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Essays in Political Economy

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Abstract

This thesis consists of an introduction and three stand-alone essays. In the introduction I discuss the commonalities between the three essays. Essay I charts the main political cleavages among 59 Swedish unions and business organizations. The main conclusion is that there appear to exist two economic sources of political cleavage: The traded versus the nontraded divide and the labor versus capital divide. Essay II suggests a political rationale for why strikes have been more common in those OECD countries where the legislature is elected in single member districts (e.g. France, Great Britain) than where it was elected by proportional representation (e.g. Sweden, Netherlands). In Essay III I present a theoretical model of political support for different types of labor market regulations. From it I recover two implications: Support for industrial relations legislation that enables unions to bid up wages should be inversely related to the economy’s openness, while support for employment protection legislation should be positively related to the size of the unionized sector. Empirical evidence from a cross-section of 70 countries match my theoretical priors.

Keywords: Economic Openness, Electoral Systems, Employers’ Associations, Labor Market Regulations, Labor Unions, Political Economy, Strikes

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I will allow myself to give three messages of a more personal nature. To my father: You have showed me how to practice kindness in everyday life. So whenever I fail to do so, it is not because I lack a role model. To my mother: Although you are certainly here in memory, I’d rather have you here in person. Recollections are always a bit stylized. To my innermost circle, Moa and Karla: What they say in the ads is true. Showing love never goes out of style. With the hope of returning your favors,

Kåre Vernby
Uppsala, April 2006
List of Papers

This thesis is based on the following essays, which are referred to in the text by their Roman numerals.


II Vernby, Kåre. 2006. “Strikes and Electoral Systems in 17 OECD Countries 1960-1998”, Working Paper, Department of Government, Uppsala University. A slightly different version of this paper has been accepted for publication by Public Choice and will appear in a forthcoming issue.

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1. Introduction: Essays in Political Economy

Around the time of the Second International, revolutionaries and reformists alike saw in unions a tendency to narrowly focus on representing their members’ sector-specific and short-term interests. They feared this tendency because they believed it would impede the broader struggle to bring economic development and material improvements to all workers as a class. For this reason, Lenin took issue with those who, in his mind, sought to “degrade Social-Democratic politics to the level of spontaneous trade-unionist politics” (1973, 438). Although they did not agree with Lenin on most issues, nor between themselves, several other leading debaters within the Second International—notably Karl Kautsky, Rosa Luxemburg, and, to some extent, Eduard Bernstein—saw such 'trade-unionist' or 'guild-unionist' tendencies as inimical to the realization of their specific vision of society. Competition between the employed and the unemployed. Competition between individual workers and, even as workers managed to combine, competition between separate, opportunistic, and sometimes downright backwards-striving unions. Unless these differences were effaced—as a consequence of indoctrination by a revolutionary vanguard, technological change, or some other force—factional interests would stand in the way of the attainment of the common good. And even as the twentieth century progressed and Social Democrats gradually came to embrace far less radical visions of society, this—the problem of 'trade unionism'—has continued in importance.

This dramatic overture is a way of saying that scholars are drawn to certain empirical problems because of their long-standing practical importance and, perhaps, because of their ideological leanings. The three essays housed in this thesis deal with distinct empirical problems, which all have some bearing on the classical problem of ‘trade unionism’: What are the main political antagonisms among labor unions and employers’ associations, and why? How come strikes have been endemic in some countries, but not in others? Why are some countries’ labor markets more regulated than others? However, to the extent that they contribute any new and interesting insights, it is by virtue of using the conceptual and methodological tools of modern social science. As the title of this thesis states, they are essays ‘in’ political economy. And as such, they draw on the conceptual apparatus and tools of this relatively new—or, at least newly resurrected—scientific research tradition. It therefore seems appropriate that I should begin this thesis with an essay ‘on’ political economy.
What, then, is political economy? Oppenheimer writes that “[p]olitical economy has developed as a fugue, with at least two themes: how politics determines aspects of the economy, and how economic institutions determine political processes” (1980, 121). Left-leaning scholars such as John Maynard Keynes, Michal Kalecki, and Robert Dahl have contributed to political economy in Oppenheimer’s sense. To give an example, Kalecki (1943) played parts of the first and the second theme when he originated the study of political business cycles. On his decidedly Marxist interpretation of business interests—they prefer some unemployment since it works as a worker disciplinary device—public sector investment can be expected to follow a countercyclical path. Of course, political economy has never been an exclusive affair for explicitly left-leaning scholars; authors from the entire political spectrum have contributed. Political and economic processes were already intertwined in the writings of Adam Smith and David Ricardo, and the idea has had its fair share of interlocutors through Friedrich Hayek, James Buchanan, Seymour Martin Lipset, Stein Rokkan, and up until the present day. To give a relatively recent example from this list of names: Lipset (1959) was mainly concerned with what Oppenheimer calls the second theme, namely how the economy determines politics. Acknowledging Aristotle as his muse, he famously asserted that more affluent countries have a greater chance of sustaining democracy.

The idea that there is a relationship between political and economic processes thus has a long historical lineage. However, from this point on, when speaking of political economy as a research tradition, I have in mind what some authors have called ‘new political economy’ (Drazen 2000, Saint-Paul 2000b), others ‘modern political economy’ (Frieden 1991, Banks and Hanushek 1995), and yet others ‘comparative political economy’ (Levi 2000, Alt 2002) or ‘positive political economy’ (Alt and Shepsle 1990). Scholars who work under any of these headings are a heterogeneous group, yet they share a number of important commitments. These points of agreement differentiate them from much of the earlier work on the relationship between politics and economics. The extent to which contemporary political economy represents a long-standing research tradition’s current understanding of how economic and political processes interact, and how they should be studied, or whether it is to some extent a new research tradition is beyond the scope of this introduction. Continuities and discontinuities in our perceptions of the relationship between the political and economic spheres have been discussed elsewhere, sometimes at great length (see, e.g., Caporaso and Levine 1992).

By now, the reader will probably have accumulated a number of questions. What is a research tradition, and in what ways is political economy a tradition of that kind? Moreover, in what ways can political economy be useful? The next section attempts to answer the first two of these questions. Then, I turn to a description of my essays and putting them in their context. In the process of
doing so, I hope to illustrate how the political economy approach can be put to use.

Political Economy as a Research Tradition

I have already intimated that political economy is somehow useful for solving a range of problems. At the same time, I have hinted that political economy is not itself a theory about anything in particular; it does not offer anything in the way of characterization or explanation of any particular economic or political process, nor does it have anything to say about the outcome of any particular process. But how can we reconcile the former statement with the latter; how can political economy be useful if it does not tell us anything about any particular phenomenon?

The reader will probably recognize this as a loaded question. Talk of ‘approaches’, ‘perspectives’, ‘fields’, and so on is part of everyday discourse for most practising scientists, and we more or less assume that such entities are, in some way, useful. In *Progress and Its Problems* Larry Laudan argues that most such “much less easily testable, sets of doctrines or assumptions” (1977, 71) conform to his concept of ‘research traditions’, and suggests that the subfields of the various sciences are most appropriately described as such.

Research Traditions

Laudan’s descriptive theory of the history of science is not the only one allowing for meta-theoretical entities. Indeed, both Kuhn (1962) and Lakatos (1970) allow for such entities. The former calls them ‘paradigms’, the latter ‘research programs’. I am not going to defend Laudan’s portrayal of scientific practice against these rivals. Laudan (1977, 73–78) himself provides a good defense of his position. Neither am I going to expend any energy on the distinction between the ‘harder’ and the ‘softer’ sciences. Laudan himself de-emphasizes this distinction and applies his concept of research traditions to both species. As examples of research traditions within the social sciences he gives behaviorism, Freudianism, and Marxism. To this list others have added neoclassical economics and ‘new institutionalism’ (Dryzek 1986), rational choice theory (Ball 1987, Johnson 1996, 2003), the expected utility theory of

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1Laudan also has a normative agenda, which I will not pursue here. In particular, after developing his ideal type of the history of science, he goes on to epistemology and argues that it is in fact rational to conduct science according to this ideal type (1977; and, especially, Laudan 1978).

2At the risk of oversimplifying, Laudan’s overarching point is that Kuhn’s and Lakatos’s accounts do not square with the actual history of science; describing it in terms of paradigms and research programs as defined by Kuhn and Lakatos, respectively, fits reality poorly. On the normative side, Laudan defends the rationality of science (against Kuhn) and the rationality of pursuing nonempirical problems (against Kuhn and Lakatos) (1977; see also Laudan 1978).
war (Simovitz and Price 1990), political culture theory (Johnson 2002), and interpretative theory (Johnson 2003). Here, I will merely introduce Laudan’s position in order to structure the ensuing discussion.

According to Laudan, “[a] research tradition is a set of general assumptions about the entities and processes in a domain of study, and about the appropriate methods to be used for investigating the problems and constructing the theories in that domain” (1977, 81). The important components of research traditions are thus: (a) worldview commitments (metaphysical and ontological), (b) methodological commitments, uniting, or exhibited by, (c) a set of specific theories (Laudan 1977, 78–89; see also Dryzek 1986, 305, Johnson 2002, 2003). The research tradition also has an important role in determining the object domain of its component theories: The sorts of empirical phenomena on which its specific theories could potentially bear (1977, 86). Some constraints result from its worldview, others from the methodological commitments scholars working in the research tradition make.

Laudan goes on to clarify the following points. A research tradition is unlike a theory in that it is “neither explanatory, nor predictive, nor directly testable” (1977, 81). That is, the research tradition in itself does not provide any explanation for the behavior of particular objects in its domain. A research tradition is nevertheless, and at any given moment in time, composed of a number of specific theories. And it is these theories—which may indeed be mutually inconsistent, although obviously not in the utmost fundamentals that define the research tradition—that provide explanations for the behavior of the objects contained in the domain of the research tradition (1977, 81–93). The function of the research tradition is “to provide us with the crucial tools we need for solving problems”, and, Laudan adds, “define partially what the problems are” (1977, 82).

Evidently, Laudan, like many before him, sees science as a “problem-solving activity” (1977, 11). What is special about his account is that he explicates the view that the problems that researchers set out to solve, and over which most controversies in the sciences rage, are of two very different kinds: (a) empirical and (b) conceptual. Thus the role of a research tradition is to facilitate empirical and conceptual problem-solving; and its usefulness is measured by how well its component theories solve both types of problems. Although readily admitting that “there is a continuous shading of problems intermediate between straightforward empirical and conceptual problems” (1977, 48) he embarks on the, to my mind, useful enterprise of distinguishing these two ideal-types.

Empirical problems are “anything about the natural world that strikes us as odd, or otherwise in need of explanation” (1977, 15). So, for instance, when we note that affluent democracies survive longer, we have encountered an empirical problem. By maintaining that solving an empirical problem involves devising a theory that “entails even an approximate statement of the problem” (1977, 22; emphasis in original), Laudan brings out the comparative and evo-
volutionary nature of theory evaluation; a theory may be regarded, at a given point in time, as the best solution to an empirical problem, mainly because competing theories fail to come up with as accurate a solution.3

According to Laudan, solving conceptual problems has been an activity of researchers as important as that of solving empirical problems:

If empirical problems are first order questions about the substantive entities in some domain, conceptual problems are higher order questions about the well-foundedness of the conceptual structures (e.g. theories) which have been devised to answer the first order questions. (1977, 48)

Two kinds of broad situation may create conceptual problems for a theory: (a) problems internal to the theory, and (b) problems external to the theory (1977, 48–49, 1978, 538). Internal conceptual problems typically arise when the theory which has been devised to solve an empirical problem is logically inconsistent, or invokes unclear concepts and/or mechanisms. In order to be clear, internal conceptual problems do not only arise when the theory’s proponents fail to define its key terms clearly (e.g. ‘affluence’, ‘democracy’ etc.). They may also arise when the theory’s progenitor invokes an unclear description of the causal mechanisms, or outright fails to explicate the mechanisms (e.g. What is it about affluence that increases the prospects of democratic survival?). Johnson (1996, 2002, 2003) has persuasively argued that the most pressing conceptual problems encountered by social scientific research are usually internal and result from the invocation of vague concepts and/or mechanisms. By contrast, external conceptual problems arise if the theory devised to solve an empirical problem is inconsistent with other theories, doctrines or assumptions held by its proponents, or by the wider scientific community in which they operate. An example would be if our theory of democratic survival traded on a notion of democracy alien to our own worldview or the worldview of most of the scientific community.

The Stylized Political Economy and the Agents that Populate it

It is now time to become more specific about what kinds of commitments or assumptions researchers in political economy make.4 Even if one restricts oneself to the last two decades or so, the progenitors of a vast number of specific theories purport to adopt a political economy perspective. At least in principle, these theories should “particularize the ontology of the research tradition and (...) illustrate, or satisfy, its methodology” (Laudan 1977, 81). Other theories are not as easy to pinpoint; as Laudan writes, a specific theory may “not

3Although Laudan intends his account to be primarily descriptive, he also regards this position as normatively attractive. Especially given the epistemological difficulties inherent in deciding whether a theory is true or false, or verisimilar (Laudan 1977, 22–23; see also Laudan 1978).
4From what I can gather, Laudan uses commitments and assumptions synonymously, and interchangeably. I will follow his practice.
have its ‘parent’ research tradition stamped all over it” (1977, 86). Fortunately, social scientists devote considerable energy to various acts of self-definition, and political economists are no different. For any given subfield there exists a wealth of books and articles that are meant to survey the literature, point to recurring themes, provide a unified perspective, and suggest new directions for research. It is in these ‘mission statements’ and ‘mission reports’—usually authored by leaders in the field—that the commitments that researchers in political economy make are likely to find their most direct expression. Even so, uncovering the commitments of political economists is to some extent a reconstructive task. I have tried to exercise discretion and to give what, to the best of my knowledge, is a representative picture. Of course, this is no guarantee that the following pages are devoid of systematic biases or arbitrariness.

In political economy the world is made up of agents who interact in two spheres: The political and the economic. Agents (citizens, groups of citizens, interest group leaders, politicians) participate in politics by voting in elections, rioting, lobbying, holding office, and so on. These actions are then aggregated into political decisions such as the installation of a government, or the enactment of a policy. I believe this chain of events is the process we usually denote when we talk of politics, and, in any event, it is the object of study of most contemporary political science. The same agents are also active in the market, where they make investments, rent their capital, sell their labor, consume their income, and so on. These actions are then aggregated into market outcomes, such as growth, wages, consumer prices, and unemployment. This is the kind of process we usually have in mind when we talk about economics, and it is the object of study of most economists. Finally, the two spheres are linked: On the one hand, political decisions will impact on agents’ market behavior, which will be aggregated into market outcomes. On the other, market outcomes will impact on agents’ political behavior, which the political process will aggregate into political decisions (see, e.g., Alt and Shepsle 1990, Alt 2002, Banks and Hanushek 1995, Drazen 2000, Levi 2000, Persson and Tabellini 2000, 2003, Grossman and Helpman 2001, Roemer 2005).

As a first cut at describing the worldview of contemporary political economy, this conceptualization, or stylized view, will certainly do. However, it leaves more or less implicit some central commitments shared by researchers in this tradition, and which, when taken together, distinguish it from other research traditions. The first is the distinction between the political and the economic spheres. As is obvious, it does not result from the spheres being independent; on the contrary, they are explicitly viewed as interdependent. Neither does it result from distinguishing between the substantive beliefs or preferences that lead agents to engage in political behavior and those that cause economic behavior. Rather, this distinction is one of ‘sites’ for behavior: Some of it takes place in the structures and institutions of the market, some of it in politics (Sartori 1973). The second and third commitments are, however, wholly implicit in the first-cut conceptualization of the political economy. And
they do revolve around the substantive beliefs and preferences of agents, and how these lead to political and economic behavior. Together they provide a kind of generalized mechanism by which market outcomes impact on political behavior, and political decisions impact on behavior in the market. I will discuss each commitment in turn.

Contemporary political economists’ tendency to distinguish between political and economic behavior on the basis of the ‘sites’ where they occur, more than anything else, distinguishes them from the ‘radical political economy’ research tradition, which identifies the political with the struggle over power, or authority, and the exercise thereof (see, e.g., Rebitzer 1993). On this latter conception behavior in the marketplace is political, as long as it involves a struggle over power, or the exercise thereof. And indeed, this conception of the political has a strong affinity with some prominent political scientists’ thinking on the issue. Easton famously stated that “[w]e have a political situation whenever activity arises over the authoritative allocation of values, however indirectly this activity may be related to policy” (1953, 192). And Keohane applies this to the economy: “[W]henever in the economy, actors exert power over one and another, the economy is political” (1984, 21).

But, as Sartori (1973) has persuasively argued, the conception of politics and markets as two separate sites in which agents interact allows us to appreciate a basic, but important point; one we might run the risk of missing if we go looking for politics here, there, and everywhere. Sartori argues that the decisions taken by the political system—by the institutions and structures associated with the state—are decisions “from which the individual is less likely to escape, because of both their spatial extension and their coercive intensity” (1973, 21). The decisions taken by the political system thus stand in sharp contrast to the decisions taken in the structures and institutions we call the market. When two firms collude to reduce output and raise prices their actions are of lesser coercive intensity and, usually, spatial extension than when the political system regulates the market for a particular product or basket of products. When workers decide to form a union in order to be able to charge a higher price for their labor from the firm where they work, the firm is less constrained than when the political system enacts a piece of legislation that achieves a functionally equivalent outcome, which, in addition, will often be binding across the whole economy. The capacity of the political system to enforce the rules that underpin the higher prices in these examples is simply much higher than the corresponding capacity of the workers and firms; ultimately the firms’ as well as the workers’ cartel can be coerced out of existence by the political system.5

5Some might retort that capitalists control the political system, while others, with more conservative leanings, will make similar allegations against the labor unions. Both these claims are, however, entirely consistent with the claim that the ultimate control over society rests with the institutions and structures associated with the state.
On this view, then, political decisions are those taken by the structures and institutions we associate with the state. Moreover, political behavior can thereby be understood as behavior that occurs with the aim, or in the process, of arriving at such decisions. Arguably, this distinction between the political arena and the market is highly valuable, for it allows us to see the qualitative difference between the two, and appreciate the profound impact of political behavior and political decisions on market outcomes. And indeed, this view may serve as a justification for, and partly distinguishes, contemporary political economy. For instance, Banks and Hanushek make the following point:

In simplest terms, regulatory institutions and their rules do not appear as some sort of gift from on high. Instead, they are designed, implemented, and modified by the body politic, which includes the regulated, the regulators, and the general public. (1995, 3)

Along similar lines, Alt and Shepsle write that political economy emphasizes “the political context in which market phenomena take place” (1990, 1). And Drazen distinguishes political economy from the public choice research tradition by noting that the latter focuses “far less on the economic consequences” (2000, 17) of policies.

It is clear, then, that contemporary political economy elevates the structures and institutions that can be considered political to a special place. But this does not mean that politics are considered to be ‘above’ markets in any other sense. For the insight that political decisions are of unique coercive intensity and spatial extension has a twin: If political decisions ultimately control market outcomes, markets must have a profound impact on politics. As Persson and Tabellini write, “the economic consequences of policy feed back into private agents’ policy preferences”, and are then “aggregated back into public policy” (2000, 2). Continuing with one of the examples given above, since the political system possesses the capacity to help workers charge a higher price for their labor by passing and enforcing industrial relations legislation beneficial to them, we would expect a great deal of political participation on behalf of the workers as well as employers, each trying to steer the political decision in the direction they favor. On the political economy view, markets have a profound, and often divisive impact on politics, since the winners and losers from political decisions can be identified on the basis of their position in market structures and institutions.

To sum up the discussion so far: Political economy views politics as the process that takes place in the set of structures and institutions wherein lies the capacity to make binding decisions for society as a whole; the institutions and structures of the state. Politics is thus distinct from economics, which occurs

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6None of this rules out the possibility that the process by which political decisions are reached may be ‘market-like’, in the sense of involving competition, or trade, nor that the processes by which market outcomes are reached involve the use of power or authority.
in the class of structures and institutions wherein agents trade, and the prices of labor, capital, goods, and services are determined: The market. Yet, since political decisions ultimately control the market they will be highly contested by those economic groups who stand to gain or lose from them. This implies that economics will have a far-reaching impact on politics. By providing this framework for thinking about the interaction between political and economic phenomena political economy aids the ‘political’ to a noun such as ‘decision’ or ‘institution’. More importantly, it tells the researcher what status she is to award to politics and economics in relation to each other in her theory. Related to the latter point, Banks and Hanushek write: “[A] comprehensive understanding of economic phenomena requires knowledge of the political institutions, actors, and incentives present in the decision-making process” and that political phenomena should ideally be studied “with a continual eye toward the economic consequences of political choices” (1995, 1).

So far, the discussion has neglected an especially pressing issue, that of microfoundations. Little persuasively argues that we should put a premium on research fields that provide researchers with microfoundations: “[I]ndividual-level mechanisms through which social phenomena emerge” (1993, 192). The second and third commitments, which revolve around the nature of the substantive beliefs and preferences of agents, and how these lead to political and economic behavior, help researchers in political economy to answer Little’s call for mechanisms. The second commitment concerns the relationship between preferences and beliefs, and action. Most contemporary researchers working in the political economy tradition explicitly stress that, as in rational choice and microeconomic theory, the basic ‘entities’ postulated are maximizing agents (see, e.g., Alt and Shepsle 1990, Alt 2002, Frieden and Martin 2002, Banks and Hanushek 1995, Drazen 2000, Levi 2000, Persson and Tabellini 2000, Grossman and Helpman 2001). As Alt and Shepsle write, “positive political economy is the study of rational decisions in a context of political and economic institutions” (1990, 2; emphasis in original). Along similar lines, Levi writes: “Comparative political economy now refers as much to the application of economic reasoning to political phenomena as to the effects of politics on the economy or the economy on the polity.” (2000, 825). Both market and political behavior are thus conceptualized in a similar fashion: In both arenas agents choose the course of action that they believe is maximally efficient in bringing about their goals.
However, this relatively ‘thin’ conception of rationality\(^7\) does not give the researcher much purchase when she wishes to attack the issue of how some specific economic or political phenomena are brought about, or related. And this leads us into the third central commitment in political economy: Researchers bestow on their agents some understanding of how the political economy works. This may involve, among other things, an understanding of what political decisions will be implemented if a particular government comes to power, and how these political decisions will affect market outcomes.\(^8\) Although Alt and Shepsle use excessively strong words, they give voice to this commitment when they argue that the distinguishing feature of the political economy research tradition is “the recognition that those responsible for changing an institution can anticipate any effect on an institutional change” (1990, 3). Along similar lines, and using equally strong words, Saint-Paul writes: “In order to be able to compute their gains from a policy change, agents must fully understand how such a policy change affects the behavior of the economy.” (2000b, 917). In actual work, there will be a great deal of variation as to how many actors know how much about the workings of the political economy. Minimally, some actors will know something.

Summing the second and third commitments: The dramatis personae in political economy are maximizing agents that have some understanding of the economic and political consequences of undertaking different courses of action. Together they provide a kind of generalized mechanism which researchers can put to use when they spell out the lower-level mechanisms through which the more observable parts of their theory emerge. For instance, agents who possess a certain amount of understanding of how political decisions affect market outcomes will, if they care about these market outcomes, base their preferences over policies on their preferences over the market outcomes that the policies bring about (see, e.g., Persson and Tabellini 2000, Acemoglu 2005). Given agents’ induced preferences over policies, and their beliefs about the relative effectiveness of taking various courses of political action, we can, if we assume that they are maximizing agents, deduce their political actions. We are beginning to see, at least in the abstract, how our assumptions about the nature of the agents, can help us construct the spe-

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\(^7\)As Elster writes, “Consistency, in fact, is what rationality in the thin sense is all about: consistency within the system of desires; and consistency between beliefs and desires on the one hand and the action for which they are reasons on the other hand” (1983, 1). More prosaically, a rational choice, on the thin conception, is choosing one of the elements from a choice set, such that that element is maximal with respect to a consistent (transitive and complete) preference relation on that choice set. The notion of maximizers is pretty close to this ideal type of ‘thin’ rationality (but not identical, since one can easily conceive of preference relations that are intransitive and therefore inconsistent, but which contain maximal elements).

\(^8\)The notion is roughly analogous to what Elster calls ‘judgement’: “[T]he capacity to synthesize vast and diffuse information that more or less clearly bears on the problem at hand, in such a way that no element or set of elements is given undue importance” (1983, 16; see also Sen 1985).
cific mechanisms by which the more observable parts of a political economy theory, such as a market and political outcomes, can be connected. And it is primarily these assumptions about the agents that Alt is referring to when he claims that political economy “explains collective outcomes such as production, resource allocation and public policy in a unified way” (2002, 149; emphasis added).

Of course, even with this powerful tool in hand the researcher will have to specify the relevant set of agents, their utility functions, the relevant aspects of the economic and political environment facing them, and so on if she is to render her specific problem interpretable, and offer a mechanism by which some specific empirical phenomenon emerges. Merely assuming that agents are maximizers and have some understanding of how the economy and the polity works will not solve many conceptual problems, nor any empirical problems. Taken together, commitments two and three do not make up a stand-alone mechanism; they only provide the researcher with an outline of the mechanism. For this reason, I have talked of them as providing the researcher with a generalized mechanism. The resulting discretion on behalf of the individual researcher will sometimes, perhaps even frequently, lead to the emergence of inconsistent theories of some economic or political phenomena. And even observers sympathetic to political economy have lamented the research tradition’s failure to come up with a “central theory with a main block of robust, testable predictions” (Saint-Paul 2000b, 917). But this, I would argue, misconstrues the purpose of research traditions. Neither political economy, nor any other research tradition, entails any theory about the behavior of the particular objects, or phenomena, that are contained in its domain (Laudan 1977, 84). It simply provides researchers with a supple conceptualization of the political economy, and the agents that populate it, which will aid them in creating such theories.

The commitments I have discussed so far can, if the reader wishes, be subsumed under the label ‘worldview’ commitments. Turning to the more methodological commitments, it is harder to find clear statements among the authors I have reviewed. Some would probably maintain that a commitment to formal methods of theorizing and/or quantitative statistical methods is in-

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9Some of the authors I have cited do, however, refer to them as methodological assumptions (see, e.g., Grossman and Helpman 2001, 14). I believe they are selling themselves short, most likely because they anticipate charges of making ‘unrealistic assumptions’. I will not press this issue, but only note the following: Take the view that agents are maximizers that have some understanding of the economic and political consequences of undertaking different courses of action. Although I believe this view is not testable in any meaningful sense of the word, it seems to be a plausible ontology of some domains of the social world; therefore, I have not referred to it as a methodological commitment. But I would be far less sanguine about the host of auxiliary assumptions (specific utility functions and so on) I might invoke when I attempt to solve an empirical problem. When these auxiliary assumptions are accused of being unrealistic, and I believe the accuser is right, the only valid retort, if I wish to keep them in my theory, is that they were made for practical or methodological purposes.
herent in the political economy research tradition, but there appears to be widespread disagreement on this issue (see, e.g., Levi 2000). Further evidence of the lack of consensus with regard to these methods can be found in a host of contributions to The Political Economist, the newsletter of the American Political Science Association’s section on political economy (Gerber 2003, Hall 2003, Alston 2005, Granato 2005). Although this is an interesting discussion, the issue seems far less settled than those that I have called ‘worldview’ issues. And since I do not wish to force commitments onto political economists that they are not ready to make I will set the matter to one side.

Without further ado, I turn to a couple of examples of how the commitments of political economists play out in practice. First, take what Acemoglu and Robinson (2005) call the ‘simple version’ of their theory of democratization: In a democracy economic resources will be redistributed away from the rich to the poor. Both groups know this, so the poor will prefer democracy and the rich nondemocracy. As a consequence, conflict over the extension of suffrage will be between the rich and the poor. The following parts of their theory are typical of the political economy tradition, and relate, each in turn, to the three more general commitments I have described: (a) political decisions ultimately control the distribution of resources, (b) the political preferences and behavior of agents are determined by their position in the market, as indexed by their position in the income distribution, and (c) both the rich and the poor are maximizers that understand the consequences of different societal choices.

Second, consider Rogowski and Kayser’s (2002) explanation of cross-country differences in prices. The basic idea is this: Anticompetitive policies (e.g. tariffs, import quotas, entry restrictions, price controls) raise consumer prices and producers’ profits. When prices and profits rise, the consumers will withdraw some of their support, which takes the form of votes, for the incumbent government, while the producers, who rely on votes and money contributions, will become more supportive. So far the structure of the theory is very simple, but as in much recent work the authors proceed to an argument about how different types of economic and political institutions reflect behavior (see, e.g., Alt and Shepsle 1990, Alt 2002, Persson and Tabellini 2003). More specifically, Rogowski and Kayser claim that the electoral system will be of fundamental importance in this respect. To see why, consider the rest of their model: The incumbent government sets competition policy so as to maximize parliamentary seats and money. It is a well known empirical fact that the marginal impact of votes on seats is typically higher in majoritarian than in proportional electoral systems (see, e.g., Taagepera and Shugart 1989). Consequently, Rogowski and Kayser argue that the incumbents in countries with majoritarian electoral systems will introduce more procompetitive policies with the end result that consumer prices will be lower. Again we see how the general commitments of political economy play out in work dealing with a specific empirical problem: (a) public decisions have an important impact on prices and profits, (b) the
political behavior of consumers and producers is determined by their position in the market, and (c) although the microfoundations that underlie the formation of consumers’ and producers’ political preferences and behavior are not spelled out, the incumbent government knows how competition policy feeds back into political support, which takes the form of seats and money, and sets policy so as to maximize it. The chief insight of Rogowski and Kayser is that the solution to the government’s maximization problem will be different depending on the electoral system.

The third and final example involves a problem that many consider central to political economy: Time-inconsistency (see, e.g., Banks and Hanushek 1995, Alt 2002). Briefly, time-inconsistency arises when the action an agent considers optimal for period $t$, when she is at $t - 1$, differs from the action that she considers optimal once she arrives at $t$. Calmfors and Horn (1985) and Hersoug (1985) bring this to bear on wage formation. The following simple example illustrates their general idea: Consider a government that cares about employment, perhaps for ideological or electoral reasons, and will devote resources to maintaining it. However, it also has other priorities towards which it would like to channel some of its resources. The unions, on the other hand, want to maximize the sum of wages received by their members (the total wage bill). At $t$ the wage bargaining round will start, and if the unions know that the government wants to keep unemployment low, they can pursue an aggressive wage policy, assured that if their actions create too much unemployment, the government will step in and create new jobs. At $t - 1$, when the economy is about to enter its next wage bargaining round, the government may therefore wish to commit to a nonaccommodationist policy. If it succeeds the unions will pursue a less aggressive wage policy. Unemployment will be pretty low even if the government does not step up its expenditures on programs keyed towards generating employment, and it can spend more on other projects. However, since the unions do understand the preferences of the government, the latter’s attempts to commit will, in general, not be deemed credible. The following parts of this example are worth noting: (a) the government has some ability to control the employment outcome, (b) the preferences of unions are determined by their, or their members’, position in the labor market, and (c) the unions and the government are maximizers, and the unions know how their bargaining behavior will affect the employment outcome. The important insight is that it is the unions’ ability to predict the government’s behavior that generates the time-inconsistency.

I will close this subsection with some reflections on the potential domain of application of political economy’s constituent theories. The stylized view of political economy given at the start of this subsection, and the discussion that has followed it, suggests that the class of empirical problems to which political economy theories may be applicable includes economic and political preferences, behaviors, and outcomes. This already excludes many social phenomena from the domain of political economy. As Caporaso and Levine write,
“the dichotomy between market and state is clearly inadequate to accommodate the full range of human interaction” (1992, 223). The commitments, or assumptions I have talked about may also limit the number of empirical problems a political economy theory can be expected to explain.

Firstly, there is the distinction between the institutions and structures associated with the state, and those associated with the market, wherein the former are assumed to possess the greater coercive intensity and spatial extension. However, as Migdal has argued, the state in some developing countries lacks one or several of the following: “[T]he capacities to penetrate society, regulate social relationships, extract resources, and appropriate or use resources in determined ways” (1988, 4; emphasis in original). States that score high on these capacities are ‘strong’ states, and those that do not are ‘weak’ states. And when it comes to certain empirical problems, such as the distribution of resources in some countries in Subsaharan Africa, we should certainly not expect too much of the standard political economy theory, which will take the structures and institutions associated with the state as given, and tend to emphasize the impact of, and struggle over certain policies. However, if we loosen the assumption that the structures and institutions associated with the state are given I believe there is one empirical problem on which political economy theories may offer some interesting insights: Why are some states weaker than others? This problem could be viewed as one of institutional choice. And I suspect that some insight into it could be gained by going down a somewhat similar path to that of Acemoglu and Robinson: Thinking about the strengthening and weakening of the state as a distributive issue.

