21.22	Finland	5.46	Italy

Figure 6
Manifesto Project Left-Right Index of Median Voter Preferences, 1975-1998

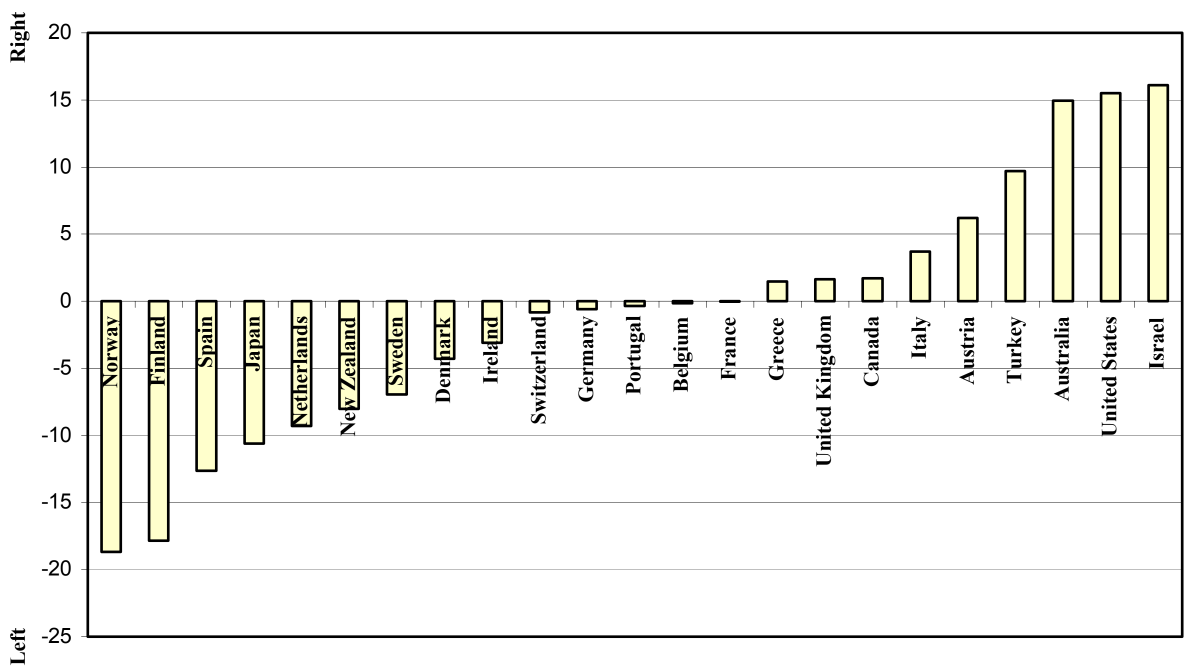


Figure 7
Manifesto Project Left-Right Index of Party Platform Weighted Averages, 1975-1998

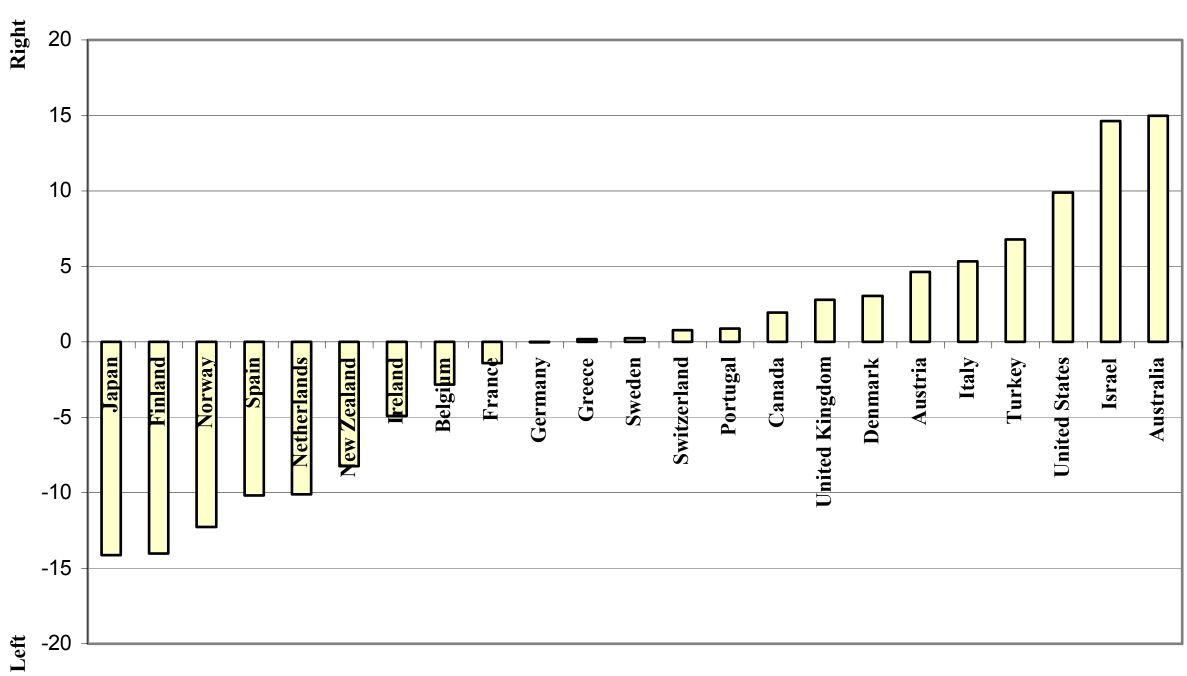


Table 4
Correlations Between Various Measures of Left Power, With Manifesto Research Group Data Averaged Over 1975-1998

	Left-Right Index, Med. Vtr.	Left-Right Index, Wtd. Avg. Platforms	Market Econ., Med. Vtr.	Market Econ.,Wtd. Avg. Platforms	Planned Econ., Med. Vtr.	Planned Econ., Wtd. Avg. Platforms	Welfare, Med. Vtr.	Welfare, Wtd. Avg. Platforms	Botero's Politics, 1975-1995	Union Density	Castles & Mair Index	Tax as % of GDP	Gov't Spending as % of GDP	Disapproval of U.S. Business
Left-Right Index, Med. Vtr.	1.00													
Left-Right Index, Wtd. Avg. Platforms	0.94	1.00												
Market Econ., Med. Vtr.	0.51	0.48	1.00											
Market Econ.,Wtd. Avg. Platforms	0.18	0.31	0.70	1.00										
Planned Econ., Med. Vtr.	-0.07	-0.09	-0.41	-0.44	1.00									
Planned Econ., Wtd. Avg. Platforms	-0.57	-0.58	-0.46	-0.40	0.55	1.00								
Welfare, Med. Vtr.	-0.64	-0.59	0.01	0.17	0.22	0.51	1.00							
Welfare, Wtd. Avg. Platforms	-0.73	-0.67	-0.16	0.07	0.28	0.62	0.96	1.00						
Botero's Politics, 1975-1995	-0.21	-0.04	-0.08	0.18	0.20	0.18	0.55	0.46	1.00					
Union Density	-0.46	-0.26	-0.23	0.22	0.01	0.23	0.38	0.48	0.18	1.00				
Castles & Mair Index	0.14	-0.03	0.02	-0.43	-0.09	-0.01	-0.31	-0.31	-0.49	-0.50	1.00			
Tax as % of GDP	-0.21	-0.10	-0.33	0.05	0.14	-0.04	-0.05	0.04	-0.10	0.50	-0.54	1.00		
Gov't Spending as % of GDP	-0.01	0.03	-0.44	-0.20	0.13	-0.15	-0.31	-0.20	-0.14	0.45	-0.47	0.89	1.00	
Disapproval of U.S. Business	-0.23	-0.12	-0.63	0.36	0.34	0.34	0.29	0.41	-0.35	0.10	-0.49	0.22	0.22	1.00

Also, the correlations between the Castles and Mair Index[170] and the M.R.G. variables are for the most part quite low in magnitude. These results notwithstanding, Table 4 shows that the M.R.G. variables generally correlate in expected ways with other indicators of left power, and thus bolsters the case that the M.R.G. data are accurate reflections of political ideology.

E. Possible Sources of Noise and Inaccuracy in the M.R.G. Data

In spite of the high general quality of the M.R.G. data, there are several sources of potential noise and inaccuracy in the data that may reduce their utility in statistical analysis. Perhaps the greatest source of potential inaccuracy stems from the Manifesto Research Group's reliance on the saliency theory. Laver and Garry criticize the utility of the M.R.G. data on these grounds, challenging the fundamental premise of saliency theory that one can measure party positions by gauging relative emphasis on different issues.[171] If parties do frequently make frontal assaults on rival parties' core values in their party manifestos, the saliency-based M.R.G. coding process could get parties' ideological positions exactly backwards. Suspicious of the saliency theory, Laver and Garry designed two processes for analyzing party manifestos based on parties' overt statements of position rather than relative emphasis.[172] When they applied these processes to British and Irish party manifestos from 1992 through 1997, they found that the results closely mirrored the results in the M.R.G. indices, leading them to conclude that the M.R.G. data are valid indicators of party ideology.[173] Laver and Garry's findings, especially when combined with the fact that the M.R.G. indices generally position parties relative to one another in accordance with conventional wisdom, suggest that the saliency-based M.R.G. coding method can accurately measure party ideology.

[170] The Castles and Mair data used to calculate these correlations are the same as those used by ROE, *supra* note 1. *See supra*, note 34 and surrounding text.
[171] Michael Laver & John Garry, *Estimating Policy Positions from Political Texts*, 44 AMN. J. POL. SCI. 619, 620 (2000).
[172] *Id*. at 632.
[173] *Id*. at 622, 632.

A second source of noise, which Gabel and Huber have explored in depth,[174] stems from the M.R.G.'s process for coding party manifestos. Gabel and Huber observe that, if parties either write relatively long manifestos or tend to include non-ideological issues, such as environmental protection,[175] in their manifestos, then these parties will have relatively low percentages of manifesto statements dedicated to ideology and the M.R.G. indices will thus place them closer to the center than other parties with identical positions on "left-right" issues.[176] In spite of these criticisms, however, Gabel and Huber conclude that the M.R.G. data are the best available data for estimating ideological positions over time and across several countries.[177] They also conclude, based on a comparison of M.R.G. data to international public opinion polls and other indicia of ideology, that M.R.G. data accurately reflect party ideology.[178]

The process of aggregating the M.R.G. data across parties and across time also may introduce noise into the data. Given that party ideologies change over time, as is dramatically illustrated above by Figure 1, it is unclear that averaging party positions over a period of several years will provide meaningful data. On the other hand, it would not likely be appropriate to rely on particular years alone to measure the effects of ideology on economic institutions, given that institutions generally evolve slowly over time and given that there is no obvious theoretical basis for picking one particular year's data over another.[179] Furthermore, aggregating the ideological positions of different parties in order to derive a single ideological score for each country may also introduce noise, as it is unclear whether the

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[174] Gabel & Huber, *supra* note 135, at 100-102.
[175] The M.R.G. correctly does not associate preferences for environmental protection with either the left or the right. *See supra* note 150.
[176] Gabel & Huber, *supra* note 135, at 100. For example, Gabel and Huber argue that the M.R.G. data have mischaracterized party positions in Ireland because the historical importance of religion and the Ulster conflict have altered the ideological landscape in that country. *Id*. at 102. M.R.G. proponents counter that if parties use their manifestos to emphasize issues that are not tied to left-wing or right-wing ideology, then traditional left-right ideology is not as important to those parties, and thus their ideological placement should reflect that. Budge & Klingemann, *supra* note 127, at 23.
[177] Gabel and Huber, *supra* note 135, at 95, 102. Gabel and Huber's findings are particularly noteworthy considering that John Huber co-managed the development of an expert survey that is one of the leading competitors to the M.R.G. as an international ideological index. *See supra* note 124.
[178] *Id*. at 98.
[179] *See* ROE, *supra* note 1, at 53 ("political coalitions come and go; corporate structures are the result of long-term expectations of governmental orientation.").

aggregation process either overstates or understates the extent to which parties in power are constrained by minority sentiment. Noise may be particularly present in the M.R.G. variables calculated by taking averages of party positions weighted by election returns. In elections where substantial numbers of votes were received by independent candidates or by candidates in parties not covered by the M.R.G., then the resulting averages may be skewed, given that non-party candidates cannot be included in the averaging. Because independent candidates generally do not win elections, the median voter aggregation approach of Kim and Fording probably minimizes the risk that the presence of non-party candidates will skew the indices in particular countries. This may account for the fact, reflected above in Table 4, that the M.R.G. data aggregated according to the median voter method seem to correlate more strongly with other indicia of ideological position than weighted average party positions.

The fourth and final source of noise in the M.R.G. data stems from the fact that political manifestos themselves may not accurately express a party's position. As economists love to observe, the best way to discover an actor's preferences is to observe what that actor does, as opposed to what that actor says. Of course, it is not desirable to use government performance data to describe ideology in this paper, given the likelihood that government performance is endogenous to legal origins.[180] Manifesto content may also vary systematically between countries, as manifestos likely play varying roles in different electoral processes.[181] For example, in one country parties may use their manifestos to energize party activists, while in another country parties use manifestos to persuade undecided voters.[182] In addition, manifestos may systematically fail to cover the gamut of political issues in certain countries. For example, if a widespread consensus exists in a country that an extensive social safety net should be maintained, the issue of social security could conceivably fade from political discourse and thus from party manifestos as well.

In spite of these difficulties, however, political manifestos and the M.R.G. data are by far the best available indicators of the comparative ideologies of political parties. Party manifestos are the only

[180] *See supra* notes 121 and 121 and surrounding text.
[181] Gabel & Huber, *supra* note 135, at 102.
[182] *Id.*

documents produced by parties that are readily susceptible to systematic international comparison,[183] and even the strongest critics of the Manifesto Research Group's methodology have concluded that M.R.G. data are the best data available for estimating ideology across countries and over time.[184]

VI. Empirical Analysis of Institutional Origins

Armed with the best available comparative measures of political ideology, it is now possible to evaluate accurately the relative impacts of legal origins and political ideology on corporate ownership structure and labor regulation.

