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An Introduction to Varieties of Capitalism

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1.1 Introduction

Political economists have always been interested in the differences in economic and political institutions that occur across countries. Some regard these differences as deviations from 'best practice' that will dissolve as nations catch up to a technological or organizational leader. Others see them as the distillation of more durable historical choices for a specific kind of society, since economic institutions condition levels of social protection, the distribution of income, and the availability of collective goods—features of the social solidarity of a nation. In each case, comparative political economy revolves around the conceptual frameworks used to understand institutional variation across nations.

On such frameworks depend the answers to a range of important questions. Some are policy-related. What kind of economic policies will improve the performance of the economy? What will governments do in the face of economic challenges? What defines a state's capacities to meet such challenges? Other questions are firm-related. Do companies located in different nations display systematic differences in their structure and strategies? If so, what inspires such differences? How can national differences in the pace or character of innovation be explained? Some are issues about economic performance. Do some sets of institutions provide lower rates of inflation and unemployment or higher rates of growth than others? What are the trade-offs in terms of economic performance to developing one type of political economy rather than another? Finally, second-order questions about institutional change and stability are of special significance today. Can we expect technological progress and the competitive pressures of globalization to inspire institutional convergence? What factors condition the adjustment paths a political economy takes in the face of such challenges?

The object of this book is to elaborate a new framework for understanding the institutional similarities and differences among the developed economies, one that offers a new and intriguing set of answers to

such questions.[1] We outline the basic approach in this Introduction. Subsequent chapters extend and apply it to a wide range of issues. In many respects, this approach is still a work-in-progress. We see it as a set of contentions that open up new research agendas rather than settled wisdom to be accepted uncritically, but, as the contributions to this volume indicate, it provides new perspectives on an unusually broad set of topics, ranging from issues in innovation, vocational training, and corporate strategy to those associated with legal systems, the development of social policy, and the stance nations take in international negotiations.

As any work on this topic must be, ours is deeply indebted to prior scholarship in the field. The 'varieties of capitalism' approach developed here can be seen as an effort to go beyond three perspectives on institutional variation that have dominated the study of comparative capitalism in the preceding thirty years.[2] In important respects, like ours, each of these perspectives was a response to the economic problems of its time.

The first of these perspectives offers a *modernization approach* to comparative capitalism nicely elucidated in Shonfield's magisterial treatise of 1965. Devised in the post-war decades, this approach saw the principal challenge confronting the developed economies as one of modernizing industries still dominated by pre-war practices in order to secure high rates of national growth. Analysts tried to identify a set of actors with the strategic capacity to devise plans for industry and to impress them on specific sectors. Occasionally, this capacity was said to reside in the banks but more often in public officials. Accordingly, those taking this approach focused on the institutional structures that gave states leverage over the private sector, such as planning systems and public influence over the flows of funds in the financial system (Cohen 1977; Estrin and Holmes 1983; Zysman 1983; Cox 1986). Countries were often categorized, according to the structure of their state, into those with 'strong' and 'weak' states (Katzenstein 1978*b*; Sacks 1980; Nordlinger 1981; Skocpol and Amenta 1985). France and Japan emerged from this perspective as models of economic success, while Britain was generally seen as a laggard (Shonfield 1965; Johnson 1982).

[1] We concentrate here on economies at relatively high levels of development because we know them best and think the framework applies well to many problems there. However, the basic approach should also have relevance for understanding developing economies as well (cf. Bates 1997).

[2] Of necessity, this summary is brief and slightly stylized. As a result, it does not do full justice to the variety of analyses found within these literatures and neglects some discussions that fall outside them. Note that some of our own prior work can be said to fall within them. For more extensive reviews, see Hall (1999, 2001).

During the 1970s, when inflation became the preeminent problem facing the developed economies, a number of analysts developed a second approach to comparative capitalism based on the concept of *neo-corporatism* (Schmitter and Lehmbruch 1979; Berger 1981; Goldthorpe 1984; Alvarez et al. 1991). Although defined in various ways, neo-corporatism was generally associated with the capacity of a state to negotiate durable bargains with employers and the trade union movement regarding wages, working conditions, and social or economic policy.[3] Accordingly, a nation's capacity for neo-corporatism was generally said to depend on the centralization or concentration of the trade union movement, following an Olsonian logic of collective action which specifies that more encompassing unions can better internalize the economic effects of their wage settlements (Olson 1965; Cameron 1984; Calmfors and Driffill 1988; Golden 1993). Those who saw neo-corporatist bargains as a 'political exchange' emphasized the ability of states to offer inducements as well as the capacity of unions to discipline their members (Pizzorno 1978; Regini 1984; Scharpf 1987, 1991; cf. Przeworski and Wallerstein 1982). Those working from this perspective categorized countries largely by reference to the organization of their trade union movement; and the success stories of this literature were the small, open economies of northern Europe.

During the 1980s and 1990s, a new approach to comparative capitalism that we will term a *social systems of production* approach gained currency. Under this rubric, we group analyses of sectoral governance, national innovation systems, and flexible production regimes that are diverse in some respects but united by several key analytic features. Responding to the reorganization of production in response to technological change, these works devote more attention to the behavior of firms. Influenced by the French regulation school, they emphasize the movement of firms away from mass production toward new production regimes that depend on collective institutions at the regional, sectoral, or national level (Piore and Sabel 1984; Dore 1986; Streeck and Schmitter 1986; Dosi et al. 1988; Boyer 1990; Lazonick 1991; Campbell et al. 1991; Nelson 1993; Hollingsworth et al. 1994; Herrigel 1996; Hollingsworth and Boyer 1997; Edquist 1997; Whitley 1999). These works bring a wider range of institutions into the analysis and adopt a more sociological approach to their operation, stressing the ways in which institutions

[3] An alternative approach to neo-corporatism, closer to our own, which puts less emphasis on the trade union movement and more on the organization of business was also developed by Katzenstein (1985*a*, 1985*b*) among others (Offe 1981).

generate trust or enhance learning within economic communities. As a result, some of these works resist national categories in favor of an emphasis on regional success of the sort found in Baden-Württemberg and the Third Italy.

Each of these bodies of work explains important aspects of the economic world. However, we seek to go beyond them in several respects. Although those who wrote within it characterized national differences in the early post-war era well, for instance, some versions of the modernization approach tend to overstate what governments can accomplish, especially in contexts of economic openness where adjustment is firm-led. We will argue that features of states once seen as attributes of strength actually make the implementation of many economic policies more difficult; and we seek a basis for comparison more deeply rooted in the organization of the private sector.

Neo-corporatist analysis directs our attention to the organization of society, but its emphasis on the trade union movement underplays the role that firms and employer organizations play in the coordination of the economy (cf. Soskice 1990*a*; Swenson 1991). We want to bring firms back into the center of the analysis of comparative capitalism and, without neglecting trade unions, highlight the role that business associations and other types of relationships among firms play in the political economy.