In addition, some have argued that the dramatis personae in the typical political economy theory—the maximizers that have some understanding of the economic and political consequences of different courses of action—restrict the domain of political economy. For instance, Saint-Paul (2000b) sounds a cautionary note about political economy explanations of the post-communist transitions: Could the citizens of the former Soviet Union and Eastern Europe, having lived under communism for most, or all, of their lives really have anticipated the effects of the transition on their welfare? The question could perhaps be extended to many political economists’ endeavours to solve complicated empirical problems. But the issue of the domain of political economy cannot, I believe, be settled by formulating such general principles. Research should, instead, proceed in a piecemeal fashion, specifying which agents possess what information about the situation facing them.

To sum up, I have outlined what I believe are the main commitments of the new—or, at least newly resurrected—research tradition some authors call ‘new political economy’, others ‘modern political economy’, and yet others ‘comparative political economy’ or ‘positive political economy’. I have also discussed the class of empirical phenomena that constitute its core domain: Economic and political preferences, behaviors, and outcomes. Hopefully, this will have set the stage for the next section, which will, at the beginning, be
mostly about preferences, but as it progresses deal more and more with outcomes.

Putting the Essays in Context

I will now present the essays in the chronology of their writing. Each essay will be introduced in the context of a survey of some of the previous literature. These surveys are partial. When relating time-honored theoretical arguments, or well known empirical findings, I give priority to classic references. However, when I believe that it is called for I cite more recent work. The following subsections will all follow the same structure: First, some background to the essay is presented, then the main arguments and findings of the essay itself. I hope each subsection will illustrate some of the relevant conceptual and empirical problems in the literature, and how work inspired by the political economy research tradition bears on their solution.

Welfare State Research

With the intensified public sector expansion in the 1950s and 1960s welfare state research came into its own. One group of scholars imputed the overall expansion that had taken place during the 20th century to important structural transformations, such as the replacement of the agrarian by the industrial society, urbanization, and population aging (see, e.g., Wilensky 1975). The power resources theory of welfare state development arose as a more or less explicit challenge to this ‘logic of industrialism’ thesis (Korpi 1978, 1983, Stephens 1979, Esping-Andersen 1990). As we saw in the previous section, many have viewed the study of politics as the study of the struggle over power or authority. This is perhaps nowhere more evident than in the power resources theory. Researchers in the power resources tradition are, of course, not entirely homogeneous. For example, while some identify the welfare state with transfer payments and services, others claim that the concept should include “all of the ways in which the state enters into the distributive processes of the capitalist democracies” (Korpi 1980, 297).10 What unites them is their insistence that the balance of power between labor and capital—typically measured as the organizational and electoral success of, respectively, unions and left-wing parties—has a decisive impact on welfare state development. The explanation offered by power resources theory is thus decidedly political.

10To get a flavor of the kinds of policies intended by the broad definition, consider the following quote from Korpi and Palme: “[S]ince the late nineteenth century Verein für socialpolitik in Imperial Germany, and up to the present, scholarly texts on social policy have defined their subject matter in broad terms as including, in addition to social insurance and social services, also labor markets, employment policies, and parts of industrial relations” (2003, 426; emphasis in original). And, in light of this, they go on to lament the use of social expenditures as an indicator of welfare state development.
What is potentially troubling about the power resources theorists, from a political economy perspective, is not their insistence on a political explanation of the welfare state. Rather it is their more or less implicit assumption that the economic cum political preferences of members of a given class—be it labor or capital—are similar across sectors, countries, and times periods; what Swenson has called the ‘equivalency premise’ (2002, 2004). If the equivalency premise was well-founded, researchers interested in explaining variations in welfare states and labor markets should rightly concentrate on theorizing the factors that tilt the balance of power in capital’s or labor’s favor, developing and collecting measures of the relevant concepts, and using the best available methods for judging their propositions.

Recently, however, a rather large number of political scientists have argued that an economic cleavage other than that between labor and capital plays an important role in shaping workers’ and capitalists’ preferences over public policy. In particular, they have explained the politics of collective bargaining institutions, central bank independence, the welfare state, and exchange rate and industrial policy with reference to the divergent impact of these institutional arrangements and public policies on the traded and nontraded sector (Elvander 1988, 2002, Pontusson and Swenson 1996, Swenson 1991, 2002, Iversen 1999, Frieden 1991, 2002). These latter contributions are distinctively politico-economic; in their attempts to explain a particular institutional arrangement or public policy, they devote considerable attention to its economic effects for various groups. Put differently, in their efforts to explain the politics of a particular public policy, or the policy outcome itself, they explain clearly how economic cleavages—labor vs capital, traded vs nontraded sector, and so on—translate into political ones.

For adherents of power resources theory this new line of research should be troubling, especially if they endorse a broad definition of the welfare state.13

11Throughout, I will refer to patterns of economic preferences as economic cleavages, and patterns of political preferences as political cleavages.

12This brings to mind the controversy between the Stolper-Samuelson and Ricardo-Viner models of international trade. In the former all factors of production—labor, land, or capital—are perfectly mobile, and trade policies have the same impact on the renumeration of their holders irrespective of whether they are located in the protected sector or not. This implies that the political cleavage will be between factors, that is, between classes. In Ricardo-Viner-style models, one or several factors cannot move. In these types of models the impact of trade policies on the renumeration of a factor of production becomes more ambiguous, and depends on what sector it is employed in. And this opens the possibility that political cleavages might arise between sectors. For a survey of the trade policy literature see Alt and Gilligan (1994).

13As indicated above, adherents of power resources theory differ somewhat when it comes to the operationalization of their dependent variable. Schwartz (2001), although not a power resources theorist, advances a very broad, but, to my mind, useful definition of the welfare state. Drawing on the work of Polanyi he equates the welfare state with policies that protect the income streams of all, workers and capitalists alike. Schwartz goes on to write that "After the 1930s states provided social protection—and achieved redistribution—through a wide variety of policy instruments: trade protection, minimum wages, centralized collective bargaining, product market regulation, zoning, the delegated control over markets to producer groups, and, of
Firstly, and for all their eagerness to theorize (working-class) power, adherents of power resources theory have paid comparatively less attention to how economic cleavages translate into political ones, or, more precisely, the formation of policy preferences. For instance, Korpi and Palme write that classes should be defined “in nominal terms as categories of individuals who share relatively similar positions, or situations, on labor markets and in employment relations” (2003, 427). They also note that differences in positions constitute potential political cleavages. They do not, however, clearly specify the mechanism through which the economic cleavage between labor and capital emerges as a political one to dominate all other potential cleavages. Obviously their view has some intuitive appeal, but the fact is that we are left to speculate on why all members of a given class come to share roughly similar policy preferences. The more politico-economic contributors pay attention to this conceptual problem by including in their theories a representation of how the labor market works and how policies affect its functioning. Because of this, they better their position in explicating how an agent’s position in the market translates into a preference for certain policies over others. This strategy has also paid off on the empirical side: Scholars have been able to solve hitherto unsolved empirical problems. For example, political coalitions between unions and employers in the Swedish traded sector, such as the Industrial Agreement of 1997, do not appear puzzling at all once we discard the equivalency premise and look to other economic cleavages than that between workers and capitalists.

*Essay I*, “Classes, Sectors, and Political Cleavages”, speaks to this controversy. In it, I chart what the main political cleavages, and how they relate to economic cleavages among 59 Swedish unions and business organizations. For that purpose I collected survey data on the policy preferences of these organizations on 16 proposed broad-ranging economic policy reforms covering most areas of relevance to the constituencies of these organizations (as of 2002).

The quantitative analysis of the survey responses proceeds in two stages. First, I search for patterns in the survey responses with the aim of establishing what the main political cleavages are. Quantitative criteria indicate that the patterns in the political preferences can be adequately represented by two underlying dimensions. A ‘qualitative’ discussion of these two dimensions suggests that one of them is generated by the economic cleavage between unions and employers, and that the other is generated by the economic cleavage between the traded and nontraded sector. Second, I subject this notion to a more rigorous test, regressing the political preferences of the organizations on the class and sectoral belonging of their constituencies. The qualitative interpretation is validated. There do, indeed, appear to exist two economic sources of course, formal welfare states. The essential feature all these share is that they disconnect or buffer income streams from market outcomes, whether those incomes take the form of wages, employment or profit” (2001, 31).
political cleavage: The traded versus the nontraded divide and the labor versus capital divide. The latter economic cleavage does, however, appear to explain more of the overall variation in organizations’ political preferences.

To some extent, then, the results support the ‘equivalency premise’. At least in Sweden, and for a relatively large class of political issues, it continues to be a reasonable working hypothesis. However, the findings also sound a cautionary note against extending this assumption to all types of political issues; there do indeed exist instances where differences over important political decisions are, in part, driven by sectoral divisions. Researchers wishing to attack some substantive problem in this area are therefore well advised to pay attention, not only to the relative power of the relevant actors, but also to the economic consequences of the policies at stake.

Strike Research

The phenomenon of strikes, and the disruption of economic activity that follows it, has long attracted the interest of scholars. During the last two decades we have seen a secular decline in strikes in the OECD countries (see, e.g., Oskarsson 2003). However, we should be careful not to take this as a warrant for dismissing industrial conflict as a phenomenon of the past. In 1960 Ross and Hartman documented, and projected the ‘withering away of the strike’. But, beginning in 1968, the OECD countries experienced yet another international strike wave that lasted for a decade or so.

Since Rees (1952), economists have devoted much effort to explaining the by now oft-documented procyclical nature of strikes; that workers are more prone to strike during booms than during recessions is, as Franzosi writes when taking stock of the literature, “one of the clearest findings of econometric research” (1989, 353). Rees’s own answer to the “why” question is intuitively plausible: As the economy booms labor markets become tighter, which strengthens the union’s bargaining position. But this explanation suffers from a serious conceptual problem: If we believe that workers and employers are rational, why wouldn’t union bargaining power translate directly into more favorable wage settlements, rather than a greater propensity to strike? Indeed, as Hicks (1932) pointed out long ago, strikes are costly affairs for both workers and employers, and if they are fully informed, they should be able to agree immediately, rather than wasting valuable resources by engaging in time-consuming industrial conflict. Ashenfelter and Johnson’s (1969) work did, however, spawn a new generation of models where one or several of the parties involved in wage-setting has private information. Once information asymmetries are allowed, the phenomenon of strikes is easier to reconcile.

14Shalev (1980) surveys the early literature.
with rational behavior on the part of those involved; strikes may be used strategically in order to transmit or gain information.\textsuperscript{15}

While economists have focused on the effects of the business cycle on strikes, political scientists and sociologists have concentrated their efforts on other potential causes, predominantly the organizational and electoral mobilization of workers. An overwhelming majority of strikes are, and have always been, organized by unions, so it stands to reason that strikes will be more common and involve a larger portion of the economy where unions organize a larger share of the labor force.\textsuperscript{16} This point is fairly uncontroversial. From a political economy perspective, the debate about the relationship between the electoral mobilization of labor—the political power of social democratic and, more generally, leftist parties—and strikes is more interesting. Hibbs (1976, 1978) and Korpi and Shalev (1980) advance an interesting argument: Electoral success on the part of left-wing parties, especially if it is prolonged, moves the distributional struggle from the market to the political arena, and in the process strike activity declines. Others contend, equally plausibly, that strikes should be more common under leftist governments (see, e.g., Snyder 1977, Paldam and Pedersen 1982, Skeels 1982). One way to rationalize such a positive relationship would be to argue that governments of the left will be more sympathetic to worker grievances than governments of the right. The strike could then serve the purpose of setting the formal and informal mechanisms of conflict resolution—which presumably will work in the unions’ favor under more leftist governments—into motion. In any event, the last two or three decades have been characterized by large and persistent differences in strike activity across industrialized countries. Since business cycles are correlated across the same set of countries, these differences pose an empirical problem for the business cycle model, a problem that political (and organizational) models are better positioned to solve.

Although the ambition to consider political factors is laudable, studies where government partisanship, or some other political factor, enter as regressors have been disappointing; often they have come up with conflicting results or nonresults. Authors’ attempts to elucidate the mechanism by which partisanship will affect strike activity have also run into problems. Take, for instance, Hibbs’s (1976) argument that leftist governments, afraid to alienate middle-class voters, have an incentive to convince unions to refrain from striking. Firstly, one might argue governments of the right would also have some incentive to reduce strike activity, either for ideological or electoral

\textsuperscript{15}Asymmetric information plays an important part in those game-theoretic models of wage bargaining that make predictions about strikes. For a survey of this type of model, see Kennan and Wilson (1989).

\textsuperscript{16}Examples of important studies emphasizing the positive relationship between union membership and strike activity are Shorter and Tilly (1974), Snyder (1975, 1977), Kaufman (1982), and Skeels (1982).
purposes.\textsuperscript{17} This leaves the possibility that the relationship between unions and political parties of the left is, in some ways, ‘special’. One possibility would be to argue that there is a great deal of solidarity or convergence of interest between unions and the political arm of the labor movement. That is, although governments of all stripes and colors would prefer worker quiescence, only labor parties are capable of achieving it. Hibbs himself expresses doubts about leftist parties’ capabilities in this area; their goal of attracting broad groups of voters does not harmonize sufficiently with specific unions’ narrower agendas to improve the wages and working conditions of their members (1976, 1055; see also Przeworski 1985, Przeworski and Sprague 1986).

Still, even if there is this conflict of interest, there remains another possibility by which political parties’ incentives to moderate union militancy may translate into peaceful industrial relations: Parties in government can trade policies that the union(s) desire for what Cameron (1984) has called ‘labor quiescence’: The combination of wage moderation and a low incidence of strikes. At least, this is the notion that underlies much work on ‘incomes policy’, which was a fashionable line of inquiry in the literature on corporatism (see, e.g., Marks 1986). But this ‘exchange theory’ may underestimate the commitment problems inherent in making such a trade as, for instance, some European countries’ recently frustrated attempts to create ‘social pacts’ show (e.g. Ebbinghaus and Hassel 2000). And as discussed earlier, according to the literature on wage bargaining there are ample reasons to suspect that governments, for electoral or other reasons, will adopt an accommodating stance vis-à-vis aggressive unions. That is, even if the union(s) and the government have struck a deal wherein the former agree to wage restraint, the union(s) may be tempted to renege, reasoning that governments will, in fact, react to large wage increases, and the employment losses they entail, by engaging in employment generating policy measures (Calmfors and Horn 1985, Hersoug 1985). Recently, Azam and Salmon (2004) have brought a similar line of argument to bear directly on strikes. In short, they argue that unions may use strikes as means of calling the incumbent government’s competence into question, inducing it to restore voters’ confidence by employment-generating public expenditures.

\textit{Essay II, “Strikes and Electoral Systems in 17 OECD Countries 1960–1998”}, ties into this literature. I begin by observing a rarely noticed empirical regularity. In a sample covering 17 OECD countries, from 1960 through 1998, strikes were more common in those countries where the legislature was

\textsuperscript{17}Here one might, of course, invoke some rightist parties’ ideologically rooted hostility towards unions (for instance, Tories under Prime Minister Thatcher). But more generally worker quiescence may be linked to the reelection prospects of governing parties, regardless of ideological orientation. There are at least two reasons for this: (i) Voters may use strikes as a direct shortcut for gauging government competence, or (ii) voters’ assessment of government competence may be indirectly affected by strikes, if strikes lead to wage increases which reduce employment.
elected in single member districts (SMD) than where it was elected by proportional representation (PR).

I proceed by developing a simple theoretical model that accounts for this pattern. The general idea is simple. I follow Azam and Salmon in making the following assumptions: First, the unions may use strikes as a means of calling the incumbent government’s competence into question in the eyes of the voters. Second, the government may win voters back by employment-generating public expenditures. Third, the government cannot commit to a particular level of expenditures. Next, I part company with Azam and Salmon and note that the government will respond to strikes by altering its policy priorities and channel more resources towards employment generation if, and only if, a loss of support makes it more attractive to court the voters.\textsuperscript{18} A discussion of electoral systems reveals that this is more likely to happen where the legislature is elected in SMD rather than by PR. The reason is that in the former, a drop in voter popularity will, under realistic circumstances, make legislative seats more contested. In the idealized version of PR, on the other hand, seats are equally contested, irrespective of the popularity of the incumbent. Thus, unions can only expect to affect government policy by striking in countries which use SMD. This is taken as an explanation for why strikes have been more common in countries where the legislature is elected in SMD than where it is elected by PR.

Going back to the data, I find that the relationship between the frequency of strikes and the electoral system holds up when a wide variety of controls from the literature on strikes are included. The data also reveal a number of interesting subtleties: The difference between countries with PR and SMD is more pronounced the closer the subsequent election, the more cabinet seats are held by parties of the left, and the more impact unions can be expected to have on the country’s economic climate. Finally, the relationship between strikes and efforts at job creation also matches my expectations. In those countries that have SMD the amount of resources spent on active labor market programs responds positively to the frequency of strikes, while no such relationship exists in those countries that have PR. Similar results obtain when we substitute active labor market programs for the public sector’s share of total employment.

In concluding his seminal article on business cycles and strikes Albert Rees opined that political factors, such as elections, might be an important part of the explanation of strikes. But he did not pursue this issue. Over the years many economists, sociologists, and political scientists have shared Rees’s gut-feeling and presented arguments to the effect that strikes are, to some degree, politico-economic phenomena. But so far, their results have been disappointing and conflicting. However, Essay II points to an interesting avenue for future research: How do the institutions and structures associated with the state

\textsuperscript{18}This, in fact, determines whether the government faces a time-inconsistency problem or not.
affect the incentives for governments to pursue an accommodationist policy vis à vis unions?

Labor Market Regulations

The last two decades have seen a veritable outburst of scholarly interest in the economic effects of labor market regulations (e.g. employment protection, industrial relations legislation, and unemployment benefits) and institutions (e.g., unions, coordinated wage bargaining, active labor market policy). The mass unemployment that began in the 1980s, and in many countries continued into the 1990s, was probably the catalyzing event behind this surge of interest. Although unemployment rose in all OECD countries in the wake of the first and second oil shocks, the U.S. labor market made a relatively speedy recovery. However, Europe became stuck in a high-unemployment equilibrium, or at least so the story went. Much of the early work was concerned with these divergent employment paths. As a first cut scholars opined that this could be due to the fact that European labor markets, in general, were more heavily regulated and institutionalized (see, e.g., Blanchard and Summers 1986). And, with time, this explanation has emerged as one of the main contenders, espoused by both influential international institutions such as the OECD and the IMF, and many scholars.

Time has, however, also led to an increasing concern with the disaggregation of regulations and institutions, as well as of geographic regions. Research conducted over the last decade or two has shown that the differences within Europe are as large as those between Europe and North America, when it comes to both regulations and institutions, and unemployment (see, e.g., Nickell 1997). When it comes to the effects of these institutions and regulations on unemployment, the theoretical and empirical literature is littered with conflicting results and nonresults (see, e.g., Bentolila and Bertola 1990, Lazear 1990, Layard, Nickell and Jackman 1991, Nickell 1997, Elmeskov, Martin and Scarpetta 1998, Blanchard and Wolfers 2000, Belot and van Ours 2004, Baker et al. 2005, Nickell, Nunziata and Ochel 2005). The most robust finding appears to be that coordinated bargaining reduces unemployment, although there is no unanimity among researchers even on this point. There are also some indications that the generosity of the unemployment benefit system, and the degree of unionization, may increase unemployment. For other regulations and institutions, such as employment protection, it is impossible to come to a clear-cut conclusion from an overall reading of the results. Studies including countries outside the OECD have been comparatively rare, but there is now amassing evidence for this wider circle of countries as well. Again, support for the idea that regulations and institutions have an impact on unemployment is

19Sometimes the features I have called regulations and institutions are lumped together under the pejorative and, in some cases, downright misleading label ‘rigidities’.

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From this short review it might seem that, overall, this line of inquiry has, at best, uncovered a few general patterns. But this is not altogether true. If we turn to dependent variables other than unemployment, there are a number of stylized facts on which most scholars converge. First, unions raise the wages of their members (see, e.g., Freeman and Medoff 1984, Kahn 2000, Blanchflower 2004). Second, the laws that govern industrial relations determine, to a certain extent, the ability of unions to bid up wages (see, e.g., Olson 1980, Feuille and Delaney 1986, Ichniowski, Freeman and Lauer 1989, Cramton, Gunderson and Tracy 1999). Third, unionization, bargaining coordination, and, with less certainty, more generous unemployment benefits, appear to have a negative effect on wage inequality (Card 1996, Bradley et al. 2003, Oskarsson 2003, Koeniger, Leonardi and Nunziata 2004), and on income inequality and poverty rates (Lindgren 2006). Finally, a consensus is emerging that flows in and out of unemployment, and between jobs, are lower in countries with stringent employment protection legislation (Heckman and Pages 2000, Addison and Teixeira 2001, Blanchard and Portugal 2001, Esping-Andersen 2001).

Given the energy expended on tracking the effects of various regulations and institutions, it is perhaps surprising that up until recently there has been little real interest in why some countries’ labor markets are more regulated and institutionalized than others. Given the political salience of the subject matter, and political scientists’ and sociologists’ enamoredness with distributional issues, one would have expected more work on the sources of national labor laws. However, there does exist a few attempts to tackle this issue.

In recent years, proponents of ‘legal theory’ have argued that much of the cross-national variation in the regulation of markets (including labor markets) can be attributed to differences in legal origin (La Porta et al. 1998, Djankov et al. 2002, Botero et al. 2004). Common law, which historically spread from England to its colonies, is distinguished by its reliance on non-statutory laws. Norms and precedents, as interpreted by jurists, form the basis of legal practice. Most other countries rely on some form of civil law, which distinguishes itself from common law by its greater degree of formalism, especially its reliance on written law. In the stark formulation of Botero et al., labor market regulations are, on this view, the product of legal systems instated in the distant past that, to this day, provide “a politically unsupported ‘technology’ for the social control of labor markets” (2004, 1375).

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20Lindgren creates an index which increases in the generosity of unemployment benefits, product market regulation, and union density. Following this, he shows that both this index and the degree of bargaining coordination are negatively related to income inequality and poverty.

21The exception is the literature on unionization. Oskarsson (2003) both surveys the literature and contributes to it.
Taken at face value, legal theory is, of course, deeply inimical to the political economy research tradition. In the latter perspective, policies and institutions that have deep distributional impacts, as is the case with labor market regulations, cannot survive if they are politically unsupported. And, indeed, there have been a number of attempts to fashion theories about who will support regulations, and when. Agell (1999, 2002) argues that labor market regulations and institutions provide insurance for those exposed to labor market risks by compressing the wage or income distribution. Thus, they can be regarded as functional equivalents to transfer payments and services. On his view, the support for labor market regulations should be greatest among those who are the most exposed to risk.

While Agell emphasizes the insurance motive, a number of researchers have adopted a more explicitly redistributive view of labor market regulations (Saint-Paul 1996, 2000, Persson and Tabellini 2002, Rueda 2005). The general questions they seek to answer can be captured in one sentence: Whose welfare will a certain set of regulations augment, who will lose, and which side will be successful in getting what they want? What seems to be the joint point of departure for this group of scholars is that regulations have the most direct effect on the labor market for low- and medium-skilled workers; high-skilled workers and capitalists will tend to be indirectly and negatively affected. This broad story is consistent with much of the research on the effects of regulations described above.22

In Essay III, “Why Are Some Countries’ Labor Markets More Regulated than Others?”, I align myself with those who take an explicitly redistributive view of labor market regulations. I start by noting two of the empirical findings mentioned above: (a) The ability of unions to bid up wages is determined by industrial relations legislation, and (b) the flows in and out of unemployment, and between jobs is determined by employment protection legislation. I incorporate these stylized facts in a model of the political economy that, following work on dual (or segmented) labor markets, consists of a unionized and a nonunionized sector, where the ability of unions to bid up wages, and the degree of labor turnover depend on the choice of labor laws. I analyze workers who are identical in all respects, except that some hold unionized jobs, which are better paid than otherwise similar jobs. The chief theoretical insight recovered from the model is that these workers form a coalition in the following restricted sense: They are partners in wanting to maximize the total unionized sector wage bill. At the same time they are adversaries when it comes to the division of the wage bill—that is, the division of unionized jobs—amongst themselves.

I argue that this has two political implications. First, political support for legislation that enables unions to bid up wages should be inversely related to

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22To give but one example, Kahn (2000) finds that greater union membership and coverage leads to higher relative pay for, and lower employment of, the less-skilled in his study of 15 OECD countries 1985 to 1994 (see also Koeniger, Leonardi and Nunziata 2004).
the economy’s openness. The reason is that in more open economies, firms can be expected to respond to wage increases by making significant reductions in the workforce because of stiff competition in internationalized product markets, which forces them to scale down production when costs increase, or because they choose to move parts of their production abroad, thus nullifying the gains of pursuing an aggressive wage policy. Second, the support for employment protection legislation should be positively related to the size of the unionized sector. The reason is that workers who are currently holding a unionized job have a vested interest in reducing labor turnover.

For the empirical part I combine Botero et al.’s (2004) data set on labor market regulations in a large number of countries as of 1997 with data from other sources. The empirical results match my expectations. More open countries, as measured by a variety of theoretically motivated variables, tend to have less union-friendly industrial relations legislation. Further, where more workers are covered by collective agreements, there tends to be more employment protection legislation.

My findings should give pause to the wealth of scholars who identify redistribution, and distributional struggles, with transfer payments and services. Political redistribution is not simply about breaking the one-to-one relationship between the market distribution and the actual distribution of income. It is also about altering market distribution itself. Labor market regulations redistribute in the latter way, both within and between classes. My essay supplies a corrective to social scientists’ lopsided focus on transfer payments and services.
2. Classes, Sectors and Political Cleavages

Since the heyday of power resources theory it has been argued that a country’s choice of welfare model, broadly construed to mean the extent to and way in which the state intervenes in and manages the economy, reflects the organizational strength and cohesion of unions and leftist parties (Korpi 1978, 1983, Stephens 1979, Esping-Andersen 1990). In a telling statement Esping-Andersen argues that the characteristics of unions “will decisively affect the articulation of political demands, class-cohesion, and the scope for labor party action” (1990, 29). While still insisting on the causal importance producer groups, recent research calls for scrutiny of this approach. The line of attack is twofold. First, the power resources approach has been charged with neglecting the key part played by employers or organized business in the shaping and support of the welfare state (Martin 1995, Mares 1997, Swenson 1997, 2002). Second, recent research indicates that the assumption of cohesiveness of business and union interests is partly unfounded. Most notably, scholars analyzing the emergence and dismantling of collective bargaining institutions, preferences for central bank independence, exchange rate policy and industrial policy argue that the varying distributional consequences of political arrangements for the traded and nontraded (or sheltered and exposed) sector breed cleavages that cut across class lines (Elvander 1988, 2002, Frieden 1991, 2002, Swenson 1991, 2002, Pontusson and Swenson 1996, Iversen 1999).

I provide evidence on whether political cleavages among organized business and unions conform to the class or sectoral perspective. Using a spatial model, similar to those frequently used in the study of voters and legislatures, I analyze new survey data on the policy preferences of 59 Swedish unions and business organizations on 16 proposed broad ranging economic policy reforms covering most areas of relevance to the constituencies of these organizations. The organizations represent both exposed and sheltered sector wage earners and businesses. By including a large number of political issues, and a sizeable number of affiliates of organized unions and business both in the traded and nontraded sector, I enhance the current state of the literature in two ways. First, by including organized business in the analysis, ‘union-centrism’ is avoided. Second, I avoid some of the limitations inherent in in-depth qualitative research by sacrificing a more detailed account in favor of a more general. Thus, I obtain a picture of the cleavages among a sizeable number of organizations, representing different types of constituencies. Further, this picture is
based on a larger number, and broader scope, of political issues than is usually the case. Given that case-studies of particular organizations, and of particular policy processes, are frequently the methodology of choice in this area of research, this sacrifice seems warranted. At a minimum, it can be justified in the name of methodological pluralism. Finally, analyzing these organizations’ political preferences within the framework of a spatial model provides a clear conceptualization of what is meant by a political cleavage.

The results show that class is the dominant source of organizational preferences and thereby political cleavage, although smaller, but statistically significant cleavages between traded and nontraded sector organizations also exist. Hence, taking a sizeable number of organizations, including organized business, into account, and across a wide variety of political issues, the class hypothesis receives strong support. It appears that the traded-nontraded divide is not, as some authors would have it, more important than the class divide in the determination of political cleavages.

I will proceed in the following steps. First, I give an overview of the spatial model of political preferences, showing how it can be used to describe the relation between organizations’ ideal political positions (their ‘ideal points’) and how it can be used to describe the differing perceived distributional consequences of political outcomes. From this discussion, the operational definition of political cleavages will also become evident to the reader. The data that serve as a basis for the empirical section are also described. Second, the estimated positions of organizations and political outcomes are interpreted qualitatively. Third, the organizations’ political positions are regressed on the class and sectoral belongings of their constituencies. The results from the second and third part of the analysis support both the sectoral and class perspective. That is, whether or not an organization’s constituency is primarily located in the exposed sector and whether it represents business or wage earners affect the kind of policy preferences it has. However, the results from the regressions also show that class is more important than sector in determining political positions of these organizations. The concluding discussion poses the question of the extent to which these results can be generalized to other advanced industrial democracies.

Estimating a Spatial Model of Economic Policy Preferences

The Spatial Model

Categorizing groups according to whether they represent ‘exposed sector’, ‘sheltered sector’, ‘business’ or ‘wage-earner’ constituencies, gives rise to expectations about their economic and welfare policy preferences. That most economic and welfare policies have distributional consequences is what moti-
vates this type of argumentation. Different groups are differentially affected by policies, some positively, others adversely. A standard and very general function capable of describing an organization's utility from political outcomes, is

$$U_i = f(c_{i1}, ..., c_{im}),$$

where $c_{ij}$ is some consequence $j$, such as the level of transfer programs or the generosity of social services. These kinds of tax-financed government services are probably dear to the hearts of many union constituencies. But the union’s constituency might also derive utility from the amount of resources remaining with private enterprise. This affects future investments, which in turn affect future employment, productivity, wage-growth, and—in the end—consumption (see, e.g., Przeworski and Wallerstein 1982, 1988).

A few constraints on the utility function need to be added in order to proceed. The first is that the group is better off the larger is $c_{ij}$, that is $\frac{\partial U_i}{\partial c_{ij}} > 0$. In the example, this simply implies that the union will prefer more welfare programs and investment to less. The second restriction is that of decreasing marginal utility, i.e. $\frac{\partial^2 U_i}{\partial c_{ij}^2} < 0$. In the example, this implies that the higher taxes are, and hence the more spending there is on transfers and social services, the lesser will be the future investments that can be given up while keeping the union’s constituency at the same level of welfare. The final restriction is that there is a budget constraint limiting the total amount, $\sum_{j=1}^{m} c_{ij}$, that can be obtained. For instance, there is only a fixed amount that can be distributed between profits and taxes. For the running example, these three restrictions imply a situation like the one depicted in the left part of figure 2.1.

Under the assumption that the union prefers more welfare programs and private investment to less, and that both of these exhibit decreasing marginal utility, there now exists a single most preferred point, the ideal point, where the indifference curve is tangential to the budget constraint. Any move away from this point—either more money going to taxes, or more money going to profits—will constitute a less preferred policy outcome for the union.

Given the above restrictions, an organization’s utility from, and thereby its degree of preference for, a policy outcome can be described in terms of the Euclidian distance between organization $i$’s ideal point, which is given by the vector of coordinates $x$, and the policy outcome, which is given by the vector of coordinates $y$: $d(x, y) = \sqrt{\sum_{k=1}^{m} (x_k - y_k)^2}$, where $x_k$ and $y_k$ are coordinates in an $m$-dimensional space (Ordershook 1986, 32-37). So, $U_i = f(d(x, y))$. The organization will prefer policy outcomes that are at a lesser Euclidian distance. Turning to our example, we can see the correspondence by laying the budget constraint flat, as is done in the right part of figure 2.1. This depicts the one dimensional case, $m=1$, where any move away from the union’s ideal mix of taxes and profits is associated with a decline in utility for the union. In sum, policy outcomes and ideal points are represented as a vector of coordinates in an $m$-dimensional space, and the organization’s utility from a particular policy is a negative function of the distance between the two. That different organizations have different ideal points is at the very heart of political conflict, and is what gives rise to political cleavage. Finding the location of
policy outcomes and organizational ideal points provides us with information about the existence of distinct political cleavages between organizations.