At the outset, it is worth noting that a casual look at the M.R.G. data confirms the potential plausibility of political theorists' claims that legal origins simply code for left power. Table 5 presents average M.R.G. ideology indices for each legal family as well as correlations between legal families and the ideology indices. The data reveal that, as measured by the general left-right index, common law countries were far more conservative than all categories of civil law countries between 1975 and 1998, and Scandinavian civil law countries were particularly leftist.[185] Table 5 also shows that voters in common law countries preferred pro-market policies to a greater extent than voters in any civil law family. It is thus somewhat paradoxical that Table 5 also indicates that voters in the common law world also favored a planned economy more than voters in any other legal family. These bizarre results likely result from the fact that the M.R.G. planned economy index includes several components, including support for antitrust policy and economic competition, that are not uniquely associated with leftist mechanisms of statist economic control.[186] Finally, median voters in common law countries preferred government provision of welfare programs slightly more than median voters in French civil law countries, but less than voters in the other civil law categories. Scandinavian civil law countries appear to have had a very strong appetite for welfare programs.

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[183] Budge & Bara, *supra* note 129, at 6-7.
[184] Laver & Garry, *supra* note 171, at 620; Gabel & Huber, *supra* note 135, at 95, 98, 102.
[185] A table showing M.R.G. median voter indices averaged by legal family over the time period of 1945 to 1998 is included in Appendix A, Table A3, page 89 *infra*.
[186] *See supra* note 154 and surrounding text.

Table 5
Ideological Tendencies of Legal Families, 1975-1998

The M.R.G. data reflected in this table are aggregated by the median voter method.

		Left-Right Index	Market Economy Index	Planned Economy Index	Welfare Index
Common Law	Average Ideology	5.54	6.07	4.47	10.35
	Correlations with M.R.G. Indices	*0.46*	*0.41*	*0.23*	*-0.11*
French Civil Law	Average Ideology	-0.95	3.51	3.14	9.07
	Correlations with M.R.G. Indices	*0.00*	*-0.34*	*-0.23*	*-0.40*
German Civil Law	Average Ideology	-1.46	5.43	3.45	11.70
	Correlations with M.R.G. Indices	*-0.02*	*0.16*	*-0.07*	*0.11*
Scandinavian Civil Law	Average Ideology	-11.94	3.50	4.12	14.65
	Correlations with M.R.G. Indices	*-0.52*	*-0.22*	*0.08*	*0.52*

A. The Determinants of Corporate Ownership Separation

In order to test empirically whether politics or legal origins drive corporate ownership dispersion, this paper presents the results of two sets of ordinary least squares regressions, both of which have various measures of corporate ownership dispersion and stock market capitalization as dependent variables. The first set of regressions follows the specifications used by Roe and includes measures of political ideology as the sole independent variables.[187] The second set of regressions goes a step beyond Roe's analysis and seeks to sort out whether ideology, legal origins, or particular legal rules are the dominant factors driving ownership dispersion.

The ownership separation data for both sets of regressions are taken from *Corporate Ownership Around the World*, by La Porta and coauthors.[188] The data stem from rigorous analysis of the ownership

[187] *See* ROE, *supra* note 1, at 49-61.
[188] La Porta et al., *supra* note 69, at 492-95.

structures of two samples of private firms in twenty-two countries.[189] The first sample, denoted here as "large firms," consists of the twenty largest firms in each country, as determined by total market capitalization of common equity at the end of 1995.[190] The second sample, denoted here as "mid-size firms" consists of "the smallest 10 firms in each country with market capitalization of common equity of at least $500 million at the end of 1995."[191] The numbers of widely held firms within each country's samples are determined by application of two rules. The twenty percent rule defines a firm as widely held if there is no beneficial owner of equity who holds more than twenty percent of its stock, and the ten percent rule defines a firm as widely held if there is no beneficial owner of equity who holds more than ten percent of its shares.[192] The percentages of firms in each sample that are widely held according to each rule constitute the dependent variables in the present regression analysis. The analysis also includes as a dependent variable each country's total stock market capitalization in 1990 as a percentage of its gross domestic product.[193]

Descriptive statistics for each of the dependent variables are presented in Table 6. Not surprisingly, all four La Porta dispersion variables indicate that either the U.S. or the U.K. has the highest level of ownership dispersion. Ireland also has a high level of ownership dispersion as reflected by the sample of the mid-sized firms when dispersion is calculated by the ten percent rule. Note that all countries in the sample have at least one widely held firm in the sample of large firms when widely held firms are defined according to the twenty percent rule. Perhaps this indicates that, once firms reach a certain size, it is impossible for concentration to persist.[194] Thus, the sample of mid-size firms may provide a superior measure of ownership dispersion, given that these firms are of a size where either dispersed ownership or concentrated ownership could conceivably be viable.

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[189] The La Porta et al. paper includes data on ownership dispersion in twenty-seven countries, but this paper only considers data for twenty-two countries covered both by La Porta et al. and the M.R.G. political data.
[190] La Porta et al., *supra* note 69, at 474.
[191] *Id.*
[192] *Id.* at 476-77.
[193] The market capitalization data come from Rajan & Zingales, *supra* note 37, at 15.
[194] *See* ROE, *supra* note 1, at 53.

Table 6
Summary of Ownership Dispersion Measures

Variable	Mean	Standard Deviation	Maximum	Maximum Country	Minimum	Minimum Country
Large Firms, 20 Percent Rule	0.43	0.2873	1.00	U.K.	0.05	Israel
Mid-Size Firms, 20 Percent Rule	0.25	0.2811	0.90	U.S.	0.00	5-way-tie
Large Firms, 10 Percent Rule	0.28	0.2745	0.90	U.K.	0.00	Portugal, Sweden
Mid-Size Firms, 10 Percent Rule	0.13	0.1724	0.50	U.S., Ireland	0.00	7-way-tie
Stock Market Capitalization / GDP, 1990	0.60	0.5894	1.93	Switzerland	0.13	Italy

The independent variables in the first set of regressions consist entirely of the aggregated M.R.G. political indices. Because the social democracy theory predicts that leftist governments thwart ownership dispersion, one would expect the estimated coefficient for each variable that increases in value with leftist ideology to indicate negative effects on the ownership separation and market capitalization variables. Thus, the estimated coefficients associated with independent variables based on the planned economy index and the welfare index should have negative signs. On the other hand, coefficients associated with ideological variables that increase in value as governments move to the right should have positive values. Specifically, variables based on the general left-right index and the market economy index should generate positive coefficients.

Table 7 shows selected regression results from the first set of regressions. Because this is a single variable model, only the coefficient estimates, t-values and R-square values are displayed for each regression. The most notable results in Table 7 are in the third and fourth rows of the table, which report results from regressions where the independent variables are based on the market economy index,

Table 7
Political Ideology as a Determinant of Ownership Dispersion

Ordinary least squares regressions with corporate ownership dispersion variables as dependent variables. The (only) independent variable in each regression is a measure of political ideology derived from Manifesto Research Group data. The M.R.G. variables in these regressions are aggregated using the median voter method. Intercept estimates are not displayed.

Each Row contains the coefficient. Below that, the t-statistic is reported in italics. R-square values are in brackets.

	Ownership Dispersion Variables				
Political Variable	Large Firms, 20 Percent Rule	Large Firms, 10 Percent Rule	Mid-Sized Firms, 20 Percent Rule	Mid-Sized Firms, 10 Percent Rule	Stock Market Capitalization / GDP, 1990
General Left-Right Index, 1945-1998	0.00353 *0.47* [0.01]	0.01071 *1.60* [0.11]	0.00735 *1.07* [0.05]	0.00778 [c] *1.89* [0.15]	0.00888 *0.57* [0.02]
General Left-Right Index, 1975-1998	0.00188 *0.28* [0.00]	0.00889 *1.50* [0.06]	0.00522 *0.86* [0.04]	0.00433 *1.14* [0.06]	-0.00047 *-0.03* [0.00]
Market Economy Index, 1945-1998	0.04371 [c] *1.79* [0.14]	0.05187 [b] *2.37* [0.22]	0.04777 [b] *2.17* [0.19]	0.03125 [b] *2.26* [0.20]	0.03918 *0.77* [0.04]
Market Economy Index, 1975-1998	0.04318 [c] *1.82* [0.14]	0.05018 [b] *2.35* [0.22]	0.04122 [c] *1.87* [0.15]	0.02581 [c] *1.85* [0.15]	0.02880 *0.58* [0.02]
Planned Economy Index, 1945-1998	0.06741 *1.55* [0.10]	0.43135 *1.02* [0.05]	0.07252 [c] *1.83* [0.14]	0.01275 *0.47* [0.01]	0.03343 *0.39* [0.01]
Planned Economy Index, 1975-1998	-0.01442 *-0.49* [0.01]	-0.01504 *-0.55* [0.02]	-0.00218 *-0.08* [0.00]	-0.00545 *-0.31* [0.01]	0.02240 *0.27* [0.01]
Welfare Index, 1945-1998	0.00180 *0.09* [0.00]	-0.01335 *-0.74* [0.03]	-0.00397 *-0.22* [0.00]	0.00034 *0.03* [0.00]	0.02428 *0.67* [0.02]
Welfare Index, 1975-1998	0.00509 *0.28* [0.00]	-0.01019 *-0.59* [0.02]	0.00216 *0.13* [0.00]	-0.00023 *-0.02* [0.00]	0.00597 *0.17* [0.00]
Number of Observations	22	22	22	22	17

aggregated by the median voter method. The coefficients on these variables consistently have their predicted positive signs and are statistically significant in all regressions with the exception of the stock market capitalization regressions. Not only are the estimated coefficients statistically significant in most regressions, but they also imply that voter preferences for a market economy have an economically significant impact on ownership dispersion. For example, if the market preference index averaged over the time period from 1945 to 1998 increases by one standard deviation, the model predicts that twelve percent of large firms will shift to widely held status as determined by the ten percent rule. The R-square values suggest that median voter preferences for market economics explain between fourteen and twenty-two percent of variation in ownership dispersion.

Although the results produced by the market economy index are impressive, the other political ideology indices do not perform as well in the regression analysis. The first two rows in Table 7 show the results where the independent variables are based on the general left-right index aggregated by median voter preferences. These coefficients consistently have the predicted positive sign, except in the case of one of the market capitalization regressions. However, the only statistically significant coefficient estimation is obtained when mid-size firm ownership dispersion measured by the ten percent rule is regressed against the general left-right index averaged from 1945 to 1998. This coefficient is also significant in the economic sense, for it predicts that, if political conservatism increases by one standard deviation, seven percent of mid-size firms will shift from concentrated ownership to widely held status.[195]

The planned economy variables fare even worse than the general left-right index. Although most of the coefficients estimated for the planned economy index aggregated by the median voter method and averaged from 1975 to 1998 are negative as predicted, none of these variables is statistically significant, and the R-square values are miniscule. If the median voter planned economy index is averaged from 1945 to 1998, its sign is flipped to positive in all of the regressions, and, bizarrely, it is actually statistically significant in one regression. The poor performance of the planned economy variables probably results from the fact that the planned economy index does not correspond to left-right

[195] For descriptive statistics for the M.R.G. politics variables, *see* Tables 2 and 3, pages 37 and 38, *supra*.

preferences as well as the market economy index does.[196] The results for the variables based on the welfare index are also quite weak.

Note that Table 7 excludes regression outputs with M.R.G. variables aggregated by weighted averages. None of the regressions involving these variables generates a statistically significant result, and the coefficients occasionally do not have their predicted signs. The planned economy variable aggregated by weighted averages performs particularly poorly, consistently producing coefficients without the predicted negative sign. The market economy preference variable, when aggregated by the weighted average method, consistently produces coefficients with the predicted positive sign, but never produces a statistically significant coefficient. This contrasts with the stellar performance of the market economy variable when aggregated by the median voter method, and reinforces suspicions that using weighted averages to aggregate party platform data introduces more noise into the data than the median voter aggregation method.[197]

Figures 8 through 11 show scatterplots of the ownership dispersion data arrayed against selected measures of political ideology. Of the four graphs, Figure 8 is the most representative of the several combinations of political variables and dispersion variables. It reveals only a very slight relationship between the left-right index and dispersion in large firm ownership measured by the twenty percent rule. Figure 9 shows a slightly stronger, but still fairly weak, relationship between the left-right index and ten percent rule ownership dispersion in mid-sized firms. The strength of the relationship in Figure 9 appears to be driven by the U.S., Switzerland, Canada, and Ireland, all of which are on the right side of the political spectrum and have a large percentage of widely held firms. Figures 10 and 11 plot ownership separation measures against median voter preferences for a market economy, and they reveal clear positive relationships between the two variables. There are still a few outliers, however, and, particularly in Figure 11, some observations lie fairly far from the trend line.

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[196] *See supra* note 154 and surrounding text.
[197] *See supra* pages 42-43 for a discussion of why the median voter aggregation method may be preferable.