The literature on social systems of production accords firms a central role and links the organization of production to the support provided by external institutions at many levels of the political economy. However, without denying that regional or sectoral institutions matter to firm behavior, we focus on variation among national political economies. Our premiss is that many of the most important institutional structures—notably systems of labor market regulation, of education and training, and of corporate governance—depend on the presence of regulatory regimes that are the preserve of the nation-state. Accordingly, we look for national-level differences and terms in which to characterize them that are more general or parsimonious than this literature has generated.[4]

Where we break most fundamentally from these approaches, however, is in our conception of how behavior is affected by the institutions of the political economy. Three frameworks for understanding this relationship

[4] One of the pioneering works that some will want to compare is Albert (1993), who develops a contrast between the models of the Rhine and America that parallels ours in some respects. Other valuable efforts to identify varieties of capitalism that have influenced us include Hollingsworth and Boyer (1997), Crouch and Streeck (1997*b*), and Whitley (1999).

dominate the analysis of comparative capitalism. One sees institutions as *socializing agencies* that instill a particular set of norms or attitudes in those who operate within them. French civil servants, for instance, are said to acquire a particular concern for the public interest by virtue of their training or the ethos of their agencies. A second suggests that the effects of an institution follow from the *power* it confers on particular actors through the formal sanctions that hierarchy supplies or the resources an institution provides for mobilization. Industrial policy-makers and trade union leaders are often said to have such forms of power. A third framework construes the institutions of the political economy as a *matrix of sanctions and incentives* to which the relevant actors respond such that behavior can be predicted more or less automatically from the presence of specific institutions, as, for instance, when individuals refuse to provide public goods in the absence of selective incentives. This kind of logic is often cited to explain the willingness of encompassing trade unions to moderate wages in order to reduce inflation.

Each of these formulations captures important ways in which the institutions of the political economy affect economic behavior and we make use of them. However, we think these approaches tend to miss or model too incompletely the *strategic interactions* central to the behavior of economic actors. The importance of strategic interaction is increasingly appreciated by economists but still neglected in studies of comparative capitalism.[5] If interaction of this sort is central to economic and political outcomes, the most important institutions distinguishing one political economy from another will be those conditioning such interaction, and it is these that we seek to capture in this analysis. For this purpose, we construe the key relationships in the political economy in game-theoretic terms and focus on the kinds of institutions that alter the outcomes of strategic interaction. This approach generates an analysis that focuses on some of the same institutions others have identified as important but construes the impact of those institutions differently as well as one that highlights other institutions not yet given enough attention in studies of comparative capitalism.

By locating the firm at the center of the analysis, we hope to build bridges between business studies and comparative political economy, two disciplines that are all too often disconnected. By integrating game-theoretical perspectives on the firm of the sort that are now central to microeconomics into an analysis of the macroeconomy, we attempt to connect the new microeconomics to important issues in macroeconomics.

[5] There are a few notable exceptions that influence our analysis, including the work of Scharpf (1987, 1997*a*) and Przeworski and Wallerstein (1982).

Ours is a framework that should be of interest to economists, scholars of business, and political scientists alike. We turn now to an elucidation of its basic elements.

1.2 The Basic Elements of the Approach

This *varieties of capitalism* approach to the political economy is actor-centered, which is to say we see the political economy as a terrain populated by multiple actors, each of whom seeks to advance his interests in a rational way in strategic interaction with others (Scharpf 1997*a*). The relevant actors may be individuals, firms, producer groups, or governments. However, this is a firm-centered political economy that regards companies as the crucial actors in a capitalist economy. They are the key agents of adjustment in the face of technological change or international competition whose activities aggregate into overall levels of economic performance.

1.2.1 A Relational View of the Firm

Our conception of the firm is relational. Following recent work in economics, we see firms as actors seeking to develop and exploit *core competencies* or *dynamic capabilities* understood as capacities for developing, producing, and distributing goods and services profitably (Teece and Pisano 1998). We take the view that critical to these is the quality of the relationships the firm is able to establish, both internally, with its own employees, and externally, with a range of other actors that include suppliers, clients, collaborators, stakeholders, trade unions, business associations, and governments. As the work on transactions costs and principal–agent relationships in the economics of organization has underlined, these are problematic relationships (Milgrom and Roberts 1992). Even where hierarchies can be used to secure the cooperation of actors, firms encounter problems of moral hazard, adverse selection, and shirking. In many cases, effective operation even within a hierarchical environment may entail the formation of implicit contracts among the actors; and many of a firm's relationships with outside actors involve incomplete contracting (cf. Williamson 1985). In short, because its capabilities are ultimately relational, a firm encounters many coordination problems. Its success depends substantially on its ability to coordinate effectively with a wide range of actors.

For the purposes of this inquiry, we focus on five spheres in which firms must develop relationships to resolve coordination problems central

to their core competencies. The first is the sphere of *industrial relations* where the problem facing companies is how to coordinate bargaining over wages and working conditions with their labor force, the organizations that represent labor, and other employers. At stake here are wage and productivity levels that condition the success of the firm and rates of unemployment or inflation in the economy as a whole. In the sphere of *vocational training and education*, firms face the problem of securing a workforce with suitable skills, while workers face the problem of deciding how much to invest in what skills. On the outcomes of this coordination problem turn not only the fortunes of individual companies and workers but the skill levels and competitiveness of the overall economy.

Issues of coordination also arise in the sphere of *corporate governance*, to which firms turn for access to finance and in which investors seek assurances of returns on their investments. The solutions devised to these problems affect both the availability of finance for particular types of projects and the terms on which firms can secure funds. The fourth sphere in which coordination problems crucial to the core competencies of an enterprise appear is the broad one of *inter-firm relations*, a term we use to cover the relationships a company forms with other enterprises, and notably its suppliers or clients, with a view to securing a stable demand for its products, appropriate supplies of inputs, and access to technology. These are endeavors that may entail standard-setting, technology transfer, and collaborative research and development. Here, coordination problems stem from the sharing of proprietary information and the risk of exploitation in joint ventures. On the development of appropriate relationships in this sphere, however, depend the capacities of firms to remain competitive and technological progress in the economy as a whole.

Finally, firms face a set of coordination problems vis-à-vis their own *employees*. Their central problem is to ensure that employees have the requisite competencies and cooperate well with others to advance the objectives of the firm. In this context, familiar problems of adverse selection and moral hazard arise, and issues of information-sharing become important (see Milgrom and Roberts 1992). Workers develop reservoirs of specialized information about the firm's operations that can be of value to management, but they also have the capacity to withhold information or effort. The relationships firms develop to resolve these problems condition their own competencies and the character of an economy's production regimes.

1.2.2 Liberal Market Economies and Coordinated Market Economies

From this perspective, it follows that national political economies can be compared by reference to the way in which firms resolve the coordination problems they face in these five spheres. The core distinction we draw is between two types of political economies, liberal market economies and coordinated market economies, which constitute ideal types at the poles of a spectrum along which many nations can be arrayed.[6]

In *liberal market economies*, firms coordinate their activities primarily via hierarchies and competitive market arrangements. These forms of coordination are well described by a classic literature (Williamson 1985). Market relationships are characterized by the arm's-length exchange of goods or services in a context of competition and formal contracting. In response to the price signals generated by such markets, the actors adjust their willingness to supply and demand goods or services, often on the basis of the marginal calculations stressed by neoclassical economics.[7] In many respects, market institutions provide a highly effective means for coordinating the endeavors of economic actors.