Estimation

Appropriate scaling for estimating the relative location of ideal points and policy outcomes in a joint space, given Euclidian preferences, is provided by the unfolding model (Jacoby 1991, Van Schuur and Kiers 1994). According to Van Schuur and Kiers, when data conform to the multidimensional unfolding model the application of factor analysis frequently results in a solution containing an extra artificial factor.\(^1\) Essentially, what unfolding attempts to do is to find a configuration of ideal points and policy outcomes that is consistent with the preferential responses of organizations.\(^2\) That an organization’s preference for a particular policy outcome can be described by the function \(U_i = f(d(x_i, y))\), can be utilized to estimate the rank order of the distances between pairs of policy outcomes. Because, if preferential responses to policy outcomes are monotonically related to Euclidian distance, and under the assumption that the ideal points are distributed in a certain fashion, either the maximum absolute differences or minimum sums obtained from the organizations’ preferential responses can be used to obtain the rank or-

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\(^1\)For reference, however, factor analysis was also performed. The substantive results did not differ from those obtained from multidimensional unfolding.

\(^2\)I will use a stepwise procedure where I first estimate the relative locations of policy outcomes and then estimate the ideal points in relation to the policy outcomes. The reason is that, as the dimensionality of the space needed to adequately represent distances between all ideal points and policy outcomes increases, the number of parameters/coordinates that need to be estimated increases, creating an identification problem. See Jacoby (1991, 67-70).
ders (Rabinowitz 1976). The approach suggested by Rabinowitz examines all observations, that is, the preferential responses of organizations, to find the subset most suitable for obtaining the rank-orders between pairs of policy outcomes. Furthermore it uses both maximum absolute differences and minimum sums for ordering.

The ordering of pairs of policy outcomes does not tell us anything about how many dimensions are needed to account for the variation in the organizations’ preferential responses to policy outcomes (that is, how many latent variables are needed to account for the varying responses to suggestions for reform). This is accomplished by non-metric multidimensional scaling. The configuration of policy outcomes will be placed so that the inter-outcome distances as closely resemble the ordering of pairs as possible. How closely these two correspond is measured by the stress value, which increases with poorness of fit, and by the squared correlation between the two ($R^2$), which increases with goodness of fit. These measures will be used in fashion analogous to how one uses eigenvalues in factor analysis (the “scree-test”) to determine the dimensionality. If the addition of a dimension produces only marginal improvement in the goodness-of-fit statistics, it is reasonable to opt for the more parsimonious model. Of course, which dimensionality is appropriate is ultimately decided by the degree of substantive interpretability. When the configuration of policy outcomes is obtained, distances between outcomes indicate perceived differences in distributional consequences.

Finding the ideal points of the organizations—locating them in the same space as, and relative to, the policy outcomes in a way that is as consistent as possible with their preferential responses to the policy outcomes—constitutes the last step of the scaling part of the analysis. A stress value for each estimated ideal point is calculated. This value indicates how well the distance between the ideal point and the policy outcomes corresponds to the recorded organizational preferences for various policy outcomes. In the final part of

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3The distributional assumption made is that many of the ideal points lie close to the straight line segments connecting policy outcomes in an $m$-dimensional space.

4The reason for utilizing more than one observation per pair we need to rank has to do with ameliorating problems with weak-partial orderings and measurement problems (see Rabinowitz 1976). I use a SAS-macro by Jacoby (1993) to implement the computational procedure.

5Here S-stress, which measures the degree of correspondence between the squared distances, and Stress 1, which measures the degree of correspondence between the distances, will be used.

6In the factor analysis that was performed for reference the results from the solution when applying the “scree-test” were identical in terms of how many dimensions were needed, and what policy outcomes ended up scoring high on what dimension.

7Here stress-2 is used to measure the degree of correspondence between the original distances and those between the estimated ideal points and the estimated positions of the policy outcomes.

8The average stress value also provides another indicator of the extent to which the preferential responses were generated by organizations making similar consequential judgments about policies, but having different ideal points (i.e. different ideal points on the budget constraint and hence different degree of preference for policies).
the analysis, the ideal points of organizations are regressed on the class and sectoral characteristics of their constituencies.

Data
To locate policy outcomes and ideal points, the organizations’ preferential responses to policy outcomes are necessary. These are taken from survey data from an investigation conducted among elites in Swedish unions and organized business.\(^9\) First, a list of the organizations of relevance to the study was established. The substantive criterion used for generating this list was whether the groups were likely to be engaged in trying to affect economic and welfare policy. The result was a list of the five big peak associations of organized business and labor, the Confederation of Swedish Enterprise (Svenskt näringsliv), the Confederation of Private Enterprises (Företagarnas rikorganisation), the Swedish Trade Union Confederation (LO), the Swedish Confederation of Professional Associations (SACO) and the Swedish Confederation of Professional Employees (TCO) and also their respective affiliates.\(^10\) This list comprised about 115 organizations. From it were chosen the 76 with most members (number of employees in companies that were members in the case of organized business) and staff employed at their central offices.\(^11\)

In the fall of 2002 a questionnaire was administered to two key representatives in each of the 76 organizations: The chair and vice-chair or president.\(^12\) In the questionnaire they were asked about their organization’s stance on a wide range of suggested economic policy reforms, including monetary policy, fiscal policy, privatization, unemployment insurance, active labor market pol-

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\(^9\) They were collected by the author and are available upon request.

\(^10\) Two additional organizations not belonging to any peak associations were included. They were the Syndicalists (SAC) and the Swedish Association for Managerial and Professional Staff (Ledarna).

\(^11\) Due to the fact that organizations were asked of their relationships with other organizations (for the purpose of another part of this project) in the study the list had to be narrowed down to 76 organizations. The information on membership/employees in member companies was obtained from Statistics Sweden. The number employed at central offices was obtained by the organizations’ own material and in some cases by contacting them and asking. When selecting the 76 organizations I first chose all the peak associations. Then I selected 36 union affiliates by ranking them according to membership and staff. SAC and Ledarna were included in this draw. The ranking was obtained by performing principal components analysis on these two variables (they were highly correlated with an \(r > .8\)) and then selecting those 36 with the highest factors scores. A similar procedure was applied to select 35 organized business affiliates, only here staff and number of employees in member companies were used as indicators of “importance” (Again, \(r > .8\)).

\(^12\) I made sure that at least one of the two respondents from each organization worked at their central headquarters full time. In most cases both chair and vice-chair or president did, and in a handful of cases only one. In a few cases there was no functional equivalent to vice-chair or president. In these cases high ranking organizational officials were chosen.
icy and workers’/employment protection.\textsuperscript{13} Their preferential responses were recorded on a scale ranging from whether they thought the reform was a ‘very bad idea’ to whether they thought it was ‘a very good idea’.\textsuperscript{14} 82\% of the chosen organizations answered the questionnaire. Of the organizational representatives 56\% answered—meaning that from some organizations both answered and for some only one. In cases where both representatives of the organization answered the survey their responses were averaged, leaving me with the stance of 59 organizations (see Appendix) on a number of suggested political reforms, each on a nine point scale.\textsuperscript{15}

Results

Political Cleavages

In table 2.1 goodness-of-fit statistics for the ordering of pairs of policy outcomes and subsequent scaling of policy outcomes are shown. Firstly, Spearman’s rho is rather high, which tells us that the assumptions of the procedure for ordering pairs of political outcomes are fairly well met.\textsuperscript{16} Therefore it makes sense to go on to explore how many dimensions are needed to represent these relative distances. Table 2.1 shows three measures of goodness of fit for several dimensional solutions. The one-dimensional solution seems too simple to capture the relative ordering of policy outcomes.\textsuperscript{17} The improvements in all these measures when adding a second dimension are large in relation to those when adding a third dimension. Furthermore, the goodness-of-fit mea-

\textsuperscript{13}The reforms included were mainly selected on the basis of saliency during the years 2000-2002, and cover most of the major issues in the political debate concerning Swedish economic policy where there had been organizational involvement. The issues should be roughly representative of the kind of political issues that draw the attention of unions and organized interests in Sweden.

\textsuperscript{14}The survey question was “The following list contains a number of suggestions that have been put forward in the general political debate. What is your organizations position on each of them”. This statement was followed by a list containing statements such as “A lowering of total taxation”, “A Swedish membership in the EMU”, “A lessening of union control over the administration of the unemployment insurance”. For each of these statements the respondents could indicate their organization’s position on a five point scale ranging from “very bad idea” to “a very good idea”, where the middle category was “have not taken a position”.

\textsuperscript{15}Since responses were averaged for those organizations where both representatives answered, the scale now includes the values 1, 1.5, 2, 2.5 up to 5. Before their responses were averaged, the average correlation (Pearson’s r) between the answers for representatives of the same organization was \(\approx .6\). In virtually no instances, however, did the representatives give answers that were on opposite sides of the ‘neutral’ position.

\textsuperscript{16}Spearman’s rank-correlation between the ordering is obtained by using only maximum absolute differences or minimum sums—that is, the orderings obtained by using preferential responses by organizations with different ideal points—and indicates whether the assumptions of the method for ordering pairs are satisfied (see Rabinowitz 1976).

\textsuperscript{17}According to the rule of thumb proposed by Kruskal (1964), stress \(\leq .1\) is considered “fair fit” while stress \(\geq .2\) is considered “poor fit”.

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Table 2.1: *Goodness of Fit Measures*

<table>
<thead>
<tr>
<th>Measures</th>
<th>Ranking</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman’s rho stress</td>
<td>.601</td>
<td>1</td>
</tr>
<tr>
<td>S-Stress</td>
<td>.191</td>
<td>.086</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.162</td>
<td>.100</td>
</tr>
</tbody>
</table>

asures for the two-dimensional solution are also fairly good in absolute terms. Therefore I will opt for the more parsimonious of the latter two solutions.

In figure 2.2 the estimated locations of the economic policy outcomes from the two dimensional solution are shown. Although the exact locations of policy outcomes should not be taken too literally, a clear and substantively interpretable pattern emerges. First, the ordering of policy outcomes along the horizontal dimension can be interpreted as going from what we may call left to right, reflecting the distributional conflict between business and wage earners. Outcomes go from clearly leftist policies—the legislated reduction of working hours, strengthening of employment protection and increasing maximum unemployment insurance—through policies with unclear distributional consequences for business and wage-earners as classes—working life discrimination, environmental taxes, monetary and exchange rate policy—to what is typically regarded as business friendly policies—privatization, tax reforms and the reduction of union power.

Turning to the vertical dimension we see that the most extreme outcomes concern issues of monetary policy, exchange rate policy and environmental policy. In the theoretical literature, exchange rate and monetary policy is expected to be related, albeit complicatedly, to cleavages between the exposed and sheltered sector. And, looking to the exchange rate and monetary policy issues included here does suggest that the vertical dimension represents a cleavage between the two sectors. The Swedish independent central bank (*Sveriges Riksbank*) has been commissioned to maintain price stability since 1998, with adjustments to the interest rate as their policy instrument. The bank has interpreted the goal of price stability as 2±1%. At the time, the reform attracted much criticism for making price-stability the overreaching goal at the expense of employment.“The reform puts a straightjacket on politicians”, as one Social Democratic MP who voted against his own party’s official position noted. In general, exposed sector wage increases are tempered by the objective of

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18It should be noted that we can rotate the axes (orthogonally) in any manner. The distances between policy outcomes will remain the same. The particular rotation displayed in figure 2.2 simply eases the interpretation.

A=Lower total taxation  
B=Lowering of corporate tax  
C=Lowering of tax on energy int. prod.  
D=Payroll tax for environmental tax  
E=Fixed exchange rate  
F=Relax inflation target  
G=Legislate to reduce working hours  
H=Three reforms to strengthen employment protection (coordinates are approx. equal)  
I=Increase maximum unemployment insurance  
J=Less union control over administration of unemployment insurance  
K=Less public measures to generate employment  
L=More anti-discriminatory policy  
M=Join EMU  
N=Additional health-care privatization

Figure 2.2: Estimated configuration of policy outcomes

maintaining international competitiveness, with or without the disciplining force of the inflation target. However, since sheltered sector employees are not exposed to international markets, they are more likely to accept a bit more inflation in return for employment, to the detriment of the exposed sector. With the inflation target, however, it becomes impossible to maintain employment by allowing higher rates of inflation, and their wage militancy should be reduced. The chair of ALMEGA, a joint cooperation between six service sector employers’ associations, has on several occasions reminded public sector unions that excessive wage increases might be self-defeating (see, e.g., Göteborgsposten, 1 November 1999; Svenska Dagbladet, 4 January 2003). Similarly exposed sector union representatives can be counted on to react when public sector dissatisfaction with wages starts to grow, as when the Municipal Workers’ Union (Kommunal) recently decided to renegotiate their three year wage settlement (see, e.g., Göteborgsposten, 23 October 2002). Thus, exposed sector unions and businesses should be more favorably disposed towards a low inflation target, since it keeps sheltered sector wage increases in check. The sheltered sector unions, however, might be more favorably disposed towards a slightly slacker inflation target, since it allows for higher wage increases and the maintenance of domestic employment and consumption.

On the issue of the European Monetary Union (EMU), the European Central Bank (ECB) does seem to emphasize tight money, with an inflation target of 0-2%. The economists of the Confederation of Swedish Enterprise (Svenskt näringsliv), the Confederation of Private Enterprises (Företagarnas riksorganisation), the Swedish Trade Union Confederation (LO), the Swedish Confederation of Professional Associations (SACO) and the Swedish Confederation of Professional Employees (TCO), who served as experts on the commission concerning the scope for stabilization policy in the monetary union, pointed out in a joint statement that Sweden has exhibited more inflationary wage increases as compared to the rest of Europe. Delegating the responsibility of for
the interest rate to the ECB would therefore preclude adjustments based on tendencies specific to Sweden (Bornefalk et al. 2002). Losing the ability to stabilize downward economic trends that are specific to Sweden (and thereby fight unemployment) is an important reason for the retail services union to oppose membership in the EMU (Handelsanställdas förbund 2002). In an article expressing his dissatisfaction with the volatility of the Swedish krona and worries that the Sveriges Riksbank will exceed it’s target, the chairman of EMU-positive exposed sector union Metall takes the opposite stance. He argues that the capacity for long-term planning of production and sales is crucial to achieving employment and increases in real wages, and that Sweden must join the EMU to obtain the requisite stability (Johnsson 2001).

Finally, the fact that schemes which involve increasing and decreasing taxes on energy-intensive production lie at opposite ends of the vertical dimension also indicates that it represents a cleavage between the exposed and sheltered sector. When employers and unions in the exposed sector got together in March 1997 to discuss prerequisites for industrial development in Sweden, they reached a formal agreement (Industriavtalet) on a number of political issues, in which it was stated that “the cost of electricity is now higher than in the main competitor countries (...) taxes and charges that do not exist in other countries will further weaken the competitive position of industry in Sweden” (Industriavtalet 1997). Later, the Industry Committee, which was founded in connection with these endeavors, commented in an information referral to the Swedish Parliament that domestic electricity prices meant that Swedish firms were unfairly discriminated against when competing with firms in other countries. Further, the committee also commented on the suggestion that one could increase taxes on energy, and at the same time lower tax on work for those firms managing to reduce their energy consumption. It noted that this would be detrimental to many firms, since there was no scope for them to lower their consumption (Industrikommittén 2000). The sheltered sector is more insulated from world markets, uses substantially less energy (since it mainly consists of public and private services), and might be more inclined to see the environmental and fiscal pros of taxing energy.

The next step of the analysis is to locate the organizations’ ideal points in the policy space so that they are as consistent as possible with their expressed preference orderings over the 16 economic policies. The extent to which this can be done varies somewhat, but generally their preference orderings are consistent with the relative distances of the policy outcomes. In order to provide the reader with a some ‘snapshots’ of the results, figure 2.3 shows the estimated ideal points of some of the larger affiliates of the peak associations included in the study. First, we can examine the general patterns.

[^20]: The average $R^2$ is .973 and the average stress, as measured by Kruskal’s Stress 2, was .166. Kruskal and Wish (1978, 50) points out that “values of Stress 2 are generally more than double those of Stress 1 for the same degree of fit”. Therefore, when using Stress 2, more generous goodness of fit criteria apply.
in the estimated ideal points. The distances between the organizations do lend some credibility to the previous interpretation of the political cleavages. There is a clear gulf between organized business and unions; all the unions’ ideal points, except for that of Association of Graduate Engineers (\(Cf\)), lie to the left in the policy space, while all organizations representing business lie to the right. Also, there seems to be a sectoral cleavage, where exposed sector organizations \(\text{Metall, Cf}\), the Swedish Union of Clerical and Technical Employees (\(Sif\)), and the Association of Engineering Industries (\(Vi\)) lie below their sheltered sector counterparts. One public sector union, the National Union of Teachers in Sweden (\(Lr\)), and two organizations representing businesses who are rather more insulated from international competition—The Association of Hotels and Restaurants (\(Shr\)) and the Federation of Retailers (\(Ha\))—lie clearly above the mid-point of the vertical dimension.

In sum, the results obtained from the multidimensional unfolding analysis indicate that there are two important dimensions along which political cleavages among organized business and wage earners occur. Further, visual interpretation indicates that these dimensions represent the distributional conflict between, on the one hand, business and wage-earners, and, on the other, between the exposed and sheltered sector.

Classes, Sectors and Political Cleavages

Moving on from these rather impressionistic visual interpretations and ‘snap shots’ of the structure of conflict among organized business and unions in Sweden, the final part of the analysis consists of examining the relationship between organizations’ positions in the political space and the class and sectoral belonging of their constituency. I do this both in order to validate the conclusions about political cleavages arrived at by visual inspection and to
gauge how crucial the class and sectoral model are to understanding political cleavages among organized business and unions.

The class belonging of an organization’s constituency is determined by applying the traditional distinction between ‘business’, ‘white-collar workers’ and ‘blue-collar workers’. The sectoral belonging of an organization is determined with reference to whether it has an exposed or sheltered sectoral constituency. I classify organizations—unions and organized business—whose constituencies are located in industry (manufacturing, processing and raw materials) as belonging to the exposed sector. The unions and business organizations representing the service sector (public and private) are classified as sheltered sector organizations (see, e.g., De Gregorio, Giovanni and Wolf 1994). In other words, organizations are classified according to what type of goods their constituencies are involved in the production of.

To validate the visual inspection, and to gauge the explanatory power of the class and sectoral model, table 2.2 displays results from multivariate analysis. The rightmost column presents a test of the overall effect of class and sector on political cleavages. Do class and sectoral belongings explain these organizations’ positions on the two dimensions obtained from the analysis in the previous section? The MANOVA F-tests show that the sector and class variables have joint as well individually significant effects on these organizations’ mean locations on dimension 1 and 2. This shows that there are significant differences between organizations’ locations in the political space, depending both on the sectoral and class belongings of their constituencies.

21Organizations are coded either business, white collar union or blue collar union depending on the “class” of their constituency. Thus, the coding coincides with whether the organizations belongs to a blue-collar (LO), white-collar (SACO or TCO) or business (Svenskt näringsliv or FR) peak association. See the discussion in Olin Wright (1986) for an impressive attempt to rationalize the commonplace expectation that these groups represent progressively more rightist orientations. A dichotomous variable, where ‘white collar workers” and “blue collar workers” were grouped together, was also tested to check for the robustness of the results. This model fit the data worse, but the substantive results were similar to the ones below.

22That the exposed sector should be defined as those who produce goods that are traded in international markets (i.e. both export and import competitors) and the sheltered sector as those who have no such production is uncontroversial. But, what constitutes tradable goods is somewhat more ambiguous. Traditionally, a distinction has been made between manufacturing (including processed and unprocessed raw materials) and services (public and private). That the former are traded and the latter nontraded has received strong empirical support (De Gregorio, Giovanni and Wolf 1994). And although trade in services increased somewhat during the 1990s, it still accounts for a rather small share of total exports in most countries (Hufbauer and Warren 1999). I will therefore retain the distinction, labelling organizations whose constituencies are located in industry (manufacturing, processing and raw materials) as representing the exposed sector and those representing service sector (public and private) constituencies as sheltered.

23More specifically, the MANOVA F-test provides a way to evaluate whether the joint bivariate distributions of organizations’ dimension coordinates are significantly different between these groups (for instance, whether the locations of exposed sector organizations differ significantly from those of sheltered sector organizations) taking into account the correlation between the two dependent variables. For an introduction to the analysis of multiple dependent variables by MANOVA, see Bray and Maxwell (1988).
Table 2.2: Determinants of Organizations’ Locations Across the Two Policy Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>MANOVA-test for no overall effect$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.625***</td>
</tr>
<tr>
<td></td>
<td>(0.103)</td>
</tr>
<tr>
<td>Exposed Sector</td>
<td>0.353**</td>
</tr>
<tr>
<td></td>
<td>(0.172)</td>
</tr>
<tr>
<td>White-collar</td>
<td>0.918***</td>
</tr>
<tr>
<td></td>
<td>(0.197)</td>
</tr>
<tr>
<td>Business</td>
<td>2.761***</td>
</tr>
<tr>
<td></td>
<td>(0.165)</td>
</tr>
<tr>
<td>Full model</td>
<td></td>
</tr>
</tbody>
</table>

N 59 59
Adj-$R^2$ 0.77 0.16
Ramsey RESET $F$ 0.64 1.63
Jarque & Bera $\chi^2$ 1.20 0.41
Cook & Weisberg $\chi^2$ 1.69 4.20**

Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

$^a$MANOVA $F$-test statistics are based on Pillai’s Trace.

I now turn to the differences between organizations on the individual dimensions, which are shown in the columns 1 and 2. With one exception, the model diagnostics look fairly good.24 The Cook and Weisberg test (1983) for heteroskedasticity in column 2 does, however, indicate that there may be a problem with heteroskedasticity, which warrants the use robust standard errors.

The results indicate that both white-collar unions and organized business are, on average, located more towards the right of the political space as compared to blue-collar unions. This is evident from their significantly higher average scores on dimension 1.25 This lends some support to the conclusion reached by visual inspection; that is, the horizontal dimension (dimension 1) reflects the distributional conflict between ‘classes’. Further, exposed sector organizations are, on average, located more to the right than their sheltered

24The Jarque and Bera test (Gujarati 1995, 143f, Greene 2003, 397f) does not reject the null hypothesis of normally distributed residuals for any of the models. The Ramsey RESET tests (Gujarati 1995, 464ff) for omitted variables does not indicate that any of the models are misspecified.
25An additional result that is not evident from table 2.2 is that the mean difference between organized business and white-collar unions is also significant at conventional levels.

47
sector counterparts. Turning to group differences on dimension 2, we see that, on average, exposed sector organizations have significantly lower scores than those representing sheltered sector constituencies. This indicates that there is merit to the interpretation of the vertical dimension (dimension 2) as representing the distributional conflict between the exposed and sheltered sector. Also, organized business have significantly higher scores on dimension 2 than do blue-collar unions, while white-collar unions do not differ significantly from the latter on this dimension.

Although the coefficient estimates of the class and sectoral variables are somewhat revealing, there remains the fact that both the exposed sector and business variables have an impact on each of the dimensions.26 Further information can be gleaned from the data by looking at the incremental contribution of the class and sectoral variables to $R^2$. This was done by comparing the $R^2$'s of models containing only the sectoral or the class variables.27 In column 1 the addition of the exposed sector variable raises $R^2$ by 0.02, while the corresponding figure for column 2 is 0.08; sector appears to explain more of the variation in organizations’ positions along dimension 2 than 1. The class variables’ joint contribution to $R^2$ in column 1 is 0.74, while their inclusion in column 2 raises $R^2$ by 0.14; class explains more of the variation in organizations’ positions along dimension 1 than 2. Overall, however, the class variables explain more. Computing the average contribution of the sectoral and class model to explaining the varying positions along dimension 1 and 2 lends support to this conclusion. The average contribution of the sectoral model is .10/2=.05 while the average contribution of the class model is .88/2=.44.

In sum, these results indicate that the visual interpretation of the previous section was correct. They clearly show that there exists important political cleavages between blue- and white-collar unions and organized business, irrespective of their sectoral belonging. However, the results also indicate that there are sectoral divisions within the camps of labor as well as business. In this sense, both the sectoral and the class hypothesis receive support. However, when we look beyond the significance of mean differences between organizations to the relative performance of the two sets of variables in terms of their ability to account for the varying ideal points of organizations, there is ample evidence of the superiority of those variables measuring class. Thus, both perspectives are important for understanding political divisions among these organizations, but the class variables appear to be ‘more’ important.

26This indicates that we can rotate the solution obtained, and displayed in figure 2.3 (where the location of the horizontal dimension is determined by those organizations that have the largest political distance), to achieve a better congruence between our substantive interpretations of the horizontal and vertical dimensions and the actual coordinates of the organizations. The political distance between organizations, and between organizations and policy outcomes, would however remain the same.

27These reduced models are not included in table 2.2.
Table 2.3: Sensitivity Analysis: Bootstrap Standard Errors and Confidence Intervals

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.625***</td>
<td>-0.186*</td>
</tr>
<tr>
<td></td>
<td>(0.105)</td>
<td>(0.126)</td>
</tr>
<tr>
<td>Exposed Sector</td>
<td>0.353*</td>
<td>-0.401**</td>
</tr>
<tr>
<td></td>
<td>(0.171)</td>
<td>(0.162)</td>
</tr>
<tr>
<td>White-collar</td>
<td>0.918***</td>
<td>0.027</td>
</tr>
<tr>
<td></td>
<td>(0.199)</td>
<td>(0.158)</td>
</tr>
<tr>
<td>Business</td>
<td>2.761***</td>
<td>0.453**</td>
</tr>
<tr>
<td></td>
<td>(0.165)</td>
<td>(0.184)</td>
</tr>
</tbody>
</table>

Bootstrapped robust standard errors in parentheses (1000 reps). Percentile-t confidence intervals:
* significant at 10%; ** significant at 5%; *** significant at 1%.

Sensitivity Analysis

The conclusions of the previous subsection were based on a relatively small sample of organizations. Given the small number of observations, there is a risk that the coefficient estimates in table 2.2 are strongly influenced by a minority of my observations. In these kinds of situations, Bollen and Jackman (1990, 267) suggests that one search for observations whose presence alters one or several of the regression coefficients by more than a standard deviation. Applying this criterion, none of the observations exert undue influence on the coefficient estimates in table 2.2. It appears, then, that the conclusions reached in the previous subsection are not parasitic on any of the individual observations.

The Jarque and Bera tests in table 2.2 do not reject the null hypothesis of normally distributed residuals for any of the models. This implies that the sampling distribution of the coefficient estimates should be normally distributed as well. But the Jarque and Bera test is less powerful when sample sizes are ‘small’ (N < 30-50) or bordering on ‘small’ (Gujarati 1995, 142f). In addition, the test proposed by D’Agostino, Belanger and D’Agostino, Jr. (1990) shows that organizations’ scores on dimension 1 and 2 depart from normality, which

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28By an influential observation is meant an observation with a high degree of leverage (an unusual value for one or several of the regressors) and a large residual (cf. Bollen and Jackman 1990, 265).
29The most influential observation in column 1 of table 2.2 is the Iron and Steel Works Association (Bruksindustriföreningen); dropping it raises all coefficient estimates, leaving the substantive conclusions unchanged. The most influential observation in column 2 is the Industrial Workers’ Union (Industrifacket); dropping it raises the absolute value of all coefficient estimates, leaving the substantive conclusions unchanged.
may indicate that the sampling distribution does depart from normality. In situations like these, Mooney (1996) suggests that one rely on bootstrapped confidence intervals. As a security measure, I will follow his advice, in order to check whether the conclusions reached in the previous subsection remain robust. The process involves taking a large number of random samples with replacement from the original sample, and calculating the coefficient estimates for each of these. Taken together, the coefficient estimates from all these samples form a distribution, which is used to calculate confidence intervals around the (original) coefficient estimates.

The results are shown in table 2.3, where I have used the percentile-\(t\) method for calculating bootstrap confidence intervals. The findings are reassuring: All coefficient estimates that were significant in 2.2 are also significant when we rely on bootstrap confidence intervals, although the exposed sector variable is only significant at 10% in column 1 of table 2.3, as compared to 5% in column 1 of table 2.2.

All in all, it appears that the conclusions reached in the previous subsection are rather robust. They are not the consequence of a few influential observation. And, despite that there are some indications that the residuals may not be normally distributed, the main conclusions continue to hold when I rely on the more appropriate bootstrap confidence intervals for significance testing.

**Conclusion**

In this paper, I have set out to evaluate whether the sectoral and class perspectives can help us understand political cleavages over economic and welfare policy, and if so, which of them has more explanatory power. The political preferences of a comparatively large number of organizations are included in the study. I address recent complaints, that the literature has previously focused too much on unions, by including data on organized business. The analysis shows that there are two main political cleavages along which organized business and unions align. The political positions of organized business and unions differ significantly, and robustly, as do the positions of exposed and sheltered sector organizations. However, the class of an organization’s constituency is found to be a more important predictor of it’s political positions.

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30 Test statistics are not shown. Scores on dimension 1 depart from normality in terms of kurtosis (they follow a platykurtic distribution). Scores on dimension 2 depart from normality in terms of skewness (their distribution is positively skewed).

31 These samples are of equal size to the original sample.

32 In the literature this is referred to as random resampling, which should be distinguished from fixed resampling (e.g. Stine 1990, 254f).

33 Simulations indicate that, for inferences from OLS regressions, they are better than the alternatives (the normal approximation, bias-corrected and percentile methods) when sample sizes are smaller than 40, and as good when sample sizes are larger (Mooney 1996). I relied on the procedure suggested in Poi (2004) to calculate the percentile-\(t\) confidence intervals.
A key aspect that sets Sweden apart from many other OECD countries is the presence of strong socio-economic institutions—that is, peak associations—with the capability of coordinating their member affiliates’ political preferences. If Garrett and Lange (1995) are correct in assuming that these type of domestic institutions work as an intermediate factor to dampen sectoral conflict, we would expect the sectoral hypothesis to be disadvantaged in relation to the class hypothesis. That I do find sectoral tensions in Sweden suggests that they will be present, and perhaps even more important, in countries where peak associations are not as strong.

Still, a note of caution is necessary. Among the OECD countries normally studied in comparative political economy, Sweden exhibits a reasonably high degree of economic openness. If we couple this with the claim that in coordinated market economies labor and capital are rather immobile, we would expect that Swedish workers and businesses would be more immediately concerned with the distributional effects of policies for the traded and nontraded sector than in other countries. However, immobility might not only affect the degree of sectoral tensions, but also the amount of class tensions. Recent work has brought the concept of factor mobility to bear on demand for social protection, suggesting an inverse relationship (Iversen and Soskice 2001). If immobility combined with openness is expected to lead to increased sectoral and class tensions, the class hypothesis would not be unfairly disadvantaged in this study after all.

Finally, some tentative remarks about the preconditions for stability and change in Swedish economic and welfare policy are warranted. That the most important political cleavage is between the organizations representing blue-collar workers and business, with the white-collar workers occupying a pivotal middle-ground will be reassuring to those who are afraid that the coordinating tasks of Swedish governments and other societal actors would become more cumbersome if conflict along sectoral lines became common. Well-defined class interests have, arguably, played an important role in the crafting of class compromise and the broad welfare state. The broad social coalitions which, according to some authors, have made the Swedish politico-economic model work well in spite of the unusually high political presence of special interest groups seem to be largely intact. However, and as any observer of Swedish politics of late has noticed, unions and to some extent the business community, are torn on issues regarding the EMU and the question of Swedish membership in the currency union.