Figure 8
Percentage of Large Firms Widely Held Under Twenty Percent Definition and Median Voter's General Left-Right Political Orientation, 1945-1998

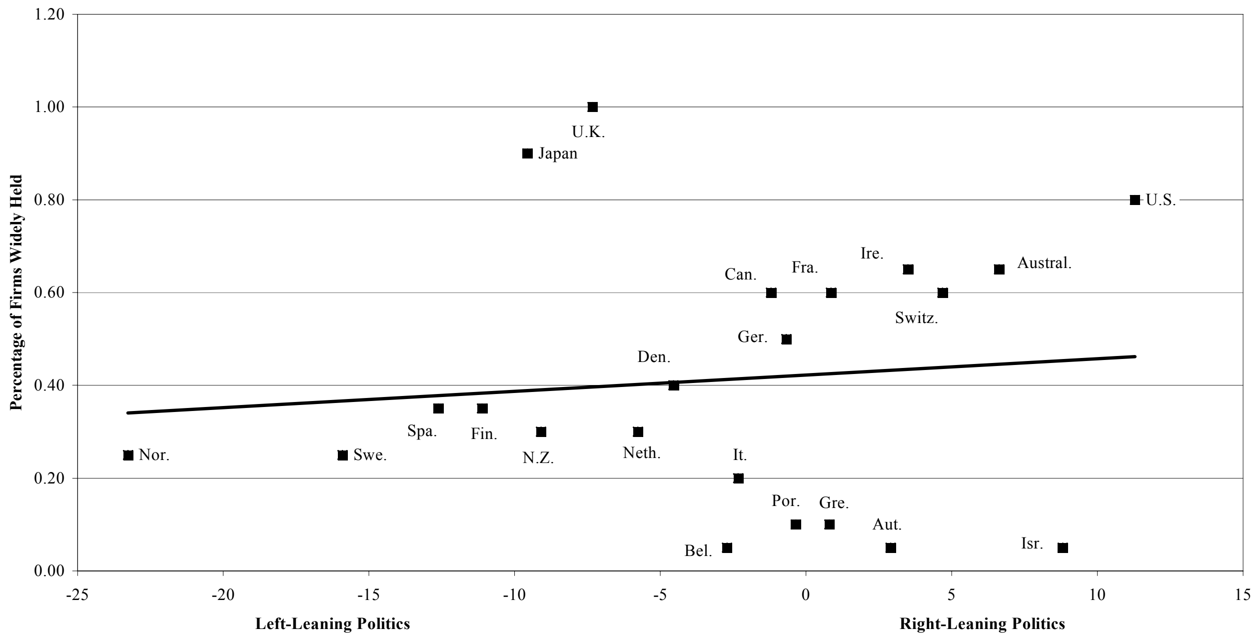


Figure 9
Percentage of Mid-Size Firms Widely Held Under Ten Percent Definition and Median Voter's General Left-Right Political Orientation, 1945-1998

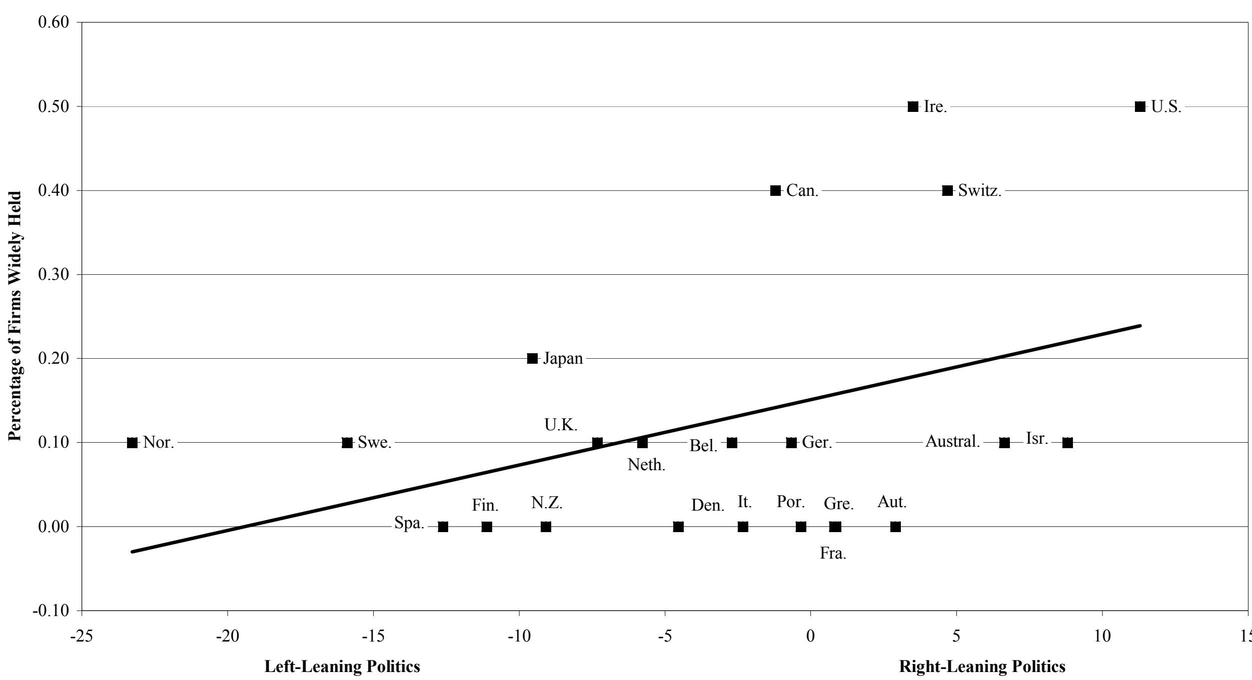


Figure 10
Percentage of Large Firms Widely Held Under Twenty Percent Definition and Left-Right Political Orientation, as Reflected by Median Voter Preference for Market Economy, 1945-1998

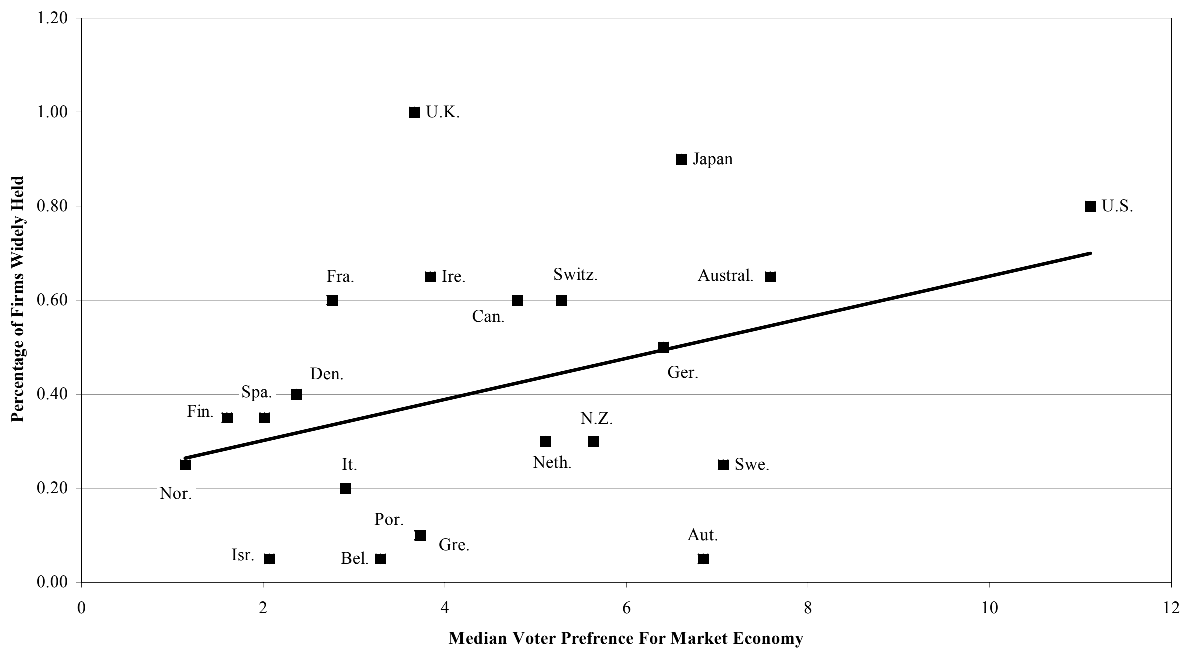
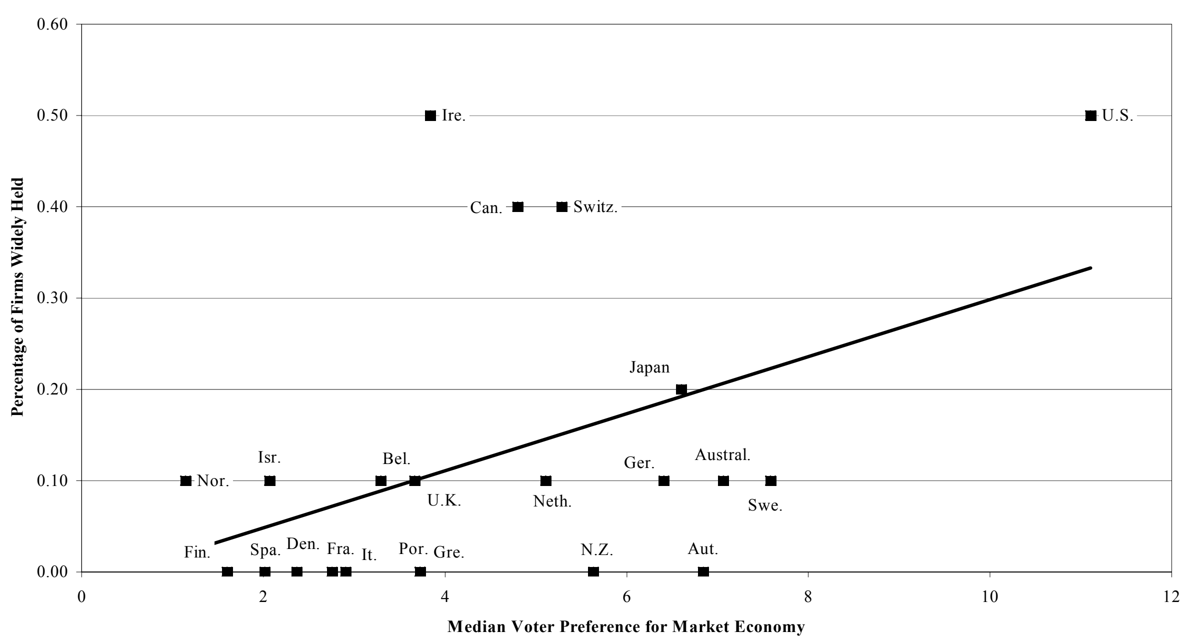


Figure 11
Percentage of Mid-Size Firms Widely Held Under Ten Percent Definition and Left-Right Political Orientation, as Reflected by Median Voter Preference for Market Economy, 1945-1998



The single variable regressions and scatterplots set forth above reveal a relationship between politics and corporate ownership separation that is much more tenuous and less robust than Roe's regression analyses suggest.[198] To the extent that the M.R.G. data are in fact better indicators of political ideology than Roe's political variables,[199] the present analysis could be read to suggest that social democratic ideology may contribute only weakly to corporate ownership dispersion. However, given the extremely small sample size of these regressions, it is inappropriate to infer from the lack of significant results in many regressions that political ideology has no clear effect on corporate ownership structure. Rather, it is noteworthy that, even in a tiny sample, a strong, statistically significant, and positive relationship exists between median voter preferences for market economics and every single measurement of corporate ownership separation. Especially considering that the M.R.G. market economy index is probably the best measure of a country's ideology with regard to economic issues,[200] these results lend credence to the social democracy theory.

Having established that political ideology, at least according to some measures, does affect ownership dispersion in accordance with the predictions of the social democracy theory, it is now appropriate to evaluate, through a second set of regressions, the relative contributions of legal rules, legal origins, and politics to corporate ownership dispersion. The second set of regressions keeps the same sample and the same dependent variables as the first set, but runs the political variables first alongside the La Porta anti-director index and then alongside legal origin dummy variables.[201] The anti-director index in this sample has a mean value of 3.0 and a standard deviation of 1.38. It is included in the analysis because La Porta and co-authors have demonstrated that, in regressions covering a much larger sample of

[198] *See* ROE, *supra* note 1, at 49-61.
[199] *See supra* notes 120 through 126 and surrounding text for discussion of Roe's variables.
[200] *See supra* note 154 and surrounding text for the argument that the M.R.G. planned economy index is inferior to the M.R.G. market economy index. *See* supra note 169 and surrounding text for discussion of problematic aspects of the M.R.G. welfare index.
[201] The anti-director index is taken from La Porta et al., *supra* note 2, at 1130-31. For a detailed description of the components of the anti-director index, *see supra* notes 61 and 66 and surrounding text. The legal origins variable is taken from the dataset complied for Botero et al., *supra* note 5, and were downloaded from http://iicg.som.yale.edu/.

countries, the anti-director rights index correlates strongly with ownership dispersion and actually captures all of the effects of legal origins on ownership dispersion.[202]

When evaluating the results of regressions that include both legal origins and ideology variables, it is essential to bear in mind the possibility of multicollinearity, an econometric problem that occurs when independent variables in the same regression are correlated with one another. As is set forth in Table 5, *supra*, some legal origins families correlate strongly with the M.R.G. measures of ideology, especially the general left-right index, the market economy index, and the welfare index. When present, multicollinearity tends to reduce the statistical significance of independent variables.[203] This problem is particularly troublesome when sample sizes are small, as is the case in the present analysis.[204] Even in the presence of multicollinearity, however, if independent variables generate statistically significant results, those results are reliable. Although there is no exact test for multicollinearity, it is commonly assumed to be present if auxiliary regressions reveal that a particular independent variable is significantly related to the other independent variables included in the model.[205] In the present analysis, auxiliary regressions indicate that multicollinearity is present in regressions involving the general left-right index and the welfare index when legal origins dummy variables are present. Of course, this does not mean that multicollinearity is not a problem in other regressions. Indeed, given that multicollinearity is a problem of degree and not of kind,[206] and considering the small sample size in the present analysis, the regression results in which legal origins dummy variables are present should not be used as a basis for concluding that any particular independent variable *does not* have a significant impact on financial development. Multicollinearity does not appear to be a problem in any regressions where M.R.G. variables are regressed alongside the La Porta anti-director index.

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[202] *See* La Porta et al., *supra* note 2, at 1149-50.
[203] *See* DAMODAR N. GUJARATI, BASIC ECONOMETRICS 327 (3d ed. 1985).
[204] *Id.* at 332, 335.
[205] Auxiliary regressions are regressions where the independent variables from the econometric model are regressed against all other independent variables from the model. *Id.* at 337. Multicollinearity is assumed if the F statistic of an auxiliary regression reveals that the auxiliary regression is statistically significant. *Id.* at 337.
[206] *See id.* at 335.

Tables 8 through 11 show the full regression results for regressions using each ownership dispersion variable and each politics variable that yielded statistically significant results in the first set of regressions.[207] Table 8 displays regression results where the dependent variable is mid-size firm ownership dispersion as defined by the ten percent rule. The coefficients on the politics variables maintain their predicted signs in all regressions, and the results in columns A through C demonstrate that two out of the three included ideological variables remain statistically significant even after controlling for anti-director rights. The coefficient for the anti-director rights index has the predicted sign of positive in each regression, but is only statistically significant in the first regression.

Columns D through F in Table 8 show the results of regressions with legal origins dummy variables. Inclusion of the legal origins variables eviscerates the magnitudes and statistical significance of the coefficients for the M.R.G. political variables. Of course, multicollinearity may account for much of the decline in significance of the M.R.G. variables, particularly the general right-left index.[208] The coefficient for each legal origin dummy variable is negative, indicating that, when holding political ideology constant, countries in every civil law family have lower amounts of corporate ownership dispersion than common law countries, which constitute the residual category. The French civil law variable is statistically significant and quite large in each regression. For example, the French civil law coefficient in column F indicates that, even if voters in a French civil law country and a common law country had the same degree of preference for market economics from 1975 to 1998, the percentage of mid-size firms widely held in the French civil law country would be almost twenty points lower than the corresponding percentage in the common law country.

Table 9 shows regression results where the dependent variable is mid-size firm ownership dispersion determined by the twenty percent rule. As was also the case in Table 8, here the median voter's preference for a market economy is statistically significant and positive when averaged from 1945

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[207] Regressions were also conducted using the M.R.G. variables that did not yield significant results in the single variable regressions. Not surprisingly, none of these variables yields a significant result in regressions with additional variables, and these regression results are thus not displayed.