In *coordinated market economies*, firms depend more heavily on non-market relationships to coordinate their endeavors with other actors and to construct their core competencies. These non-market modes of coordination generally entail more extensive relational or incomplete contracting, network monitoring based on the exchange of private information inside networks, and more reliance on collaborative, as opposed to competitive, relationships to build the competencies of the firm. In contrast to liberal market economies (LMEs), where the equilibrium outcomes of firm behavior are usually given by demand and supply conditions in competitive markets, the equilibria on which firms coordinate in coordinated market economies (CMEs) are more often the result of strategic interaction among firms and other actors.

Market relations and hierarchies are important to firms in all capitalist economies, of course, and, even in liberal market economies, firms enter

[6] In other works by the contributors to this volume, 'organized market economy' is sometimes used as a term synonymous with 'coordinated market economy'. Although all of the economies we discuss are 'coordinated' in the general sense of the term, by markets if not by other institutions, the term reflects the prominence of strategic interaction and hence of coordination in the game-theoretic sense in CMEs.

[7] Although we do not emphasize it here, this is not meant to deny the observation of Granovetter (1985) and others that market relations are usually underpinned by personal relationships of familiarity and trust.

into some relationships that are not fully mediated by market forces.[8] But this typology is based on the contention that the incidence of different types of firm relationships varies systematically across nations. In some nations, for instance, firms rely primarily on formal contracts and highly competitive markets to organize relationships with their employees and suppliers of finance, while, in others, firms coordinate these endeavors differently. In any national economy, firms will gravitate toward the mode of coordination for which there is institutional support.

1.2.3 The Role of Institutions and Organizations

Institutions, organizations, and culture enter this analysis because of the support they provide for the relationships firms develop to resolve coordination problems. Following North (1990: 3), we define institutions as a set of rules, formal or informal, that actors generally follow, whether for normative, cognitive, or material reasons, and organizations as durable entities with formally recognized members, whose rules also contribute to the institutions of the political economy.[9]

From this perspective, markets are institutions that support relationships of particular types, marked by arm's-length relations and high levels of competition. Their concomitant is a legal system that supports formal contracting and encourages relatively complete contracts, as the chapters by Teubner and Casper indicate. All capitalist economies also contain the hierarchies that firms construct to resolve the problems that cannot be addressed by markets (Williamson 1985). In liberal market economies, these are the principal institutions on which firms rely to coordinate their endeavors.

Although markets and hierarchies are also important elements of coordinated market economies, firms in this type of economy draw on a further set of organizations and institutions for support in coordinating their endeavors. What types of organizations and institutions support the distinctive strategies of economic actors in such economies? Because the latter rely more heavily on forms of coordination secured through

[8] This point applies with particular force to market relationships in which one or more of the participants has substantially more market power than the others, as in cases of oligopoly, oligopsony, and the relations found in some supplier chains. We are not arguing that all markets in LMEs are perfectly competitive.

[9] Note that, from time to time, we refer loosely to the 'institutions' or 'organization' of the political economy to refer to both the organizations and institutions found within it.

strategic interaction to resolve the problems they face, the relevant institutions will be those that allow them to coordinate on equilibrium strategies that offer higher returns to all concerned. In general, these will be institutions that reduce the uncertainty actors have about the behavior of others and allow them to make credible commitments to each other. A standard literature suggests that these are institutions providing capacities for (i) the *exchange of information* among the actors, (ii) the *monitoring* of behavior, and (iii) the *sanctioning* of defection from cooperative endeavor (see Ostrom 1990). Typically, these institutions include powerful business or employer associations, strong trade unions, extensive networks of cross-shareholding, and legal or regulatory systems designed to facilitate information-sharing and collaboration. Where these are present, firms can coordinate on strategies to which they would not have been led by market relations alone.

The problem of operating collaborative vocational training schemes provides a classic example. Here, the willingness of firms to participate depends on the security of their beliefs that workers will learn useful skills and that firms not investing in training will not poach extensively from those who do, while the participation of workers depends on assurances that training will lead to remunerative employment. As Culpepper's chapter in this volume indicates, it is easier for actors to secure these assurances where there are institutions providing reliable flows of information about appropriate skill levels, the incidence of training, and the employment prospects of apprentices (Finegold and Soskice 1988; Culpepper and Finegold 1999).

Similarly, the terms on which finance is provided to firms will depend on the monitoring capacities present in the economy. Where potential investors have little access to inside information about the progress of the firms they fund, access to capital is likely to depend on highly public criteria about the assets of a firm of the sort commonly found on balance sheets. Where investors are linked to the firms they fund through networks that allow for the development of reputations based on extensive access to information about the internal operations of the firm, however, investors will be more willing to supply capital to firms on terms that do not depend entirely on their balance sheets. The presence of institutions providing network reputational monitoring can have substantial effects on the terms on which firms can secure finance.

In short, this approach to comparative capitalism emphasizes the presence of institutions providing capacities for the exchange of information, monitoring, and the sanctioning of defections relevant to cooperative

behavior among firms and other actors; and it is for the presence of such institutions that we look when comparing nations.

In addition, examination of coordinated market economies leads us to emphasize the importance of another kind of institution that is not normally on the list of those crucial to the formation of credible commitments, namely institutions that provide actors potentially able to cooperate with one another with a capacity for *deliberation*. By this, we simply mean institutions that encourage the relevant actors to engage in collective discussion and to reach agreements with each other.[10] Deliberative institutions are important for several reasons.

Deliberative proceedings in which the participants engage in extensive sharing of information about their interests and beliefs can improve the confidence of each in the strategies likely to be taken by the others. Many game-theoretic analyses assume a level of common knowledge that is relatively thin, barely stretching past a shared language and familiarity with the relevant payoffs. When multiple equilibria are available, however, coordination on one (especially one that exchanges higher payoffs for higher risks) can be greatly facilitated by the presence of a thicker common knowledge, one that extends beyond the basic situation to a knowledge of the other players sufficiently intimate to provide confidence that each will coordinate on a specific equilibrium (Eichengreen 1997). Deliberation can substantially thicken the common knowledge of the group.

As Scharpf (1987: ch. 4) has pointed out, although many think only of a 'prisoner's dilemma' game when they consider problems of cooperation, in the political economy many such problems take quite different forms, including 'battle of the sexes' games in which joint gains are available from more than one strategy but are distributed differently depending on the equilibrium chosen. Distributive dilemmas of this sort are endemic to political economies, and agreement on the distribution of the relevant gains is often the prerequisite to effective cooperation (Knight 1992). In some cases, such as those of collaborative research and development, the problem is not simply to distribute the gains but also the risks attendant on the enterprise. Deliberation provides the actors with an opportunity to establish the risks and gains attendant on cooperation and to resolve the distributive issues associated with them. In some cases, the actors may simply be negotiating from positions of

[10] One political economist who has consistently drawn attention to the importance of deliberation is Sabel (1992, 1994) and the issue is now the subject of a growing game-theoretic literature (see Elster 1998).

relative power, but extensive deliberation over time may build up specific conceptions of distributive justice that can be used to facilitate agreement in subsequent exchanges.

Finally, deliberative institutions can enhance the capacity of actors in the political economy for strategic action when faced with new or unfamiliar challenges. This is far from irrelevant since economies are frequently subject to exogenous shocks that force the actors within them to respond to situations to which they are unaccustomed. The history of wage negotiations in Europe is replete with examples. In such instances, developments may outrun common knowledge, and deliberation can be instrumental to devising an effective and coordinated response, allowing the actors to develop a common diagnosis of the situation and an agreed response.