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34Studies of both historical and contemporary decisions important to unions and organized business in Sweden lend some support to the view that Swedish peak associations have this coordinating capacity (Öberg 1994, 2002).
35See, for instance, Hall and Soskice (2001) for the argument that factors are more immobile in coordinated market economies. For a critique, see Hiscox and Rickard (2002).
36For the classic statement, as well as more recent and less enthusiastic remarks, see Olson (1982, 1995).
<table>
<thead>
<tr>
<th>Swedish</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akademikerförbundet SSR</td>
<td>The Swedish Union of University Graduates</td>
</tr>
<tr>
<td>Allmänna industrigruppen</td>
<td>The General Industry Group</td>
</tr>
<tr>
<td>ALMEGA Samhallförbunden</td>
<td>Almega Samhall Employers’ Association</td>
</tr>
<tr>
<td>ALMEGA Tjänsteförbunden</td>
<td>The Association of Business Services</td>
</tr>
<tr>
<td>Bruksindustriföreningen</td>
<td><em>The Iron and Steel Works Association</em></td>
</tr>
<tr>
<td>Civilekonomerna</td>
<td>The National Union of Business Administration and Economics Graduates</td>
</tr>
<tr>
<td>Civilingenjörsförbundet</td>
<td>The Association of Graduate Engineers</td>
</tr>
<tr>
<td>Elektriska installatörsorganisationen (EIO)</td>
<td><em>The Swedish Electrical Contractors’ Association</em></td>
</tr>
<tr>
<td>Energiföretagens arbetsgivareförbånd</td>
<td>The Association of Energy Employers</td>
</tr>
<tr>
<td>Fastighetsanställdas förbund</td>
<td>The Swedish Building Maintenance Workers’ Union</td>
</tr>
<tr>
<td>Finansförbundet</td>
<td>The Financial Sector Union of Sweden</td>
</tr>
<tr>
<td>Företagarnas riksorganisation</td>
<td>The Federation of Private Enterprises</td>
</tr>
<tr>
<td>Försäkringsbranschens arbetsgivareförbund</td>
<td><em>The Swedish Insurance Employers’ Association</em></td>
</tr>
<tr>
<td>Glasbranschföreningen</td>
<td><em>The Federation of Glazing Contractors</em></td>
</tr>
<tr>
<td>Grafiska fackförbund</td>
<td>The Graphic Workers’ Union</td>
</tr>
<tr>
<td>Grafiska företagens förbund</td>
<td><em>The Swedish Graphic Companies’ Federation</em></td>
</tr>
<tr>
<td>Handelsanställdas förbund</td>
<td><em>The Commercial Employees’ Union</em></td>
</tr>
<tr>
<td>Handelsarbetsgivarna</td>
<td><em>The Swedish Commerce Employers’ Association</em></td>
</tr>
<tr>
<td>Hotell och restaurangfacket</td>
<td><em>The Swedish Hotel and Restaurant Workers’ Union</em></td>
</tr>
<tr>
<td>HTF</td>
<td>The Salaried Employees’ Union</td>
</tr>
<tr>
<td>Industrifacket</td>
<td>The Industrial Workers’ Union</td>
</tr>
<tr>
<td>Ingenjörsförbundet</td>
<td>The Swedish Association of Engineers</td>
</tr>
<tr>
<td>Journalistförbundet</td>
<td>The Swedish Union of Journalists</td>
</tr>
<tr>
<td>Jusek</td>
<td>The Association of Graduates in Law, Business Administration, Economics,</td>
</tr>
<tr>
<td></td>
<td>Computer and Systems Science, Personnel Management and Social Science</td>
</tr>
<tr>
<td>Läkarförbundet</td>
<td>The Swedish Medical Association</td>
</tr>
<tr>
<td>Lärarnas riksförbund</td>
<td>The National Union of Teachers in Sweden</td>
</tr>
<tr>
<td>Livsmedelsföretagen</td>
<td><em>The Food Industry Enterprises</em></td>
</tr>
<tr>
<td>Landsorganisationen i Sverige (LO)</td>
<td>The Swedish Trade Union Confederation</td>
</tr>
<tr>
<td>Maskinentreprenörerna</td>
<td><em>The Association of Swedish Earth Moving Contractors</em></td>
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<tr>
<td>Media- och informationsarbetsgivarna</td>
<td><em>The Swedish Media Employers’ Association</em></td>
</tr>
<tr>
<td>Officnersförbundet</td>
<td><em>The Officers’ National Association</em></td>
</tr>
<tr>
<td>Plåtslageriernas riksförbund</td>
<td><em>The Employers’ Association of Swedish Plateworks</em></td>
</tr>
<tr>
<td>Polisförbundet</td>
<td>The Swedish Police Union</td>
</tr>
<tr>
<td>Sif</td>
<td>The Swedish Union of Clerical and Technical Employees</td>
</tr>
<tr>
<td>Skogs- och lantarbetsgivareförbund</td>
<td>The Federation of Swedish Forestal and Agricultural Employers</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Swedish</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skogs- och träfacket</td>
<td>The Swedish Forest and Wood Workers’ Union</td>
</tr>
<tr>
<td>Skogsindustrierna</td>
<td><em>The Swedish Forest Industries Association</em></td>
</tr>
<tr>
<td>SKTF</td>
<td>The Swedish Union of Local Government Officers</td>
</tr>
<tr>
<td>Statstjänstemannaförbundet</td>
<td>The Union of Civil Servants</td>
</tr>
<tr>
<td>Svenska åkeriförbundet</td>
<td>The Swedish Association of Trucking Industries</td>
</tr>
<tr>
<td>Svenska byggnadsarbeträförbundet</td>
<td>The Swedish Building Workers’ Union</td>
</tr>
<tr>
<td>Svenska elektrikerförbundet</td>
<td>The Swedish Association of Electricians</td>
</tr>
<tr>
<td>Svenska kommunalarbeträförbundet</td>
<td>The Swedish Municipal Workers’ Union</td>
</tr>
<tr>
<td>Svenska livsmedelsarbeträförbundet</td>
<td><em>The Swedish Food Workers’ Union</em></td>
</tr>
<tr>
<td>Svenska målareförbundet</td>
<td>The Swedish Painters’ Union</td>
</tr>
<tr>
<td>Svenska metallindustriarbeträförbundet</td>
<td>The Swedish Metalworkers’ Union</td>
</tr>
<tr>
<td>Svenska pappersindustriarbeträförbundet</td>
<td>The Swedish Paper Workers’ Union</td>
</tr>
<tr>
<td>Sveriges byggindustrier</td>
<td>The Swedish Federation of Construction Industries</td>
</tr>
<tr>
<td>Sveriges hamnar</td>
<td>Ports of Sweden</td>
</tr>
<tr>
<td>Sveriges hotell- och restaurangföretagare</td>
<td>The Swedish Association of Hotels and Restaurants</td>
</tr>
<tr>
<td>Sveriges redareförening</td>
<td>The Swedish Shipowners’ Association</td>
</tr>
<tr>
<td>Sveriges trafiksikolors riksförbund</td>
<td><em>The Swedish Association of Driving Schools</em></td>
</tr>
<tr>
<td>Sveriges verkstadsindustrier</td>
<td>The Swedish Association of Engineering Industries</td>
</tr>
<tr>
<td>Tandläkarförbundet</td>
<td>The Swedish Dental Association</td>
</tr>
<tr>
<td>Tjänstemannens Centralorganisation (TCO)</td>
<td>The Confederation of Professional Employees</td>
</tr>
<tr>
<td>TEKO-industrierna</td>
<td>The Swedish Textile and Clothing Industries’ Association</td>
</tr>
<tr>
<td>Trä- och möbelindustriförbundet</td>
<td><em>The Wood and Furniture Industry Association</em></td>
</tr>
<tr>
<td>Vårdförbundet</td>
<td>The Swedish Association of Health Professionals</td>
</tr>
<tr>
<td>VVS-installatörerna</td>
<td><em>The Building Services Contractors</em></td>
</tr>
</tbody>
</table>

English names taken from the organisations’ websites when possible. Otherwise a fairly literal translation was performed (emphasized).

*Table 2.4: Names (in Swedish and English) of the 59 Organizations Participating in the Study*

Recently there has been a flurry of research on the economic consequences of the rules by which countries elect their legislature. Countries which use proportional electoral systems, like the Netherlands and the Scandinavian countries, have higher government spending, welfare expenditures, budget deficits (Persson and Tabellini 2003), and prices (Rogowski and Kayser 2002) than those which use majoritarian systems, like Great Britain and the U.S. On the other hand, countries with majoritarian systems experience more political violence (Lijphart 1999) and civil wars (Reynal-Querol 2002), and more volatile policy shifts (Alesina, Roubini and Cohen 1997). In this paper I present an addition to this list. Figure 3.1 shows the average number of strikes in 17 OECD countries grouped according to whether their legislatures were elected in single member districts (SMD) or by proportional representation (PR). Striking was more common in countries with SMD in as many as 32 out of the 38 years included.

How could electoral systems affect the frequency of strikes? To understand this we need to take a short detour through electoral system design. SMD electoral systems are designed to reflect small changes in swing voter preferences, and to select a clear winner. When elections are close, the party that wins over one percent of the voters to its side will see a disproportionately large expansion of its parliamentary base; legislative seats are highly contested. As elections become less close, legislative seats become less contested. The same one percent increase in voter support will make less of a difference to the party’s parliamentary base. By contrast, in an idealized PR electoral system the party that wins an additional one percent of the votes will always win another one percent of the legislative seats. Legislative seats are equally con-

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1The countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Great Britain, Ireland, Italy, Japan, Netherlands, Norway, New Zealand, Sweden, Switzerland, and USA.
2The only text I have found that makes an empirical observation similar to mine is Lijphart (1999, 269) who finds that strike activity is negatively related to his index of ‘consensualism’ which contains measures of executive power-sharing, executive–legislative relationships, the effective number of parties, corporatism, and electoral system disproportionalities. I focus on only one feature of the constitution: The electoral system.
3Taagepera and Shugart (1989), and Powell (2000) contain comprehensive discussions of electoral system design focusing on the distinction between majoritarian and proportional systems.
tested, irrespective of how close the election is. In this sense, electoral races are normally much more competitive in SMD than in PR systems.

I propose a simple theoretical model that trades on the insights from the literature on electoral systems to account for the fact that strikes are more common in countries with SMD. The basic idea is simple: In the model, a labor union shares with the voters a preoccupation with the state of the economy, and especially unemployment. The union can engage in strikes that make the voters question the incumbent government’s capabilities. Come election day, the voters pass judgement on the incumbent government in a retrospective fashion. The incumbent has authority over policy instruments that it can use to win votes. For instance, in the face of widespread industrial unrest, it can engage employment generating expenditures in order to win back the hearts of the voters, and prevent a disaster on election day. Whether the incumbent facing a strike actually does reprioritize its spending decisions in order to expand employment turns on whether the shortfall of voter support makes legislative seats more contested. From our short detour via electoral system design we already know that this can only happen in SMD electoral systems, not in PR systems. The implication for the labor union’s strike decision is clear: It can only hope that a strike will garner a response from the government when the electoral system is of the SMD kind.

Figure 3.1: Strikes in two different types of electoral system in 17 OECD countries
I take the results of my theoretical model as a warrant to explore the relationship between strikes and electoral systems further. Employing a pooled cross-section design that, for the most part, includes the same countries and years as in Figure 3.1 I find that: (a) The relationship between SMD electoral systems and strikes holds up when a wide variety of controls are included, and (b) the difference between SMD and PR systems is larger the closer the ensuing election, the more cabinet seats held by left-wing parties, and the greater the impact of unions on the economy. In addition, and again employing a pooled cross-section design, I explore whether governments in SMD electoral systems do indeed respond to strikes. The result is consistent with my priors: Only in countries where legislatures are elected in SMD do governments respond to strikes by attempts to expand employment, as measured by spending on active labor market programs and the number of public sector employees.

The analysis contained herein differs from the explanations of strikes surveyed by Franzosi (1989) and Kennan and Wilson (1989). Franzosi distinguishes between ‘organizational/political’ explanations of strikes, which have emphasized the organizational and legal capacities of unions as well as their access to political allies (left-wing parties), and ‘economic’ explanations, which have focused on the role of business cycles and labor market structure. Kennan and Wilson survey the more recent strategic bargaining approach. A number of political scientists and sociologists have long championed a complementary perspective. Work in this tradition, as Skocpol and Amenta write, links “programmatic innovations or increases in public social expenditure in many capitalist democratic nations to measures of industrial strike militancy and other kinds of “extra-institutional” popular action outside of orthodox economic or political routines” (1986, 139). Recently, Azam and Salmon (2004) have proposed a model which incorporates this idea: Unions strike in order to induce the government to increase its efforts at job creation. My model is similar to theirs but, unlike them, I focus on how the incentives for governments to pursue an accommodationist policy vis-à-vis labor unions differ across countries with different types of electoral system.

I will proceed as follows. First, I formalize my theoretical argument in a simple model. Second, I discuss how the real-world features of the electoral system tie into the theory, in order to develop the political implications of the model. Third, I return to the empirical evidence. I close by discussing some of the implications of my findings.

The Model
To fix ideas I will now present a model of the economy and politics which brings out the basic mechanisms by which the electoral system might matter
for strike activity. The purpose of this section is thus to provide a basis for the section that follows, in which I will discuss how certain conspicuous differences between real-world SMD and PR electoral systems impact on politico-economic outcomes. As will be evident the key results I wish to highlight in this section could be arrived at through different variations on the setup I present. And depending which order of complexity of the model setup one prefers, results will be more or less clear cut than mine.

The Economy

From Oswald (1982, 1985) I adopt the ‘Monopoly Model’ of union and firm interaction. It has the following characteristics: A union, which seeks to maximize the total utility of its membership, either monopolizes labor supply or controls the wage rate by other means. Either way it can be seen as setting the wage rate unilaterally. The firms are small and operate in a perfectly competitive market and as such have no control over output prices. However, they do have unilateral control over hiring decisions. In addition to the standard model, I follow Azam and Salmon (2004) in awarding the union the power to call strikes. The union’s objective function is taken to be

$$\max_{(w,s) \in \mathbb{R}_+^2} U = nu(w) + (m - n)\pi - m\gamma s, u_w > 0, u_{ww} < 0,$$

$$u(w) > \pi, \gamma > 0, s \geq 0$$

(3.1)

where \( n \) is employment, \( m \) is the fixed union membership, \( w \) is the wage, \( s \) is the individual union member’s level of strike activity, and \( \gamma \) is the cost of one unit of striking.\(^4\) The utility from the unemployment benefit, \( \bar{u} \), is fixed and is assumed to always be lower than the utility from the wage received when employed. Throughout, subscripts denote derivatives. The firm maximizes a typical profit function

$$\max_{n \in \mathbb{R}_+} \pi = pn^\alpha + (\sigma - w)n$$

(3.2)

where \( p \) is the (fixed) price of the commodity it produces, \( n^\alpha \) is the firm’s total output with \( \alpha \in (0,1) \), and \( \sigma \) is an employment subsidy supplied by the government.\(^5\)

It follows from the assumptions in the previous paragraph that we can write labor demand as a function: \( n(p, \sigma, w) \), where equilibrium employment is strictly increasing in \( p \), and \( \sigma \), but strictly decreasing in \( w \) (for proofs, see Appendix). It also follows that the union’s utility function can be described by \( U = U(p, \sigma, w, m, \pi, s, \gamma) \) when the labor demand function is substituted into it. Combining our results, the union’s utility is increases in \( p, \sigma \) and decreases in \( \gamma \). The union’s utility from raising wages only increases as long as

\(^4\)As is clear, I make the assumption that all members engage in the same amount of strike activity.

\(^5\)This government strategy is usually referred to as ‘job creation’ or ‘subsidized employment’ in the literature on active labor market policy.
the rising wages are not outweighed by decreases in labor demand. Thus equilibrium wages will reflect this trade-off. Furthermore, if the story told in this subsection was all there was to it, the union’s utility would always be strictly decreasing in strike activity, $s$, and we would therefore not expect the union to strike. Next, I consider a model of politics that will cause me to modify this claim.

Politics

In the previous subsection I did not consider what role the government might play in determining the economic outcome. Given that the government can usually affect labor demand through a wide variety of policy instruments—stimulating aggregate demand, trade policies, education policies, labor market policies, and so on—this is an important omission. To keep things simple I will, in the following, set most of these possibilities aside, and focus exclusively on active labor market policy. More specifically, the incumbent government faces the decision of allocating a fixed budget between employment subsidies and ‘rents’.\(^6\) The budget, $B$, is normalized to unity, such that $B = 1$. The portion of it spent on employment subsidies is $n\sigma$, and the fraction going to rents, $R$, is $1 - n\sigma$.

I assume that the incumbent—be it a party or a coalition of parties—cares not only about capturing rents, but also about its parliamentary base, since it is critical for the incumbent government’s survival to have support in the legislature.\(^7\) The government’s task is to pick $\sigma$ such that

$$\max_{\sigma \in \mathbb{R}} I = L(V) + R$$

$$B = 1 = R + n\sigma$$

where $L(V)$ gives the share of the seats in the national parliament held by the incumbent government. It is a positive function of its share of the popular vote (that is, $L(V) > 0$). To foreshadow the discussion to come the seats-votes function, $L(V)$, differs across SMD and PR electoral systems, and it is this difference that will be critical to the main theoretical results of this paper.

Finally, voters act according to the familiar retrospective voting model. In this model, according to Kiewiet and Rivers, “voting in response to economic conditions is (1) retrospective, (2) incumbency-oriented, and (3) based upon the results of economic policies, and not upon the actual policies themselves” (1984, 370). In this model, the voters could be concerned either with the sociotropic or pocketbook consequences, or both, of economic policies. Rather

\(^6\)The reader is free to interpret ‘rents’ narrowly—as resources diverted to the incumbent government’s private benefit—or more broadly—as any expenditure the government would like to make other than on labor market policy.

\(^7\)For a deeper discussion of the motivations of parties and party elites see the edited volume by Strøm and Müller (1999).
than modeling the individual voter’s decision, support for the incumbent government is described by an aggregate Vote/Popularity function much like the ones frequently assumed and estimated in the literature on sociotropic voting (see, e.g., Nannestad and Paldam 1994, Lewis-Beck and Stegmaier 2000):

$$V = V(n, s), V_n > 0, V_s < 0, V_{ns} = 0,$$

$$0 \leq V \leq 1$$

(3.4)

That is, voters are assumed to cast their vote in backward-looking fashion, where they evaluate how the economy has been doing in terms of unemployment and strikes under the incumbent party or coalition of parties.

Unemployment has, together with inflation, proved to be one of the most robust determinants of whether voters approve of, and vote for, the incumbent government (see, e.g., Nannestad and Paldam 1994, Lewis-Beck and Stegmaier 2000). Strikes, however, are not a bread and butter staple in studies of sociotropic voting. Still, I will follow Azam and Salmon (2004) and argue that the ability to call into question the quality and economic policies of the incumbent government through strikes is plausible enough. In addition to highlighting issues of government competency, strikes can also impose significant costs on bystanders, especially when public sector unions engage in them. Plausibly, this could affect the approval rating, if voters hold the incumbent government partly responsible. Finally, although they are not so common, there are strikes that have a significant negative impact on the overall state of the economy (Franzosi 1989). These so-called ‘emergency strikes’ can have an indirect impact on approval.

Timing

The timing of the model follows Azam and Salmon’s (2004) closely. First, the union unilaterally sets the wage, and decides whether it will strike. Second, the incumbent government decides the size of the employment subsidy. Third, firms make their hiring decisions. Finally, voters decide whether the incumbent will stay. The game is full-information, so that at every stage the actors know what strategies have been chosen at the previous stages. We can therefore solve for the equilibrium strategies by means of backwards induction. The timing can be motivated as follows: Wages are typically more or less fixed between bargaining rounds. They exhibit some ‘stickiness’ during the period covered by the contract. But these negotiations typically do not involve explicit bargaining over employment. Rather firms make hiring decisions more continuously in response to the ebb and flow of demand. The government budget is negotiated each year and is therefore deemed to be more flexible than

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8However, in a recent article, Conley (2006) shows that strikes have a significant negative impact on approval in France.

9Although working hours are sometimes included.
wages, but less flexible than employment. Finally, voters vote retrospectively, evaluating the incumbent’s performance in terms of employment and its ability to maintain industrial peace.

Labor Market Policy and Strike Activity

Having described each of the parts of my model separately, it is now time to put them together. I will proceed by moving backwards along the timeline. First, the behavior of the voters is already described in (3.5). Second, I have also described how firms will respond to the parameters that the government and the union control; labor demand is increasing in the employment subsidy supplied by the government, and decreasing in the wage set by the union. The next step is to turn to the government’s and the union’s behavior.

The first key result concerns the government’s response to strikes. Assuming that the government does not choose one of the corner solutions, $\sigma = 0$ or $\sigma = B$, it can be shown that (for proof, see Appendix):

RESULT 1: A necessary and sufficient condition for the incumbent government to respond to an increase in strike activity by increasing the employment subsidy is that the marginal return to votes, in terms of the seat share, is strictly decreasing.

The intuition underlying this result can be conveyed by example. Consider a case where the marginal return to votes, in terms of seats, is strictly decreasing ($LVV < 0$): Each additional vote share for the incumbent has a smaller impact than the previous one on its seat share. If the union launches a strike that damages the popularity of the incumbent under these circumstances, the incumbent finds itself in a situation where one additional vote has a larger impact on the number of seats in parliament than before. It will therefore be inclined to increase the employment subsidy, and thereby regain some of its popularity, at the cost of forgoing some rents. In essence, by striking, the union makes the government prioritize the goal of seats over that of capturing rents more than if the strike had not been called. Now consider a situation where the marginal return to votes is strictly increasing ($LVV > 0$): Each additional vote for the incumbent has a bigger impact on the seat share than the previous one. Were the union to call a strike it would only make the incumbent prioritize the goal of capturing rents over that of capturing seats more than if the union had refrained from striking. Finally, consider a situation where the seats-votes function is linear ($LVV = 0$): Each additional vote for the incumbent has the same impact on the seat share as the previous one. In this situation, calling a strike would not change the incumbent’s priorities at all.

So far, I have sidestepped the issue of the government’s response to wage increases. The reason is that the result is less clear-cut than that for strikes. Although wage increases do decrease voters’ support for the incumbent gov-
government indirectly, via their impact on employment, they also make employment subsidies a less effective instrument for generating employment. The net effect will, in many cases, be unclear. The interested reader is referred to the Appendix, which contains the underlying results relevant to this issue.

I stated earlier that if we only considered the economy in our model the union’s utility would always be decreasing in strike activity and we would therefore not expect the union to strike. The simple model of politics I have introduced gives me cause to modify this claim. The relevant conditions are summarized in Result 2 (for proof, see Appendix):

RESULT 2: A necessary condition for the union to strike is that the incumbent’s marginal return to votes, in terms of the seat share, is strictly decreasing. As a direct corollary, a sufficient condition for the union not to strike is that the incumbent’s marginal return to votes, in terms of the seat share, is increasing.

With Result 1 in place, understanding the basic intuition underlying Result 2 is simple. Result 1 opens up the possibility that the incumbent might respond to strikes by increasing the employment subsidy. Since the union is better off the higher the subsidy, there is now a return to striking, so long as \( L_{VV} < 0 \) holds. However, there are costs to striking, so that even when \( L_{VV} < 0 \) holds we cannot be sure that the union will strike. If the costs are so prohibitive as to always outweigh the gains, there is no point in striking. This is the intuition behind the first part of Result 2. The second part follows from the first. In words, it simply says that when \( L_{VV} \geq 0 \)—which implies that the incumbent does not respond to strikes by increasing the employment subsidy—there will be no point in engaging in strikes.

**Strikes and Electoral Systems**

It is now time to explicate how the electoral system might affect strike activity. More specifically, in this section I will show that the shape of the seats-votes function—which, according to Results 1 and 2, is fundamental in determining the government’s response to strikes, as well as the union’s willingness to strike—has a distinctively political interpretation. I will draw on the literature on electoral systems to show that the seats-votes function differs across SMD and PR systems in such a way as to render intelligible the pattern pointed to in the Introduction, namely that strikes are more common in countries with SMD systems.

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10 In addition, but less substantively interesting, the government’s response to wage increases is ambiguous because it depends on the sign and magnitude of \( V_{\text{inc}} \), which I have made no assumptions about.

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Seats and Votes under SMD and PR

Figure 3.2: The incumbent’s seats as a function of votes under SMD ($\tau = 3$) and PR ($\tau = 1$)

Seats and Votes in PR and SMD Electoral Systems

It is widely held that the most important feature of countries’ electoral systems in determining how many seats a given portion of votes renders a party is district magnitude (Taagepera and Shugart 1989; see also Lijphart 1999, Powell 2000). According to the literature an approximate but general characterization of these electoral systems can be given by the seats-votes function (Taagepera 1986, Taagepera and Shugart 1989):

$$L(V) = \frac{V^\tau}{\sum_i V_i^\tau} \quad (3.5)$$

For my purposes, what is important is the incumbent party’s or party coalition’s share of the legislative seats. (3.5) should therefore be interpreted as follows: $V$ is the incumbent’s share of the popular vote, $L$ is the seat share of the incumbent party. In the denominator the exponentiated vote shares of all the parties (including the incumbent) in the system, $i = 1...n$, are summed.
How, then, does the right-hand side of (3.5) differ across electoral systems? When the electoral system is perfectly proportional, $\tau = 1$. That is, a one percent increase in votes should lead to a one percent increase in seats. In reality, proportional electoral systems usually approximate $\tau = 1$. This is especially so for the incumbent in a PR system, which we can assume does not have to worry about legal thresholds. By contrast, the famous ‘cube law’ states that in countries with SMD electoral systems $\tau \approx 3$. Although various reformulations of the cube law have been suggested—for instance $\tau \approx 2.5$ for British elections (Laakso 1979)—what is important for present purposes is that in SMD systems, $\tau$ deviates sharply from 1.

To see why this is an important insight in the present context we need to consider Figure 3.2. Using (3.5) I have graphed seats as a function of votes for three stylized political systems. The first is a perfectly proportional PR system where $\tau = 1$. The other two are SMD systems where $\tau = 3$. Of the SMD systems, one is a U.S.-style system where there are only two parties. In the other SMD system the incumbent faces a fragmented four-party opposition (with exactly equal vote shares), a situation which is somewhat similar to what Canada has occasionally experienced. The difference between the PR system and the SMD systems is that in the former, marginal returns to votes, in terms of seats, is constant ($LVV = 0$), while in the latter the returns are first increasing ($LVV > 0$), until the incumbent reaches a certain vote share (for instance, 50% in SMD with two parties), after which returns are decreasing ($LVV < 0$). The relationships graphed in Figure 3.2 are simply the consequence of the differences in electoral system design outlined at the beginning of this paper: In countries with SMD electoral systems seats become more contested as elections become closer. In countries with perfect PR legislative seats are equally contested, no matter how close the election is.

The connection with Results 1 and 2 should now be obvious. With regard to the first, a necessary condition for the incumbent to respond to strikes by increasing the employment subsidy is that the electoral system is of the SMD type, since only then will the marginal return to votes ever be decreasing. And a sufficient condition for the incumbent not to respond is perfect PR, since the marginal return to votes with this type of electoral system is constant. By the same token, this also tells us that a necessary condition for the union to consider striking is that the electoral system is of the SMD type, while a sufficient condition for it not to strike is perfect PR.

Political Implications

We are now ready to draw the implications of the simple theoretical model presented in the previous section. To do this we need to consider whether, in reality, countries with SMD systems ever meet the condition required for the government to respond to strikes, and the union to strike.
It turns out that a good case can be made that this condition will hold. First, consider that, as a baseline, in an SMD system any party, or at least the incumbent, should have close to half the share of the popular vote.\textsuperscript{11} Second, add the fact that comparative studies of various types of legislature within the U.S. have shown there to be an ‘incumbency advantage’, that appears to be especially pervasive in single member districts (Cox and Morgenstern 1995, Carey, Niemi and Powell 2000). There are fewer cross-national studies, but in their survey Strøm and Müller note that “incumbency may help in future elections, and party leaders may seek office for that reason” (1999, 6). For our purposes, it is only important that there is a tendency to incumbency advantage in SMD systems.\textsuperscript{12} Whether there exists such an advantage, or as suggested by some disadvantage, in PR systems does not affect our results. The mere fact that there are at times advantages to being the incumbent in SMD systems is in itself enough to make the following implication plausible:

**IMPLICATION 1:** Strikes will, all else being equal, be more frequent in countries where the legislature is elected in single member districts than in those where proportional representation is used.

In arriving at this Implication I have provided a rationale for the empirical regularity that I described in opening this paper. And the intuition is that it is mainly in countries with SMD systems that unions can expect the strikes they launch to have the effect of making seats more contested, inducing the government to step up its efforts at job creation.

The intermediate step I took in arriving at the implication of electoral systems for union behavior, concerned the incentives for governments to accommodate the wishes of the union. My model thus has a further implication:

**IMPLICATION 2a:** All else being equal, strikes will only be positively related to active labor market programs as a share of GDP in countries where the legislature is elected in single member districts.

\textsuperscript{11}Rogowski and Kayser (2002) connect Duverger and Downs to provide a theoretical basis for this empirical claim. As argued by Duverger, majoritarian electoral rules tend to create a two-party system (Duverger 1954, Taagepera and Shugart 1989). And as argued by Downs, there should be strong centripetal tendencies in two-party systems as both scurry towards the middle to capture the median voter, and therefore end up with roughly half of the popular vote each (Downs 1957). Although his results are more mixed, Cox (1990) argues more generally for a link between low district magnitude and centripetal tendencies.

\textsuperscript{12}The reader should note that what I have done by invoking the argument in this paragraph is to slightly alter the VP-function described in equation 3.5. It would perhaps be more accurate if it read $V = V(n, s, x)$ where $x$ referred to a vector of factors that lead to the incumbency advantage suggested in the paragraph.
Evidence that conforms to Implication 2a would, of course, strengthen the credibility of my theoretical argument, since subsidized employment is usually an important part of overall spending on active labor market programs. Finally, in the theoretical model I only awarded the incumbent government one instrument for affecting employment. In reality it has many such instruments. And if my more general argument, which revolves around the incentives of the government to increase its efforts to create employment in the face of industrial unrest, it should also have a bearing on other types of policy instruments than active labor market programs. In this paper, I shall content myself with adding the following implication:

**IMPLICATION 2b:** *All else being equal, strikes will only be positively related to the number of public sector employees as a share of the workforce in countries where the legislature is elected in single member districts.*

To sum up, the discussion so far has resulted in a rationale for why strikes are more common in countries where the legislature is elected in SMD. Most importantly, I have outlined the mechanisms by which such an empirical regularity might emerge. I now return to a more thorough examination of the empirical evidence.

** Strikes and Electoral Systems in 17 OECD Countries, 1960–1998**

**Variables and Statistical Model**

To test the hypothesis that strikes, all else being equal, are more common in SMD systems I use data from 17 OECD countries during the years 1960–1998. Although changes in electoral systems are very rare, pooling cross-sections provides us with the opportunity to isolate the effect of electoral systems from that of variables that display more temporal variation: For instance, inflation, unemployment, government partisanship and union density. What we obtain then is an estimate of the expected differences in strike frequencies between countries with different electoral systems, all else being equal, which is exactly what our hypothesis is about. In the following I present the variables and the statistical modeling strategy. Additional information on the sources of the variables is given in the Appendix.

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13The countries included are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Great Britain, Ireland, Italy, Japan, Netherlands, Norway, New Zealand, Sweden, Switzerland, and the USA. Germany is not included because of lack of data on strike frequency.

14Data on strikes, inflation, unemployment, union density, labor market structure, and trade openness were generously provided by Sven Oskarsson.
Strikes. The reasoning in the previous sections leads to the hypothesis that strikes will be more frequent under SMD than PR.\(^{15}\) To assess this hypothesis we need to measure frequencies across countries. \textit{Strikes/1000 Workers} is measured as the annual number of labor disputes per 1000 workers. The time trend for \textit{Strikes/1000 Workers} for each of the individual countries is shown in the Appendix.\(^{16}\)

Electoral System. The crucial independent variable of my study is the electoral system. On the one hand, I use the distinction between systems where the lower or only house is mainly elected in single member districts rather than through proportional representation. \textit{SMD} takes on the value of 1 for countries with predominantly single member districts and 0 otherwise. For the countries under study, this variable hardly changes before the 1990s.\(^{17}\) In 1993, Italy changed its electoral system so that now 75 percent of the members of the Senate and the Chamber of Deputies are elected by SMD. Also in 1993, New Zealand changed towards more PR but still retained some elements of SMD. In the following analysis \textit{SMD} is equal to 1 for Australia, Canada, France, Italy (1993-1998), New Zealand (1960-1992), Great Britain, and the Unites States and 0 for all other country-years.\(^{18}\)

I also check the robustness of the results by using two additional measures that are only available for the countries under study for the period 1978–1998: The proportion of legislators in the lower house elected in single member districts (\textit{SMD2}), and the natural logarithm of average district magnitude for the elections to the lower house (\textit{ln(District Magnitude)}). \textit{ln(District Magnitude)} takes on the value of zero for countries that only have single member districts. Among those countries with multi-member districts, and which for all practical purposes can be viewed as having some degree of PR, \textit{ln(District Magnitude)} takes on higher values.\(^{19}\)

Macroeconomic Variables. According to Franzosi, “the association between strike frequency and the business cycle is one of the clearest findings of econometric research” (1989, 353). During economic downturns workers’ propensity to strike is thought to decline since their bargaining position

\(^{15}\)Note that predictions about differences in the \textit{volume} of striking as measured by, for instance, the number of working days lost per 1000 workers, would be difficult to obtain from the model without further assumptions. In addition, they would be difficult to test.

\(^{16}\)The U.S. data only cover disputes that involve 1000 workers or more. The reader should note that since the U.S. is a SMD system, this stacks the deck against my hypothesis.

\(^{17}\)The small exception is France, where the 1986 elections used PR, but still with very low district magnitude (a majority were of magnitude<3).