[208] *See* discussion of multicollinearity, page 54, *supra*.

Table 8

Politics, Anti-director Index, and Legal Origins as Determinants of Mid-Size Firms Ownership Dispersion, 10% Rule

Ordinary least squares regressions with mid-size firm 10% rule ownership dispersion index as dependent variable. The independent variables in each regression consist of a measure of political ideology derived from Manifesto Research Group data, legal origins from Botero, et al., supra *note 5, and the Anti-director Rights index from La Porta, et al.,* supra *note 2. The M.R.G. variables in these regressions are aggregated according to the median voter method.*

Below each coefficient, t-statistics are reported in italics.

	A	B	C	D	E	F
Intercept	-0.00377 *-0.05*	-0.10819 *-1.21*	-0.07268 *-0.80*	0.23488 [a] *4.14*	0.15154 *1.45*	0.19117 [c] *1.76*
General Left-Right Index, 1945-1998	0.00860 [b] *2.30*			0.00442 *0.86*		
Market Economy Index, 1945-1998		0.02682 [c] *1.97*			0.01652 *1.03*	
Market Economy Index, 1975-1998			0.01937 *1.35*			0.00851 *0.56*
Anti-Director Rights Index	0.05240 [b] *2.31*	0.03803 *1.60*	0.03661 *1.42*			
French Legal Origin				-0.19235 [b] *-2.31*	-0.17850 [c] *-2.08*	-0.19199 [b] *-2.14*
German Legal Origin				-0.05696 *-0.61*	-0.08038 *-0.87*	-0.06236 *-0.66*
Scandinavian Legal Origin				-0.12423 *-1.01*	-0.15183 *-1.51*	-0.17096 *-1.67*
Observations	22	22	22	22	22	22
R-Square	0.34	0.30	0.23	0.36	0.37	0.35

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

to 1998, but not when averaged from 1975 to 1998. The coefficient on the market economy variable averaged from 1945 to 1998 is also significant in an economic sense, as it predicts that, if pro-market preferences increase by one standard deviation, about nine percent of mid-size firms will switch from being closely held to widely held. Here, the anti-director rights index is statistically significant in both regressions in which it is included, and the effect of the anti-director rights index is somewhat stronger than that of the political variables. The coefficient in column A predicts that, if anti-director rights increase by one standard deviation, almost fourteen percent of mid-size firms will shift from concentrated to dispersed ownership.[209]

Columns C and D in Table 9 show that the coefficients on the political variables lose significance and substantially decrease in value when legal origin controls are added to the mix. Also, in these regressions, all legal origins dummies have significant and negative coefficients. The magnitudes of the French legal origin coefficients are quite stunning, with the coefficient in column D suggesting that, holding political preferences for market economics constant, shifting a country's legal origin from common law to French civil law implies that almost forty-seven percent of mid-size firms will shift from dispersed to concentrated ownership. Finally, note that the R-square values in these regressions increase significantly when legal origins controls are included.

Table 10 shows regression results where the dependent variable is large firm ownership dispersion, determined by the ten percent rule. As in Tables 8 and 9, all of the coefficient estimates shown in Table 10 have their predicted signs. Here, the market preference coefficient estimations have their highest values yet and are statistically significant in both regressions that include the anti-director rights index. For example, the market preference coefficient in column A predicts that, while holding anti-director rights constant, if median voter preferences for market economics increase by one standard deviation, just under ten percent of large firms will shift from concentrated to dispersed ownership. Again, the anti-director rights index is significant in both regressions, and its magnitude outshines that of

[209] The standard deviation of the anti-director rights index over this sample is 1.38.

Table 9

Politics, Anti-Director Index, and Legal Origins as Determinants of Mid-Size Firm Ownership Dispersion, 20% Rule

Ordinary least squares regressions with large firm 20% rule ownership dispersion index as dependent variable. The independent variables in each regression consist of a measure of political ideology derived from Manifesto Research Group data, legal origins from Botero, et al., supra *note 5, and the Anti-Director Rights index from La Porta, et al.,* supra *note 2. The M.R.G. variables in these regressions are aggregated using the median voter method.*

Below each coefficient, t-statistics are reported in italics.

	A	B	C	D
Intercept	-0.20374 *-1.63*	-0.14889 *-1.17*	0.39427 [a] *3.07*	0.49027 [a] *3.60*
Market Economy Index, 1945-1998	0.03616 [c] *1.90*		0.02430 *1.23*	
Market Economy Index, 1975-1998		0.02376 *1.18*		0.00631 *0.33*
Anti-Director Rights Index	0.09974 [a] *3.02*	0.09914 [b] *2.76*		
French Legal Origin			-0.43308 [a] *-4.11*	-0.46920 [a] *-4.19*
German Legal Origin			-0.32199 [b] *-2.83*	-0.29950 [b] *-2.54*
Scandinavian Legal Origin			-0.26824 [b] *-2.18*	-0.31235 [b] *-2.45*
Observations	22	22	22	22
R-Square	0.45	0.39	0.62	0.59

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

the politics variables.[210] Table 10 also resembles Tables 8 and 9 in that the coefficients associated with the politics variables loose much of their magnitude and their statistical significance when legal origins controls are added. Here, once again, French legal origin has a strong and significant negative effect in both regressions, but its effect is not as large as the Scandinavian legal origin variable in these regressions. The German legal origin variable is insignificant in both regressions. In addition, note that the R-square values do not increase dramatically in these regressions as the legal origin controls are added.

Finally, Table 11 shows regression results where the dependent variable is large firm ownership dispersion determined by the twenty percent rule. Again, every coefficient estimate has its predicted sign, but in all of the regressions set forth in Table 11, the political variables are not statistically significant. Notably, the R-square values indicate that the anti-director rights index has more explanatory power in these regressions than the legal origin dummies. The predicted effect of the anti-director rights index is quite large, particularly in column A, where a one standard deviation increase in anti-director rights predicts an associated shift from concentrated to dispersed ownership by that more than fifteen percent of large firms. Once again, the French legal origin coefficients are large and statistically significant, but the German and Scandinavian legal origin variables are not statistically significant. Also, even though the ideology variables are not statistically significant in any regression in Table 11, inclusion of the legal origin dummies dramatically reduces the magnitude of the estimated coefficients for the politics variables.

Three general patterns emerge from the results in Tables 8 through 11. First, political ideology, as reflected by median voter preferences for market economics, generally appears to be a significant determinant of corporate ownership separation, even when controlling for anti-director rights.[211] Second, the La Porta anti-director rights appear to contribute to ownership dispersion, even

[210] In the regression shown in column A, if anti-director rights increase by one standard deviation, over twelve percent of large firms are predicted to shift from concentrated to dispersed ownership.
[211] Of course, other political variables do not perform as well and are not reported in Tables 8 through 11, with the exception of the left-right index included in Table 8. The failure of other variables, however, does not suggest the invalidity of the social democracy theory, given that the market economy index is likely the best measure of political attitudes toward economic regulation. *See supra*, notes 154 and 169 and surrounding text.

Table 10

Politics, Anti-Director Index, and Legal Origins as Determinants of Large Firm Ownership Dispersion, 10% Rule

Ordinary least squares regressions with large firm 10% rule ownership dispersion index as dependent variable. The independent variables in each regression consist of a measure of political ideology derived from Manifesto Research Group data, legal origins from Botero, et al., supra *note 5, and the Anti-Director Rights index from La Porta, et al.,* supra *note 2. The M.R.G. variables in these regressions are aggregated using the median voter method.*

Below each coefficient, t-statistics are reported in italics.

	A	B	C	D
Intercept	-0.18462 *-1.42*	-0.14587 *-1.12*	0.33487 c *2.10*	0.33626 c *2.07*
Market Economy Index, 1945-1998	0.04150 b *2.11*		0.02470 *1.01*	
Market Economy Index, 1975-1998		0.03542 c *1.73*		0.02260 *0.97*
Anti-Director Rights Index	0.08911 b *2.60*	0.08383 b *2.30*		
French Legal Origin			-0.28220 b *-2.16*	-0.27742 c *-2.07*
German Legal Origin			-0.14015 *-0.99*	-0.10705 *-0.76*
Scandinavian Legal Origin			-0.33508 b *-2.19*	-0.33916 b *-2.23*
Observations	22	22	22	22
R-Square	0.42	0.39	0.43	0.43

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table 11

Politics, Anti-Director Index, and Legal Origins as Determinants of Large Firm Ownership Dispersion, 20% Rule

Ordinary least squares regressions with large firm 20% rule ownership dispersion index as dependent variable. The independent variables in each regression consist of a measure of political ideology derived from Manifesto Research Group data, legal origins from Botero, et al. supra *note 5, and the Anti-Director Rights index from La Porta, et al.,* supra *note 2. The M.R.G. variables in these regressions are aggregated using the median voter method.*

Below each coefficient, t-statistics are reported in italics.

	A	B	C	D
Intercept	-0.06260 *-0.45*	0.02728 *-0.20*	0.48216 [b] *2.56*	0.47277 [b] *2.47*
Market Economy Index, 1945-1998	0.03072 *1.47*		0.01744 *0.61*	
Market Economy Index, 1975-1998		0.02398 *1.11*		0.01742 *0.65*
Anti-Director Rights Index	0.11166 [a] *3.06*	0.10901 [b] *2.83*		
French Legal Origin			-0.29793 [c] *-1.93*	-0.29008 [c] *-1.85*
German Legal Origin			-0.07929 *-0.48*	-0.05482 *-0.33*
Scandinavian Legal Origin			-0.22276 *-1.24*	-0.22124 *-1.24*
Observations	22	22	22	22
R-Square	0.42	0.40	0.30	0.30

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

when a high quality ideological control variable is included in the analysis. Of course, it is unclear from this analysis whether the anti-director rules themselves or the legal origin families with which they correlate[212] are truly relevant to separation of ownership and control. Third, legal origins are strongly related to ownership dispersion, in spite of the presence of a high quality political control variable. These results thus provide strong support for the legal origins theory, and suggest that legal origins variables are more than simple proxies for political ideology.[213] Finally, it is important to bear in mind that, even though the results seem to suggest that ideology has no significant effect on ownership dispersion when legal origin controls are included in the analysis, the combined problems of multicollinearity and small sample size militate against reaching this conclusion.[214]

B. The Determinants of Employment, Collective Relations and Social Security Laws

Having employed the M.R.G. political data to test the validity of the legal origins theory's core prediction, that legal origins are a major determinant of corporate ownership structure, this paper now employs the M.R.G. political data, as well as one other indicator of political ideology, to evaluate some of the most recent claims by legal origins advocates. Specifically, the present analysis will put to the test Botero's claim that legal origins have a stronger affect than political ideology on employment law, collective relations law and social security regulation. Recall that Botero purports to have conducted a "horse race" between legal origins and the social democracy theory, but that in reality his political variables are quite flawed and do not accurately capture ideology.[215]

Botero argues that looking at employment, collective relations, and social security laws gives the social democracy theory its "best shot," given the plausible expectation that leftist governments will regulate to benefit workers, and given that employment, collective relations, and social security laws

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[212] For data establishing the correlations between legal origin families and anti-director rights, *see* La Porta et al., *supra* note 2, at 1122-23.
[213] Although the results of this analysis militate in favor of the legal origins theory and against Roe's social democracy theory, note that this analysis does not evaluate other political theories that have been advanced to explain divergent financial ownership structures in modern economies. These theories include the theories of Rajan & Zingales, Perotti & von Thadden, and Pagano & Volpin. *See supra*, notes 41 through 53 and surrounding text.
[214] *See supra,* notes 203 through 206 and surrounding text for a discussion of multicollinearity.
[215] For a discussion of the flaws of Botero's politics variables, *see supra* notes 110 through 119 and surrounding text.

arose relatively recently, and are thus probably influenced by legal origins to a lesser degree than other types of regulation.[216] In spite of the fact that these regulations emerged fairly recently, Botero hypothesizes that regulation in these areas should be similar within legal families because countries in different legal families utilize distinct "institutional technologies for social control of business."[217] According to Botero, common law countries rely most heavily on markets and contracts, whereas civil law countries tend to prefer direct government regulation of the economy.[218] Though Botero spends little time explaining why common law countries should prefer free markets more so than civil law countries, his analysis implicitly rests on the theories set forth by advocates of the political framework channel and the politics and rules channel.[219] These channels suggest that common law from the beginning has incorporated an ideological bias toward free markets, which has had lasting effects either because of specific pro-market rules that have had lasting prevalence in the common law family (the politics and rules channel) or because the common law system has set up a legal framework in which judges are independent and well-positioned to thwart government imposition in markets (the political framework channel).

Botero constructs three variables for the purpose of measuring labor laws, and these variables will also serve as the dependent variables for the present analysis. All three variables range in value from 0.0, representing no regulation, to 1.0, representing maximum regulation. The first dependent variable, the employment laws index, aggregates four subindices, which, for each country, measure the availability of alternate employment contracts, the cost of increasing work hours, the cost of firing workers, and the stringency of dismissal procedures.[220] The second dependent variable, the collective relations laws index,

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[216] Botero et al., *supra* note 5, at 1341.
[217] *Id.* at 1345.
[218] *Id.*
[219] *See supra*, pages 15 through 18.
[220] Botero et al., *supra* note 5, at 1348. It is possible that the indices calculated by Botero et al. are biased in a way that understates labor protections in common law countries. This will be the case if it is true that common law countries regulate labor more through case-by-case adjudication than by statutory fiat. Even though labor law is codified in all countries in the sample, in the U.S., many particular labor regulations are not in fact codified but rather stem from the decisions of the NLRB pursuant to statutory authority. Although the NLRB is vested with rulemaking authority, it has used that authority only once and has instead elected to regulate via case-by-case adjudication. *See* Amn. Hospital Ass'n. v. NLRB, 899 F.2d 651 (7th Cir. 1990) (Posner, J.), aff'd. 499 U.S. 606

Table 12

Descriptive Statistics for Employment, Collective Relations, and Social Security Laws Indices

Variable	Employment Laws Index	Collective Relations Laws Index	Social Security Laws Index
Mean	0.5029	0.4502	0.7316
Standard Deviation	0.2130	0.1519	0.0894
Maximum	0.8088	0.6667	0.8727
Maximum Country	Portugal	France	Denmark
Minimum	0.1607	0.1875	0.4777
Minimum Country	New Zealand	United Kingdom	Turkey

measures the legal rights and power of labor unions and the protection that workers enjoy during collective disputes.[221] The third and final dependent variable, the social security laws index, incorporates measures of mandatory benefits for death, old age, disability, sickness, health, and unemployment.[222]

Table 12 displays summary statistics for the three dependent variables over the sample of twenty-three countries that are covered by both Botero's data and the M.R.G. data. Notice that, for both the employment and collective relations indices, the countries that provide workers with the lowest degree of legal protection are common law countries and the countries that provide workers with the most protection are French civil law countries. The regressions in the present analysis are ordinary least squares linear regressions, and they follow the specifications used by Botero. Other than the political

(1991). Botero et al., however, adequately address these concerns by, to the greatest extent possible, incorporating in their dependent variables actual measures of particular costs (e.g. the cost of firing a worker) and not just dummy variables for simple rules. Botero, et al., *supra* note 5, at 1353. Thus, the Botero indices are likely as good as any other available comparative measures of labor, employment, and social security protection.