In short, deliberative institutions can provide the actors in a political economy with strategic capacities they would not otherwise enjoy; and we think cross-national comparison should be attentive to the presence of facilities for deliberation as well as institutions that provide for the exchange of information in other forms, monitoring, and the enforcement of agreements.

1.2.4 The Role of Culture, Informal Rules, and History

Our approach departs from previous works on comparative capitalism in another respect.[11] Many analyses take the view that the relevant outcomes in economic performance or policy follow more or less directly from differences in the formal organization of the political economy. Particular types of wage settlements or rates of inflation and unemployment are often said to follow, for instance, from the organizational structure of the union movement. Because we believe such outcomes are the products of efforts to coordinate in contexts of strategic interaction, however, we reject the contention that they follow from the presence of a particular set of institutions alone, at least if the latter are defined entirely in terms of formal rules or organizations.

As we have noted, the presence of a set of formal institutions is often a necessary precondition for attaining the relevant equilibrium in contexts of coordination. But formal institutions are rarely sufficient to guarantee that equilibrium. In multi-player games with multiple iterations of the sort that characterize most of the cases in which we are

[11] Here we depart from some of our own previous formulations as well (cf. Hall 1986; Soskice 1990*b*).

interested, it is well known that there exist multiple equilibria, any one of which could be chosen by the actors even in the presence of institutions conducive to the formation of credible commitments (Fudenberg and Maskin 1986). Something else is needed to lead the actors to coordinate on a specific equilibrium and, notably, on equilibria offering high returns in a non-coooperative context.[12] In many instances, what leads the actors to a specific equilibrium is a set of shared understandings about what other actors are likely to do, often rooted in a sense of what it is appropriate to do in such circumstances (March and Olsen 1989).

Accordingly, taking a step beyond many accounts, we emphasize the importance of informal rules and understandings to securing the equilibria in the many strategic interactions of the political economy. These shared understandings are important elements of the 'common knowledge' that lead participants to coordinate on one outcome, rather than another, when both are feasible in the presence of a specific set of formal institutions. By considering them a component of the institutions making up the political economy, we expand the concept of institutions beyond the purely formal connotations given to it in some analyses.

This is an entry point in the analysis for history and culture. Many actors learn to follow a set of informal rules by virtue of experience with a familiar set of actors and the shared understandings that accumulate from this experience constitute something like a common culture. This concept of culture as a set of shared understandings or available 'strategies for action' developed from experience of operating in a particular environment is analogous to those developed in the 'cognitive turn' taken by sociology (Swidler 1986; DiMaggio and Powell 1991). Our view of the role that culture can play in the strategic interactions of the political economy is similar to the one Kreps (1990) accords it in organizations faced with problems of incomplete contracting.

The implication is that the institutions of a nation's political economy are inextricably bound up with its history in two respects. On the one hand, they are created by actions, statutory or otherwise, that establish formal institutions and their operating procedures. On the other, repeated historical experience builds up a set of common expectations that allows the actors to coordinate effectively with each other. Among other things, this implies that the institutions central to the operation of the political economy should not be seen as entities that are created at one point in time and can then be assumed to operate effectively afterwards.

[12] Culpepper documents this problem and explores some solutions to it in this volume and Culpepper (1998).

To remain viable, the shared understandings associated with them must be reaffirmed periodically by appropriate historical experience. As Thelen emphasizes in this volume, the operative force of many institutions cannot be taken for granted but must be reinforced by the active endeavors of the participants.

1.2.5 Institutional Infrastructure and Corporate Strategy

This varieties of capitalism approach draws its basic conceptions of how institutions operate from the new economics of organization. We apply a set of concepts commonly used to explain behavior at the micro level of the economy to problems of understanding the macroeconomy (Milgrom and Roberts 1992). One of the advantages is an analysis with robust and consistent postulates about what kind of institutions matter and how they affect behavior. Another is the capacity of the approach to integrate analysis of firm behavior with analysis of the political economy as a whole.

However, there are at least two respects in which our account deviates from mainstream views in the new economics of organization. First, although we make use of the influential dichotomy between 'markets' and 'hierarchies' that Williamson (1975) has impressed on the field, we do not think this exhausts the relevant variation. Markets and hierarchies are features of LMEs and CMEs but we stress the systematic variation found in the character of corporate structure (or hierarchies) across different types of economies and the presence of coordination problems even within hierarchical settings (Milgrom and Roberts 1992). Even more important, we do not see these two institutional forms as the only ones firms can employ to resolve the challenges they confront. In coordinated market economies in particular, many firms develop relationships with other firms, outside actors, and their employees that are not well described as either market-based or hierarchical relations but better seen as efforts to secure cooperative outcomes among the actors using a range of institutional devices that underpin credible commitments. Variation in the incidence and character of this 'third' type of relationship is central to the distinctions we draw between various types of political economies.[13]

Second, it is conventional in much of the new economics of organization to assume that the core institutional structures of the economy,

[13] Williamson (1985) himself acknowledges the presence of institutionalized relationships extending beyond markets or hierarchies, albeit without characterizing them precisely as we do here.

whether markets, hierarchies, or networks, are erected by firms seeking the most efficient institutions for performing certain tasks. The postulate is that (institutional) structure follows (firm) strategy (cf. Chandler 1974; Williamson 1975, 1985; Chandler and Daems 1980). In a restricted sense, this is certainly true: firms can choose whether to contract out an endeavor or perform it in-house, for instance, and they enjoy some control over their own corporate form.

However, we think it unrealistic to regard the overarching institutional structures of the political economy, and especially those coordinating the endeavors of many actors (such as markets, institutional networks, and the organizations supporting collaborative endeavor), as constructs created or controlled by a particular firm. Because they are collective institutions, a single firm cannot create them; and, because they have multifarious effects, it may be difficult for a group of firms to agree on them.[14] Instead, as Calvert (1995) observes, the construction of coordinating institutions should be seen as a second-order coordination problem of considerable magnitude. Even when firms can agree, the project may entail regulatory action by the government and the formation of coalitions among political parties and labor organizations motivated by considerations going well beyond efficiency (Swenson 1991, 1997).

As a result, the firms located within any political economy face a set of coordinating institutions whose character is not fully under their control. These institutions offer firms a particular set of opportunities; and companies can be expected to gravitate toward strategies that take advantage of these opportunities. In short, there are important respects in which strategy follows structure. For this reason, our approach predicts systematic differences in corporate strategy across nations, and differences that parallel the overarching institutional structures of the political economy. This is one of the most important implications of the analysis.

Let us stress that we refer here to broad differences. Of course, there will be additional variation in corporate strategies inside all economies in keeping with differences in the resource endowments and market settings of individual firms. The capabilities of management also matter, since firms are actors with considerable autonomy. Our point is that (institutional) structure conditions (corporate) strategy, not that it fully determines it. We also agree that differences in corporate strategy can be conditioned by the institutional support available to firms at the regional or sectoral levels (Campbell et al. 1991; Hollingsworth et al. 1994; Herrigel

[14] At the sectoral or regional level, of course, large firms may be able to exercise substantial influence over the development of these institutions, as Hancké shows in this volume (see also Hancké forthcoming).