\(^{18}\)The following results are robust to the coding of New Zealand, i.e. the classification of the post-1993 system as SMD or PR. The same goes for Italy. The results are also robust to the coding of France during its short experiment with a more proportional system.

\(^{19}\)The reason for transforming the district magnitude variable is that beyond a certain district magnitude near perfect proportionality is achieved.
is weakened. I include the unemployment rate (*Unemployment*) and the inflation rate (*Inflation*).

**Organizational and Political Resources.** The ability of workers to strike depends crucially on their access to organizational resources (Shorter and Tilly 1974, Franzosi 1989). *Union density* is measured as the percentage of union members, net of unemployed, self-employed, and pensioners, of the country’s wage and salary earners. Moving on to political resources Hibbs (1978) and Korpi and Shalev (1980) argue that, at least in the long term, control of office by parties of the left is negatively related to strike activity, since this shifts distributional issues from the economic to the political sphere. Oskarsson (2003) believes the opposite on the basis of the argument that governments of the left are perceived to be more sympathetic to workers’ demands. Paldam and Pedersen (1982) find support for this proposition in some, but not all, OECD countries. Controlling for cabinet composition is especially important in the present application since in the OECD proportional systems are associated with a greater incidence of center-left governments (Iversen and Soskice 2002). *Government Partisanship* is measured as the percentage of cabinet seats held by parties of the left.

**Labor Market Structure.** Turning to labor market structure, or the institutionalization of wage setting, a common argument is that coordinated or centralized wage bargaining makes unions internalize the costs of their actions (Olson 1982). Usually one discusses this problem in the context of inflationary wage increases (Calmfors and Driffill 1988). However, the role of institutional setting has also been emphasized in strike research (Franzosi 1989, Oskarsson 2003). An additional concern, specific to the present paper, is that there is a strong relation between proportional systems and more ‘consensual’ politics, and especially ‘corporatist’ arrangements in the labor market (Lijphart 1999). In the absence of this control my hypothesis might turn out to be right for the wrong reasons. That is, one could level the charge that it is not my proposed mechanism that explains the relationship between strikes and electoral systems, but rather the tendency of proportional systems to have centralized or coordinated labor market institutions. There are two alternative operational definitions that might be relevant for the present purpose: (a) *Bargaining Centralization* essentially captures the level at which wages are set, as measured by Golden, Lange and Wallerstein (1997), and (b) *Bargaining Coordination* which measures the degree of coordination with, rather than the level at, which wages are set as measured by Kenworthy (2001). It turns out that the results regarding the effect of electoral systems are robust to the

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20The crucial difference between centralization and coordination measures is most readily seen with reference to the phenomenon of pattern bargaining. In pattern setting systems, like Sweden and Germany, the export sector goes first in wage negotiations and sets a norm for private and
inclusion of any of these two measures. In the following analysis I will therefore present the results controlling for Bargaining Coordination, since it is the measure that is most closely related to Olson’s idea about externalities.

The Legislature, the Executive, and the Timing of Elections. Robertson (1990) sees strikes as signifying the breakdown of politically negotiated compromises between capital and labor. He goes on to pinpoint some characteristics of political systems that promote the resolution of conflicts in the market. As with labor market structure, these characteristics are related to the electoral system, and must therefore be controlled for in the present context. First, he argues that the “the principal arena in which the interests of labor and capital are defined, articulated, refined, and represented is the legislature” (167) and that “where multiparty systems prevail and are reflected in the national legislative system, political parties are indeed more likely to externalize externality costs and therefore be less effective as an institutional safeguard against opportunism” (168). In systems with fewer parties, the parties are expected to encompass broader interests and class compromise is expected to be easier to sustain.\(^{21}\) Effective No. of Parties measures the degree of party system fragmentation in the parliament according to Laakso and Taagepera (1979). In addition, Robertson (1990) asks to what extent we can expect the executive to encompass broader interests. He argues that since minority governments have to maintain a consultative relationship with the legislature they are forced to take broader interests into account and that oversized governments are encompassing almost by definition. Minimal winning coalitions, on the other hand, are not forced to take such considerations into account and class compromise will be harder to sustain. Minimal Winning Coalition takes on the value of 1 if the government is a minimal winning coalition, and 0 otherwise. Finally, Robertson (1990) suggests that the foundations of consensus become especially challenged during election years. I include a variable measuring the distance, in years, to the ensuing election year. Distance to Election takes on values from 0 (election year) to 4.

\(^{21}\) Robertson (1990) does, however, go further than this argument and creates an index of ‘Legislative Polarized Pluralism’, which in essence interacts the degree of party system fragmentation with the degree of ideological polarization. However, reliable data on ideological polarization are lacking for the time period studied here. Still, there is an extenuating circumstance for the omission of ideological polarization. Taagepera and Grofman (1985) have suggested that the number of issue dimensions will be approximately equal to the effective number of parties minus one. As Lijphart (1999, 87ff) has shown, the fragmentation of the party system is strongly and positively related to ideological polarization in the legislature in a fashion that is similar to the one suggested by Taagepera and Grofman. Therefore, I focus solely on the degree of party system fragmentation.
**Statistical Model.** There are two possible ways of testing the hypothesis that strikes are more common under SMD than PR. One might study temporal dynamics, that is, whether the frequency of strikes changes when a country switches between PR and SMD. However, as we have already seen, changes in electoral systems were extremely rare during the time period studied here. This approach therefore, taken by itself, will not allow us to make reliable inferences. Fortunately, there is ample cross-sectional variation. In sum, I employ a pooled cross-sectional design, not to study temporal dynamics, but to isolate the effect of electoral systems from that of variables that display more temporal variation: Inflation, unemployment, government partisanship, and union density.\(^\text{22}\) The question I want to pose to the data is then: *Are strike frequencies on average higher in SMD than PR systems when we control for the main variables thought to create their observed long-run trends and short-term fluctuations?*

The analysis of pooled panel data introduces a number of complications. First, for reasons outside our statistical model the incidence of strikes might be contemporaneously correlated. If there is some general trend of radicalism in many OECD countries, as was the case in Europe in the late 1960s, the assumption of no contemporaneous correlation might well be untenable. Second, it is reasonable to assume that there are country specific disturbances. Since I analyze pooled cross-sections this affects a significant portion of the data, instead of just one unit as would have been the case in a simple cross-section. Finally, there is the problem of temporal autocorrelation. This problem tends to arise in panel data for two reasons: First, there might be a causal effect of the dependent variable at time point \(t - 1\) on the dependent variable at \(t\), and second, there might be variables that are omitted from the model causing a spurious correlation between the dependent variable at time point \(t - 1\) with itself at \(t\).\(^\text{23}\) To my knowledge, nowhere in the literature on the determinants of strikes, and certainly not in the theoretical model presented here, is there any indication that striking in itself should affect the likelihood of striking at consecutive points in time. Of course, we expect ‘waves’ of strikes, not only across, but also within nations. However, this is not the same as saying that striking at one point in time causes striking at a consecutive point. Rather we expect that striking in two adjacent years should be related because in adjacent years, similar organizational/political and economic circumstances hold. Still, even if we control for the circumstances we know to be conducive to strikes, there might be numerous causes of strikes that are unobservable or even unknown to us. This leads us to observe a spurious—if the previous reasoning is correct—correlation between our variables at adjacent points in time.

As is well known, the OLS parameter estimates are still unbiased in these circumstances and my main strategy will be to rely on them. However, to

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\(^{22}\)In addition to the arguments made in the main text, the addition of degrees of freedom in itself provides justification for the pooled cross-section design (Stimson 1985).

\(^{23}\)A third reason is correlated errors of measurement.
counter the potential mischief that heteroskedastic and autocorrelated disturbances might cause for significance testing I rely on standard errors based on Newey and West’s heteroskedasticity and autocorrelation consistent covariance matrices with three lags (Newey and West 1987).24 In order to deal with the problem of contemporaneous correlation I include year dummies,25 This variable should ameliorate the problem of contemporaneous correlation due to general trends of radicalism in the OECD countries.26

Main Results
I shall now proceed to empirically test my hypothesis that the frequency of strikes should, all else being equal, be more common in more majoritarian systems. The results from all model specifications I will consider are displayed in Table 3.1. Because of the alleged importance of the business cycle, the most basic model I estimate contains only inflation, unemployment, and the electoral system. In column 1, we see that the number of strikes per year and 1000 workers is, on average, about 0.05 higher in countries where the legislature is elected in single member districts than in PR systems, when inflation and

24Following Greene (2003, 267) I consider the lag corresponding to the smallest integer \( \geq T^{1/4} \) where \( T \) is the total number of years. \( T \) was determined by taking the average number of years per panel. An alternative approach to these problems—Prais-Winsten regression where serial dependence is assumed to follow an AR1 process with panel corrected standard errors that are assumed to be contemporaneously correlated and heteroskedastic (Beck and Katz 1995)—yields the same results with respect to the signs and significance of the electoral system effects. However, since there is very high temporal autocorrelation this procedure results in a near first differencing of the time series. This is problematic given that we have little temporal variation in electoral systems. We are to a large degree measuring the short-term impact of a very small number of changes in electoral laws on strike frequencies.

25In addition to the modeling strategy outlined in this section I also estimated the full model, as in column two of Table 3.1 in section 84, for each of the 38 years. All else being equal, expected strike frequencies were higher in SMD countries in 32 out of the 38 years studied. These results are in line with our hypothesis and corroborate the results obtained with the pooled cross-section design. Regression year by year did, however, yield few significant effects of any variable. This should not come as a surprise since there were nine independent variables and at most 17 observations.

26I also experimented with substituting the OECD\textsubscript{Average}_{t-1} and Neighbor\textsubscript{Average}_{t-1} for the year dummies. OECD\textsubscript{Average}_{t-1} simply records the previous period’s average strike frequency for all 17 countries. Neighbor\textsubscript{Average}_{t-1} records the previous period’s average strike frequency for all neighboring countries that are included in this data set. The reason for trying the latter is that the media sometimes interprets strikes as ‘spreading’ between neighboring countries; a case in point is the French truck drivers’ blockade of fuel depots and oil refineries, which, in the fall of 2000, was followed by strikes in Italy and Great Britain. The definition of neighbor corresponds to the least restrictive category of the contiguity index in Gochman (1991, 97): “Contiguity/proximity by water, such that the system members are no greater than 150 statute miles apart”. In addition to this, New Zealand and Australia were coded neighbors. Japan has no neighbors that are in the data set, and can therefore not be included whenever Neighbor\textsubscript{Average}_{t-1} is. For the data on Contiguity/proximity by water, see Stinnett et al. (2002). None of the qualitative conclusions are altered by substituting OECD\textsubscript{Average}_{t-1} and Neighbor\textsubscript{Average}_{t-1} for the year dummies.
<table>
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<tr>
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<tbody>
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<td>(2)</td>
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<td>(4)</td>
<td>(5)</td>
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<td>-0.079</td>
<td>-0.149***</td>
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<tr>
<td></td>
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<td>(0.056)</td>
<td>(0.064)</td>
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</tr>
<tr>
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<td>0.011***</td>
<td>0.011***</td>
<td>0.010***</td>
<td>0.008***</td>
<td></td>
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<td>(0.003)</td>
<td>(0.003)</td>
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</tr>
<tr>
<td><strong>Unemployment</strong></td>
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<td>-0.004*</td>
<td>-0.002</td>
<td>-0.000</td>
<td>-0.001</td>
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</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.003)</td>
<td>(0.003)</td>
<td>(0.003)</td>
<td></td>
</tr>
<tr>
<td><strong>Union Density</strong></td>
<td>0.003***</td>
<td>0.003***</td>
<td>0.003***</td>
<td>0.003***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.001)</td>
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<td></td>
</tr>
<tr>
<td><strong>Government Partisanship</strong></td>
<td>-0.041*</td>
<td>-0.031</td>
<td>-0.008</td>
<td>0.013</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.024)</td>
<td>(0.026)</td>
<td>(0.027)</td>
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<td></td>
</tr>
<tr>
<td><strong>Labor Market Structure</strong></td>
<td>-0.082**</td>
<td>-0.089**</td>
<td>0.013</td>
<td>-0.040</td>
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<tr>
<td></td>
<td>(0.040)</td>
<td>(0.045)</td>
<td>(0.053)</td>
<td>(0.055)</td>
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<tr>
<td><strong>Effective No. of Parties</strong></td>
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<td>0.014</td>
<td>0.010</td>
<td>0.011</td>
<td></td>
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<tr>
<td></td>
<td>(0.008)</td>
<td>(0.009)</td>
<td>(0.008)</td>
<td>(0.009)</td>
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<td></td>
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<tr>
<td><strong>Minimal Winning Coalition</strong></td>
<td>-0.010</td>
<td>-0.008</td>
<td>-0.038*</td>
<td>-0.034</td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td>(0.018)</td>
<td>(0.020)</td>
<td>(0.021)</td>
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<td></td>
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<tr>
<td><strong>Distance to Election</strong></td>
<td>0.005</td>
<td>0.005</td>
<td>0.008*</td>
<td>0.007</td>
<td></td>
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<tr>
<td></td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.005)</td>
<td>(0.005)</td>
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<td></td>
</tr>
<tr>
<td><strong>Electoral System:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMD</td>
<td>0.047**</td>
<td>0.083***</td>
<td>0.078***</td>
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</tr>
<tr>
<td></td>
<td>(0.023)</td>
<td>(0.026)</td>
<td>(0.027)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMD2</td>
<td></td>
<td></td>
<td></td>
<td>0.099***</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.031)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln(District Magnitude)</td>
<td></td>
<td></td>
<td></td>
<td>-0.032***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.011)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Year dummies</strong></td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>625</td>
<td>602</td>
<td>602</td>
<td>324</td>
<td>324</td>
<td></td>
</tr>
<tr>
<td><strong>Panels</strong></td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td><strong>Average no. of years</strong></td>
<td>35</td>
<td>35</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Adj.R²</strong></td>
<td>0.14</td>
<td>0.22</td>
<td>0.19</td>
<td>0.19</td>
<td>0.18</td>
<td></td>
</tr>
</tbody>
</table>

Newey-West standard errors in parentheses (3 lags). * significant at 10%; ** significant at 5%; *** significant at 1%.
unemployment are taken into account. The difference is significant, but also sizeable considering that the mean number of strikes per year and 1000 workers is 0.11 with a standard deviation of 0.17. To give the reader an idea about the magnitude of the effect, imagine a country the size of France would changing from SMD to PR. In 1997 France had a working population of around 20 million. All else being equal, for a country this size, the expected reduction in the number of strikes due to changing from SMD to PR would be approximately 1000; the predicted number of strikes with SMD was 1380 (the actual number of strikes was 1607), while the corresponding prediction under PR was 437.

In column 2 of Table 3.1, where organizational/political resources, labor market structure, type of government, and party system are added to the model, the effect of the electoral system remains significant and the parameter estimate is even higher. The inclusion of year dummies in column 3 does not change the strength or significance of the electoral system variable. In these two models a country with a workforce the size of France’s in 1997 would be expected to experience a reduction in the number of strikes of the order of 1500–1600 when changing from SMD to PR, all else being equal.

In columns 4 and 5 we see the results where $SMD^2$ and $\ln(District \ magnitude)$ are substituted for $SMD$. Beginning with $SMD^2$, the coefficient estimate is slightly higher than that for $SMD$, although the two are, of course, highly correlated. Moving on to 5, a higher district magnitude (that is, a more proportional system) is associated with a lower incidence of strikes. The effect is both statistically significant and substantively important. Keeping with the thought experiments, and using the parameter estimate in column 5, if a country like Austria, which in 1998 had a working population of roughly 3.7 million, and a mean district magnitude of 20, were to change to SMD the expected increase in the annual number of strikes would be 357.

Of our controls, the only variables that show a robustness comparable to that of the electoral system variables are Union Density and Inflation. Union Density has the expected sign, and is significant across all specifications. Also, since it has an empirical range of 8.6 to 88.6 the effect can be considered to be of substantive importance. For the sake of simplicity, consider the results of models 1 through 5, where the coefficient estimates are identical. All else being equal, moving from the lowest union density to the highest implies roughly a tenfold increase in the annual number of strikes per 1000 workers. This clearly substantiates the claims of Shorter and Tilly (1974) and Franzosi (1989) concerning the primacy of access to organizational resources. Of the business cycle variables, Inflation has a positive and significant effect on strikes across all specifications, as would be expected since higher rates are associated with a booming economy.

A more coordinated Labor Market Structure is associated with a lower incidence of striking in columns 2 and 3, but not in 4 and 5. This discrepancy could reflect the fact that in the latter models, the panels only run from 1978
through 1998. All parameter estimates for Effective No. of Parties have the positive signs expected by Robertson (1990) but are never significant. Unemployment has the expected negative effect, giving some credence to the idea that tight labor markets encourage workers to strike. However, the estimates appear much too unstable over specifications for us to make any reliable inference, and Unemployment only has a significant effect in model 2. Turning to the estimates for Government Partisanship, the effects of left-wing parties in the cabinet is negative, as Hibbs (1978) and Korpi and Shalev (1980) would have us believe. Government Partisanship is, however, only significant in model 2, and only moderately so. Therefore I do not dare to make any strong statements about the effects of left-wing parties in power. Also evident is that the striking increases with the distance to the ensuing election, though the parameter estimate is only statistically significant in column 4. Finally, the estimates for Minimal Winning Coalition are all negative, the only significant on being in 4.

To sum up, the electoral system exerts a statistically significant effect across all specifications. Furthermore, the sizes of the effects certainly appear to have real world significance. It appears that the empirical regularity displayed in Figure 3.1 stands up to more careful statistical testing, including controls for a host of variables: The business cycle, labor market structure, party system, type of government, electoral cycle, and ‘organizational/political’ resources.

The Conditional Impact of the Electoral System on Strikes

So far, our main hypothesis has received support across the board. Still, a number of objections might be raised concerning the scope of the simple model and the hypotheses presented in the theory section. In this section I shall therefore analyze the conditional effect of the electoral system on strike frequencies. My basic strategy is to add interaction effects to model 3 in Table 3.1. The results from this exercise are displayed in Table 3.2. For ease of interpretation, I have put the conditional effects of the electoral system together with their standard errors in Table 3.3.

First, we might expect the effect to be greater the more electoral considerations come to the fore. In the upper left panel of Table 3.3 I show the effect of the electoral system conditional upon the distance from the ensuing election. As can be seen, the results are in line with this hypothesis. The closer the election, all else being equal, the more pronounced the expected difference between electoral systems. Striking is only significantly higher in majoritarian electoral systems, when the distance to the onset of the election year is two years or less.

Second, one might argue, one might extend the claims of Hibbs (1978) and Korpi and Shalev (1980), and argue that control of office by parties of the left will decrease the effect of the electoral system on strike frequencies. Conversely, an extension of the arguments made by Paldam and Pedersen (1982)
Table 3.2: Number of Strikes per 1000 Wage and Salary Earners

<table>
<thead>
<tr>
<th></th>
<th>1960–1998</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-0.112**</td>
<td>0.022</td>
<td>-0.062</td>
</tr>
<tr>
<td></td>
<td>(0.062)</td>
<td>(0.048)</td>
<td>(0.058)</td>
</tr>
<tr>
<td><strong>Inflation</strong></td>
<td>0.011***</td>
<td>0.011***</td>
<td>0.009***</td>
</tr>
<tr>
<td></td>
<td>(0.003)</td>
<td>(0.004)</td>
<td>(0.003)</td>
</tr>
<tr>
<td><strong>Unemployment</strong></td>
<td>-0.002</td>
<td>0.004*</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>(0.003)</td>
<td>(0.002)</td>
<td>(0.003)</td>
</tr>
<tr>
<td><strong>Union Density</strong></td>
<td>0.003***</td>
<td></td>
<td>0.004***</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td></td>
<td>(0.001)</td>
</tr>
<tr>
<td><strong>Government Partisanship</strong></td>
<td>-0.032</td>
<td>-0.042**</td>
<td>-0.088***</td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.020)</td>
<td>(0.029)</td>
</tr>
<tr>
<td><strong>Labor Market Structure</strong></td>
<td>-0.069*</td>
<td></td>
<td>-0.087**</td>
</tr>
<tr>
<td></td>
<td>(0.036)</td>
<td></td>
<td>(0.036)</td>
</tr>
<tr>
<td><strong>Effective No. of Parties</strong></td>
<td>0.015*</td>
<td>0.007</td>
<td>0.013</td>
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<tr>
<td></td>
<td>(0.009)</td>
<td>(0.008)</td>
<td>(0.008)</td>
</tr>
<tr>
<td><strong>Minimal Winning Coalition</strong></td>
<td>-0.009</td>
<td>-0.040**</td>
<td>-0.017</td>
</tr>
<tr>
<td></td>
<td>(0.018)</td>
<td>(0.019)</td>
<td>(0.019)</td>
</tr>
<tr>
<td><strong>Distance to Election</strong></td>
<td>0.015**</td>
<td>0.003</td>
<td>0.006</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.005)</td>
<td>(0.004)</td>
</tr>
<tr>
<td><strong>Union Capacity</strong></td>
<td>0.013</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.028)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Electoral System:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SMD</strong></td>
<td>0.114***</td>
<td>0.150***</td>
<td>0.042</td>
</tr>
<tr>
<td></td>
<td>(0.030)</td>
<td>(0.032)</td>
<td>(0.029)</td>
</tr>
<tr>
<td><strong>Distance to Election × SMD</strong></td>
<td>-0.026**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Union Capacity × SMD</strong></td>
<td>0.151***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.048)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Government Partisanship × SMD</strong></td>
<td>0.136***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.046)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Year dummies</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>625</td>
<td>602</td>
<td>602</td>
</tr>
<tr>
<td><strong>Panels</strong></td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td><strong>Average no. of years</strong></td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td><strong>Adj-$R^2$</strong></td>
<td>0.19</td>
<td>0.17</td>
<td>0.20</td>
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</tbody>
</table>

Newey-West standard errors in parentheses (3 lags). * significant at 10%; ** significant at 5%; *** significant at 1%.
Table 3.3: The Conditional Impact of the Electoral System on the Number of Strikes per 1000 Wage and Salary Earners

<table>
<thead>
<tr>
<th>Years to Election</th>
<th>Government Partisanship</th>
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<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>4</td>
<td>SMD</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
</tr>
<tr>
<td>2</td>
<td>SMD</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
</tr>
<tr>
<td>0</td>
<td>SMD</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
</tr>
</tbody>
</table>

Entries in parentheses are standard errors calculated on the basis of Newey-West’s heteroskedastic and autocorrelation consistent covariance matrix. * Significant at 10%; **Significant at 5%; ***Significant at 1%.

and Oskarsson (2003) might suggest that the difference between electoral systems may increase with the percentage of cabinet seats held by parties of the left. As can be seen in Table 3.3 the latter view appears to be correct. The effect of SMD becomes more sizeable as the share of cabinet seats held by left-wing parties increases, and it is significant for a medium and high share.27

Third, the theoretical model might only be valid for countries where unions possess certain characteristics. More specifically, Calmfors and Horn argue that where "wages are set through centralized bargaining between economy-wide employer federations and trade unions that organize the majority of the labour force", unions will "have every reason to take into account the possibility that their decisions may trigger off policy reactions from the government" (1986, 281f). This raises the possibility that the theoretical model might not very well describe a situation where unions are fragmented, and their behavior has no major impact. To test this idea I took the factor scores from a principal components analysis of Union Density and Labor Market Structure and created a new variable: Union Capacity. The results in Table 3.3 show that, all else being equal, for low levels of Union Capacity there is no significant difference between SMD and PR systems, while the expected strike frequency was significantly higher in SMD systems for intermediate and high levels of Union Capacity.28 This does indeed suggest that there is some threshold under which the unions are so small and fragmented, and wage-bargaining is so decentralized, that the unions will perceive themselves unable to affect gov-

27Calculations are for 0% (one standard deviation below the mean), 30% (mean) and 60% (one standard deviation above the mean) of the cabinet seats held by left-wing parties.

28Calculations are for low (one standard deviation below the mean), medium (mean) and high (one standard deviation above the mean) levels of the Union Capacity index.
ernment policy. However, the model appears to be applicable to a major part of the cases/countries.

The findings in this subsection lead me to add a qualifier to the statement made at the end of the previous subsection: Strikes appear to be more common in majoritarian systems than in proportional systems, all else being equal, especially when election year approaches, when a larger share of cabinet seats are held by left-wing parties and the more impact unions can expect to have on the country’s economic climate.

Strikes and Government Efforts at Job Creation in 17 OECD Countries, 1960–1998

Now I turn to exploring whether there is any systematic relationship between strikes and efforts at job creation in SMD and PR systems. The causal process I have described suggests that, all else being equal, governments in SMD systems will respond to strikes by increasing these efforts, while there will be no relationship between the two in PR systems.

To test this I use, as a first indicator, data on the share of GDP devoted to active labor market programs (ALMP). This pooled cross-section includes 16 OECD countries during the years 1980–1998. As a second indicator of government efforts at job creation I use the number of government employees divided by the total number of wage and salary earners. Public Sector Employment covers 15 OECD countries during the years 1960–1998.

For the ‘all else being equal’ part of the analysis I mainly rely on what Swank and Martin (2001) call a ‘general model’ of active labor market policy. This model consists of a number of standard variables that are thought to determine the size of active labor market programs in particular, and welfare expenditures in general. Since the literature typically connects active labor market policy and public sector employment with social democracy Government Partisanship is included. Swank and Martin also emphasize the role of active labor market programs in meeting the demands for structural change posed by international trade and include Trade which measures imports and exports as a percentage of GDP. I also include the variable in the public sector employment regression, since a large public sector can serve as a kind of insurance for workers against the risks associated with international competition. Additionally, we would expect higher levels of Unemployment, to be associated with a heavier reliance on active labor market programs and public sector employment. Finally, because of the alleged connection between economic

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29 The countries included are the same as in the previous sections with the exception of Italy, for which there are no data on ALMP.

30 The countries included are the same as in the previous sections with the exception of Australia and Switzerland, for which there are no data.

31 The unemployment level is lagged because of the endogeneity problems associated with including the current level.
Table 3.4: Active Labor Market Programs as a Percentage of GDP, and Public Sector Employment as a Share of Wage and Salary Earners

<table>
<thead>
<tr>
<th></th>
<th>Active Labor Market Programs</th>
<th>Public Sector Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>0.119</td>
<td>0.079</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td><strong>Unemployment_{t-1}</strong></td>
<td>0.033***</td>
<td>0.032***</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.009)</td>
</tr>
<tr>
<td><strong>ΔInflation</strong></td>
<td>-0.011</td>
<td>-0.008</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.009)</td>
</tr>
<tr>
<td><strong>Government Partisanship</strong></td>
<td>-0.119</td>
<td>-0.113</td>
</tr>
<tr>
<td></td>
<td>(0.092)</td>
<td>(0.094)</td>
</tr>
<tr>
<td><strong>Labor Market Structure</strong></td>
<td>-0.257**</td>
<td>-0.225*</td>
</tr>
<tr>
<td></td>
<td>(0.122)</td>
<td>(0.118)</td>
</tr>
<tr>
<td><strong>Trade Openness</strong></td>
<td>-0.004</td>
<td>-0.004</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.003)</td>
</tr>
<tr>
<td><strong>GDP/capita</strong></td>
<td>-0.000</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.009)</td>
</tr>
<tr>
<td><strong>Distance to Election</strong></td>
<td>0.009</td>
<td>0.011</td>
</tr>
<tr>
<td></td>
<td>(0.010)</td>
<td>(0.010)</td>
</tr>
<tr>
<td><strong>SMD</strong></td>
<td>0.299***</td>
<td>0.357***</td>
</tr>
<tr>
<td></td>
<td>(0.111)</td>
<td>(0.116)</td>
</tr>
<tr>
<td><strong>Strikes/1000 workers</strong></td>
<td>0.169</td>
<td>0.022</td>
</tr>
<tr>
<td></td>
<td>(0.184)</td>
<td>(0.017)</td>
</tr>
<tr>
<td><strong>Strikes/1000 workers × SMD</strong></td>
<td>1.613**</td>
<td>0.317***</td>
</tr>
<tr>
<td></td>
<td>(0.645)</td>
<td>(0.073)</td>
</tr>
<tr>
<td><strong>Strikes/1000 workers_{t-1}</strong></td>
<td>0.091</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.175)</td>
<td></td>
</tr>
<tr>
<td><strong>Strikes/1000 workers_{t-1} × SMD</strong></td>
<td>0.945*</td>
<td>0.280***</td>
</tr>
<tr>
<td></td>
<td>(0.564)</td>
<td>(0.079)</td>
</tr>
</tbody>
</table>

Year dummies: Yes, Yes, Yes, Yes
Country dummies: Yes, Yes, Yes, Yes
Panels: 16, 16, 15, 15
Average no. of years: 15, 15, 36, 36
N: 243, 243, 492, 492
R²: 0.90, 0.90, 0.83, 0.83

Newey-West standard errors in parentheses (2 and 3 lags). * significant at 10%; ** significant at 5%; *** significant at 1%
Table 3.5: The Impact of Strikes on Government Efforts to Create Jobs Conditional on the Electoral System

<table>
<thead>
<tr>
<th></th>
<th>Active Labor Market Programs</th>
<th>Public Sector Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SMD</td>
<td>PR</td>
</tr>
<tr>
<td>Strikes/1000 workers</td>
<td>1.782***</td>
<td>0.169</td>
</tr>
<tr>
<td></td>
<td>(0.682)</td>
<td>(0.184)</td>
</tr>
<tr>
<td>Strikes/1000 workers_{i-1}</td>
<td>1.036*</td>
<td>0.091</td>
</tr>
<tr>
<td></td>
<td>(0.599)</td>
<td>(0.175)</td>
</tr>
</tbody>
</table>

Entries in parentheses are standard errors calculated on the basis of Newey-West’s heteroskedastic and autocorrelation consistent covariance matrix. *Significant at 10%; **Significant at 5%; ***Significant at 1%.

and welfare state development, I include GDP/capita measured in US$1000. I make three additions to the above variables. First, as is pointed out by Kenworthy (2002), the corporatist literature has linked coordinated wage setting to active labor market policy. When wage setting is coordinated the incumbent government might feel more confident that the unions will exercise wage restraint, and therefore freer to engage in policies that have stimulatory effects on the economy. The argument is easily extended to the issue of government employment. Therefore I add Labor Market Structure. Second, it is commonly assumed that governments use public sector employment as a stabilization instrument. For instance, Holmlund argues that “the government hires in slumps and fires in booms” (1986, 246), and shows how the Swedish government’s behavior during the 1970s and early 1980s is consistent with this claim. In principle, this argument applies to certain components of active labor market policy as well. To capture the presence of “booms” and “slumps” I include the first difference of inflation (∆Inflation). To capture the possible impact of the electoral cycle on spending I also include Distance to Election.

To determine whether an increase in the frequency of striking, all else being equal, is positively related to the share of GDP devoted to active labor market programs and to the share of all workers employed by the government, in countries where the legislature is elected in SMD, but not where it is elected in PR, I estimate four pooled cross-section models. All contain country and year dummies. The standard errors are, once again, based on Newey and West’s heteroskedasticity and autocorrelation consistent covariance matrices, this time with two lags and three lags, respectively. The estimates from regressing ALMP and Public Sector Employment both on Strikes/1000 workers, and on Strikes/1000 workers_{i-1}, are shown. The results displayed in Table 3.4 match my expectations. For ease of interpretation, I provide the effects of

---

32Once again applying Greene’s (2003, 267) rule.
strikes on active labor market programs and public sector employment conditional on the electoral system with their standard errors in a separate table (Table 3.5).\footnote{33}\footnote{33}

First, consider active labor market programs. From the first and second columns of Table 3.5 we see that in countries with SMD the relationships between the current and lagged strike frequency and these programs is positive and significant, while the relationships are weak and insignificant in countries with PR. In fact, the parameter estimate is more than 10 times as large in SMD countries for both current and lagged strike frequencies. To see the substantive importance of the effect of current strikes, imagine that Australia experienced twice as many strikes as it actually did in 1998 (there were 519). The increase in expenditures on active labor market programs, keeping all else equal, would be approximately US$738,000. For comparison, Australia spent approximately US$1.6 millions on active labor market programs in 1998. Of the control variables, only $\text{Unemployment}_{t-1}$ is significant and has the expected sign. $\Delta\text{Inflation}$ has the expected sign but does not reach conventional significance levels. Finally, the signs of Government Partisanship, Trade Openness and Labor Market Structure are contrary to expectations, but only the last of the three is significant. Neither $\text{Distance to Election}$, nor GDP/capita seem to be related to spending on active labor market programs.