[221] Botero et al., *supra* note 5, at 1349.

[222] *Id.*

variables and legal origin dummies, the only independent variable included in the analysis is the log of per capita G.N.P. in 1997.[223]

Because strict regulations are predicted to be most prevalent in left-leaning countries, positive coefficient estimations are predicted for each political variable that increases in value with left power. Thus, the estimated coefficients associated with independent variables based on the planned economy index and the welfare index should have positive signs. In contrast, coefficients associated with ideological variables that increase in value as parties move to the right should have negative values. Specifically, variables based on the general left-right index and the market economy index should generate negative coefficients.

As was the case with the corporate ownership regressions, multicollinearity is likely to be a problem when M.R.G. ideology variables are included alongside legal origins dummy variables in this analysis. Again, auxiliary regressions indicate that multicollinearity is present whenever legal origins dummies are included as independent variables alongside the general right-left index or the welfare index.[224] Even in regressions with legal origins dummies and other M.R.G. variables, the small sample size and the high levels of correlation between legal origin categories and ideology[225] militate against using these regressions to conclude that an independent variable has no effect on labor regulation.

The following paragraphs discuss the results for the employment law regressions. In the employment regressions discussed in the main text of this paper, the M.R.G. independent variables are aggregated over the time period from 1975 to 1998. The results are fundamentally the same if the M.R.G. variables are aggregated from 1945 to 1998, and these results are displayed in Appendix B.

Table 13 displays employment law regression results without legal origins controls for all regressions in which the M.R.G. median voter indices are independent variables. The estimated coefficients associated with the general left-right index and the pro-market ideology index both have

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[223] The G.N.P. per capita data are taken from the dataset prepared by Botero et al., which is available online at http://iicg.som.yale.edu/. Over the sample of twenty-three countries, this variable has a mean of 9.98 and a standard deviation of 0.54.
[224] *See* note 205, *supra*.
[225] *See* Table 5, page 45, *supra*.

negative signs as predicted, and both are statistically significant. The statistical significance of these variables is impressive given the low number of observations included in the regressions. The results are also significant in an economic sense. For example, if the general left-right index increases by one standard deviation, then the predicted value of the employment laws index falls by 0.46 standard deviations. If the pro-market ideology variable increases by one standard deviation, the predicted value of the employment laws index falls by 0.40 standard deviations. The regressions including these variables also generate respectable R-Square values, at 0.19 and 0.16 respectively. As was also the case with the corporate ownership dispersion regressions, the planned economy and welfare variables produce much weaker results. Although the welfare coefficient has its predicted positive sign, it is not statistically significant and generates a low R-square value of 0.05. The estimated coefficient associated with the planned economy variable does not even have its predicted positive sign. G.N.P. per capita also does not appear to have a strong effect on employment regulation.

Figure 12 graphs the relationship of the employment laws index and the general left-right ideological index. The graph reveals a definite negative relationship between political conservatism and strict employment laws. Note that Japan and New Zealand appear to be outliers. Not surprisingly, removing these countries from the sample strengthens the significance of the political variables.

Table 14 shows results for additional employment law regressions, again without legal origin controls. Here, the M.R.G. political variables are aggregated not by the median voter method but rather by taking weighted averages of party positions. In this table, all coefficients estimated for political variables have their predicted signs, but none of the estimated coefficients is statistically significant. The weaker performance of these variables likely stems from the fact that the process of taking weighted averages of platform data inserts a greater amount of noise into the variables than does the median voter method.[226]

[226] *See supra*, pages 42-43.

Table 13
Employment Regulation and Ideology Measured by Median Voter Preferences from 1975-1998

Ordinary least squares regressions with employment laws index as dependent variable and M.R.G. ideological indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita	Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
-0.03532	-0.01016 [b]				0.84547	23
-0.43	*-2.17*				*1.02*	[0.19]
0.02018		-0.01608			0.36210	23
0.23		*0.23*			*0.42*	[0.03]
0.04343			-0.03555 [c]		0.23372	23
0.53			*-1.95*		*0.29*	[0.16]
-0.00257				0.01457	0.36992	23
-0.03				*1.04*	*0.43*	[0.05]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

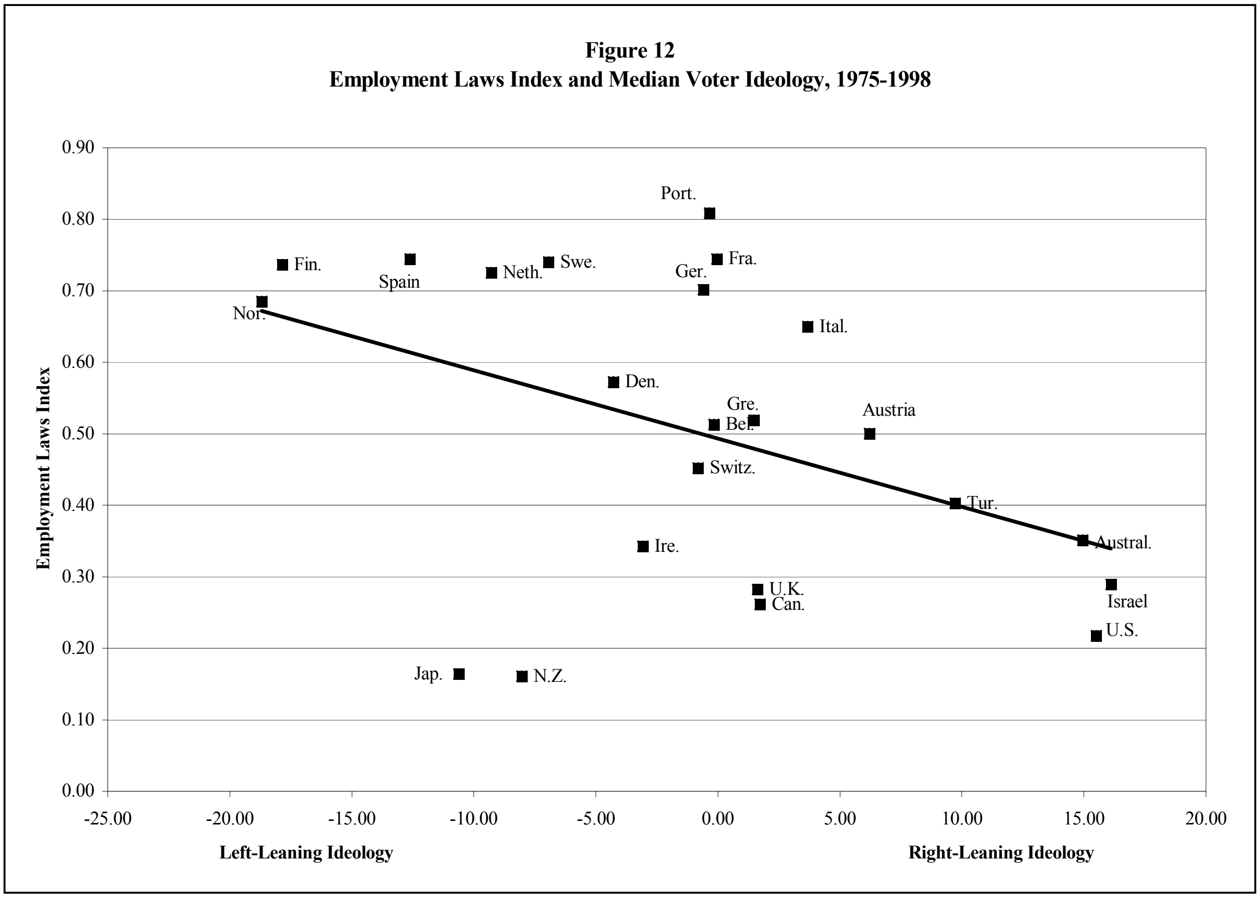

Table 14
Employment Regulation and Ideology Measured by Party Platform Weighted Averages from 1975-1998

Ordinary least squares regressions with employment laws index as dependent variable and M.R.G. ideological indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita	Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
-0.00867 *-0.01*	-0.00741 *-1.30*				0.58555 *0.67*	23 [0.08]
0.01290 *0.14*		0.01374 *0.48*			0.32571 *0.37*	23 [0.01]
0.02107 *0.23*			-0.00117 *-0.05*		0.29878 *0.33*	23 [0.00]
-0.00655 *-0.08*				0.01780 *1.28*	0.37024 *0.44*	23 [0.07]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table 15 shows the results of "horse race" employment law regressions with the improved ideological variables. The significance of the French and Scandinavian legal origin coefficients jumps off the page in Table 15, but the German legal origin variable does not have a statistically significant impact in any regression.[227] The magnitudes of the French and Scandinavian legal origin coefficients are quite impressive. For example, the coefficients in the first row indicate that, holding political ideology constant, if a country's legal origin shifts from common law to French civil law, then the level of employment regulation is expected to increase by 1.82 standard deviations. The Scandinavian civil law coefficient in the first row of Table 15 implies a similar increase in employment regulation of 1.81 standard deviations. The high explanatory power of these variables is likely driving the extremely high R-square values obtained in these regressions, ranging from 0.68 to 0.73.

Also noteworthy in Table 15 is the fact that the inclusion of legal origins dummies eviscerates the magnitudes of most of the political variables' estimated coefficients. Indeed, no political variable in Table 15 is statistically significant at the ten percent level of confidence. The coefficients on the median voter left-right index and the median voter market economy variable, both of which were significant in the absence of legal origin controls, do not even have their predicted negative values. In fact, five out of the eight political variable coefficients shown in Table 15 do not have their predicted signs. The political variables remain insignificant even when New Zealand and Japan are removed from the sample as outliers.[228] Of course, multicollinearity may account for much of the decline in significance of the ideology variables in the presence of legal origins variables. This is true in particular with regard to the general left-right variable.

The regression results for the collective relations laws index are quite similar to the results obtained for the employment laws index. As was the case with the employment regressions, the period of time over which the M.R.G. variables are aggregated does not appear to make a substantial difference in

[227] This result contrasts with the result reported in Botero et al., *supra* note 5, at 1372, where the German dummy is statistically significant. The difference in results does not result from the improvement in the political variables, however, but rather from the different sample. Even excluding the politics variables, the German legal origin dummy lacks statistical significance with regard to this sample of countries.
[228] *See* Figure 12, *supra*.

Table 15
Employment Laws, Political Ideology from 1975-1998, And Legal Origins

Ordinary least squares regressions with employment law index as dependent variable and M.R.G. ideological indices as independent variables. Below each coefficient, t-statistics are reported in italics.

Political Power Variable	Log of GNP per capita	Political Power Variable	French Legal Origin	German Legal Origin	Scandinavian Legal Origin	Constant	N [R^2]
Right-Left Index, Median Voter	0.06751 *0.97*	0.00009 *0.02*	0.38798 [a] *4.84*	0.14901 *1.58*	0.38629 [a] *3.51*	-0.39887 *-0.57*	23 [0.68]
Right-Left Index, Weighted Averages	0.07543 *1.10*	0.00223 *0.56*	0.40291 [a] *5.13*	0.15918 *1.70*	0.40422 [a] *4.21*	-0.48687 *-0.71*	23 [0.68]
Planned Economy Index, Median Voter	0.06739 *0.99*	0.00081 *0.55*	0.38842 [a] *5.05*	0.14924 *1.60*	0.38497 [a] *4.27*	-0.40074 *-0.59*	23 [0.68]
Planned Economy Index, Weighted Averages	0.06748 *0.99*	-0.00169 *-0.09*	0.38739 [a] *5.23*	0.14886 *1.61*	0.38687 [a] *4.17*	-0.39256 *-0.58*	23 [0.68]
Market Economy Index, Median Voter	0.06701 *0.98*	0.00030 *0.02*	0.38798 [a] *4.76*	0.14880 *1.60*	0.38562 [a] *3.94*	-0.39514 *-0.58*	23 [0.68]
Market Economy Index, Weighted Averages	0.06211 *0.91*	0.00757 *0.48*	0.39409 [a] *5.26*	0.14741 *1.60*	0.38049 [a] *4.23*	-0.38577 *-0.57*	23 [0.68]
Welfare Index, Median Voter	0.07536 *1.17*	0.01440 *1.43*	0.40829 [a] *5.71*	0.12496 *1.41*	0.31962 [a] *3.31*	-0.62534 *-0.95*	23 [0.71]
Welfare Index, Weighted Averages	0.07473 *1.15*	0.01370 *1.34*	0.39929 [a] *5.62*	0.12164 *1.35*	0.31662 [a] *3.17*	-0.61038 *-0.92*	23 [0.71]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

the collective relations analysis. The main text of this paper discusses regression results where the M.R.G. independent variables are aggregated over the time period from 1975 to 1998. The results of regressions where the M.R.G. variables are aggregated from 1945 to 1998 are displayed in Appendix B.

Table 16 shows regression outputs for regressions in which the collective relations laws index is the dependent variable and the M.R.G. ideological variables are aggregated by the median voter method. Here, as was also the case in the employment law regressions, the coefficients associated with the general left-right scale and the pro-market economy variable both are negative as predicted, although neither coefficient is statistically significant at the ten percent level of confidence. Given the small sample size in these regressions and the noise inherent in the politics variables, it is important not to read too much into the lack of statistical significance of the left-right and pro market variables here. The t-statistics for these variables are actually fairly strong, and the general left-right scale is actually significant at the 10.2 percent level of confidence. The market economy variable is significant at the fifteen percent level of confidence. Both of these coefficient estimates also suggest that ideology has an economically significant effect on collective relations laws. For example, the coefficient on the general left-right index indicates that if a country's ideology moves one standard deviation to the right, then the collective relations laws index will decrease by 0.38 standard deviations. Unlike the general left-right index and the pro-market index, the coefficients associated with the planned economy and welfare indices in Table 16 do not have their predicted positive signs.