1996). Many of the works making this point are congruent with our own in that they stress the importance of the institutional environment to firm strategy, even though there has been fruitful disagreement about which features of that environment matter most (cf. Streeck 1992*b*).[15]

However, we emphasize variations in corporate strategy evident at the national level. We think this justified by the fact that so many of the institutional factors conditioning the behavior of firms remain nation-specific. There are good reasons why that should be the case. Some of the relevant institutions were deeply conditioned by nationally specific processes of development, as are most trade unions and employers' associations. In others, the relevant institutions depend heavily on statutes or regulations promulgated by national states, as do many institutions in the financial arena and labor market, not to mention the sphere of contract law.

In sum, we contend that differences in the institutional framework of the political economy generate systematic differences in corporate strategy across LMEs and CMEs. There is already some evidence for this. For instance, the data that Knetter (1989) has gathered are especially interesting. He finds that the firms of Britain, a typical LME, and those of Germany, a CME, respond very differently to a similar shock, in this case an appreciation of the exchange rate that renders the nation's goods more expensive in foreign markets. British firms tend to pass the price increase along to customers in order to maintain their profitability, while German firms maintain their prices and accept lower returns in order to preserve market share.

Our approach predicts differences of precisely this sort. We would argue that British firms must sustain their profitability because the structure of financial markets in a liberal market economy links the firm's access to capital and ability to resist takeover to its current profitability; and they can sustain the loss of market share because fluid labor markets allow them to lay off workers readily. By contrast, German firms can sustain a decline in returns because the financial system of a coordinated market economy provides firms with access to capital independent of current profitability; and they attempt to retain market share because the labor institutions in such an economy militate in favor of long-term employment strategies and render layoffs difficult.

[15] It is possible to apply the general analytical framework of this volume to variations at the regional or sectoral level, as the chapter by Hancké does in some respects. From the perspective of this volume, institutional variation at the regional or sectoral level provides an additional layer of support for particular types of coordination and one that enhances a nation's capacity to support a range of corporate strategies and production regimes.

These are only some of the ways in which the institutional arrangements of a nation's political economy tend to push its firms toward particular kinds of corporate strategies. We explore more of these below with special emphasis on innovation.

To put the point in the most general terms, however, firms and other actors in coordinated market economies should be more willing to invest in *specific* and *co-specific assets* (i.e. assets that cannot readily be turned to another purpose and assets whose returns depend heavily on the active cooperation of others), while those in liberal market economies should invest more extensively in *switchable assets* (i.e. assets whose value can be realized if diverted to other purposes). This follows from the fact that CMEs provide more institutional support for the strategic interactions required to realize the value of co-specific assets, whether in the form of industry-specific training, collaborative research and development, or the like, while the more fluid markets of LMEs provide economic actors with greater opportunities to move their resources around in search of higher returns, encouraging them to acquire switchable assets, such as general skills or multi-purpose technologies.[16]

1.2.6 Institutional Complementarities

The presence of *institutional complementarities* reinforces the differences between liberal and coordinated market economies. The concept of 'complementary goods' is a familiar one: two goods, such as bread and butter, are described as complementary if an increase in the price of one depresses demand for the other. However, complementarities may also exist among the operations of a firm: marketing arrangements that offer customized products, for instance, may offer higher returns when coupled to the use of flexible machine tools on the shop floor (Jaikumar 1986; Milgrom and Roberts 1990, 1995).

Following Aoki (1994), we extend this line of reasoning to the institutions of the political economy. Here, two institutions can be said to be complementary if the presence (or efficiency) of one increases the returns from (or efficiency of) the other.[17] The returns from a stock market trading

[16] For examples in one sphere, see the essay by Estevez-Abe, Iversen, and Soskice in this volume.

[17] Conversely, two institutions can be said to be 'substitutable' if the absence or inefficiency of one increases the returns to using the other. Note that we refer to total returns, leaving aside the question of to whom they accrue, which is a matter of property rights, and we define efficiency as the net returns to the use of an institution given its costs.

in corporate securities, for instance, may be increased by regulations mandating a fuller exchange of information about companies.

Of particular interest are complementarities between institutions located in different spheres of the political economy. Aoki (1994) has argued that long-term employment is more feasible where the financial system provides capital on terms that are not sensitive to current profitability. Conversely, fluid labor markets may be more effective at sustaining employment in the presence of financial markets that transfer resources readily among endeavors thereby maintaining a demand for labor (cf. Caballero and Hamour 1998; Fehn 1998). Casper explores complementarities between national systems of contract law and modes of inter-firm collaboration, and we identify others in the sections that follow.

This point about institutional complementarities has special relevance for the study of comparative capitalism. It suggests that nations with a particular type of coordination in one sphere of the economy should tend to develop complementary practices in other spheres as well.[18] Several logics may be operative here. In some cases, the institutions sustaining coordination in one sphere can be used to support analogous forms of coordination in others. Where dense networks of business associations support collaborative systems of vocational training, for instance, those same networks may be used to operate collective standard-setting. Similarly, firms may pressure governments to foster the development of institutions complementary to those already present in the economy in order to secure the efficiency gains they provide.

If this is correct, institutional practices of various types should not be distributed randomly across nations. Instead, we should see some clustering along the dimensions that divide liberal from coordinated market economies, as nations converge on complementary practices across different spheres. Fig. 1.1 presents some support for these propositions. It locates OECD nations on two axes that provide indicators for the character of institutions in the spheres of corporate finance and labor markets respectively. A highly developed stock market indicates greater reliance on market modes of coordination in the financial

[18] Of course, there are limits to the institutional isomorphism that can be expected across spheres of the economy. Although efficiency considerations may press in this direction, the presence of functional equivalents for particular arrangements will limit the institutional homology even across similar types of political economies, and the importance to institutional development of historical processes driven by considerations other than efficiency will limit the number of complementarities found in any economy.

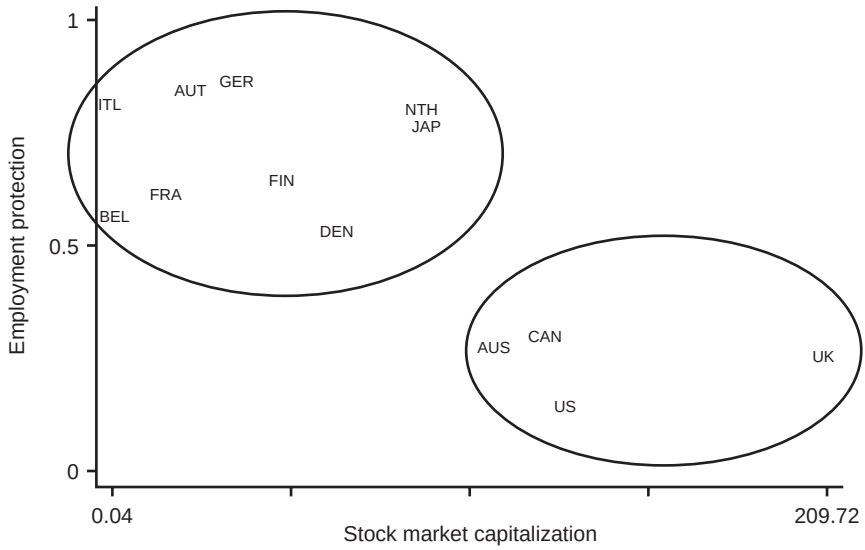

Fig. 1.1 Institutions across sub-spheres of the political economy

Note: Employment protection refers to the index of employment protection developed by Estevez-Abe, Iversen, and Soskice in this volume. Stock market capitalization is the market value of listed domestic companies as a percentage of GDP.