By and large, the pattern repeats itself when we turn to public sector employment. Looking at current strike frequencies in columns 3 and 4 of Table 3.5, it is apparent that strikes only have a significant and positive impact in SMD systems. The parameter estimate for SMD systems is fifteen times larger than that for PR systems. With respect to the lagged strike frequencies, their impact on Public Sector Employment is positive and significant both in SMD and PR systems. However, the effect is ten times larger in countries with SMD electoral systems. Clearly, then, the results in Tables 3.4 and 3.5 show that the impact of strikes on public sector employment is significantly higher, by both statistical and substantive criteria, in SMD systems. Of the control variables $\text{Unemployment}_{t-1}$, $\Delta\text{Inflation}$, GDP/capita, and $\text{Distance to Election}$ have the expected signs but the only one that is significant is $\text{Unemployment}_{t-1}$. Once again, the parameter estimates for Government Partisanship, Trade Openness, and Labor Market Structure are negative and insignificant.

All in all, the evidence presented in this subsection strengthens the credibility of my theoretical argument. My explanation of why strikes are more common in countries with SMD electoral systems hinges on the kind of relationship documented here: It is mainly in countries with SMD electoral systems that governments respond to strikes by increasing their efforts at creating jobs.

\footnote{33}Interacting Strikes/1000 workers with SMD$^2$ and ln(Mean district magnitude) instead of SMD yields statistically significant and qualitatively similar results.
Conclusion

The evidence presented here supports a notion common among political scientists and sociologists and which has recently received the attention of economists: Although strikes may be mainly economic phenomena, they are also political phenomena. The hypothesis that strikes will be more common in countries where the legislature is elected in SMD, as compared to by PR, receives strong empirical support in a host of empirical tests. The expected difference in strike frequencies between those countries that employ SMD and PR electoral systems is sizeable and significant. Substituting the dichotomous measure of the electoral system for more nuanced measures yields equally reassuring results. Most interestingly, the results indicate that strike frequencies are decreasing in a continuous measure of the number of members elected in each electoral district. The empirical evidence also indicates that the size of the difference between PR and SMD systems varies with the electoral cycle, the composition of government, and the impact unions can be expected to have on the country’s economic climate. The difference between systems was especially marked the closer the ensuing election, the more cabinet seats held by left-wing parties, and the larger the share of the workforce organized in unions who bargain in a coordinated fashion. Finally, the size of active labor market programs is positively related to strike frequencies in SMD but not in PR systems. The impact of strikes on public sector employment is also markedly higher in SMD systems. It appears that in countries with SMD electoral systems, governments do indeed respond more readily to strikes by increasing their efforts to fight unemployment.

The explanation I offer for these empirical regularities is straightforward: The key insight, which is formalized in a simple theoretical model, is that a government that experiences a drop in popular support due to a strike will only reprioritize its spending decisions in order to expand employment if the shortfall of voter support makes legislative seats more contested. My discussion of electoral systems shows that this condition will never be met in a country where the legislature is elected by perfect PR. With perfect PR, legislative seats are equally contested, no matter how close the election is. Where legislators are elected in SMD this condition can be met; when the popularity of the incumbent government plunges, seats will become more contested, unless the incumbent is already unpopular. By focusing on modeling a particular setting where unions strike to induce governments to increase their efforts at job creation I have attempted to open up a broader line of inquiry into the possibilities for unions, and other strong third parties, to exploit electoral system disproportionalities to their advantage. It would be interesting to apply a similar argument to the one presented here to some of the observed differences between SMD and PR systems mentioned in the opening paragraph of this pa-
per. Could a models like mine provide insights into other sorts of broad, and perhaps even violent, popular protest?

The story told here chimes well with the fact that some of the more famous examples of unions using their capacity to strike to achieve political ends, and governments responding for fear of electoral defeat, have occurred in majoritarian systems. For instance, in the context of his detailed study of the passage of the 1935 National Labor Relations Act (NLRA) Goldfield develops a general model of New Deal legislation in which he stresses the following:

New Deal labor legislation was a result of the interaction between labor movement growth and activity (...) and government officials (or state managers) with primary concern for preserving social stability and assuring the continued electoral success of the Roosevelt-led Democratic party. (...) While the particular content of virtually all New Deal legislation was a direct, though evolving, product of longstanding reform agendas, the impetus for passage, some features of the bills, and the immediate reasons why the legislation was passed (i.e., why a large number of senators and congressmen voted for it, why business did not oppose it in a more extreme manner, and why the president signed it) was a direct result of the broad labor upsurge. (1989, 1268–1269)

Interestingly, given my results, Goldfield goes on to show how “labor insurgency (...) had reached proportions truly alarming to the economic and political elites” and that “[e]ven William Green, the ever cautious head of the AFL, attempted to use labor unrest to political advantage” (1989, 1273).

Turning to events closer in time, the fall and winter of 1995 saw French unions protesting against the government’s attempts to meet the demands of the Maastricht criteria on public sector deficits. Beginning in October labor unrest escalated until the end of December, when more than one third of public employees were on strike. At this point it was apparent that the unions had widespread popular support and prime minister Juppé agreed to slow down adjustment programs, as well as lowering payroll taxes in order to create jobs.

Finally, the model presented here also illuminates some central aspects of the confrontation between the National Union of Mineworkers (NUM) and the National Coal Board (NCB), and the Thatcher government during the first half of the 1980s. Upon entering government in 1979, the Thatcher administration proceeded to implement its agenda of rationalizing the coal industry. At first, union resistance proved as insurmountable to the Thatcher government as it had to British governments during the previous decade, and in 1981

[...]he NCB’s closure proposals were quickly followed by a spontaneous, accelerating strike. The Board withdrew its plans as the Government confirmed its commitment to the Plan for Coal and undertook to minimise coal imports. Mrs. Thatcher was not ready for a full-scale confrontation. (Towers 1985, 15)

By the time of the outbreak of the infamous 1984–85 Miners’ Strike, however, the NCB was better prepared to weather the conflict (e.g. it had been a
deliberate strategy of the Conservative government to build up coal stocks), and the Thatcher administration and the NCB had used the media to launch a campaign to delegitimize the miners’ claims (Towers 1985). This time the public was unsympathetic to the miners and the government’s popularity even increased following the onset of the strike (Price and Sanders 1995, 465). The miners returned to their jobs after a year-long strike without having gained any significant concessions from the government. The argument presented in this article suggests that an especially important short-term objective for governments in majoritarian systems, if they wish to ‘win’ these kinds of battles, is to make sure to avoid being held responsible for the strike in the eyes of the electorate. And it seems a highly reasonable conjecture that the lack of political concessions by the Thatcher government can in part be attributed to their success, and the NUM’s corresponding failure, in accomplishing this task.
Appendix
The Model

Labor Demand

In order to prove that $n^*(p, \sigma, w)$ is strictly increasing in $p$, and $q$, but strictly decreasing in $w$, consider the first order and second order conditions for the firm’s profit maximization problem given in equation (3.2):

\[ p\alpha n^{\alpha-1} + (\sigma - w) = 0 \]  \hspace{1cm} (3.6)

\[ p(\alpha - 1) \alpha n^{\alpha-2} < 0 \]  \hspace{1cm} (3.7)

From (3.7) it can be seen that the second order condition is always satisfied, since the profit function is always strictly concave. (3.6) can be solved to obtain an expression for labor demand: $n^* = \left( \frac{\rho \alpha}{w - \sigma} \right)$ $^{1-\sigma}$. The comparative static results we seek are then

\[ n_p^* = \frac{\alpha}{(1 - \alpha)(w - \sigma)} \left( \frac{\rho \alpha}{w - \sigma} \right)^{\sigma} > 0 \]  \hspace{1cm} (3.8)

\[ n_\sigma^* = \frac{1}{(1 - \alpha)(w - \sigma)} \left( \frac{\rho \alpha}{w - \sigma} \right)^{\sigma} > 0 \]  \hspace{1cm} (3.9)

\[ n_w^* = \frac{-1}{(1 - \alpha)(w - \sigma)} \left( \frac{\rho \alpha}{w - \sigma} \right)^{\sigma} < 0 \]  \hspace{1cm} (3.10)

which corroborate the claims made in the main text.

Labor Market Policy

In order to prove Result 1, consider the first and second order conditions for the incumbent government’s maximization problem given in Equation (3.3).

Taking derivatives and rearranging yields the following conditions:

\[ n \frac{L_n V_n}{(1 - \alpha)(w - \sigma)} - \alpha = 0 \]  \hspace{1cm} (3.11)

\[ n \frac{n_s (L_n V_n)^2 + L_n V_{nn}}{(1 - \alpha)(w - \sigma)} - \alpha < 0 \]  \hspace{1cm} (3.12)

Assuming that such an interior global maximum exists we can utilize the implicit function theorem to back out the relevant comparative static results:

\[ \sigma_s^* = \frac{L_n V_n V_s}{n_s (L_n V_n)^2 + L_n V_{nn} - \alpha} \quad \geq 0 \]  \hspace{1cm} (3.13)

\[ \sigma_w^* = \frac{n_s (L_n V_n)^2 + L_n V_{nn} - (1 - \alpha)}{n_s (L_n V_n)^2 + L_n V_{nn} - \alpha} \quad \geq 0 \]  \hspace{1cm} (3.14)

From (3.13) it is clear that $\sigma_s^* > 0$ if, and only if, $L_n V_n < 0$, which proves Result 1. The interested reader will also note that there are more complications involved in determining the sign of (3.14).
** Strikes and Wages  

In order to prove Result 2 we need only consider the first order conditions for the union’s maximization problem. Taking derivatives of (3.2) and rearranging we find that they are:

\[
\frac{u_w(1 - \alpha)(w - \sigma) + (\sigma^*_w - 1)(u(w) - \overline{w})}{(1 - \alpha)(w - \sigma)} = 0 \tag{3.15}
\]

\[
\frac{n\sigma^*_s(u(w) - \overline{w}) - (1 - \alpha)(w - \sigma)n\gamma}{(1 - \alpha)(w - \sigma)} = 0 \tag{3.16}
\]

To obtain Result 2 we need only to consider (3.16) together with Result 1: A necessary condition for (3.16) to hold is that \(\sigma^*_s > 0\), and since \(\sigma^*_s > 0\) holds if, and only if, \(L_{VV} < 0\), this implies that \(L_{VV} < 0\) is also a necessary condition for (3.16) to hold. This is the first part of Result 2. The second part follows naturally from this; if \(L_{VV} \geq 0\), no positive amount of striking can satisfy (3.16). Thus the constraint that \(s \geq 0\) will be binding. Concerning the impact of politics on what wage rate the union will choose, the ambiguity of (3.14) carries over to (3.15); it is unclear how the shape of \(L(V)\) will affect the wage rate.

** Data  

<table>
<thead>
<tr>
<th>Table 3.6: Descriptive Statistics</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strikes /1000 workers</td>
<td>.1057</td>
<td>.1681</td>
<td>.00023</td>
<td>1.7742</td>
</tr>
<tr>
<td>Inflation</td>
<td>5.4656</td>
<td>4.1302</td>
<td>-.7100</td>
<td>24.2400</td>
</tr>
<tr>
<td>ΔInflation</td>
<td>-.0154</td>
<td>2.3296</td>
<td>-11.3600</td>
<td>11.4700</td>
</tr>
<tr>
<td>Unemployment</td>
<td>4.9789</td>
<td>3.8443</td>
<td>0</td>
<td>18.2254</td>
</tr>
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<td>Union Density</td>
<td>42.6577</td>
<td>17.0431</td>
<td>8.6000</td>
<td>88.6000</td>
</tr>
<tr>
<td>Government Partisanship</td>
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<td>.3673</td>
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<td>1.0000</td>
</tr>
<tr>
<td>Labor Market Structure</td>
<td>.6766</td>
<td>.2935</td>
<td>.2000</td>
<td>1.0000</td>
</tr>
<tr>
<td>Effective No. of Parties</td>
<td>4.0471</td>
<td>1.5786</td>
<td>1.9626</td>
<td>9.8203</td>
</tr>
<tr>
<td>Minimal Winning Coalition</td>
<td>.5856</td>
<td>.4929</td>
<td>0</td>
<td>1.0000</td>
</tr>
<tr>
<td>SMD</td>
<td>.3333</td>
<td>.4717</td>
<td>0</td>
<td>1.0000</td>
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<tr>
<td>ln(Mean District Magnitude)</td>
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<td>1.3848</td>
<td>0</td>
<td>5.0106</td>
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<td>ALMP</td>
<td>.8665</td>
<td>.5644</td>
<td>.0700</td>
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<td>Trade Openness</td>
<td>48.3049</td>
<td>25.1379</td>
<td>6.6259</td>
<td>137.1128</td>
</tr>
<tr>
<td>GDP/capita (US$1000)</td>
<td>10.9281</td>
<td>9.2618</td>
<td>.4793</td>
<td>44.8728</td>
</tr>
<tr>
<td>Union Capacity</td>
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<td>1.2286</td>
<td>-2.3616</td>
<td>2.6084</td>
</tr>
<tr>
<td>Public Sector Employment</td>
<td>.2140</td>
<td>.06714</td>
<td>.0967</td>
<td>.3954</td>
</tr>
</tbody>
</table>

** Strikes.** The original source was the ILO’s *International Yearbook of Labor Statistics*, where Austria and the U.S. are only covered for 1979–1998 and
SMD. Created by categorizing countries on an annual basis according to whether a majority of the legislators in the lower house were elected in single member districts. The original data for the years 1960–1992 are from Huber, Ragin and Stephens (1997) while the years 1993–1998 were supplemented by the author.

SMD\(^2\) and \(\ln(District\ Magnitude)\). Annual figures for 1978–1998 were taken from Wallack et al. (2003). SMD\(^2\) is the percentage of legislators in the country’s lower/only house elected in single member electoral districts. \(\ln(District\ Magnitude)\) is the natural logarithm of mean district magnitude.


Inflation. Originally taken from the IMF’s Financial Statistics.

Union Density. The data were originally compiled from Ebbinghaus and Visser (2000) and the OECD’s Statistical Compendium.


Bargaining Coordination. Increases with the coordination of wage setting. Taken from Kenworthy (2001).

Effective number of parties. Measures the degree of party system fragmentation in the parliament according to Laakso and Taagepera (1979) and is taken from Armingeon, Beyeler and Menegale (2004).

Minimal Winning Coalition. Taken from Armingeon, Beyeler and Menegale (2004).

Distance to Election. Coded on the basis of the election dates given in Armingeon, Beyeler and Menegale (2004).

ALMP. Measures expenditures on active labor market programs as a share of GDP. Taken from Armingeon, Beyeler and Menegale (2004).

Public Sector Employment. The number of government employees divided by the total number of wage and salary earners. Calculated from the OECD’s Statistical Compendium.
Figure 3.3: Number of Strikes per 1000 wage and salary earners by country
4. Why Are Some Countries’ Labor Markets More Regulated than Others?

In countries where citizens enjoy basic civil liberties and a certain degree of political freedom, national labor laws typically also provide them with some protection of their right to organize and bargain collectively, and against arbitrary treatment in the workplace. Still, countries differ markedly in their regulation of labor markets. During the second year of the Weimar Republic, Germany passed its first national law requiring employers to give workers advance notice in the case of dismissal. In the United States, on the other hand, there was no such law prior to the Worker Adjustment and Retraining Notification Act (WARN) of 1988, the scope of which was limited compared to contemporary German legislation. There are also significant differences when it comes to industrial relations laws. For instance, according to the International Confederation of Free Trade Unions the labor laws of Taiwan are so restrictive they “make it difficult to hold a legal strike” (2001, 174), while in Brazil the right to strike is enshrined in the constitution. Although influential international institutions such as the IMF (2003, 2005) and the OECD (1994) have advocated labor market deregulation, reforms along these lines are highly controversial. The EC’s Services Directive is a recent case in point. Designed to eliminate barriers to the free movement of services within the EU, it is perceived as a major threat to member states’ national labor laws and has aroused a heated debate; it is even cited as one of the causes of the French rejection of the EU constitutional treaty in the 2005 referendum.

Despite the cross-national differences, and the political salience of the subject matter, comparative political economists have had surprisingly little to say about the origins of national labor laws. While there is an abundance of studies of transfer payments and services there has been a dearth of theoretical and empirical work on the sources of national labor laws. But since the resources actors control in employment relations (like industrial relations and employment protection legislation) are, to a large extent, given—and taken away—by governments, political redistribution is not simply about breaking the one-to-one relationship between market distribution (the pre-tax and pre-transfer distribution of income) and the actual distribution of income (post-taxes and post-transfers). It is also about altering market distribution itself, which, among other things, depends on national labor laws. This is the starting point of my paper, and in taking a redistributive view of labor market regulations it is part of a small, but emerging literature (Saint-Paul 1996, 2000,
Persson and Tabellini 2002, Rueda 2005). This literature seeks to answer questions such as: In what ways, if any, will countries choose to regulate their labor markets? What coalition of citizens stands to gain from a certain set of regulations, who will loose, and which side will be successful in getting what they want? The natural starting point of such an analysis is to ask how labor market regulations impact on the economic and political interests of citizens.1

In theory, there are several channels through which labor market regulations may affect citizens’ welfare. The ones that have received the most attention recently are macroeconomic aggregates such as growth and employment. Although the OECD, IMF, and EC seem to have converged on the notion that labor market regulations have a negative impact on these aggregates, the empirical evidence is mixed. In a study of 85 countries, Calderon and Chong (2005) find that laws governing industrial relations and employment protection do have a negative impact on growth, but only in those countries belonging to the OECD. Besley and Burgess (2004) study the Indian manufacturing sector from 1952 through 1992 and find that pro-worker amendments in the Industrial Disputes Act did have a negative impact on employment and growth. While previous studies of unemployment in the OECD countries have indicated a positive impact of employment protection on unemployment (e.g. Elmeskov, Martin and Scarpetta 1998), the two most recent and comprehensive studies agree that the effect is very small (Baker et al. 2005, Nickell, Nuzziata and Ochel 2005). Heckman and Pages (2000) also find negligible effects of employment protection on unemployment in a sample of Latin American countries.

For all the controversy, there are a number of stylized facts on which most scholars agree, two of which will serve as points of departure for this paper. First, the laws that govern industrial relations determine the ability of unions to bid up wages. As Layard, Nickell and Jackman have written, “[W]hat does determine the outcomes of the power struggle between a union and its employer? The key element in the situation is the ability of both sides to halt production. The firm’s power depends on the right to lock-out and fire. The union’s power depends on the right to organize and strike. (...) This power is upheld by law.” (1991, 96)2 Second, while the impact of employment protection on labor demand is questionable, a large number of empirical studies covering a wide variety of developing and developed countries show that it decreases labor turnover. Flows in and out of unemployment, or between

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1In an interesting article, Acemoglu and Robinson (2001) provide a rationale for why countries may choose to redistribute through labor market regulations, rather than by using more “efficient” instruments (e.g. cash transfers): Regulations have the additional advantage that they may serve to maintain political constituencies and organizations.

2The notion that union bargaining power can be traced back to industrial relations legislation, while often grounded in either bargaining theory, casual observation, or both, is consistent with the findings of several empirical studies: Olson (1980), Feuille and Delaney (1986), Ichniowski, Freeman and Lauer (1989) and Cramton, Gunderson and Tracy (1999), but see Besley and Burgess (2004).
jobs, are lower in countries with stricter administrative procedures for individual and collective dismissals, higher firing costs, and so on (Heckman and Pages 2000, Addison and Teixeira 2001, Blanchard and Portugal 2001, Esping-Andersen 2001).

I incorporate these stylized facts in a model political economy that, following work on dual (or segmented) labor markets, consists of a unionized and a nonunionized sector, where the ability of unions to bid up wages, and the degree of labor turnover depend on the choice of labor laws.3 I analyze workers who are identical in all respects, except that some hold unionized jobs, which are better paid than otherwise similar jobs. Like Saint-Paul, I consider the empirical referent of these workers to be “the bulk of low and medium skill workers” (2000a, 5), who usually make up a majority of the electorate. Given my framework, these workers form a coalition in the following restricted sense: They are partners in wanting to maximize the total unionized sector wage bill. At the same time they are adversaries when it comes to the division of the wage bill—that is, the division of unionized jobs—amongst themselves. Put differently, in my framework the choice of industrial relations legislation has implications for redistribution between classes, while the choice of employment protection legislation has implications for redistribution within the same class. The specific mechanisms that underpin this coalition will be considered in more detail below.

I focus on two novel political implications. First, workers’ support for industrial relations legislation that enables unions to bid up wages will be inversely related to the economic openness of their country of residence.4 The reason is that in an open economy the elasticity of labor demand should, in general, be higher. Firms can be expected to respond to wage increases by making significant reductions in the workforce because of stiff competition in internationalized product markets, which forces them to scale down production when costs increase, or because they choose to move parts of their production abroad (Rodrik 1997, Fabbri, Haskel and Slaughter 2003). The first set of empirical results match my expectations: Various measures of economic openness that are likely to be positively correlated with firms’ elasticity of demand for labor are negatively related to the type of industrial relations legislation that increases unions’ ability to bid up wages. Turning to the second implication, workers’ support for employment protection legislation depends on their being employed in the unionized sector. This is because the lower labor turnover associated with strict employment protection legislation

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3. Doeringer and Piore (1971) is the seminal work on dual labor markets. Other important works are by Calvo (1978), McDonald and Solow (1985) and Bulow and Summers (1986); in all three, unions are the cause of segmentation.

4. Industrial relations laws may, of course, be designed so as to diminish unions’ bargaining powers: For instance, if the law stipulates a waiting period before a strike can take place. For terminological convenience, however, industrial relations legislation will henceforth be taken to mean industrial relations legislation that enables unions to bid up wages.
increases their chances of holding on to their better paying union jobs. For those who are not members of the unionized sector, flexible employment protection legislation holds out the hope that they could obtain a better paying job. Consequently, they will oppose employment protection. Empirically, and consistent with my expectations, measures of the size of the unionized sector are indeed positively related to the strictness of employment protection legislation.

Before proceeding to my argument, there are some alternatives to the redistributive view of labor market regulations that deserve mention. Agell (1999, 2002) regards employment laws and industrial relations as functional equivalents to publicly provided insurance against unforeseen income losses. Botero et al. regards them as the product of legal systems instated in the distant past that, to this day, provide “a politically unsupported ‘technology’ for the social control of labor markets” (2004, 1375). To the extent that these theories have implications that conflict with mine, or offer alternative explanations for observed relationships, they will be commented on in due course.

In the next section I develop, and derive the results for, a model of a dual labor market consisting of a unionized and a nonunionized sector. I close the section by discussing the political implications of my model. Then I combine the data set of Botero et al. (2004) on labor market regulations in a large number of countries as of 1997, with data from other sources, to validate these implications. Given the political nature of my explanation for cross-country differences in the regulation of labor markets I focus on a subsample of Botero et al.’s: Those countries that, according Freedom House, were ‘free’ or ‘semi-free’ during the years 1990–1997. In the final section, further implications, problems, and possible extensions are discussed.

The Model

In the model, political and economic choices are made in each of three consecutive stages. Figure 4.1 gives a brief summary of the model’s structure. In the first stage, which I will refer to as the legislative stage, industrial relations and employment protection legislation are decided on politically. I will think of this political choice as taking place in the midst of a production cycle, for which wages have already been set and jobs allocated. Thus, at the legislative stage, workers already have an ‘identity’: They are either unemployed, or working in one of the economy’s two sectors, one of which is unionized and one of which is not. The political decision does not come into force until the labor market, which stretches from $t_2$ through $t_3$, reopens. In the first of these two stages, the unionized sector wage is negotiated. In the second, unionized firms make employment decisions taking the wage negotiated at $t_2$ as given. Further, in the nonunionized sector, where factor and product markets are assumed to be perfectly competitive, the labor market clears; the supply of labor...
to this sector will equal it’s demand, and the wage will adjust so as to make this true.

In the following subsections I first describe the workings of the labor market; that is, stages $t_2$ through $t_3$. Then, I move back to $t_1$, the legislative stage, and derive the political support for industrial relations and employment protection legislation, and finally I give a brief summary of the results and draw out the political implications of the model.

The Labor Market

The labor force $N$ is constant, equal to the total population, and consists of risk neutral workers with identical skills. These workers populate one of two sectors: The unionized sector, which is denoted by $u$, or the nonunionized sector, which is denoted by $m$. Thus, $N = N_u + N_m$. Throughout I assume perfectly competitive product and factor markets in sector $m$. This implies that the entire population of this sector will be employed, and that their wages will adjust so as to make this true. To fix ideas, suppose sector $m$’s total output is equal to $L_m^\alpha$, with $\alpha \in (0, 1)$, and where $L_m$ is the number employed in sector $m$. By this, and the full employment condition ($N_m = L_m$), the equilibrium wage in sector $m$ can be written:

$$w_m = \alpha N_m^{\alpha-1}$$  \hspace{1cm} (4.1)

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$^5$Leisure has no value, so workers supply labor inelastically.

$^6$My results would be identical for any neoclassical production function where factor inputs other than labor (e.g. capital) are fixed. Many works in labor economics assume such production functions (see, e.g., McDonald and Solow 1981, Oswald 1985, Layard, Nickell and Jackman 1991).
I have assumed that firms in sector \( m \) are price takers and normalized prices for their product to 1 so that revenue is equal to total output. The interpretation of (4.1) is that the wage in sector \( m \) is a negative function of its population.

In sector \( u \) the wage is instead set in negotiations between firms and a trade union. When negotiations are over, the firms choose the level of employment, \( L_u \), that maximizes revenue subject to the negotiated wage. I will assume that the negotiated wage, \( w_u \), is a markup over \( \omega \)—the wage that would obtain if labor markets cleared in both sectors—such that \( w_u \in (\omega, \infty) \). In line with the stylized fact mentioned in the beginning, that the rules set down in the laws that govern industrial relations determine the ability of the union to gain wage concessions, \( w_u \) is seen as a positive function of the policy variable \( \beta \) (that is, \( w_u(\beta) > 0 \)). \( \beta \) lies in the interval \( [\underline{\beta}, \overline{\beta}] \), where \( \overline{\beta} (\underline{\beta}) \) represents industrial relations legislation that is maximally favorable (unfavorable) to the union.

Since bargaining between firms and the trade union is not explicitly modelled this setup is obviously a shortcut. It does, however, capture the salient characteristics of what has emerged as the workhorse in studies of union–firm interaction: The ‘right to manage’ model (Layard, Nickell and Jackman 1991). As is suggested by its name, this theory of labor negotiations assumes that the firm or sector sets employment unilaterally after the wage has been negotiated by unions and management. The model is often justified with reference to the observation that while wages are bargained over, clauses on employment are seldom included in collective agreements (Layard, Nickell and Jackman 1991, Oswald 1993). As is the case here, the typical ‘right to manage’ setup also includes considerations of the relative bargaining strength of union and firm, which is seen as determined by the legal framework of collective bargaining. Inserting a more complete description of the wage bargaining process into the present model would lead to qualitatively similar results, at the cost of additional notation.

The firms in the unionized sector fill the \( L_u \) positions with members of the unionized sector population, \( N_u \). Workers cannot queue for a unionized job when in sector \( m \); they have to belong to the unionized sector population to have a chance of getting a unionized job.\(^7\) One part of \( N_u \) is made up of those who are with the firm in the current production cycle (members of the incumbent workforce), at \( t_1 \). When the labor market reopens, at \( t_2 \), the incumbents, who number \( N_i \), will stay and hope for a contract renewal in the unionized sector. The nonincumbents will decide between taking a job in the competitive sector, \( m \), or queuing for a job in the unionized sector, \( u \). This assumption—that competitive sector employees will consider quitting their job while unionized employees won’t—can be justified by the commonplace observation that unionized employees are less likely to quit their jobs than are nonunionized

\(^7\)This assumption is common in the literature (see, e.g., Calvo 1978, Bulow and Summers 1986). Others, such as McDonald and Solow (1985) and Holmlund and Lundborg (1990), have assumed that those who are part of the unionized sector population have a higher probability of obtaining a unionized job than if they had searched while remaining in their old job.
employees. Those nonincumbents who decide to queue for a unionized job number $N_u = N_i + N_o$.

The firm fills a proportion, $p$, of the positions, $L_u$, with members of $N_i$, while $(1 - p)$ positions are recruited from the group $N_o$. Knowing this, we can now write labor turnover in the unionized sector as $N_i + L_u(1 - 2p)$. I also assume that $p > (1 - p)$; that is, firms have at least a slight preference for incumbents over nonincumbents. Further, $p$ is seen as a positive function of the strictness of employment protection legislation, which is captured by the policy variable $\chi$ (i.e. $\frac{p}{\chi} > 0$). $\chi$ lies in the interval $[\chi, \bar{\chi}]$, where $\bar{\chi}$ represents maximal (minimal) employment protection. Knowing this, it is clear that labor turnover is decreasing in the strictness of employment protection legislation, $\chi$. This is in line with the second stylized fact mentioned in the introduction, that while a higher degree of employment protection does not appear to reduce total labor demand, it does reduce firms’ labor turnover.

By the above reasoning, the expected wages of workers belonging to $N_i$ and $N_o$ are, respectively,

\begin{align*}
E_i(w_u) &= \frac{L_u}{N_i} pw_u \\
E_o(w_u) &= \frac{L_u}{N_o} (1 - p) w_u
\end{align*}

(4.2)

(4.3)

where $\frac{L_u}{N_i} p$ is the probability that workers belonging to $N_i$ remain employed, and $\frac{L_u}{N_o} (1 - p)$ is the probability that workers belonging to $N_o$ find a job.

Finally, we turn to the inter-sectoral relationship between wages in sector $u$ and $m$. First, the competitive sector wage can offer workers no less (and no more) than what they can expect to gain from joining the group $N_o$ in pursuit of a unionized job:

\[ E_o(w_u) = w_m \]  

(4.4)

This assumption has been used extensively in the literature. It was originally introduced by Harris and Todaro (1970), while Calvo (1978) introduced it into the literature on unions.

**Regulatory Preferences at the Legislative Stage**

At the legislative stage industrial relations and employment protection legislation are decided on. More specifically, this means choosing $\beta$ and $\chi$. In order for workers to have well-defined preferences over labor laws it

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8 Beginning with Freeman (1978) and Borjas (1979), labor economists have documented, and suggested various explanations for, this pattern.

9 The incumbents who are separated from their jobs number $N_i - pL_u$, and the new hires from the pool of nonincumbents number $L_u(1 - p)$. Adding the number of separations to the number of new hires gives the expression in the text.
is important for them to be able to foresee the economic consequences of adopting various values of $\beta$ and $\chi$. The following result ensures that this is the case (all proofs can be found in the Appendix):

RESULT 1: Given $\beta$ and $\chi$, there exists one, and only one, vector $w_u, w_m, p, L_u, L_m, N_u, N_m, N_o$ that satisfies all the assumptions made in the previous subsection.

In words, there is a unique labor market equilibrium associated with each pair of values for $\beta$ and $\chi$.\footnote{Recall that $N$ and $N_i$ are completely exogenous to the model. Therefore they are not mentioned in Result 1.} If workers have full information, they can track the impact of $\beta$ and $\chi$ on their expected wages.

The second result concerns workers’ preferences over industrial relations legislation, that is, $\beta$:

RESULT 2: The expected wage of all workers will be increasing in $\beta$ if, and only if, $\eta_u < 1$, and decreasing if, and only if, $\eta_u > 1$.

$\eta_u$ is the absolute value of the total wage elasticity of labor demand in the unionized sector: The percentage decrease in unionized sector employment resulting from a percentage increase in the unionized wage. In words, Result 2 states that when a percentage increase in wages results in less (more) than a percentage decrease in unionized sector employment, the expected wages of all workers’ will be increasing (decreasing) in $\beta$. As a corollary, they will prefer industrial relations legislation that is maximally (minimally) favorable to unions, that is, $\overline{\beta}(\beta)$. The intuition behind Result 2 is straightforward. As long as $\eta_u < 1$ ($\eta_u > 1$) the total unionized sector wage bill increases (decreases) in $\beta$. This benefits not only the incumbents but also the nonincumbents, since they have the opportunity to queue for a unionized job.

The labor economics underlying Result 2 ties into the literature on the relationship between union and nonunion wages. Broadly speaking, scholars have argued that when a unionized sector emerges, the firms in what remains of the competitive sector will either, as is the case here when $\eta < 1$, have to pay higher wages or see their workforce disappear (the ‘queue effect’), or, as originally suggested by Rosen (1969), choose to pay higher wages for fear of being unionized (the ‘threat effect’). This contrasts with the ‘spillover effect’ described by Friedman (1962, 124): “If unions raise wage rates in any particular occupation or industry, they necessarily make the amount of employment available in the occupation or industry less than it otherwise would be—just as any higher price cuts down the amount purchased. The effect is an increased number of persons seeking other jobs, which forces down wages in other occupations.” In real world labor markets, these opposing effects may
no doubt all play their part. But many empirical micro- and macroeconometric studies have found a positive association between union and nonunion wages, suggesting that threat or queue effects frequently dominate the spillover effect (e.g. Dickens and Katz 1987, Kahn and Curme 1987, Ichniowski, Freeman and Lauer 1989, Hsing 2001).