Figure 13 displays the collective relations data arrayed against the general left-right index. The data are by no means concentrated tightly around the trend line, but a clear negative relationship between the two variables is visible. Table 17 shows the collective relations regressions where the M.R.G. political variables are aggregated by the weighted average method. Once again, the results are much weaker than corresponding results where the M.R.G. data are aggregated by the median voter method. All coefficients in these regressions have their predicted signs except for the planned economy index, which again is negative. The only variable in Table 17 that has any substantial explanatory strength is the general left-right scale, which is statistically significant at the fourteen percent level.

Table 16
Collective Relations Laws and Ideology Measured by Median Voter Preferences from 1975-1998

Ordinary least squares regressions with collective relations law index as dependent variable and M.R.G. ideological indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita	Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
-0.02928	-0.00596				0.73659	23
-0.47	*-1.71*				*1.20*	[0.13]
0.00355		-0.01759			0.48105	23
0.06		*-1.11*			*0.79*	[0.06]
0.01637			-0.02004		0.37946	23
0.27			*-1.48*		*0.64*	[0.09]
0.00379				-0.00055	0.41836	23
0.06				*-0.05*	*0.67*	[0.00]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Figure 13
Collective Relations Laws Index and Median Voter Ideology, 1975-1998

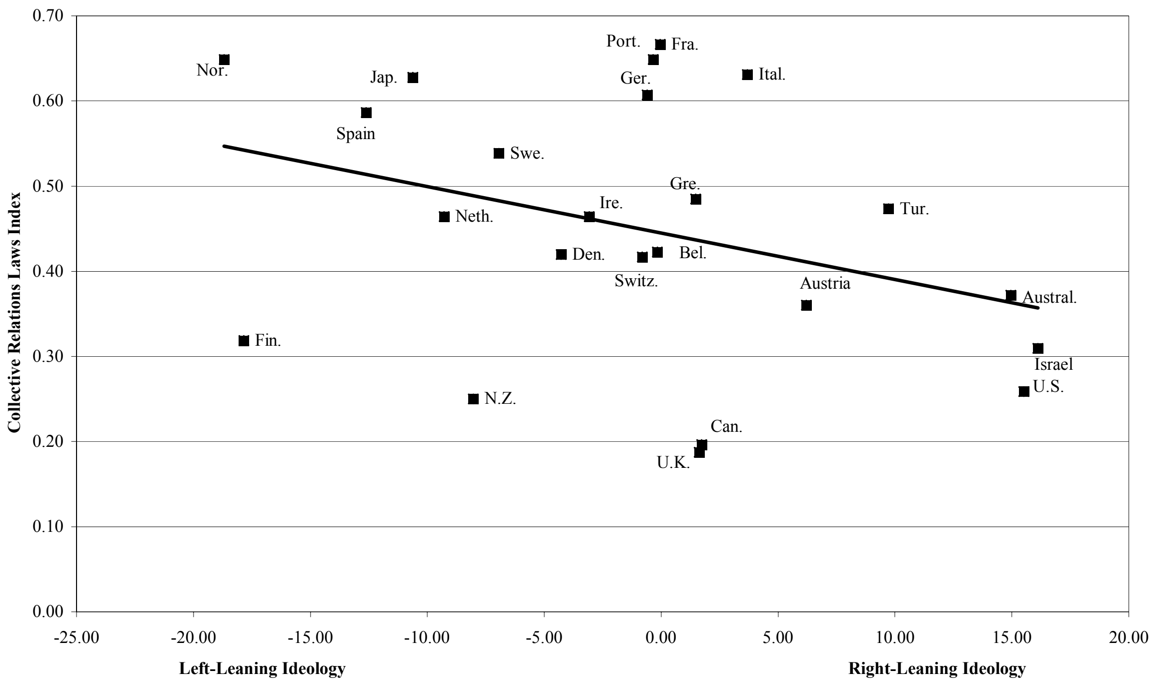

Table 17

Collective Relations Laws and Ideology Measured by Party Platform Weighted Averages from 1975-1998

Ordinary least squares regressions with collective relations law index as dependent variable and M.R.G. ideological indices as independent variables.
Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita	Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
-0.02083	-0.00623				0.65487	23
-0.34	-1.55				*1.07*	[0.11]
0.00720		-0.00867			0.40893	23
0.11		-0.41			*0.65*	[0.01]
0.00304			-0.00008		0.42020	23
0.05			-0.00		*0.66*	[0.00]
0.00256				0.00027	0.42169	23
0.0397				0.03	*0.627*	[0.00]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table 18 adds legal origins dummy variables to the collective relations laws index regressions. Here, once again, the performance of the legal origins variables is quite strong. The French and German civil law variables produce positive, large and significant results in every regression, and the Scandinavian civil law variable is positive and significant in all but the first regression. None of the ideology variables is statistically significant in Table 18, and four of the ideology coefficients do not have their predicted signs. Thus, the legal origins variables appear to dominate all political variables in terms of their ability to explain collective relations laws. Of course, some degree of the poor results for the ideological variables may result from multicollinearity.

In contrast to the employment and collective relations regressions, the time period over which the M.R.G. data are aggregated makes a difference with respect to the social security regressions. The M.R.G. indices produce some strong results when aggregated from 1945 to 1998 but no significant results at all when aggregated from 1975 to 1998. Regressions using the 1975 to 1998 data are thus relegated to Appendix C.

Table 19 displays the results of the social security index regressions in which median voter M.R.G. data serve as independent variables. All M.R.G. variables besides the planned economy index produce coefficient estimates with predicted signs. Of the M.R.G. variables, only the market economy index is statistically significant. It is also significant in an economic sense, as its coefficient predicts that a one standard deviation increase in pro-market ideology will be associated with a decline in social security protection of 0.44 standard deviations. This result suggests that pro-market ideology in the post-war era may well have played a role in limiting social security regulations. G.N.P. per capita is also strongly related to social security regulations, as it is both positive and statistically significant in every regression.

Figure 14 displays a scatterplot of the social security index data against median voter market economy preferences. The layout of the data confirms the negative relationship between the two variables indicated by the regression results. Table 20 shows the social security regression results where the M.R.G. variables are aggregated by weighted averages. Again, the variables calculated by the

Table 18
Collective Relations Laws, Political Ideology from 1975-1998, And Legal Origins

Ordinary least squares regressions with collective relations law index as dependent variable and M.R.G. ideological indices as independent variables. Below each coefficient, t-statistics are reported in italics.

Political Power Variable	Log of GNP per capita	Political Power Variable	French Legal Origin	German Legal Origin	Scandinavian Legal Origin	Constant	N [R^2]
Right-Left Index, Median Voter	0.01928 *0.32*	-0.00162 *-0.47*	0.25149 [a] *3.66*	0.19068 [b] *2.35*	0.15409 *1.63*	0.10872 *0.18*	23 [0.54]
Right-Left Index, Weighted Averages	0.02184 *0.37*	-0.00107 *-0.31*	0.25658 [a] *3.76*	0.19367 [b] *2.38*	0.17058 [b] *2.05*	0.07907 *0.13*	23 [0.53]
Planned Economy Index, Median Voter	0.02458 *0.42*	-0.00390 *-0.31*	0.25848 [a] *3.90*	0.19540 [b] *2.44*	0.17899 [b] *2.31*	0.06457 *0.11*	23 [0.53]
Planned Economy Index, Weighted Averages	0.02867 *0.50*	-0.01385 *-0.89*	0.26520 [a] *4.25*	0.20137 [b] *2.58*	0.19688 [b] *2.52*	0.05142 *0.09*	23 [0.55]
Market Economy Index, Median Voter	0.02623 *0.45*	-0.00101 *-0.08*	0.26160 [a] *3.72*	0.19788 [b] *2.46*	0.17709 [c] *2.10*	0.03687 *0.06*	23 [0.53]
Market Economy Index, Weighted Averages	0.02053 *0.35*	0.00794 *0.59*	0.27124 [a] *4.22*	0.19756 [b] *2.50*	0.17535 [b] *0.52*	0.04418 *0.08*	23 [0.54]
Welfare Index, Median Voter	0.02626 *0.45*	0.08665 *0.09*	0.26523 [a] *4.07*	0.19744 [b] *2.43*	0.17625 [c] *2.00*	0.02216 *0.04*	23 [0.53]
Welfare Index, Weighted Averages	0.02494 *0.43*	-0.00155 *-0.17*	0.26270 [a] *4.09*	0.20180 [b] *2.47*	0.18759 [c] *2.08*	0.05940 *0.10*	23 [0.53]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

weighted average method appear to yield weaker results than the variables aggregated by the median voter method. The coefficients estimated for both the left-right index and the pro-market economy variable are not negative as predicted, and the planned economy index fails to generate a positive coefficient. The welfare coefficient has its predicted sign, but is statistically insignificant.

Table 21 adds legal origins dummy variables to the social security index regressions. Notably, the median voter market economy index maintains both its magnitude and its statistical significance in spite of the legal origins control variables. Given the weak performance of the other ideology variables in the social security regressions that lack legal origins controls, it is not surprising that the other ideology variables are not significant and frequently generate coefficients with unexpected signs when legal origins dummy variables are added to the mix. Even the market economy index, when aggregated by the weighted average method, fails to generate a coefficient with a negative sign. The divergent performances of the weighted average and median voter variables in this case underscore the likelihood that the weighted average approach inserts substantial noise into the M.R.G. variables.[229]

In Table 21, the legal origins variables are also poor performers. The French and German legal origin variables are actually negative in every regression, suggesting that these countries have weaker social security regulations than common law countries, and the Scandinavian legal origin variable is not statistically significant.[230] The high R-square values in Table 21 are accounted for mostly by the presence of the G.N.P. variable, which appears to be a robust determinant of social security laws.

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[229] *See supra* pages 42-43.

[230] In Botero's "horse-race" regressions involving social security laws, both the French and Scandinavian legal origins variables are statistically significant. *See* Botero et al., *supra* note 5, at 1372-1373. The weaker performance of these variables in Table 21 results not from enhanced political ideology variables, but rather from differences in the sample. Even excluding the political control variables, the French and Scandinavian dummies lack statistical significance over this sample.

Table 19
Social Security and Ideology as Determined by Median Voter Preferences from 1945-1998

Ordinary least squares regressions with social security laws index as dependent variable and M.R.G. ideology indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita		Left-Right Scale	Planned Economy Index	Market Economy Index		Welfare Index	Constant	N [R^2]
0.06838	c	-0.00216					0.04396	23
2.04		*-1.03*					*0.13*	[0.28]
0.08403	b		-0.00502				-0.08614	23
2.52			*-0.38*				*-0.27*	[0.24]
0.07960	a			-0.01632	b		0.01279	23
2.86				*-2.60*			*0.05*	[0.43]
0.07577	b					0.00221	-0.04850	23
2.21						*0.39*	*-0.15*	[0.24]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

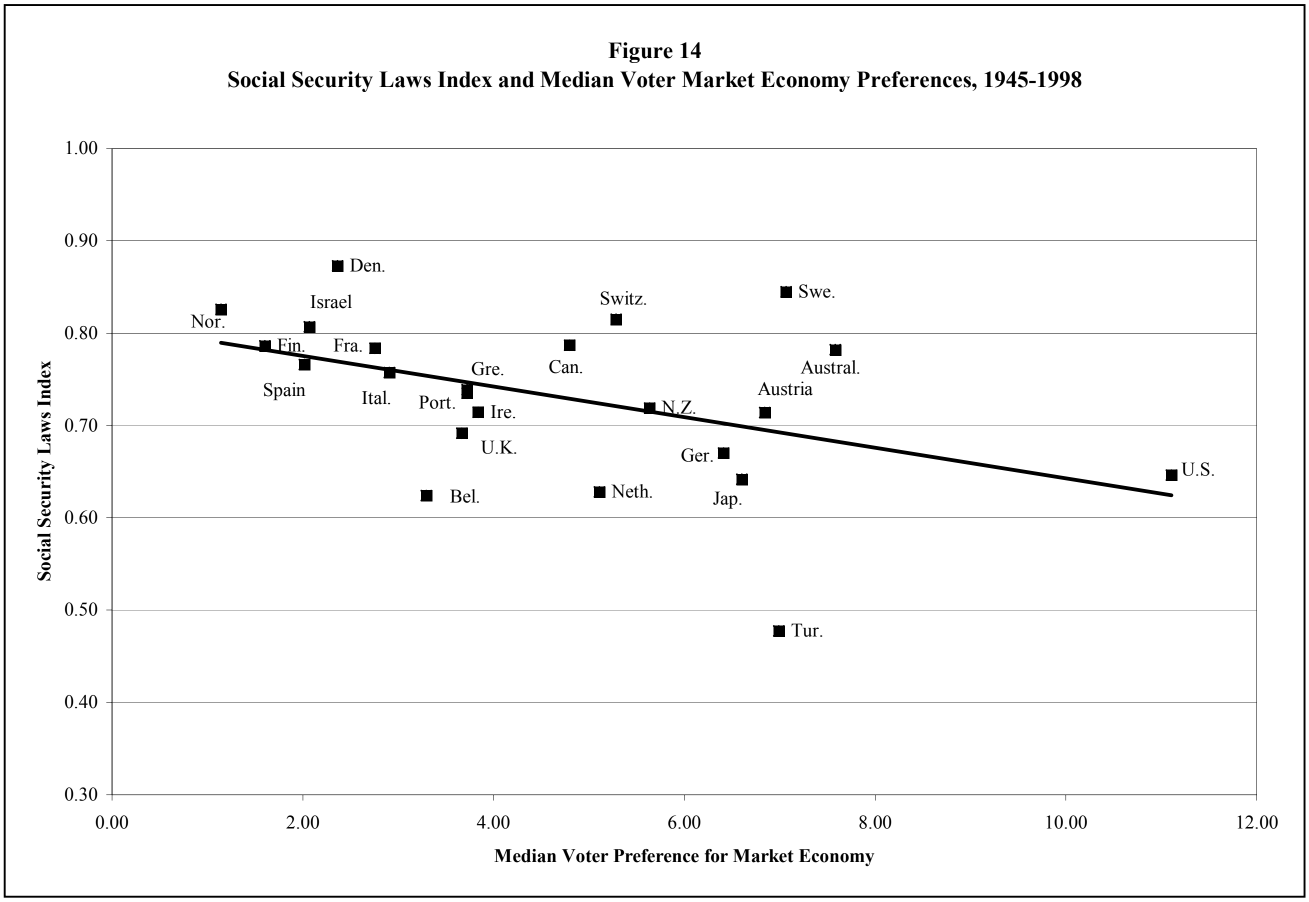

Table 20
Social Security and Ideology as Measured by Party Platform Weighted Averages from 1945-1998

Ordinary least squares regressions with social security laws index as dependent variable and M.R.G. ideology indices as independent variables.
Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita		Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
0.08865	b	0.00170				-0.14858	23
2.59		*0.65*				*-0.44*	[0.25]
0.08440	b		-0.00431			-0.09302	23
2.51			*-0.38*			*-0.29*	[0.24]
0.07540	b			0.00479		-0.04466	23
2.24				*0.49*		*-0.14*	[0.25]
0.07267	b				0.00409	-0.03805	23
2.16					*0.71*	*-0.12*	[0.26]

a = significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table 21
Social Security Laws, Political Ideology from 1945-1998, And Legal Origins

Ordinary least squares regressions with social security laws index as dependent variable and M.R.G. indices as independent variables. Below each coefficient, t-statistics are reported in italics.