Source: International Federation of Stock Exchanges, *Annual Report*.

sphere, and high levels of employment protection tend to reflect higher levels of non-market coordination in the sphere of industrial relations.[19] Although there is some variation within each group, a pronounced clustering is evident. Nations with liberal market economies tend to rely on markets to coordinate endeavors in both the financial and industrial relations systems, while those with coordinated market economies have institutions in both spheres that reflect higher levels of non-market coordination.

Among the large OECD nations, six can be classified as liberal market economies (the USA, Britain, Australia, Canada, New Zealand, Ireland) and another ten as coordinated market economies (Germany, Japan, Switzerland, the Netherlands, Belgium, Sweden, Norway, Denmark,

[19] The employment protection index developed by Estevez-Abe, Iversen, and Soskice in their chapter for this volume is a composite measure of the relative stringency of legislation or collective agreements dealing with hiring and firing, the level of restraint embedded in collective dismissal rules, and the extent of firm-level employment protection. Stock market capitalization is the market value of listed domestic companies as a percentage of GDP.

Table 1.1 The economic performance of liberal and coordinated market economies

Liberal market economies

	Growth rate of GDP			GDP per capita		Unemployment rate		
	61–73	74–84	85–98	74–84	85–97	60–73	74–84	85–98
Australia	5.2	2.8	3.3	7932	16701	1.9	6.2	8.5
Canada	5.3	3.0	2.3	9160	18835	5.1	8.4	9.5
Ireland	4.4	3.9	6.5	4751	12830	5.0	9.1	14.1
New Zealand	4.0	1.8	1.7	7378	14172	0.2	2.2	6.9
UK	3.1	1.3	2.4	7359	15942	2.0	6.7	8.7
United States	4.0	2.2	2.9	11055	22862	4.9	7.5	6.0
LME average	4.3	2.5	3.2	7939	16890	3.2	6.7	8.9

Coordinated market economies

	Growth rate of GDP			GDP per capita		Unemployment rate		
	61–73	74–84	85–98	74–84	85–97	60–73	74–84	85–98
Austria[a]	4.9	2.3	2.5	7852	17414	1.6	2.2	5.3
Belgium	4.9	2.0	2.2	8007	17576	2.2	8.2	11.3
Denmark	4.4	1.8	2.2	8354	18618	1.4	7.1	9.3
Finland	5.0	2.7	2.2	7219	15619	2.0	4.8	9.4
Iceland	5.7	4.1	2.7	8319	18285	0.6	0.6	2.5
Germany	4.3	1.8	2.2	7542	16933	0.8	4.6	8.5
Japan	9.7	3.3	2.6	7437	18475	1.3	2.1	2.8
Netherlands[b]	4.9	1.9	2.8	7872	16579	1.5	5.6	6.8
Norway	4.3	4.0	2.9	8181	19325	1.6	2.1	4.3
Sweden	4.2	1.8	1.5	8450	16710	1.9	2.3	4.8
Switzerland	4.4	.58	1.3	10680	21398	.01	0.4	2.5
CME average	5.1	2.4	2.3	8174	17902	1.3	3.6	6.1

Notes: Growth rate of GDP: average annual growth in GDP, averaged for the time-periods indicated. GDP per capita: per capita GDP at purchasing power parity, averaged for the time-periods indicated. Unemployment rate: annual unemployment rate.

[a] Unemployment series begins in 1964.
[b] Unemployment series begins in 1969.

Sources: Growth rate of GDP: World Bank, *World Development Indicators CD-ROM* (2000); except for Germany, for which data were taken from OECD, *Historical Statistics* (1997), for 1960–91, and *WDI* for years thereafter. GDP per capita: OECD, *OECD Statistical Compendium CD-ROM* (2000). Unemployment rate: OECD, *OECD Statistical Compendium CD-ROM* (2000).

Finland, and Austria) leaving six in more ambiguous positions (France, Italy, Spain, Portugal, Greece, and Turkey).[20] However, the latter show some signs of institutional clustering as well, indicating that they may constitute another type of capitalism, sometimes described as 'Mediterranean', marked by a large agrarian sector and recent histories of extensive state intervention that have left them with specific kinds of capacities for non-market coordination in the sphere of corporate finance but more liberal arrangements in the sphere of labor relations (see Rhodes 1997).

Although each type of capitalism has its partisans, we are not arguing here that one is superior to another. Despite some variation over specific periods, both liberal and coordinated market economies seem capable of providing satisfactory levels of long-run economic performance, as the major indicators of national well-being displayed in Table 1.1 indicate. Where there is systematic variation between these types of political economies, it is on other dimensions of performance. We argue below that the two types of economies have quite different capacities for innovation. In addition, they tend to distribute income and employment differently. As Fig. 1.2 indicates, in liberal market economies, the adult population tends to be engaged more extensively in paid employment and levels of income inequality are high.[21] In coordinated market economies, working hours tend to be shorter for more of the population and incomes more equal. With regard to the distribution of well-being, of course, these differences are important.

To make this analytical framework more concrete, we now look more closely at coordination in the principal spheres of firm endeavor in coordinated and liberal market economies, drawing on the cases of Germany and the United States for examples and emphasizing the institutional complementarities present in each political economy.

1.3 Coordinated Market Economies: The German Case

As we have noted, we regard capitalist economies as systems in which companies and individuals invest, not only in machines and material

[20] Luxembourg and Iceland have been omitted from this list because of their small size and Mexico because it is still a developing nation.

[21] The Gini Index used in Fig. 1.2 is a standard measure for income inequality, measured here as post-tax, post-transfer income, reported in the Luxembourg Income Study for the mid- to late 1980s. Full-time equivalent employment is reported as a percentage of potential employment and measured as the total number of hours worked per year divided by full-time equivalent hours per person (37.5 hours at 50 weeks) times the working-age population. It is reported for the latest available of 1993 or 1994.

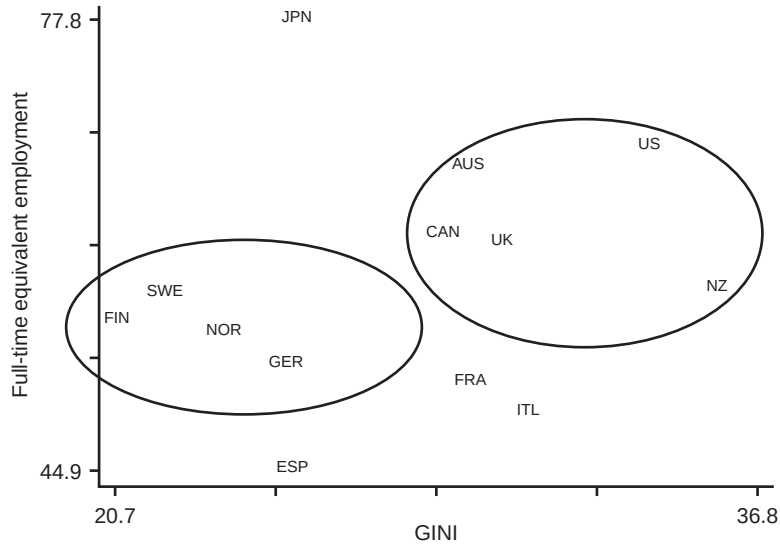

Fig. 1.2 Distributional outcomes across political economies

Note: Full-time equivalent employment is defined as the total number of hours worked per year divided by full-time equivalent hours per year per person times working age population. GINI refers to the gini coeffficient measuring post-tax, post-transfer income inequality.