The third result concerns workers’ preferences over employment protection legislation, that is, $\chi$:

RESULT 3: The expected wage of workers belonging to $N_i$ is increasing in $\chi$. The expected wage of workers belonging to $N - N_i$ is decreasing in $\chi$.

In words, Result 3 states that while the expected wages of incumbents in the unionized sector are increasing in the strictness of employment protection legislation, the expected wages of all other workers are decreasing. The rationale behind this result is straightforward. As an increase in $\chi$ increases the probability that incumbents keep their jobs, their expected wage also increases. At the same time, $\chi$ reduces the probability that a nonincumbent worker could find work in a unionized firm, so her expected wage drops, and, consequently, the wages of workers in the competitive sector as well. The corollary is that incumbents (nonincumbents) will prefer maximal (minimal) employment protection legislation, that is, $\bar{\chi}$ ($\underline{\chi}$).

Summary and Political Implications

What are the implications of the highly simplified model political economy laid out in the previous two sections? According to Result 2 in the previous section, industrial relations legislation that enables unions to bid up wages above competitive sector wages affects all workers’ expected wages similarly: if the benefits of a higher unionized wage are larger (smaller) than the concomitant loss in unionized sector employment, their expected wages rise (fall). Legislation of this kind can thus serve the purpose of redistributing parts of firms’ revenue towards workers, but the extent to which this can be deemed a profitable strategy, at the legislative stage, depends on its impact on employment in the unionized sector, or, in other words, on firms’ elasticity of labor demand. The crucial importance of labor demand elasticities is not surprising when one considers that it has long occupied a central role in theories of unionized labor markets (Booth 1995, Kaufman 2002). In these theories, the negative relationship between wages and labor demand forces the union, which cares about both wages and employment, to make a tradeoff between the two. On the politico-economic level, the mechanism is essentially the same. Broadly speaking, workers will find it profitable to combine at the legislative stage and seek industrial relations that redistributes from firms’ profits to union wages, as long as the costs of such redistribution, in terms of less employment in the unionized sector, are not prohibitively large.
If this line of reasoning is correct, we would expect that factors that increase firms' elasticity of labor demand will decrease the support among workers for legislation that empowers unions. Here, I will focus on factors having to do with the economic openness of the country where the firms operate. According to the famous argument by Rodrik trade “increases the elasticity of demand for labor—that is, trade increases the degree to which employers can react to changes in prevailing wages by outsourcing or investing abroad.” (1997, 12) Broadly speaking, the total elasticity of labor demand can be decomposed into the substitution and the scale effect (Hamermesh 1993, 24). The former measures the degree to which firms, in response to a wage increase, will substitute other factor inputs for labor. The latter measures the degree to which wage increases will cause firms to reduce the total output, and thereby labor demand. Theoretically, international trade may increase labor demand elasticities both through the substitution and the scale effect, either by increasing the number of factors firms can substitute for labor, or making product markets more competitive by increasing the number of goods available to consumers (cf. Slaughter 2001). Rodrik’s reasoning suggests the following political implication:

**IMPLICATION 1a:** Workers’ support for industrial relations legislation that empowers unions to raise wages above competitive sector levels will be decreasing in their country of residence's exposure to international trade.

Another aspect of economic openness, foreign direct investment (FDI) by multinational enterprises (MNEs), has received less attention in the literature than trade volumes, but recent work points to a positive correlation between the presence of inward and outward FDI by MNEs and labor demand elasticities (Slaughter 2001, Fabbri, Haskel and Slaughter 2003). Although FDI may work to increase elasticities through the scale effect, by increasing product market competition, there are stronger theoretical and empirical arguments for FDI working through the substitution effect. As Scheve and Slaughter write, the spread of production networks across national borders via MNEs “places domestic workers in competition with foreign labor for employment within the same firm” (2004, 664). These considerations suggest that:

**IMPLICATION 1b:** Workers’ support for industrial relations legislation that empowers unions to raise wages above competitive sector levels will be

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11Although there are good theoretical reasons to believe that Rodrik is right about the impact of the volume of international trade on labor demand elasticities, empirical research struggles with measurement problems, and has so far not been conclusive. Although studies of selected countries show that estimated elasticities have increased during recent decades, in parallel with increasing trade volumes, it is not clear whether the relationship is causal (see, e.g., Slaughter 2001, Fajnzylber and Maloney 2005).
decreasing in the presence of inward and outward FDI in their country of residence.

Implications 1a and 1b both concentrate on how economic openness impacts on citizens’ support for those labor market regulations that empower unions to bid up wages, through its positive impact on labor demand elasticities. However, some authors have argued that economic openness exposes workers to considerable labor market risks (e.g. unemployment and income losses), for which they will demand insurance in the form of social protection. Although mainly applied to transfer payments and services (see, e.g., Rodrik 1997, Garrett 1998), this argument has also been brought to bear on labor market regulations, most notably by Agell (1999, 2002). Agell argues that these provide insurance against labor market risks, and thus can be regarded as a functional equivalent to the welfare state.\(^\text{12}\) Agell’s theory can not be dismissed out of hand; it may contain useful insights. In the end it is an empirical question whether economic openness affects support for pro-union industrial relations legislation, and if so, whether the net effect is positive or negative.

What divides workers is employment protection legislation, which governs the access to unionized jobs. Result 3 states that the expected wages of those workers who, at the legislative stage, are incumbents in the unionized sector, are increasing in employment protection legislation, while the wages of all other workers are decreasing. This result is highly intuitive. Surely, workers who at the time of the political choice are set to earn a higher wage than workers of comparable skill (who do comparable work) will espouse legislation that implies a low labor turnover, since they benefit if the current distribution of workers between jobs remains frozen in time. Obviously, the contrary holds for those who are earning less than workers of comparable skill. This dovetails nicely with Lindbeck and Snower’s characterization of dual labor markets: “Both the unemployed and the secondary-sector workers would prefer to be employed in the primary sector, but are unable to find jobs there.” (1988, 246) Here as well, with competitive and unionized sector substituted for secondary and primary-sector, the allocation of primary sector jobs is a

\(^{12}\)In Agell’s setup, risk-averse citizens’ make their choice of regulations behind a Rawlsian veil of ignorance, knowing only up to a probability where in the income distribution they will end up. Further, in his analysis the sole role of labor market regulations is to compress the income distribution; technically speaking labor demand is infinitely elastic so there are no rents (firms operate under a zero profit constraint), but labor market regulations can be used for (zero-sum) redistribution between types of workers. In this setup, citizens’ regulatory choice is purely dictated by insurance considerations. And to the extent that economic openness increase their exposure to risk, it will also increase their support for regulation. But given the existence of rents, which is the assumption on which much of labor economics builds, there will exist a negative effect of increased labor demand elasticities on the expected wages of citizens. And if economic openness increases labor demand elasticities, it is likely to matter for citizens’ support for regulation, at least the type of legislation that enables unions to bid up wages.
matter of redistribution among workers. The main difference is that here the degree to which the unemployed and the secondary-sector workers are excluded from the chances of obtaining primary-sector employment is explicitly seen as a political choice.

Implication 2a follows straightforwardly from Result 3:

IMPLICATION 2a: Workers’ support for employment protection legislation depends on their being union members.

Here, two qualifications need to be made. First, although the recruitment of employed workers is what the ILO (1998) calls the “self-declared purpose and domain of most unions”, some unemployed workers are members of unions. At the same time, both my analytical results, and common sense, suggest that they are adversely affected by employment protection legislation and, therefore, are unlikely to share the preferences of incumbents in the unionized sector. It is therefore comforting, given the way I have phrased Implication 2a, that the ILO reports that the phenomenon of unemployed union members is uncommon and concentrated in a few European countries.\(^{13}\)

Second, in many countries collective agreements are extended to (made legally binding for) firms or workers who are not party to the bargain.\(^{14}\) For instance, while only one tenth of the French labor force are union members, almost all are covered by collective agreements. To the extent that extension practices actually tend to equalize the wages of those who are only covered by collective agreements to those who are actual union members, covered nonmembers will also have an entrenched interest in legislation that implies a low labor turnover, since it means that they will be more likely to continue to enjoy wages that are higher than those of noncovered workers with similar skills. Implication 2b addresses the first and, more importantly, second qualification to Implication 2a:

IMPLICATION 2b: Workers’ support for employment protection legislation depends on their being covered by collective agreements.

\(^{13}\)And many other studies do indeed show that, with the exception of some European countries among which are those Nordic countries that have a publicly funded and union administered unemployment insurance scheme (the Ghent system), unemployed workers are rarely union members (Barker, Lewis and McCann 1984, Carruth and Disney 1988, Freeman and Pelletier 1990, Blaschke 2000).

\(^{14}\)Traxler, Blaschke and Kittel (2001, 182) distinguish between two main types of extension: extension in the narrow sense and enlargement. The former occurs when collective agreements are made binding for all workers and firms in a certain domain (usually sector). The latter occurs when collective agreements are made binding for workers and firms outside the domain of agreement (usually to economically similar sectors). As Traxler and Behrens (2002) point out, there are also functional equivalents to extension practices, such as mandatory membership of employers’ organizations.
Of the four implications described in this section it is only implication 2a that, to my knowledge, has been subjected to any systematic empirical study. While Botero et al. (2004) provide little theoretical justification, they do find that union density is positively related to the stringency of employment protection legislation, but the relationship turns insignificant when controlling for countries’ legal origins. Others have focused on theorizing employment protection legislation. For instance, Saint-Paul (1996, 2000a) argues, rightly I believe, that low and medium skilled workers are the prime benefactors from this type of legislation. And since they make up a majority of the electorate in most countries, he expects them to fashion labor law to their taste. However, and as Siebert (2005) points out, this appears to be at odds with the magnitude of the observed cross-national differences in regulation. My model, although intended to explore the preferences of similar groups of workers to Saint-Paul’s, but partitioning them into unionized and competitive sector workers, provides theoretical warrant for exploring the possibility that the actual size of the constituency for employment protection, and therefore also the legislation itself, may vary vastly across countries. In addition, and although there has been some discussion of employment protection legislation in the previous literature, the sources of the laws that govern industrial relations are rarely analyzed. My discussion suggests that industrial relations legislation may vary depending on economic openness.

Empirical Evidence: Comparative Labor Regulations in ‘Free’ and ‘Semi-free’ Countries

The theoretical section points to two potential explanations for cross-national differences in labor market regulations. One the one hand, the political support for industrial relations legislation favorable to unions will be greater in countries where firms’ elasticity of demand for labor is lower. As explained above, previous work suggests that firms’ elasticity of demand for labor is related to the volume of international trade and FDI by MNEs. Perhaps these

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15They impute the view that union density should have positive effect on employment protection legislation, and other labor regulations, to ‘political power theories’.

16For instance, in the ‘free’ and ‘semi-free’ countries that make up the main sample in the empirical section that follows this, union membership as a percentage of the non-agricultural labor force varies between 3% and 77%. In the same sample the percentage of formal sector workers covered by collective agreements varies between 2% and 90%.

17However, Saint-Paul (1996, 287ff) does argue that higher unemployment benefits will increase workers’ ability to bid up wages, and hypothesizes that their generosity will be negatively related to firms’ elasticity of labor demand. He does not consider using measures of economic openness as proxies. In addition, if one is interested in institutions that enable unions to bid up wages, industrial relations legislation seems more directly relevant than the generosity of unemployment benefits. On the issue of whether higher unemployment benefits increase wage pressure, Calmfors and Holmlund write, “The empirical work on wage determination has found some, albeit perhaps not overwhelming, support for this effect.” (2000, 119).
factors can help explain some of the cross-national variation in industrial relations legislation. On the other hand, I have argued that while workers who are currently employed in the unionized sector will support employment protection, those who are not will oppose it. Employment protection is thus a matter of conflict among workers, the outcome of which is likely to depend on the balance of forces between these groups. If my reasoning is correct, the size of the constituency in favor of employment protection legislation, and therefore the strictness of actual legislation, will be greater in countries where many workers are either members of unions, or covered by union collective agreements.18

Description of the Data

My indicators of labor market regulations are taken from Botero et al. (2004), who document industrial relations and employment protection legislation in 85 countries as of 1997. This is the most comprehensive study to date, both in terms of country coverage and the amount of information used to construct the indicators. From these regulations and laws can be derived both measures of the procedural rights of workers and employers who wish to undertake certain actions, as well as the economic costs of some of these actions.19 As Chor and Freeman (2005) point out, a potential disadvantage is that Botero et al.’s indicators only capture de jure regulations, while ignoring the de facto implementation of labor law. But implementation is likely to be one step further removed from citizen control than legislation, and my hypotheses are about the choices citizens can actually make. At the same time, legislation is surely correlated, albeit not perfectly, with the actual practices that, in the end, are what matter for the economic wellbeing of citizens.20 I will, for the most part, only include those 70 countries of the 85 that can be considered to have been mainly ‘free’, or ‘semi-free’, during the period 1990-1997 according to the standard suggested by Persson and Tabellini (2003, 75f). First the annual values of Freedom House’s indices of political freedoms and civil liberties are averaged, then the average of this combined index for the years 1990–1997, is calculated. If the average of this index, which I shall refer to as FH, is less than 5 the country is deemed to be at least ‘semi-free’. Focusing on this group

18The empirical case I present below would, of course, be strengthened by micro-level data on individuals’ economic situations and attitudes towards labor market regulations. To my knowledge, no data-set that suits my purposes is available.
19To ensure comparability these restrictions and costs are calculated for a ‘standardized worker’ and ‘standardized employer’. See Botero et al. (2004, 1353) for definitions.
20In 2004, Chor and Freeman (2005) surveyed labor practitioners (e.g. government, corporate and union officials, and academics) in 33 countries about actual practices, and the implementation of regulations. Although the two studies were separated in time, and measure different aspects of labor regulation, they report that their indicators of industrial relations and employment protection were significantly correlated with Botero et al.’s (Pearson’s r of 0.35, and 0.52, respectively).
of countries is natural: There are fewer reasons to expect a direct connection between the economic interests of the citizenry and actual legislation in non-democracies.

In the following I introduce the main variables included in the empirical study, as well as a number of control variables. Additional information on the sources and coding of the variables, as well as descriptive statistics, are given in the Appendix.

**Industrial Relations Legislation.** I use Botero et al.’s collective relations laws index as an indicator of industrial relations legislation. This index is designed to capture laws that “govern the balance of power between labor unions and employers and associations of employers” (1355), and contains information about rights to unionization, closed shops, the extension of collective agreements to third parties, as well as a whole host of laws stipulating the legality of various types of strike (including sympathy, solidarity, and wildcat strikes), mandating arbitration and conciliation, as well as regulating employer lockouts and the usage of replacement workers. It is coded so that higher values indicate that unions have a greater ability to impose their will upon firms. I have rescaled Botero et al.’s index such that 0 stands for the minimum score in the sample (United Kingdom and Malaysia), and 100 for the sample maximum (Peru). Other OECD countries that, together with the United Kingdom, rank in the bottom 10 are the US and New Zealand. In the top 10 we find several Continental European countries (France, Portugal, Italy, and Germany).

**Employment Protection Legislation.** For employment protection legislation, I use Botero et al.’s employment laws index, which captures “the incremental cost to the employer of deviating from a rigid contract, in which the conditions of work are specified and a worker cannot be fired.” (1353). It is composed of four subindices documenting the cost and the extent of regulation of alternative employment contracts, increasing hours worked, firing workers and the extent of dismissal procedures. This index is also rescaled such that the minimum score in the sample (Zambia) takes on the value 0 while 100 stands for the sample maximum (the Russian Federation). Among the bottom 10 countries, we find Canada, the US, and New Zealand while Portugal, France, Sweden, and Spain belong to the top 10.

**Trade and FDI.** In line with the previous reasoning, I use four proxies for firms’ elasticity of labor demand. First, and as pointed out earlier, there are strong reasons, at least in theory, to expect that the volume of international trade may increase labor demand elasticities. I therefore include the volume of trade ($\text{Trade}$), measured as the average sum of exports plus imports of goods and services as a percentage of GDP for the period 1990–1997, in the cross-sectional analysis of industrial relations legislation. There are, however, prob-
lems with this measure of economic openness. As Agell rightly points out, in the context of explaining labor market regulations “[a] basic issue is reverse causation. My measure of openness is based on actual trade volumes, which can be affected by country-specific institutions.” (2002, 125) Therefore, I follow him in validating my results using the constructed trade share of Frankel and Romer (1999). This measure (Frankel-Romer) uses predicted values from a gravity model of bilateral trade, purely based on geographical regressors, which should mitigate the problems of reverse causality.21 By contrast to realized trade (as measured by Trade), Frankel-Romer can be seen as measuring the gains from trade when one considers geographical factors.

The third and fourth indicators attempt to tap the importance of FDI by MNE’s in the countries under study. As noted in the documentation for the World Bank’s Database on Foreign Direct Investment, FDI differs from other types of investment (e.g. portfolio investment) in that “the direct investor should possess or acquire a ‘lasting interest’, or have an ‘effective voice’ in the management of the foreign party” (2). Operationally, they suggest that to qualify as a direct investment enterprise, a direct investor has to own at least 10% of the shares or have 10% of the voting power. I include FDI Inward and FDI Total, measured as the average volume of inward FDI, and the average volume of inward and outward FDI, as a percentage of GDP for the period 1990–1997, in the cross-sectional analysis of industrial relations legislation.22

**Union Density and Union Coverage.** In the World Labor Report 1997–1998, the ILO measures union density in 99 countries. As one measure of the size of the constituency in favor of employment protection legislation I include the number of union members as a percentage of the nonagricultural workforce (Union Density). The ILO study provides estimates for 66 of the countries included in my study. Most of the estimates are from 1995, the earliest from 1991, and none are from after 1996. The ILO study also includes measures of collective bargaining coverage for 43 countries. As my second indicator of the constituency in favor of employment protection legislation I include the number covered by collective agreements as a percentage of the workforce (Union Coverage); 35 of the countries

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21The geographical factors are area, population, distance from, and shared borders with the trading partners.

22Scheve and Slaughter (2004, 666) assert that while the presence of FDI in a particular industry increases this industry’s elasticity of labor demand, it is theoretically ambiguous whether the magnitude of FDI also matters. This may be true for FDI at the industry level, but on the national level the volume of FDI will surely be correlated with the number of workers facing a high elasticity of labor demand, even if the labor demand in a sector (or firm) where there is some FDI is not less elastic than in a sector where there is a lot of FDI.
in my study are included, and all the estimates are from 1994, 1995, or 1996.23

*Development.* The countries in my sample differ a great deal with regard to level of economic development. Previous studies have shown that welfare effort, as for instance measured by welfare expenditures as a share of GDP, tends to increase with GDP/capita (e.g. Wilensky 1975, Pampel and Williamson 1988). Moene and Wallerstein (2003) suggest that this is because the welfare state expenditures can in part be seen as a form of publicly provided insurance, the demand for which, analogously to private insurance, is increasing in income. If labor market regulations are akin to publicly provided insurance, as Agell (1999, 2002) suggests, a positive correlation should be present here as well. I include the natural logarithm of GDP per capita \((\ln(GDP/capita))\) as a control variable.

*Legal Origin.* In recent years, proponents of ‘legal theory’ have argued that much of the cross-national variation in the regulation of markets (including labor markets) can be attributed to differences in legal origin (La Porta et al. 1998, Djankov et al. 2002, Botero et al. 2004). Common law, which historically spread from England to its colonies, is distinguished by its reliance on non-statutory laws. Norms and precedents, as interpreted by jurists, form the basis of legal practice. Most other countries rely on some form of civil law, which is distinguished from common law by its greater degree of formalism, especially its reliance on written law. Following Botero et al. (2004) I include the following dummy variables to capture countries’ various legal origins: *Common Law*, *French Civil Law*, *German Civil Law*, *Socialist*, and *Scandinavian.*24 Throughout, the Scandinavian, or, more appropriately, Greater Scandinavian countries will serve as the reference.

*Results*

In Figure 4.2 I provide an initial look at the relationships between my main variables. Although the relationships are far from perfect, the general tendency is consistent with my expectations: More open countries tend to have less union-friendly industrial relations legislation. And countries where many workers’ wages are set by unions do, on average, have stricter employment

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23Some authors have suggested that employment protection legislation makes the task of organizing unions easier (see, e.g., Acemoglu and Robinson 2001). It is hard to think of any valid instruments for union density that could be used to ameliorate this potential endogeneity problem.

24The countries of ‘Scandinavian’ legal origin are Sweden, Finland, Norway, and Denmark. Although Finland is not usually considered to be a Scandinavian country it is included among the countries considered to have Scandinavian legal origin. Botero et al.’s (2004) reason, I surmise, is that between the fourteenth and eighteenth centuries, Finland and Sweden were one. A less confusing label for these countries would perhaps be ‘Greater Scandinavian’.
Figure 4.2: Cross-sectional analysis of industrial relations and employment protection legislation in ‘free’ and ‘semi-free’ countries (FH< 5)

Looking at the fitted lines, the estimated coefficients appear to have a substantively meaningful impact on the legislative indices, and all are statistically significant (the coefficients for the variables measuring economic openness at 5%, and Union Density and Union Coverage at 1%). The reduced form effect of going from the sample minimum to the sample maximum of Trade is to move the expected value of Industrial Relations Legislation about 29% of its empirical range. Performing the same operation with FDI Total yields a change of the order of 31%. It is noteworthy that, in this case, the effect would be considerably larger if Singapore was omitted: FDI inflows and outflows as a share of GDP are close to 15%. This is almost twice as large as the figure for the Netherlands, which has the second highest value. Turning to the effect of Union Density, a change from the sample minimum to the sample maximum moves the expected value of Employment Protection Legislation about 43% of its empirical range. The corresponding figure when I substitute Union Coverage for Union Density is 47%.

In Table 4.1 I look more closely at the relationship between economic openness and Industrial Relations Legislation. In all cases the signs of the coeffi-
**Table 4.1: Cross-Sectional Analysis of Industrial Relations Legislation**

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FH&lt;5</td>
<td>FH&lt;5</td>
<td>All</td>
<td>FH&lt;5</td>
<td>All</td>
<td>FH&lt;5</td>
<td>FH&lt;5</td>
<td>All</td>
<td>FH&lt;5</td>
<td>All</td>
</tr>
</tbody>
</table>

- **Constant:**
  - 49.162*** (24.486)
  - 53.212** (26.172)
  - 43.380* (24.344)
  - 27.709 (25.702)
  - 31.475 (26.422)
  - 27.091 (27.366)
  - 33.200 (24.001)
  - 39.807 (27.215)
  - 37.418 (23.980)

- **Trade:**
  - -0.180** (0.084)
  - -0.202*** (0.063)
  - -0.191*** (0.058)

- **Frankel-Romer:**
  - -0.325** (0.152)

- **FDI Total:**
  - -3.101*** (1.108)

- **FDI Inward:**
  - -2.265 (1.570)

- **ln(GDP/capita):**
  - 1.604 (2.934)

- **Legal Origin:**
  - **Common Law:**
    - -25.764* (14.968)
    - -25.752* (14.695)
    - -27.535* (14.075)
    - -26.598* (13.894)
    - -25.487* (14.223)
    - -26.421* (13.930)
    - -23.636 (14.355)
    - -25.238* (13.892)

  - **French Civil Law:**
    - 6.419 (14.271)
    - 5.830 (13.939)
    - 5.362 (13.485)
    - 5.264 (13.216)
    - 6.395 (13.848)
    - 4.786 (13.498)
    - 8.063 (13.835)
    - 6.080 (13.461)

  - **German Civil Law:**
    - 4.652 (15.516)
    - 4.801 (15.366)
    - 0.917 (15.087)
    - 1.096 (15.229)
    - 2.638 (15.782)
    - 3.313 (15.534)
    - 3.570 (15.846)
    - 4.359 (15.595)

  - **Socialist:**
    - 10.874 (14.075)
    - 7.549 (14.026)
    - 1.923 (17.168)
    - 1.633 (16.550)
    - 5.405 (14.066)
    - 3.834 (13.719)
    - 8.157 (13.845)
    - 5.845 (13.571)

- **N:**
  - 68
  - 68
  - 81
  - 60
  - 69
  - 69
  - 83
  - 69
  - 83
  - 83

- **Adj-R²:**
  - 0.04
  - 0.35
  - 0.35
  - 0.28
  - 0.29
  - 0.04
  - 0.31
  - 0.31
  - 0.30
  - 0.30

- **Ramsey RESET F:**
  - 0.75
  - 1.30
  - 1.18
  - 2.23*
  - 2.08
  - 0.16
  - 0.69
  - 0.58
  - 0.69
  - 0.24

- **Jarque & Bera χ²:**
  - 3.72
  - 0.67
  - 1.15
  - 1.69
  - 2.16
  - 2.39
  - 1.28
  - 1.31
  - 1.23
  - 1.25

- **Cook & Weisberg χ²:**
  - 0.81
  - 0.70
  - 0.03
  - 0.08
  - 0.00
  - 0.00
  - 0.06
  - 0.05
  - 0.04
  - 0.05

Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.
cients are consistent with my expectations, and, with two exceptions, they are statistically significant. In general, the model diagnostics look fairly good.\textsuperscript{25}

Going into more detail, the coefficient estimates of Trade in columns 1 and 2 do not differ much from the total effect displayed in the upper left panel of Figure 4.2. If anything, their magnitude increases slightly when controls are included. Furthermore, as can be seen from column 4, where I have substituted Frankel-Romer for Trade, the relationship between trade and regulation does not appear to be due simply to reverse causality. The coefficient is significant, but the marginal effect of going from the sample minimum to the sample is of a lower order than that of trade (33\% for Trade in column 2, and 21\% for Frankel-Romer in column 4). Turning to FDI Total, the introduction of the control variables affects its coefficient estimates, as can be seen by comparing columns 5, 6, and 7. Most notably, when Legal Origin is controlled for the coefficient of FDI Total becomes smaller. However, as we saw in Figure 4.2, it is likely that Singapore, with its extreme value for FDI Total, strongly influences the results. In the subsection that follows I will conduct a more formal investigation of this and other influential cases. Substituting FDI Inward for FDI Total, as is done in the last two columns of Table 4.1, does not change the pattern of the results. Finally, as expected, the coefficient estimates for all the variables measuring economic openness fall when one includes those countries that are ‘unfree’ according to the FH index. The results in Table 4.2, where I display the relationships of Union Density and Union Coverage to Employment Protection Legislation, are also consistent with my expectations. The coefficient estimates all have the correct signs, although they are reduced when controlling for Legal Origin. Most noticeably, as can be seen in column 2, the estimate for Union Density falls substantially and turns insignificant, suggesting that some part of the total effect is spurious. The coefficient estimate in column 2 does, however, still appear to reflect a substantively meaningful difference: A change from the sample minimum to the sample maximum moves the expected value of Employment Protection Legislation about 25\% of its empirical range. Things look less ambiguous when Union Coverage is substituted for Union Density. Even when controlling for Legal Origin, and despite the smaller number of observations, the relationship between Union Coverage and Employment Protection Legislation in column 5 is substantively and statistically significant.\textsuperscript{26} Going from the sample minimum to the sample maximum of

\textsuperscript{25}The Jarque and Bera test (Gujarati 1995, 143f, Greene 2003, 397f) does not reject the null hypothesis of normally distributed residuals for any of the models. The Cook and Weisberg (1983) tests do not indicate any problems with heteroskedasticity. But the Ramsey RESET tests (Gujarati 1995, 464ff) for omitted variables indicate that models 1.4 and 1.5 may be misspecified. Regarding a potential source of the misspecification see footnote 32.

\textsuperscript{26}The fact that the coefficient estimates for Union Coverage and Union Density differ in magnitude and significance is not an artifact of the fact that the sample used in the former case is different. When substituting Union Density for Union Coverage in column 5, and rerunning the model only including the countries for which there exist data on Union Coverage, the coefficient estimate of Union Density is insignificant. Exact results can be obtained from the author.
<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constant</strong></td>
<td>26.701</td>
<td>35.075</td>
<td>70.313**</td>
<td>23.894</td>
<td>62.866</td>
<td>62.635**</td>
</tr>
<tr>
<td></td>
<td>(37.575)</td>
<td>(32.403)</td>
<td>(31.158)</td>
<td>(49.663)</td>
<td>(41.276)</td>
<td>(25.872)</td>
</tr>
<tr>
<td><strong>Union Density</strong></td>
<td>0.572***</td>
<td>0.352</td>
<td>0.192</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.201)</td>
<td>(0.327)</td>
<td>(0.307)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Union Coverage</strong></td>
<td>0.586***</td>
<td>0.397**</td>
<td>0.380**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.175)</td>
<td>(0.155)</td>
<td>(0.141)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ln(GDP/capita)</strong></td>
<td>0.674</td>
<td>2.100</td>
<td>-0.374</td>
<td>-0.955</td>
<td>-1.367</td>
<td>-1.233</td>
</tr>
<tr>
<td></td>
<td>(4.520)</td>
<td>(3.390)</td>
<td>(3.372)</td>
<td>(5.632)</td>
<td>(4.421)</td>
<td>(2.744)</td>
</tr>
<tr>
<td><strong>Legal Origin:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Common Law</strong></td>
<td>-39.740***</td>
<td>-46.580***</td>
<td>-42.961***</td>
<td>-43.494***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(14.466)</td>
<td>(13.366)</td>
<td>(9.793)</td>
<td>(9.258)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(18.440)</td>
<td>(17.872)</td>
<td>(22.030)</td>
<td>(21.963)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Socialist</strong></td>
<td>-13.734</td>
<td>-19.006</td>
<td>-34.291***</td>
<td>-22.851***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(14.459)</td>
<td>(11.486)</td>
<td>(5.572)</td>
<td>(8.066)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>55</td>
<td>55</td>
<td>65</td>
<td>29</td>
<td>29</td>
<td>34</td>
</tr>
<tr>
<td><strong>Adj-R^2</strong></td>
<td>0.11</td>
<td>0.42</td>
<td>0.34</td>
<td>0.33</td>
<td>0.55</td>
<td>0.56</td>
</tr>
<tr>
<td><strong>Ramsey RESET F</strong></td>
<td>0.52</td>
<td>1.32</td>
<td>0.33</td>
<td>2.18</td>
<td>0.57</td>
<td>0.69</td>
</tr>
<tr>
<td><strong>Jarque &amp; Bera χ^2</strong></td>
<td>2.60</td>
<td>1.04</td>
<td>0.81</td>
<td>1.60</td>
<td>0.74</td>
<td>0.38</td>
</tr>
<tr>
<td><strong>Cook &amp; Weisberg χ^2</strong></td>
<td>0.70</td>
<td>0.76</td>
<td>0.40</td>
<td>0.09</td>
<td>0.31</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.
imum, the expected value of Employment Protection Legislation changes by 35% of its empirical range. As was the case with the relationships between the variables measuring economic openness and Industrial Relations Legislation, the coefficient estimates of Union Density and Union Coverage are the lowest in columns 3, and 6, respectively, where I have included those countries that are ‘unfree’.

Of the two alternatives to the redistributive view of labor market regulations, the overall results in Tables 4.1 and 4.2, are more consistent with the legal theory. Most clearly, the results are along the lines of Botero et al.’s general claim: “Common law countries tend to rely more on markets and contracts, and civil law (and socialist) countries on regulation” (2004, 1345). However, there is some question about their further disaggregation of civil law (and socialist) countries. From Table 4.1 it is apparent that the differences in Industrial Relations Legislation among the group of non-common law countries are not statistically significant. In Table 4.2, the pattern is similar, but less apparent. While there are no statistically significant differences between the civil law countries, a socialist legal tradition seems to be associated with significantly less Employment Protection Legislation, on average, than a French or Scandinavian one in column 5. This is, however, entirely due to data limitations. The only country with a socialist legal origin included in the estimation of column 5 is Hungary, which scores low on the Employment Protection Legislation index as compared to countries with similar legal origins.

The results stand in sharp contrast to the view that employment laws and industrial relations are functional equivalents of publicly provided insurance against labor market risks. As we saw in Table 4.1, various measures of economic openness have a negative rather than a positive relationship with Industrial Relations Legislation. This is consistent with the redistributive view, but inconsistent with the insurance view. Adding any of my four measures of economic openness to the models displayed in Table 4.2 does not lend much support to the insurance view either (not shown). Furthermore, it is usual to assume that demand for insurance increases with income. In light of this, the coefficient estimates for ln(GDP/capita) in Tables 4.1 and 4.2 speak against the notion that labor market regulations are functionally akin to insurance. If they were, we would have expected richer countries, all else being equal, to

---

27 For column 2, pairwise F-tests (not shown) reveal that the coefficient estimate for Common Law is significantly different, at 10% or higher, from the coefficient estimates for the variables measuring other legal origins. At the same time the coefficient estimates for the civil law (and socialist) countries do not differ significantly. Turning to the model in column 5, pairwise F-tests show that the coefficient estimate for Common Law is significantly different from those of the other legal traditions at 10% or higher, with the exception of German Civil Law.