Political Power Variable	Log of GNP per capita	Political Power Variable	French Legal Origin	German Legal Origin	Scandinavian Legal Origin	Constant	N [R^2]
Left-Right Index, Median Voter	0.07390 [c] *1.89*	0.00032 *0.13*	-0.02227 *-0.52*	-0.06140 *-1.20*	0.07277 *1.21*	0.00066 *0.00*	23 [0.45]
Left-Right Index, Weighted Averages	0.09052 [b] *2.37*	0.00325 *1.32*	-0.01087 *-0.27*	-0.06292 *-1.30*	0.08458 *1.73*	-0.16313 *-0.43*	23 [0.50]
Planned Economy Index, Median Voter	0.07530 [c] *2.06*	-0.01281 *-0.93*	-0.04411 *-0.97*	-0.06825 *-1.36*	0.06324 *1.30*	0.04970 *0.14*	23 [0.47]
Planned Economy Index, Weighted Averages	0.07482 [c] *2.04*	-0.00921 *-0.85*	-0.02942 *-0.73*	-0.05620 *-1.11*	0.07687 *1.54*	0.02924 *0.08*	23 [0.47]
Market Economy Index, Median Voter	0.06060 [c] *1.80*	-0.01503 [b] *-2.16*	-0.02310 *-0.56*	-0.04410 *-0.96*	0.03573 *0.77*	0.21645 *0.63*	23 [0.57]
Market Economy Index, Weighted Averages	0.07204 [c] *1.92*	0.00116 *0.12*	-0.02264 *-0.54*	-0.06200 *-1.21*	0.06727 *4.14*	0.01387 *0.04*	23 [0.45]
Welfare Index, Median Voter	0.07350 [c] *1.96*	-0.00170 *-0.29*	-0.02427 *-0.60*	-0.05831 [b] *-1.12*	0.07500 *1.37*	0.02206 *0.06*	23 [0.45]
Welfare Index, Weighted Averages	0.07219 [c] *1.93*	0.00040 *0.06*	-0.02388 *-0.58*	-0.06230 *-1.18*	0.06659 *1.17*	0.01437 *0.04*	23 [0.45]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

The preceding analysis appears for the most part to reconfirm Botero's analysis. Politics have some bearing on the creation of labor, collective relations, and social security laws, but the effects of politics generally disappear when politics are considered alongside legal origins, which have a quite large impact on the development of employment and collective relations laws. Of course, the preceding results are subject to a major caveat: the regressions cover a sample of only twenty-three countries, which are all wealthy western-style democracies. The dramatic effects of the legal origins variables may actually stem from the fact that the legal families correlate with a whole range of cultural and social features in addition to legal systems. Unfortunately, the Manifesto Research Group data still do not cover any countries beyond the sample used in the previous regressions. Thus, in order to expand the analysis to other countries, another quality politics variable is necessary.

The Pew Research Center for the People and the Press in 2002 conducted a survey across a broad cross-section of countries in which respondents were asked to state whether they approved of U.S. business practices.[231] The Pew researchers sampled a group of countries much broader than the group of countries included in the M.R.G. analysis, covering eight Asian and Pacific countries, six Latin American countries, two North American countries, eleven African and Middle Eastern countries, four western European countries, and six former Soviet block countries. In total, thirty countries from the Pew survey that are not former Communist states overlap with Botero's employment, collective relations, and social security indices, and are thus appropriate for inclusion in the regression analysis.[232] Over this sample of thirty countries, the average percentage of population disapproving of U.S. business practices is 37.5, and the standard deviation is 17.06.

Given that U.S. business practices are probably as good a proxy as any for capitalism, observing the percentage of respondents in a country that disapproves of U.S. business practices should be a reliable method of estimating political ideology. Indeed, the Pew public opinion data correlate quite well with

[231] See Pew Research Center, *supra* note 117, at T-56.
[232] Former Communist countries are excluded from the sample. For the rationale behind this exclusion, *see supra* note 76.

other available measures of political ideology.[233] For example, the percentage of population disapproving of American business has a correlation of –0.63 with the M.R.G. median voter preferences for pro-market policies, averaged from 1975 to 1998. It also has a correlation of 0.22 with both government revenue and government spending as percentages of G.D.P.

Table 22 shows regression results where the Pew public opinion variable stands in as a measure of political ideology. Note that, in all regressions that do not include legal origins dummy variables, the coefficients associated with the public opinion variable are positive, as predicted, indicating that relatively leftist countries have more stringent employment, collective relations, and social security regulations. The Pew variable is only statistically significant, however, in the employment laws regression. There, the variable is also significant in an economic sense, given that a one standard deviation increase in disapproval of U.S. business predicts a corresponding change of 0.36 standard deviations in the employment laws index. Thus, as was also the case with the M.R.G. politics variables, political ideology appears to have a stronger impact on the employment laws index than on either of the other two dependent variables.

With legal origin dummies added to the mix, the public opinion variable consistently lacks statistical significance. Here again, however, in spite of the increased sample size, at least some of the decline in significance of the ideology variable likely results from multicollinearity.[234] The Scandinavian legal origin dummy is omitted from these regressions, given that the Pew sample does not include any Scandinavian legal origin variables. The other legal origin variables perform in exactly the same way in this sample as they did in the M.R.G. regressions. The French dummy has a strong and statistically significant predicted impact on employment laws and collective relations laws, and the German variable again is statistically significant only in the collective relations regression. Both legal origins dummies

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[233] *See* Table 4, page 40, *supra* for correlations. *See also* Appendix A, Table A2, page 88 *infra*.

[234] An auxiliary regression indicates that the other independent variables are significantly related to distaste for American business practices. Not surprisingly, French civil law countries appear to have a strong distaste for American business. More surprising, however, is the fact that relatively wealthy countries disapprove of U.S. business significantly more than relatively poor countries.

Table 22

Popular Distaste for U.S. Business as a Determinant of Employment, Collective Relations, and Social Security Laws

Ordinary least squares regressions with employment, collective relations, and social security laws indices as dependent variables. The independent variable is each country's percentage of population disapproving of American business practices, as determined by the 2002 Pew Global Attitudes Survey.

Below each coefficient, t-statistics are reported in italics.

	Employment Laws Index		**Collective Relations Laws Index**		**Social Security Laws Index**	
Intercept	0.49921 [a]	0.46850 [a]	0.23486 [c]	0.26023 [b]	-0.34534 [a]	-0.38307 [a]
	3.49	*3.27*	*1.85*	*2.42*	*-2.98*	*-2.95*
Log of GNP Per Capita, 1997	-0.02775	-0.07390	0.02123	0.01425	0.10140 [a]	0.10806 [a]
	-1.34	*-1.15*	*1.16*	*0.89*	*6.05*	*5.57*
Percent of Population Disapproving of American Business Practices	0.00471 [b]	0.00193	0.00120	-0.00172	0.00091	0.00082
	2.31	*0.89*	*0.66*	*-1.06*	*0.55*	*0.42*
French Legal Origin		0.18198 [b]		0.21019 [a]		-0.00618
		2.68		*4.13*		*-0.10*
German Legal Origin		0.13234		0.26428 [c]		-0.07550
		1.20		*3.19*		*-0.75*
Observations	30	30	30	30	30	30
R-Square	0.17	0.35	0.11	0.51	0.41	0.67

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

also generate negative and statistically insignificant coefficients in the social security regression, consistent with their performance in the M.R.G. regressions.

The strong resemblance of these regression results to the M.R.G. regressions suggests that the results in both cases are reliable and not merely artifacts of sampling quirks. Indeed, only eight of the thirty countries included in the Pew regressions are also included in the M.R.G. sample. Thus, the regressions, considered as a group, provide strong support for a few broad empirical propositions. First of all, leftist ideology does in fact appear to have a significant impact on employment laws, and, to a slightly lesser extent, collective relations and social security laws. Thus, political ideology probably impacts the overall level of economic regulation substantially. That fact that ideology variables almost always lose statistical significance in the presence of legal origins control variables likely results at least in part from multicollinearity and small sample size, and thus does not imply that ideology has no effect on labor regulation. Moreover, the observed effects of political ideology may have been substantially greater if the political ideology data were less noisy.

The effects of the ideology variables in this analysis are, however, mostly overshadowed by the effects of legal origins, which consistently have major predicted impacts on employment and collective relations regulations. Consistent with the findings of Botero, countries with French legal origins in particular are prone to have stringent labor and employment laws, even when political ideology is held constant by accurate control variables. These results thus provide strong support for the legal origins theory. That said, legal origins do not appear to have much of an impact on social security regulations. Indeed, pro-market ideology in the post-war period is a stronger determinant of social security regulations.

What implications, if any, does the present analysis have for the debate among legal origins scholars about the precise channel through which legal origins affect institutional development? This analysis does not provide a good opportunity to evaluate the judicial flexibility channel, but it does provide some indirect empirical support for the legal origins channels that emphasize the differing ideological tendencies of the legal families (i.e. the political framework channel and the politics and rules channel). Because this analysis indicates that civil law, and particularly French civil law, impacts regulatory outcomes substantially even when political ideology is held constant by good ideological control variables, civil law's impact on regulation probably does not just result from a random tendency of civil law countries to embrace relatively leftist ideologies. Instead, civil law likely facilitates the translation of leftist ideology into leftist (i.e. strict) labor policy. Thus, if a civil law country and a common law country have the same level of leftist political ideology, the civil law country may produce more leftist government policy. Unfortunately, the present analysis does not illuminate the precise mechanism through which civil law performs this function.

VII. Conclusion

The empirical analyses presented in this paper support the hypothesis that legal origins do in fact have a profound influence on the development of major economic institutions. Legal origins appear to play a large role in the development of employment and collective relations laws, and they also are a major factor in determining whether corporate ownership is concentrated or diffuse. Civil law countries, and French civil law countries in particular, tend to regulate employment and collective relations more strictly than common law countries, and they also tend to have more concentrated corporate ownership.

In spite of the support that it provides for legal origins theory, this paper does not support the radical proposition that political ideology is irrelevant to the development of economic institutions. On the contrary, the empirical analyses here presented provide strong support for the proposition that political ideology, at least as measured by the extent to which countries' median voters prefer pro-market policies, does have a substantial impact on financial development. Consistent with Roe's social democracy theory, countries that lack pro-market ideologies tend to have more concentrated corporate ownership than more economically conservative countries. The effect of ideology on ownership structure generally persists even in the presence of controls for shareholder protection rules. Also, countries with leftist ideologies are significantly more likely than relatively conservative countries to pursue stringent employment and collective relations regulations. Pro-market ideology in the post-war era also appears to correlate negatively with social security regulation. The data thus confirm Roe's intuition that ideology matters in institutional development.

Political ideology, however, appears to play a weaker role than legal origin in the determination of both labor law and corporate ownership structure. In regression after regression, the inclusion of legal origin dummy variables significantly reduces the estimated effects of political ideology and eliminates its statistical significance. Of course, because of the twin problems of multicollinearity and small sample size, these regressions do not support the conclusion that political ideology has no impact on institutional development. Rather, the labor law regressions suggest that civil law, and especially French civil law, may facilitate the implementation of leftist ideology. In other words, civil law acts as a multiplier at some point during the messy process through which political actors convert ideology into government regulations.

This conclusion will not come as a surprise to legal origins theorists who advocate either the politics and rules channel or the political framework channel. In addition, the possibility that civil law facilitates the transformation of ideology into policy could explain some differences between the results reported in the ownership separation regressions in this paper and the analogous results obtained by Roe.[235] Roe's regression analysis examines the relationship between corporate ownership dispersion and various political variables that are either explicitly or arguably based on government outcomes as opposed to pure ideological preferences. In contrast, the Manifesto Research Group variables used in the present analysis are closer to pure measures of ideology. Roe's results, in comparison to the results in this paper, reveal a much stronger link between politics and corporate ownership structure. Perhaps his results are stronger because his variables measure leftist ideology after it has already passed through the lens of legal origins, becoming exaggerated in civil law countries and perhaps muted in common law countries.

This paper is suggestive of several avenues of future research. First, future research should probe the precise mechanisms through which legal origins affect the translation of ideology into government policy. Second, future empirical analyses should evaluate whether the dramatic effects of legal origins

[235] *See* ROE, *supra* note 1, at 49-61.

variables are at all reduced by control variables that measure the ideological content of government policies. These analyses will likely be plagued by multicollinearity problems, given the strong correlations that are hypothesized to exist between legal origins and almost any government policy. The principal challenge in conducting such a study will likely be the development of a dataset large enough to overcome multicollinearity. If this challenge can be met, perhaps empirical analysis will confirm that legal origins are relevant to institutional development, but only because they facilitate the implementation of leftist government policy. In other words, perhaps future research will confirm that the fundamental intuitions of both the social democracy theory and many legal origins theorists are correct.