Sources: For full-time equivalent unemployment: OECD (1996*a*). For GINI index: Spain, Japan, New Zealand are from Deiniger and Squire (1996); the remaining countries are from OECD (1996*a*).

technologies, but in competencies based on relations with others that entail coordination problems. In coordinated market economies, firms resolve many of these problems through strategic interaction. The resulting equilibria depend, in part, on the presence of supportive institutions. Here, we use the case of Germany to illustrate how non-market coordination is achieved in each of the principal spheres of firm endeavor. Of course, the institutions used to secure coordination in other CMEs may differ to some extent from those of Germany.

(i) The *financial system* or *market for corporate governance* in coordinated market economies typically provides companies with access to finance that is not entirely dependent on publicly available financial data or current returns. Access to this kind of 'patient capital' makes it possible for firms to retain a skilled workforce through economic downturns and to invest in projects generating returns only in the long run. The core problem here is that, if finance is not to be dependent on balance-sheet criteria, investors must have other ways of monitoring the performance

of companies in order to ensure the value of their investments. In general, that means they must have access to what would normally be considered 'private' or 'inside' information about the operation of the company.

This problem is generally resolved in CMEs by the presence of dense networks linking the managers and technical personnel inside a company to their counterparts in other firms on terms that provide for the sharing of reliable information about the progress of the firm. Reliability is secured in a number of ways. Firms may share information with third parties in a position to monitor the firm and sanction it for misleading them, such as business associations whose officials have an intimate knowledge of the industry. Reputation is also a key factor: where membership in a network is of continuing value, the participants will be deterred from providing false information lest their reputation in the network and access to it suffer. CMEs usually have extensive systems for what might be termed 'network reputational monitoring' (Vitols et al. 1997).

In Germany, information about the reputation and operation of a company is available to investors by virtue of (*a*) the close relationships that companies cultivate with major suppliers and clients, (*b*) the knowledge secured from extensive networks of cross-shareholding, and (*c*) joint membership in active industry associations that gather information about companies in the course of coordinating standard-setting, technology transfer, and vocational training. Other companies are not only represented on the supervisory boards of firms but typically engaged closely with them in joint research, product development, and the like. In short, firms sit inside dense business networks from which potential funders can gain a considerable amount of inside information about the track record and projects of a firm.[22]

The overall structure of the market for corporate governance is equally important. Since firms often fund their activities from retained earnings, they are not always sensitive to the terms on which external finance is supplied. But they can be forced to focus on profitability and shareholder value if faced with the prospect of hostile takeover by others claiming to be able to extract more value from the company. Thus, the corporate strategies found in many CMEs also depend on tax provisions, securities regulations, and networks of cross-shareholding that

[22] In previous decades, the German banks were also important contributors to such networks by virtue of their control over large numbers of shares in industrial firms (Hall 1986: ch. 9). In recent years, the role of the large commercial banks has declined, as they divest themselves of many holdings (Griffin 2000).

discourage hostile mergers and acquisitions, which were very rare until recently, for instance, in Germany.

(ii) The *internal structure* of the firm reinforces these systems of network monitoring in many CMEs. Unlike their counterparts in LMEs, for instance, top managers in Germany rarely have a capacity for unilateral action. Instead, they must secure agreement for major decisions from supervisory boards, which include employee representatives as well as major shareholders, and from other managers with entrenched positions as well as major suppliers and customers. This structural bias toward consensus decision-making encourages the sharing of information and the development of reputations for providing reliable information, thereby facilitating network monitoring.

In the perspective we present, the incentives facing individuals, whether managers or workers, are as important as those facing firms. In CMEs, managerial incentives tend to reinforce the operation of business networks. Long-term employment contracts and the premium that firm-structure places on a manager's ability to secure consensus for his projects lead managers to focus heavily on the maintenance of their reputations, while the smaller weight given to stock-option schemes in managerial compensation in CMEs relative to LMEs inclines them to focus less on profitability than their counterparts in LMEs. The incentives for managers are broadly aligned with those of firms.

(iii) Many firms in coordinated market economies employ production strategies that rely on a highly skilled labor force given substantial work autonomy and encouraged to share the information it acquires in order to generate continuous improvements in product lines and production processes (Sorge and Warner 1986; Dore 1986). However, companies that adopt such strategies are vulnerable to 'hold up' by their employees and the 'poaching' of skilled workers by other firms, while employees who share the information they gain at work with management are open to exploitation.[23] Thus, CMEs need *industrial relations* institutions capable of resolving such problems.

The German industrial relations system addresses these problems by setting wages through industry-level bargains between trade unions and employer associations that generally follow a leading settlement, normally reached in engineering where the union is powerful enough to

[23] 'Hold up' is Williamson's (1985) term for the withdrawal of active cooperation to back up demands.

assure the labor movement that it has received a good deal. Although union density is only moderately high, encompassing employers' associations bind their members to these agreements. By equalizing wages at equivalent skill levels across an industry, this system makes it difficult for firms to poach workers and assures the latter that they are receiving the highest feasible rates of pay in return for the deep commitments they are making to firms. By coordinating bargaining across the economy, these arrangements also limit the inflationary effects of wage settlements (Streeck 1994; Hall and Franzese 1998).

The complement to these institutions at the company level is a system of works councils composed of elected employee representatives endowed with considerable authority over layoffs and working conditions. By providing employees with security against arbitrary layoffs or changes to their working conditions, these works councils encourage employees to invest in company-specific skills and extra effort. Their effectiveness is underpinned by the capacity of either side to appeal a disputed decision to the trade unions and employers' associations, who act as external guarantors that the councils function as intended (Thelen 1991).

(iv) Because coordinated market economies typically make extensive use of labor with high industry-specific or firm-specific skills, they depend on *education and training systems* capable of providing workers with such skills.[24] As Culpepper notes in his chapter, the coordination problems here are acute, as workers must be assured that an apprenticeship will result in lucrative employment, while firms investing in training need to know that their workers will acquire usable skills and will not be poached by companies that do not make equivalent investments in training. CMEs resolve these problems in a variety of ways.

Germany relies on industry-wide employer associations and trade unions to supervise a publicly subsidized training system. By pressuring major firms to take on apprentices and monitoring their participation in such schemes, these associations limit free-riding on the training efforts of others; and, by negotiating industry-wide skill categories and training protocols with the firms in each sector, they ensure both that the training fits the firms' needs and that there will be an external demand for any graduates not employed by the firms at which they apprenticed. Because German employer associations are encompassing organizations

[24] Compared to general skills that can be used in many settings, industry-specific skills normally have value only when used within a single industry and firm-specific skills only in employment within that firm.

that provide many benefits to their members and to which most firms in a sector belong, they are well placed to supply the monitoring and suasion that the operation of such a system demands as well as the deliberative forums in which skill categories, training quotas, and protocols can be negotiated. Workers emerge from their training with both company-specific skills and the skills to secure employment elsewhere.