28 I reran the six models in Table 4.2, including my four main measures of economic openness, one at a time. The estimates for my measures of economic openness were positive in 18 out of 24 models, but it was only when I added Frankel-Romer to the models in columns 2 and 3 that the relationship was positive and significant (at 10% and 5%, respectively). The exact results can be obtained from the author.
have significantly higher scores on the Industrial Relations Legislation and Employment Protection Legislation indices.

There does, of course, exist a number of potentially interesting alternative model specifications to those in Tables 4.1 and 4.2. I have tried several, which, in the interest of conserving degrees of freedom and space, and since the Ramsey RESET diagnostics of most models did not suggest misspecification, are not shown.  

First, although they disagree over the sign of the relationship, Rogowski (1987) and Rogowski and Kayser (2002) have suggested that certain electoral arrangements foster policies conducive to product market competition and international trade. Perhaps the electoral systems is an important omitted variable. Since both articles identify district magnitude as a crucial variable, I experimented with including the average of Wallack et al.’s (2003) measure of the proportion of legislators elected from single-member districts in the lower/only house for the years 1990–1997 (SMD) in all models in Table 4.1. There are two patterns worthy of note. First, in all cases except one the coefficient estimates for the variables measuring economic openness become larger (in absolute terms) and they are now all significant at 10% or higher. Thus, when including SMD as a control variable, all my measures of economic openness have a negative and significant relationship to the Industrial Relations Legislation index. Second, in all cases SMD enters with a negative coefficient, but the coefficient is only significant when SMD is added to the models in columns 1 and 6 of Table 4.1, which exclude controls for legal origin.

Second, one might, on various grounds, suspect that Union Density should be added to the specifications in Table 4.1. For instance, if one believes that “[T]he location of manufacturing activity, at least to the extent that the location of natural resources does not constrain it, should be influenced by differences in the strength of unions across areas.” (Olson 1982, 111), there are reasons to suspect that my measures of economic openness are collinear to Union Density. Adding Union Density to all the models in Table 4.1 does, however, not lead to any qualitatively different conclusions. All the coefficient estimates of the variables measuring economic openness remain negative, and, for the models excluding ‘unfree’ countries, statistically significant. The coefficient

30Exact results can be obtained from the author.
31Rogowski (1987) argues that countries that, due to geographical factors or resource endowments, stand to gain from trade will adopt proportional representation and the large electoral districts related to it. In the dataset used here, there is an especially strong propensity for countries with a low value for Frankel-Romer, which could indicate low gains from trade due to geographical factors, to elect their lower house in single-member districts (Pearson’s r of -0.35 for countries where FH< 5). This, to some extent, substantiates Rogowski’s claim. Rogowski and Kayser (2002), on the other hand, argue that single-member electoral districts foster pro-competitive policies (among other things, the absence of tariffs and quotas).
32Further, the signs of misspecification of the models displayed in columns 4 and 5 of Table 4.1 disappear upon the inclusion of SMD. The Ramsey RESET test statistic falls from 2.23 to 0.56, and 2.20 to 0.76, respectively.
estimate of Union Density is, as my theoretical model would suggest, small and insignificant.

Lastly, neither Table 4.1 nor Table 4.2 address the issue of government partisanship. Rueda (2005) argues that parties of the left, and especially social democratic ones, have strong incentives to pursue ‘insider-friendly’ policies. If one takes these policies, as do Lindbeck and Snower, to include “restrictions on strikes and picketing and relaxing job security and seniority legislation” (2001, 184), this suggests that one should include some measure of the ideological orientation of the incumbent government in the models displayed in Tables 4.1 and 4.2. The case is perhaps especially strong for the models included in Table 4.2, since countries that have had many left-oriented cabinets are likely to have a higher union density than countries which have had few. Based on Beck et al. (2000), I created a variable measuring the percentage of years 1990–1997 the chief executive’s (e.g. the president or prime minister) party was of the left (Left Executive). Two broad results stand out. Upon the inclusion of Left Executive, the coefficient estimates for the variables measuring economic openness and the size of the unionized sector change only marginally, and those that were significant continue to be so (with the exception of Frankel-Romer in column 5 of Table 4.1 where ‘unfree’ countries are included). Second, the sign of Left Executive is inconsistent across specifications and never significant.

Most importantly, the relationships between Trade, Frankel-Romer, and Industrial Relations Legislation remain sizeable, and statistically significant even when a rather wide array of controls are included. And the relationship between Union Coverage and Employment Protection Legislation is equally robust. On a more general level, the results also support my political economy approach: I have hypothesized that the regressors measuring economic openness and the size of the unionized sector affect regulations through the democratic political process. And, as one would expect, their coefficient estimates are always smaller when ‘unfree’ countries are included in the sample.

Sensitivity Analysis

When drawing conclusions from small samples, such as those used in the previous section, there is always the risk that one’s parameter estimates are strongly influenced by a minority of one’s cases. Rather informally, on the basis of the scatterplot in the upper right panel of Figure 4.2 I gauged that Singapore was one such observation. I now turn to a more formal method of detecting influential cases suggested by Bollen and Jackman (1990, 267): For the models in columns 2, 4, 7, and 9 of Table 4.1, and the models in columns
Table 4.3: Sensitivity Analysis I: Influential Cases (FH < 5)

<table>
<thead>
<tr>
<th></th>
<th>Industrial Relations</th>
<th>Employment Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>55.066***</td>
<td>32.475</td>
</tr>
<tr>
<td></td>
<td>(24.271)</td>
<td>(27.711)</td>
</tr>
<tr>
<td><strong>Trade</strong></td>
<td>-0.214***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.064)</td>
<td></td>
</tr>
<tr>
<td><strong>FDI Total</strong></td>
<td></td>
<td>-3.480**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.503)</td>
</tr>
<tr>
<td><strong>Union Coverage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ln(GDP/capita)</strong></td>
<td>1.374</td>
<td>3.601</td>
</tr>
<tr>
<td></td>
<td>(2.368)</td>
<td>(2.691)</td>
</tr>
<tr>
<td><strong>Legal Origin:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Law</td>
<td>-25.777**</td>
<td>-27.468*</td>
</tr>
<tr>
<td></td>
<td>(10.457)</td>
<td>(14.707)</td>
</tr>
<tr>
<td>French Civil Law</td>
<td>6.367</td>
<td>5.782</td>
</tr>
<tr>
<td></td>
<td>(9.398)</td>
<td>(14.329)</td>
</tr>
<tr>
<td>German Civil Law</td>
<td>4.726</td>
<td>0.140</td>
</tr>
<tr>
<td></td>
<td>(11.175)</td>
<td>(16.018)</td>
</tr>
<tr>
<td>Socialist</td>
<td>11.026</td>
<td>3.284</td>
</tr>
<tr>
<td></td>
<td>(9.114)</td>
<td>(14.763)</td>
</tr>
<tr>
<td>Influence Cases:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>-33.934***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(7.801)</td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td>34.560***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(7.775)</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td>37.774**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(16.151)</td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td>-0.657</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5.719)</td>
</tr>
<tr>
<td>Hungary</td>
<td></td>
<td>-35.498***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(6.236)</td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td>-61.805***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(7.950)</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>68</td>
<td>69</td>
</tr>
<tr>
<td><strong>Adj-R^2</strong></td>
<td>0.40</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.
2, and 5 of Table 4.2, respectively. I look for cases that alter one or more regression coefficient by at least one standard error.33

Applying this criterion, I find that it is only in models 2, and 7 of Table 4.1, and 5 of Table 4.2, that some countries exert an influence on the estimated regression coefficients that is above the threshold, and in all cases except one, their influence can be traced to their impact on the estimates for the variables measuring legal origin. In the model in column 2 of Table 4.1 Finland and Norway exhibit above-threshold influence on the legal origin variables. The inclusion of the former, due to its, by Scandinavian standards, low score on the Industrial Relations Legislation index, increases the coefficient estimates for Common Law, French Civil Law, German Civil Law, and Socialist. Norway, on the other hand, has a, by Scandinavian standards, high score, and thus has the opposite effect on the legal origin variables. In column 7 of Table 4.1, and in line with what we saw earlier, Singapore has a large positive impact on the coefficient estimate of FDI Total.34 Finally, in column 5 of Table 4.2 Japan, which has comparatively flexible employment protection legislation, and Germany, which has rather strict legislation, are the only countries for which $FH < 5$, and there exist data on Union Coverage. Thus they have a large (and opposing) influence on the coefficient estimate for German Civil Law. In addition, Hungary obviously determines the coefficient estimate of Socialist completely, since it is the only country of socialist legal origin for which $FH < 5$ and there exists data on Union Coverage.

To illustrate the impact of all this on the regression coefficients, Table 4.3 shows the results of re-estimating the models with influential cases, this time including dummies for the influential cases (this obviously means that the dummies for socialist and German legal origin are excluded from the re-estimation of model 5 from Table 4.2). In column 1 of Table 4.3 the coefficient estimates of the legal origin variables remain relatively unchanged as compared to model 2 in Table 4.1. Because Finland and Norway pull these estimates in opposite directions by roughly equal amounts, it is hardly surprising that the net effect is negligible. The second column confirms the visual impression from Figure 4.2: Adding a dummy for Singapore to model 7 of Table 4.1, increases the coefficient estimate of FDI Total in absolute terms, and it is now significant at 5%. When a single observation makes such a big difference for the results, it is, of course, tempting to conclude that it should either be dummed (as here), or omitted from the sample altogether. But, as Bollen and

33The diagnostic used for detecting influential cases is called [DFBETA], and measures how many standard errors a regression coefficient changes when an particular case is added to the sample. By an influential observation is meant an observation with a high degree of leverage (an unusual value for one or several of the regressors) and a large residual (cf. Bollen and Jackman 1990, 265).

34Since World Development Indicators 2005 does not include the variable Trade for Singapore, this case was not included to begin with in model 2, only in model 7, of Table 4.1. It is no wild guess that had there been data, they would have shown that Singapore has a comparatively high volume of trade.
Stine write, “outliers may accurately reflect the kind of discrepancies we will find in analyzing similar data in other samples”, or they may “reflect the omission of important explanatory variables” (1990, 122). Therefore I simply note that the inclusion of Singapore makes the difference between rejecting and not rejecting the null-hypothesis of no direct relationship between FDI Total and Industrial Relations Legislation. Finally, as can be seen from column 3, the addition of dummies for influential cases to the model in column 5 of Table 4.2 clarifies what underlies the coefficient estimates of German Civil Law and Socialist in Table 4.2.

The tests reported in Tables 4.1 and 4.2 suggest that I have only mild problems with the assumption of normally distributed residuals, and, by implication, of normally distributed coefficient estimates. However, when sample sizes are ‘small’ (N < 30–50) or bordering on ‘small’, as they are here, tests for nonnormality become less powerful (Gujarati 1995, 142f, Greene 2003, 297f). At the same time, there are highly influential cases in some of the models, and, in addition, the indices Industrial Relations Legislation and Employment Protection Legislation are mildly skewed. These things are usually seen as signs that the sampling distribution may depart from normality in terms of kurtosis, or skewness. Mooney’s (1996) simulations suggest that when these distributional assumptions are violated, bootstrapped confidence intervals generally do a better job. And since I can not rule out that some, or all, of my models suffer from these types of violations, I conducted a bootstrap analysis of models 2, 4, 7, and 9 of Table 4.1, and models 2, and 5 of Table 4.2. The process involves taking a large number of random samples with replacement from the original sample, and calculating the coefficient estimates for each of these. Taken together, the coefficient estimates from all these samples form a distribution, which is used to calculate confidence intervals around the (original) coefficient estimates.

The results are shown in in Table 4.4. I have relied on the percentile-t method for calculating bootstrap confidence intervals. Simulations indicate that, for inferences from OLS regressions, they are better than the alternatives (the normal approximation, bias-corrected, and percentile methods) when sample sizes are smaller than 40, and as good when sample sizes are larger (Mooney 1996). As can be seen, the bootstrapped standard errors are, in all cases, larger than the corresponding standard errors in Tables 4.1 and 4.2. Still, the bootstrap analysis corroborates the main findings in Tables 4.1 and 4.2 regarding the variables measuring economic openness and the size of the unionized sector: Trade and Frankel-Romer both appear to be significantly related to scores on the index Industrial Relations Legislation.

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35 See Stine (1990) for an introduction to bootstrap methods.
36 These samples are of equal size to the original sample.
37 I thus employ random, rather than fixed, resampling (e.g. Stine 1990, 254f).
38 I relied on the procedure suggested in Poi (2004) to calculate the percentile-t confidence intervals.
Table 4.4: Sensitivity Analysis II: Bootstrap Standard Errors and Confidence Intervals (FH < 5)

<table>
<thead>
<tr>
<th></th>
<th>Industrial Relations</th>
<th>Employment Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constant</strong></td>
<td>53.212**</td>
<td>42.790</td>
</tr>
<tr>
<td></td>
<td>(25.697)</td>
<td>(27.828)</td>
</tr>
<tr>
<td><strong>Trade</strong></td>
<td>-0.202***</td>
<td>-0.325**</td>
</tr>
<tr>
<td></td>
<td>(0.067)</td>
<td>(0.178)</td>
</tr>
<tr>
<td><strong>Frankel-Romer</strong></td>
<td>-0.202***</td>
<td>-0.325**</td>
</tr>
<tr>
<td></td>
<td>(0.067)</td>
<td>(0.178)</td>
</tr>
<tr>
<td><strong>FDI Total</strong></td>
<td>-1.964</td>
<td>-2.265</td>
</tr>
<tr>
<td></td>
<td>(1.286)</td>
<td>(1.599)</td>
</tr>
<tr>
<td><strong>FDI Inward</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Union Density</strong></td>
<td>0.352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.322)</td>
<td></td>
</tr>
<tr>
<td><strong>Union Coverage</strong></td>
<td></td>
<td>0.397**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.156)</td>
</tr>
<tr>
<td><strong>ln(GDP/capita)</strong></td>
<td>1.501</td>
<td>2.081</td>
</tr>
<tr>
<td></td>
<td>(2.360)</td>
<td>(2.686)</td>
</tr>
<tr>
<td><strong>Legal Origin:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Common Law</strong></td>
<td>-25.764</td>
<td>-27.535</td>
</tr>
<tr>
<td></td>
<td>(12.571)</td>
<td>(12.052)</td>
</tr>
<tr>
<td><strong>French Civil Law</strong></td>
<td>6.419</td>
<td>5.362</td>
</tr>
<tr>
<td></td>
<td>(11.724)</td>
<td>(11.325)</td>
</tr>
<tr>
<td><strong>German Civil Law</strong></td>
<td>4.652</td>
<td>0.917</td>
</tr>
<tr>
<td></td>
<td>(12.482)</td>
<td>(12.139)</td>
</tr>
<tr>
<td><strong>Socialist</strong></td>
<td>10.874</td>
<td>-1.633</td>
</tr>
<tr>
<td></td>
<td>(11.479)</td>
<td>(14.179)</td>
</tr>
</tbody>
</table>

Bootstrapped robust standard errors in parentheses (1000 reps).
Percentile-t confidence intervals: * significant at 10%; ** significant at 5%; *** significant at 1%.
and Union Coverage to Employment Protection Legislation. However, the bootstrap confidence intervals add some uncertainty regarding the impact of legal origin; as can be seen from models 1 through 4 in Table 4.4 I can no longer reject the null hypothesis of no relationship between Common Law and Industrial Relations Legislation. And even though Common Law is still significantly related to Employment Protection Legislation this discrepancy cautions us that legal origin may not be as strong a predictor of regulation across all domains (not even related domains) as some of its proponents claim (e.g. Botero et al. 2004, 1371).

Most importantly for my purposes, the sensitivity analysis broadly confirms the main conclusions of the previous section: Trade and Frankel-Romer have a substantively important, and statistically significant relationship to Industrial Relations Legislation, and Union Coverage to Employment Protection Legislation. In addition, the notion that the nonsignificant relationship between FDI Total and Industrial Relations Legislation is due to a very influential case, Singapore, is verified: When Singapore is dummied the coefficient estimate for FDI Total increases and becomes statistically significant. It is nevertheless advisable to attach a sizeable amount of uncertainty to the claim that FDI is systematically related to legislation that strengthens unions’ ability to bid up wages. Finally, legal theory fares slightly worse than in the previous section: In the bootstrap analysis the relationship between Common Law and Industrial Relations Legislation fails to achieve significance at conventional levels.

Conclusion

Following work on dual labor markets, I model a political economy consisting of a unionized and a nonunionized sector, where the ability of unions to bid up wages, and the degree of labor turnover depends on the choice of labor laws. Under my assumptions workers’ form a coalition in the following sense: They all favor industrial relations legislation geared towards increasing the bargaining power of unions unless the concomitant loss of union jobs is too great. This means that firms’ elasticity of labor demand is crucial for workers’ support for this type of legislation. At the same time, they are adversaries when it comes to the division of the unionized jobs amongst themselves. Stricter employment protection legislation will conserve the current distribution of workers between jobs, which is why it is attractive to workers who are holding unionized sector jobs at the time of political choice, and unattractive to nonunionized workers.

The empirical results match my expectations. Where the costs to workers of pursuing an aggressive wage policy are high, there is less industrial relations legislation. Specifically, in my cross-sectional analysis, countries that trade

---

39This holds irrespective of whether one uses the normal approximation, bias-corrected, or percentile methods of calculating bootstrap confidence intervals.
more, that have more to gain from trade because of geographic factors, and
where FDI by MNEs is more voluminous, and consequently, where firms’
elasticity of labor demand can be expected to be higher, tend to have less
industrial relations legislation that enables unions to bid up wages. These re-
lationships are substantively strong, and, in the case of actual trade and gains
from trade, statistically significant throughout a large number of specifica-
tions. Further, where unionized sector workers make up a larger share of all
workers, there is more employment protection legislation. My results point
to a significant and sizeable relationship between the coverage of collective
agreements and the stringency of employment protection legislation. To a
lesser extent, this is also true of the relationship between union density and
employment protection, although it turns insignificant upon the inclusion of
the full set of controls.

The theoretical and empirical results invite some critical reflection regard-
ing the tendency to lump all labor market regulations together under the head-
ing ‘rigidities’. As recent research in economics shows, different types of
regulation have different kinds of economic consequence. And here I have
argued that, because of their different consequences, different types of reg-
ulations also have different causes. An illustrative example may be helpful
in indicating that such a ‘disaggregation’ is fruitful. The Nordic (or Greater
Scandinavian) countries tend to rank higher, comparatively, on employment
protection than they do on industrial relations legislation, and my framework
suggests an explanation for this: Collective bargaining is the dominant mode
of wage-setting, and, as such, creates an important constituency for employ-
ment protection legislation. At the same time, the Nordic countries have much
to gain from, and do indeed engage extensively in, international trade. As a
consequence, wage moderation, and institutional solutions to further it, have
been at the center of the twentieth century politico-economic debate in these
countries (cf. Katzenstein 1985). This is only an example, and all the usual
caveats apply. The point I wish to make is that ‘disaggregation’ of the type I
have engaged in not only holds out the hope of a fuller understanding of why
some countries’ labor markets are more regulated than others, but also of why
countries regulate certain areas more than others. And in this sense, the title
of this paper harbors an important nuance of my argument.

What about developments over time? Although the empirical analysis pre-
vented here is purely cross-sectional, the results still allow for some specula-
tion about the dynamics of regulation and deregulation. If it is the case that, as
Rodrik writes, “[a]dvances in communications and transportation mean that
large segments of national economies are much more exposed to international
trade and capital flows than they have ever been, regardless of what policy-
makers choose to do” (1997, 9), will these changes erode the popular support
for laws that grant unions extensive bargaining powers? My results suggest
that they might. With increased international trade and globalization of pro-
duction the costs, in terms of job destruction, of pursuing the type of legisla-
tion that underpins an aggressive wage policy are likely to increase. Turning to employment protection legislation, there exist some time-varying data for most OECD countries. The periods of general rise and fall in Nickell, Nunziata and Ochel’s (2005) employment protection legislation indices correspond, albeit with some lag, to those of union growth (ca. 1950s–1970s) and decline (ca. 1980s and on) discussed by, for instance, Ebbinghaus and Visser (1999) and Wallerstein and Western (2000). What lies behind this correlation? My results suggest a potential explanation: As more and more people enjoyed the union wage premium during the 1950s and 1960s, more people came to have a vested interest in reducing labor turnover. The general decline of union membership that started sometime in the late 1970s, however, diminished support for employment protection legislation, leading to greater incentives for policymakers to pass legislation that, at least in part, reversed earlier developments.

Of course, an important assumption in this paper is that the size of the unionized sector and firms’ elasticity of demand for labor are exogenous to politics; they are, as it were, ‘historical accidents’. But, as we know from the trade policy literature, governments both erect and remove tariffs, and even though tariffs have declined in significance since World War II, non-tariff barriers continue to be important (Milner 1999). Furthermore, even in the absence of tariff or non-tariff barriers some industries or sectors are fairly sheltered from international competition, but the competitiveness of their product markets still depends on, for instance, entry regulations and price controls. Similarly, the number of workers covered by union agreements can be decreased, maintained, or even increased by political design. Examples are Prime Minister Thatcher’s industrial relations legislation (Freeman and Pelletier 1990), the introduction of the Ghent system, wherein unions run a (largely) publicly financed unemployment insurance scheme, in some European countries (Rothstein 1992), or the actions of President Woodrow Wilson’s National War Labor Relations Board (Bodah, Ludlam and Coates 2003). By all these, and similar means policymakers no doubt have affected, and still do, both firms’ elasticity of labor demand and the size of the unionized sector.

In my opinion, it would therefore be desirable if, in the future, researchers could integrate historical and theoretical accounts of the choice of labor market regulations, with similar accounts of the support of, and opposition to, unionized wage-setting, protectionism, and product market regulation. Constructing a theory in which all these choices are endogenous may seem an arduous task, and doing so in a way that is faithful to all, or even most, of the important historical facts and peculiarities is surely impossible. Still, given less ambitious aspirations, I believe some headway could be gained. In this paper I have only intimated where to look for an Archimedean point from which to view these choices. Perhaps it can be found somewhere among the factors that are hypothesized to affect the gains from unionization, labor and product market regulation and trade, while at the same time being outside of arm’s reach for policymakers. These factors may include industrial structure,
technology, geography, but also the more enduring of our political and social institutions.

Here, my ambitions have been more modest. Nevertheless, I have produced evidence that countries’ labor market regulations are systematically related to their economic openness and the extent to which wages are set by unions. And I have suggested a theoretical explanation for the observed relationships, which specifies why economic openness and union wage-setting might lead to certain regulatory equilibria. If nothing else, I hope that my findings will contribute to the growing interest among comparative political economists in this relatively neglected area of inquiry.
Appendix
The Model

Proof of Result 1
First, note that \( N \) and \( N_i \) (and, of course, \( \alpha \)) are assumed to be completely exogenous to the model and are therefore not included in the statement of Result 1. By assumption, \( L_u \) is uniquely determined by \( w_u \), which in turn is uniquely determined by \( \beta \). Further, \( p \) is uniquely determined by \( \chi \). To ensure that the values of the remaining variables, \( w_m, L_m, N_u, N_m, N_o \), are such that the labor market is in equilibrium some additional considerations are necessary. First, note that by substituting (4.3) into (4.4) and rearranging we get the following expression:

\[ N_o = L_u(1-p) \frac{w_u}{w_m} \]

(4.5)

As a consequence, we get an expression for the number of workers populating the unionized sector: \( N_u = N_i + L_u(1-p) \frac{w_u}{w_m} \). Second, using (4.1), \( L_m \) and \( N_m \) can be written as functions of \( w_m \): \( N_m = L_m = (\frac{\beta}{w_m})^{\frac{1}{1-\alpha}} \).

We are now in position to state a necessary and sufficient condition for the value of \( w_m \) to belong to the labor market equilibrium:

\[ N - N_i - L_u(1-p) \frac{w_u}{w_m} = (\frac{\alpha}{w_m})^{\frac{1}{1-\alpha}} \]

(4.6)

In words, (4.6) simply shows that the number of competitive sector workers (right hand side) has to be equal to the total workforce less the unionized population (left hand side). This relationship, once political decisions have been made and the labor market reopens, is uniquely determined by \( w_m \). That is, all variables except \( w_m \) are exogenous to (4.6); either because they are completely exogenous to the model—as is the case with \( N, N_i \), and \( \alpha \)—or because they are uniquely determined by the choices of \( \beta \) and \( \chi \) at the legislative stage that precedes the labor market—as is the case with \( L_u, w_u \), and \( p \). Further, note that since the right hand side is strictly decreasing, and the left hand side strictly increasing in \( w_m \), there exists one, and only one, value of \( w_m \) that satisfies (4.6). This unique value can then be used to find the remaining equilibrium values of \( L_m, N_m, N_o \), and \( N_u \). First, given \( w_m \), there exists one, and only one, \( L_u \) that satisfies (4.1). Since \( L_u = N_m \) this also uniquely determines the share of the population belonging to the competitive sector. Finally, given \( w_m \), there is one, and only one, \( N_o \) that solves (4.5).

Proofs of Results 2 and 3
First, note that the workers belonging to \( N_i \) will stay with the unionized sector when the labor market reopens, and that their expected income is independent of the distribution of the other \( N - N_i \) workers between sectors. Thus, we do not have to worry about how \( \beta \) and \( \chi \) affect the labor market’s general
equilibrium when we track their impacts on the expected wage of this group. It suffices to differentiate (4.2) with respect to these variables. Doing this, and rearranging, we get:

\[
\frac{dE_i}{d\beta} = \frac{L_u p(1 - \eta_u)}{N_i} w_u'(\beta) \geq 0
\]

\[
\frac{dE_i}{d\chi} = \frac{L_u w_u p(\chi)}{N_i} > 0
\]

where \(\eta_u\) is the absolute value of the total wage elasticity of labor demand in the unionized sector \((\eta_u = -\frac{w_{um}}{L_u w_{wu}})\). \((1 - \eta_u)\) determines whether (4.7) is nonzero as well as its sign. (4.8) is strictly positive under all circumstances, which proves the first part of Result 3.

Turning to those who belong to the group \(N - N_i\); by (4.4), the expected incomes of these workers are equal. For all practical purposes then, this group’s income is maximized whenever \(w_m\) is maximized. And since \(w_m\) is implicitly defined by (4.6) we can use this equation to track the effects of \(\beta\) and \(\chi\) on the expected income of this group. Implicit differentiation of (4.6) and rearrangement yields

\[
\frac{dE_o}{d\beta} = \frac{dw_m}{d\beta} = \frac{L_u (1 - p)(1 - \eta_u)}{L_u (1 - p) w_m + \frac{1}{1 - \alpha} \left( \frac{\alpha}{w_m} \right)^{\frac{1}{\alpha}}} w_u'(\beta) \geq 0
\]

\[
\frac{dE_o}{d\chi} = \frac{dw_m}{d\chi} = \frac{-L_u w_u}{L_u (1 - p) w_m + \frac{1}{1 - \alpha} \left( \frac{\alpha}{w_m} \right)^{\frac{1}{\alpha}}} p'(\chi) < 0
\]

Clearly, (4.9) is zero if, and only if \((1 - \eta_u) = 0\). Furthermore, if (4.9) is nonzero its sign is determined by the sign of \((1 - \eta_u)\). This, together with (4.7) proves Result 2. (4.10), on the other hand, is strictly negative under all circumstances, which proves the second part of result 3.

Data

*Industrial Relations Legislation.* The variable ‘Collective Relations Laws’ from Botero et al. (2004, 1349) which is the average of fifteen variables coded between 0 and 1 measuring: (1) if lockouts are illegal; (2) workers’ rights to industrial action; (3) the legality of wildcat strikes, sympathy strikes, and secondary picketing; (4) if there is no mandatory notification or waiting period before a strike; (5) if there is no peace obligation; (6) if the law does not mandate a conciliation procedure before a strike; (7) if the law mandates third-party arbitration during a strike; (8) if the firing and replacing of striking workers is illegal; (9) whether the right to form a union is constitutionally protected; (10) if the right to bargaining collectively is constitutionally protected; (11) if employers are obliged by law to bargain with organized
Table 4.5: Descriptive Statistics (FH<5)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Median</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Relations Legislation</td>
<td>70</td>
<td>0</td>
<td>53.69</td>
<td>100</td>
<td>51.21</td>
<td>24.99</td>
</tr>
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<td>Employment Protection Legislation</td>
<td>70</td>
<td>0</td>
<td>47.53</td>
<td>100</td>
<td>49.46</td>
<td>28.17</td>
</tr>
<tr>
<td>Trade</td>
<td>69</td>
<td>14.37</td>
<td>55.16</td>
<td>177.56</td>
<td>63.61</td>
<td>34.54</td>
</tr>
<tr>
<td>Frankel-Romer</td>
<td>62</td>
<td>2.55</td>
<td>13.89</td>
<td>68.16</td>
<td>18.38</td>
<td>14.04</td>
</tr>
<tr>
<td>FDI Total</td>
<td>71</td>
<td>0.27</td>
<td>1.85</td>
<td>13.93</td>
<td>2.42</td>
<td>2.17</td>
</tr>
<tr>
<td>FDI Inward</td>
<td>71</td>
<td>0.03</td>
<td>1.37</td>
<td>9.81</td>
<td>1.75</td>
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<td>Union Density</td>
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<td>21.90</td>
<td>77.20</td>
<td>25.45</td>
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<tr>
<td>Union Coverage</td>
<td>30</td>
<td>2.00</td>
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<td>90</td>
<td>41.42</td>
<td>31.33</td>
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<tr>
<td>ln(GDP/capita)</td>
<td>70</td>
<td>6.29</td>
<td>8.88</td>
<td>10.30</td>
<td>8.81</td>
<td>1.10</td>
</tr>
<tr>
<td>Left Executive</td>
<td>70</td>
<td>0</td>
<td>25</td>
<td>100</td>
<td>34.29</td>
<td>37.75</td>
</tr>
<tr>
<td>Common Law</td>
<td>70</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.27</td>
<td>0.45</td>
</tr>
<tr>
<td>French Civil Law</td>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>0.40</td>
<td>0.49</td>
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<tr>
<td>German Civil Law</td>
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<td>0.09</td>
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<tr>
<td>Socialist</td>
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<td>0.38</td>
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<tr>
<td>SMD</td>
<td>55</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.32</td>
<td>0.45</td>
</tr>
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</table>

workers; (12) whether collective agreements are extended to non-signatory parties at the national or sectoral level; (13) if closed shops are allowed; (14) whether worker councils have the power to appoint members of the company board; and (15) if workers’ councils are mandatory by law. Here it is rescaled such that 0 stands for the sample minimum and 100 for the maximum.

Employment Protection. The variable ‘Employment Laws Index’ from Botero et al. (2004, 1348) which is the average of four variables coded from 0–1 measuring: (1) the existence and cost of alternative employment contracts; (2) the cost of increasing the number of hours worked; (3) the cost of firing 20% of the firm’s workforce, half of them for redundancy and half of them without cause; and (4) an index measuring the extent to which incumbent workers are protected by legislation mandating advance notice to and approval from a third party prior to individual or collective dismissals, retraining or relocation responsibilities on behalf of the firm and seniority rules for dismissals and reemployment. Here it is rescaled such that 0 stands for the sample minimum and 100 for the maximum.

Trade. The average of the sum of exports and imports of goods over GDP (current US$) over the period 1990–1997 taken from the World Bank’s Development Indicators.

Frankel-Romer. The constructed trade share from Frankel and Romer (1999). The sum of the predicted trade shares derived from a gravity model of
bilateral trade using the following regressors: distance, populations size, area, and common borders.


\( \ln(\text{GDP/capita}) \). Average GDP per capita in constant US$ (2000 as the base year) for the period 1990–1997. From the World Bank’s Development Indicators.

Legal Origin. Five dummies measuring whether legal origin is Common Law, French Civil Law, German Civil Law, Socialist, or Scandinavian. Taken from Botero et al. (2004).

Left Executive. The percentage of the years 1990–1997 the country was governed by a left-wing executive. Annual figures taken from Beck et al. (2000).

SMD. The percentage of legislators in the country’s lower/only house elected in single member electoral districts averaged for the years 1990–1997. Annual figures are taken from Wallack et al. (2003).


Booth, Alison L. 1995. The Economics of the Trade Union. Cambridge University Press.


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