Appendix A: Summary Statistics for M.R.G. Variables Averaged from 1945 to 1998

Table A1

Political Ideology Indicators by Country, Aggregated by Median Voter Method, 1945-1998

Country	Left-Right Index	Market Economy Index	Planned Economy Index	Welfare Index
Australia	6.63	7.58	3.46	8.43
Austria	2.90	6.84	3.53	11.89
Belgium	-2.70	3.29	3.46	9.59
Canada	-1.20	4.80	3.18	11.40
Denmark	-4.55	2.37	2.81	7.84
Finland	-11.12	1.60	7.02	14.48
France	0.86	2.76	4.62	9.77
Germany	-0.67	6.41	3.84	11.59
Greece	0.80	3.72	2.47	7.42
Ireland	3.51	3.84	4.93	11.10
Israel	8.81	2.07	5.71	7.38
Italy	-2.33	2.91	3.03	5.29
Japan	-9.55	6.60	5.65	13.44
Netherlands	-5.77	5.11	3.52	12.56
New Zealand	-9.09	5.64	6.77	12.73
Norway	-23.27	1.14	5.42	13.18
Portugal	-0.35	3.72	2.23	10.22
Spain	-12.62	2.02	3.28	13.68
Sweden	-15.91	7.07	2.99	20.84
Switzerland	4.68	5.29	4.78	11.44
Turkey	11.07	6.99	3.07	6.87
United Kingdom	-7.33	3.67	5.81	9.95
United States	11.29	11.10	4.21	8.47

Table A2
Correlations Between Various Measures of Left Power, With Manifesto Research Group Data Averaged Over 1945-1998

	Left-Right Index, Med. Vtr.	Left-Right Index, Pty Platform	Market Econ., Med. Vtr.	Market Econ., Pty. Platform	Planned Econ., Med. Vtr.	Planned Econ. Pty. Platform	Welfare, Med. Vtr.	Welfare, Pty. Platform	Botero's Politics, 1928-1995	Union Density	Castles & Mair Index	Tax as % of GDP	Gov't Spending as % of GDP	Disapproval of U.S. Business
Left-Right Index, Med. Vtr.	1.00													
Left-Right Index, Pty Platform	0.88	1.00												
Market Econ., Med. Vtr.	0.44	0.20	1.00											
Market Econ., Pty. Platform	-0.03	0.10	0.51	1.00										
Planned Econ., Med. Vtr.	-0.25	-0.33	-0.17	-0.28	1.00									
Planned Econ. Pty. Platform	-0.45	-0.52	-0.26	-0.22	0.79	1.00								
Welfare, Med. Vtr.	-0.67	-0.60	0.06	0.43	0.23	0.40	1.00							
Welfare, Pty. Platform	-0.71	-0.60	-0.12	0.34	0.23	0.49	0.96	1.00						
Botero's Politics, 1928-1995	-0.09	0.10	0.00	0.18	0.18	0.09	0.19	0.14	1.00					
Union Density	-0.51	-0.22	-0.33	0.31	0.05	0.21	0.42	0.50	0.21	1.00				
Castles & Mair Index	0.26	-0.09	0.22	-0.46	0.19	0.10	-0.29	-0.30	-0.21	-0.50	1.00			
Tax as % of GDP	-0.35	-0.14	-0.53	0.03	0.02	-0.06	0.08	0.15	-0.14	0.50	-0.54	1.00		
Gov't Spending as % of GDP	-0.06	0.09	-0.51	-0.22	-0.20	-0.29	-0.21	-0.11	-0.18	0.45	-0.47	0.89	1.00	
Disapproval of U.S. Business	0.03	0.31	-0.55	0.11	-0.24	0.09	0.08	0.31	-0.32	0.10	-0.49	0.22	0.22	1.00

Table A3

Average Political Ideology Indicators in Each Legal Family, Based on Median Voter Data, 1945-1998

	Left-Right Index	Market Economy Index	Planned Economy Index	Welfare Index
Common Law	1.80	5.53	4.87	9.92
French Civil Law	-1.38	3.81	3.21	9.43
German Civil Law	-0.66	6.29	4.45	12.09
Scandinavian Civil Law	-13.71	3.04	4.56	14.08

Appendix B: Employment and Collective Relations Regression Results Where M.R.G. Variables Are Averaged from 1945 to 1998

Table B1
Employment Regulation and Ideology as Determined by Median Voter Preferences from 1945-1998

Ordinary least squares regressions with employment laws index as dependent variable and M.R.G. ideological indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita	Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
-0.03532	-0.01016 [c]				0.85236	23
-0.43	*-1.88*				*0.99*	[0.15]
0.06542		-0.06543 [c]			0.12252	23
0.78		*-1.97*			*0.15*	[0.16]
0.17488			-0.03804 [b]		0.50455	23
0.22			*-2.13*		*0.63*	[0.19]
-0.01883				0.01786	0.49707	23
-0.21				*1.19*	*0.58*	[0.07]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table B2

Employment Regulation and Ideology as Measured by Party Platform Weighted Averages from 1945-1998

Ordinary least squares regressions with employment laws index as dependent variable and M.R.G. ideological indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita	Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
-0.00311	-0.00477				0.52121	23
-0.03	*-0.67*				*0.56*	[0.03]
0.03051		-0.01210			0.24792	23
0.33		*0.39*			*0.28*	[0.01]
0.01370			0.00555		0.33862	23
0.15			*0.03*		*0.38*	[0.01]
-0.02885				0.02525	0.51657	23
-0.33				*1.70*	*0.62*	[0.13]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table B3
Employment Laws, Political Ideology from 1945-1998, And Legal Origins

Ordinary least squares regressions with employment laws index as dependent variable and M.R.G. ideological indices as independent variables. Below each coefficient, t-statistics are reported in italics.

Political Power Variable	Log of GNP per capita	Political Power Variable	French Legal Origin	German Legal Origin	Scandinavian Legal Origin	Constant	N [R^2]
Left-Right Index, Median Voter	0.06743	0.00006	0.38754 [a]	0.14855	0.38565 [a]	-0.39763	23
	0.95	*0.01*	*5.03*	*1.61*	*3.53*	*-0.56*	[0.68]
Left-Right Index, Weighted Averages	0.09021	0.00413	0.40366 [a]	0.14665	0.40541 [a]	-0.62278	23
	1.27	*0.90*	*5.41*	*1.62*	*4.46*	*-0.88*	[0.69]
Planned Economy Index, Median Voter	0.07112	-0.01747	0.35952 [a]	0.13923	0.37781 [a]	-0.34913	23
	1.06	*-0.70*	*4.32*	*1.51*	*4.23*	*-0.52*	[0.69]
Planned Economy Index, Weighted Averages	0.06963	-0.00940	0.38149 [a]	0.15386	0.39347 [a]	-0.38144	23
	1.03	*-0.47*	*5.11*	*1.66*	*4.31*	*-0.57*	[0.68]
Market Economy Index, Median Voter	0.06016	-0.00891	0.36981 [a]	0.15881	0.36545 [a]	-0.27602	23
	0.89	*-0.63*	*4.73*	*1.71*	*3.88*	*-0.40*	[0.69]
Market Economy Index, Weighted Averages	0.06261	0.01557	0.40246 [a]	0.14085	0.37024 [a]	-0.42812	23
	0.94	*0.92*	*5.43*	*1.55*	*4.14*	*-0.65*	[0.69]
Welfare Index, Median Voter	0.06016	0.01052	0.39031 [a]	0.12927	0.34380 [a]	-0.42967	23
	0.91	*1.01*	*5.42*	*1.41*	*3.57*	*-0.66*	[0.70]
Welfare Index, Weighted Averages	0.06054	0.01426	0.38358 [a]	0.11753	0.32168 [a]	-0.46599	23
	0.94	*1.34*	*5.44*	*1.29*	*3.29*	*-0.72*	[0.71]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table B4

Collective Relations Laws and Ideology as Determined by Median Voter Preferences from 1945-1998

Ordinary least squares regressions with collective relations law index as dependent variable and M.R.G. ideology indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita	Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
-0.02850	-0.00559				0.72098	23
-0.45	*-1.40*				*1.13*	[0.09]
0.03075		-0.03974			0.30874	23
0.50		*-1.63*			*0.52*	[0.12]
0.00211			-0.01492		0.49824	23
0.30			*1.09*		*0.81*	[0.6]
-0.00859				0.00536	0.47776	23
-0.13				*0.49*	*0.75*	[0.01]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table B5

Collective Relations Laws and Ideology as Measured by Party Platform Weighted Averages 1945-1998

Ordinary least squares regressions with collective relations law index as dependent variable and M.R.G. ideology indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita	Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
-0.01710	-0.00420				0.60965	23
-0.26	*-0.83*				*0.93*	[0.03]
0.33755		-0.01705			0.33755	23
0.54		*0.78*			*0.54*	[0.03]
0.00637			-0.00320		0.40252	23
0.10			*-0.17*		*0.63*	[0.00]
-0.00911				0.00628	0.47290	23
0.75				*0.56*	*0.75*	[0.02]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table B6
Collective Relations Laws, Political Ideology from 1945-1998, And Legal Origins

Ordinary least squares regressions with collective relations law index as dependent variable and M.R.G. ideology indices as independent variables. Below each coefficient, t-statistics are reported in italics.

Political Power Variable	Log of GNP per capita	Political Power Variable	French Legal Origin	German Legal Origin	Scandinavian Legal Origin	Constant	N [R^2]
Left-Right Index, Median Voter	0.01131 *0.19*	-0.00307 *-0.80*	0.24976 [a] *3.83*	0.19847 [b] *2.54*	0.13796 *1.49*	0.18447 *0.31*	23 [0.55]
Left-Right Index, Weighted Averages	0.02298 *0.37*	-0.00051 *-0.13*	0.26205 [a] *3.98*	0.19898 [b] *2.50*	0.17734 [b] *2.21*	0.06293 *0.10*	23 [0.53]
Planned Economy Index, Median Voter	0.02658 *0.45*	-0.00342 *-0.16*	0.25863 [a] *3.56*	0.19693 [b] *2.45*	0.17850 [b] *2.29*	0.04385 *0.07*	23 [0.53]
Planned Economy Index, Weighted Averages	0.02937 *0.51*	-0.01344 *-0.79*	0.25582 [a] *4.02*	0.20635 [b] *2.62*	0.19228 [b] *2.47*	0.05373 *0.09*	23 [0.55]
Market Economy Index, Median Voter	0.02297 *0.39*	-0.00361 *-0.30*	0.25699 [a] *3.77*	0.20291 [b] *2.51*	0.17202 [b] *2.10*	0.08302 *0.14*	23 [0.53]
Market Economy Index, Weighted Averages	0.02427 *0.42*	0.00528 *0.35*	0.26922 [a] *4.12*	0.19614 [b] *2.46*	0.17493 [b] *2.22*	0.02357 *0.04*	23 [0.54]
Welfare Index, Median Voter	0.02384 *0.41*	0.00296 *0.32*	0.26492 [a] *4.16*	0.19332 [b] *2.38*	0.16832 [c] *1.97*	0.02506 *0.04*	23 [0.53]
Welfare Index, Weighted Averages	0.02561 *0.44*	0.00042 *0.04*	0.26396 [a] *4.13*	0.19785 [b] *2.40*	0.17803 [c] *2.01*	0.03287 *0.06*	23 [0.53]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Appendix C: Social Security Regression Results Where M.R.G. Variables Are Averaged from 1975 to 1998

Table C1
Social Security and Ideology Measured by Median Voter Preferences from 1975-1998

Ordinary least squares regressions with social security laws index as dependent variable and M.R.G. ideological indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita		Left-Right Index	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
0.07611	b	-0.00082				-0.02873	23
2.26		*-0.43*				*-0.09*	[0.25]
0.08018	b		0.00987			-0.10584	23
2.58			*1.22*			*-0.34*	[0.29]
0.08444	b			-0.00586		-0.08406	23
2.64				*-0.81*		*-0.27*	[0.26]
0.07316	b				0.00483	-0.05112	23
2.25					*0.93*	*-0.16*	[0.27]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table C2
Social Security Laws, Political Ideology from 1975-1998, And Legal Origins

Ordinary least squares regressions with social security law index as dependent variable and M.R.G. ideological indices as independent variables. Below each coefficient, t-statistics are reported in italics.

Political Power Variable	Log of GNP per capita	Political Power Variable	French Legal Origin	German Legal Origin	Scandinavian Legal Origin	Constant	N [R^2]
Right-Left Index, Median Voter	0.07614 [c] *1.99*	0.00094 *0.43*	-0.01652 *-0.38*	-0.05677 *-1.09*	0.08323 *1.38*	-0.02618 *-0.07*	23 [0.45]
Right-Left Index, Weighted Averages	0.08199 [b] *2.23*	0.00258 *1.21*	-0.00563 *-0.13*	-0.04911 *-0.98*	0.09088 [c] *1.77*	-0.09058 *-0.25*	23 [0.45]
Planned Economy Index, Median Voter	0.07471 [c] *2.04*	0.00741 *0.94*	-0.01316 *-0.32*	-0.05505 *-1.10*	0.07002 *1.44*	-0.03991 *-0.11*	23 [0.47]
Planned Economy Index, Weighted Averages	0.07284 [c] *1.95*	-0.00224 *-0.22*	-0.02359 *-0.58*	-0.06100 *-1.20*	0.07111 *1.39*	0.01904 *0.05*	23 [0.45]
Market Economy Index, Median Voter	0.07417 [c] *1.99*	-0.00426 *-0.56*	-0.03413 *-0.77*	-0.06508 *-1.28*	0.05669 *1.06*	0.02446 *0.07*	23 [0.46]
Market Economy Index, Weighted Averages	0.06863 [c] *1.84*	0.00564 *0.66*	-0.01867 *-0.45*	-0.06227 *0.05*	0.06515 *1.32*	0.02294 *0.06*	23 [0.46]
Welfare Index, Median Voter	0.07258 [c] *1.93*	0.00036 *0.06*	-0.02326 *-0.56*	-0.06201 [b] *-1.20*	0.06675 *1.18*	0.01067 *0.03*	23 [0.45]
Welfare Index, Weighted Averages	0.07280 [c] *1.94*	0.00077 *0.13*	-0.02310 *-0.56*	-0.06293 *-1.20*	0.06455 *1.12*	0.00431 *0.01*	23 [0.45]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

Table C3
Social Security and Ideology Measured Party Platform Weighted Averages from 1975-1998

Ordinary least squares regressions with social security laws index as dependent variable and M.R.G. ideological indices as independent variables.

Below each coefficient, t-statistics are reported in italics.

Log of GNP per Capita	Left-Right Scale	Planned Economy Index	Market Economy Index	Welfare Index	Constant	N [R^2]
0.08679 [b]	0.00164				-0.13375	23
2.65	*0.76*				*-0.41*	[0.26]
0.07903 [b]		0.00305			-0.06784	23
2.43		*0.29*			*-0.21*	[0.24]
0.07050 [b]			0.00813		-0.01483	23
2.11			*0.91*		*0.05*	[0.27]
0.07304 [b]				0.00508	-0.05392	23
2.26				*0.98*	*-0.17*	[0.27]

a= significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.