(v) Since many firms in coordinated market economies make extensive use of long-term labor contracts, they cannot rely as heavily on the movement of scientific or engineering personnel across companies, to effect technology transfer, as liberal market economies do. Instead, they tend to cultivate *inter-company relations* of the sort that facilitate the diffusion of technology across the economy. In Germany, these relationships are supported by a number of institutions. Business associations promote the diffusion of new technologies by working with public officials to determine where firm competencies can be improved and orchestrating publicly subsidized programs to do so. The access to private information about the sector that these associations enjoy helps them ensure that the design of the programs is effective for these purposes. A considerable amount of research is also financed jointly by companies, often in collaboration with quasi-public research institutes. The common technical standards fostered by industry associations help to diffuse new technologies, and they contribute to a common knowledge-base that facilitates collaboration among personnel from multiple firms, as do the industry-specific skills fostered by German training schemes (Lütz 1993; Soskice 1997*b*; Ziegler 1997).

Casper's chapter in this volume shows that Germany has also developed a system of contract law complementary to the presence of strong industry associations that encourages relational contracting among companies and promotes this sort of technology transfer. Because of the many contingencies that can arise in close inter-firm relationships involving joint research or product development, tightly written, formal contracts are often inadequate to sustain such relationships. However, the German courts permit unusually open-ended clauses in inter-firm contracts on the explicit condition that these be grounded in the prevailing standards of the relevant industry association. Thus, the presence of strong industry associations capable of promulgating standards and resolving disputes among firms is the precondition for a system of contract law that encourages relational contracting (cf. Casper 1997; Teubner in this volume).

In these respects, German institutions support forms of relational contracting and technology transfer that are more difficult to achieve in

liberal market economies. One of the effects is to encourage corporate strategies that focus on product differentiation and niche production, rather than direct product competition with other firms in the industry, since close inter-firm collaboration is harder to sustain in the presence of the intense product competition that tends to characterize LMEs. The chapter by Estevez-Abe, Iversen, and Soskice examines the linkages between these product market strategies, skill systems, and social-policy regimes.

The complementarities present in the German political economy should be apparent from this account. Many firms pursue production strategies that depend on workers with specific skills and high levels of corporate commitment that are secured by offering them long employment tenures, industry-based wages, and protective works councils. But these practices are feasible only because a corporate governance system replete with mechanisms for network monitoring provides firms with access to capital on terms that are relatively independent of fluctuations in profitability. Effective vocational training schemes, supported by an industrial-relations system that discourages poaching, provide high levels of industry-specific skills. In turn, this encourages collective standard-setting and inter-firm collaboration of the sort that promotes technology transfer. The arrows in Fig. 1.3 summarize some of these complementarities. Since many of these institutional practices enhance the effectiveness with which others operate, the economic returns to the system as a whole are greater than its component parts alone would generate.

1.4 Liberal Market Economies: The American Case

Liberal market economies can secure levels of overall economic performance as high as those of coordinated market economies, but they do so quite differently. In LMEs, firms rely more heavily on market relations to resolve the coordination problems that firms in CMEs address more often via forms of non-market coordination that entail collaboration and strategic interaction. In each of the major spheres of firm endeavor, competitive markets are more robust and there is less institutional support for non-market forms of coordination.

(i) Several features of the *financial systems* or *markets for corporate governance* of liberal market economies encourage firms to be attentive to current earnings and the price of their shares on equity markets. Regulatory regimes are tolerant of mergers and acquisitions, including the hostile

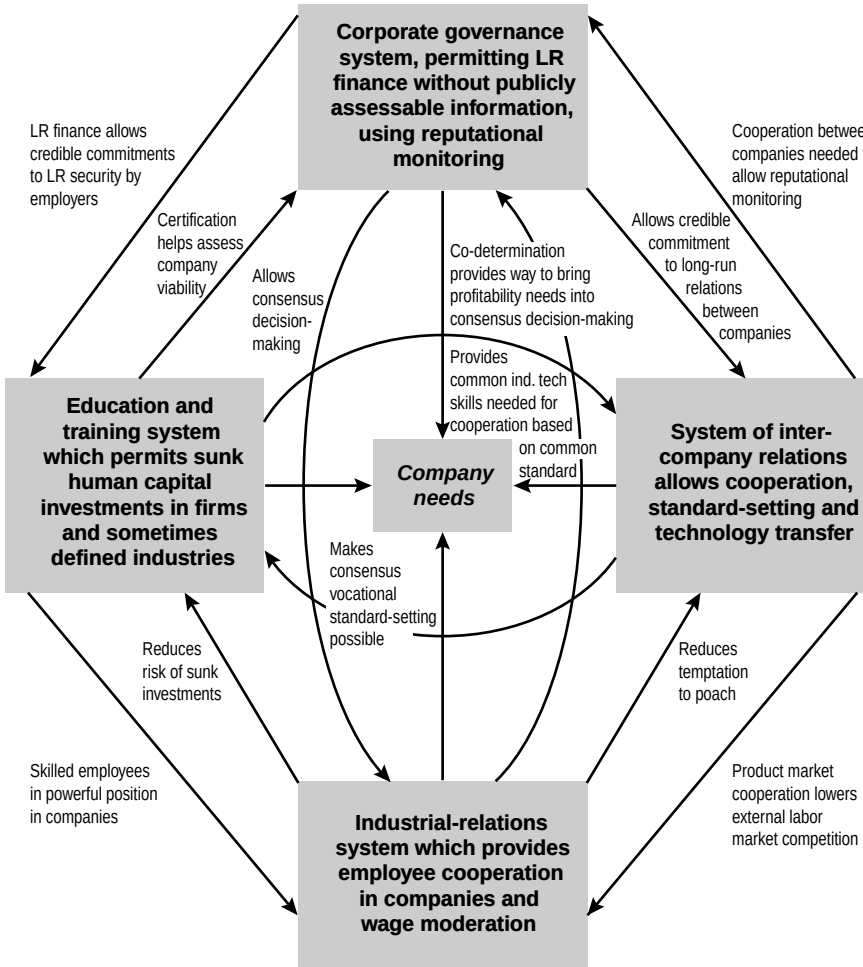

Fig. 1.3 Complementarities across subsystems in the German coordinated market economy

takeovers that become a prospect when the market valuation of a firm declines. The terms on which large firms can secure finance are heavily dependent on their valuation in equity markets, where dispersed investors depend on publicly available information to value the company. This applies to both bonds, share issues, and bank lending.[25] Compensation systems that reward top management for increases in net earnings

[25] Firms in LMEs tend to rely on bond and equity markets for external finance more heavily than those in CMEs. However, bank lending in such economies also privileges publicly accessible, balance-sheet criteria, since banks find it difficult to monitor the less-

or share price are common in such economies. Liberal market economies usually lack the close-knit corporate networks capable of providing investors with inside information about the progress of companies that allows them to supply finance less dependent on quarterly balance sheets and publicly available information. The relevant contrast is with CMEs, where firms need not be as attentive to share price or current profitability in order to ensure access to finance or deter hostile takeovers.

Of course, there are some qualifications to these generalizations. Companies with readily assessable assets associated with forward income streams, such as pharmaceutical firms with a 'pipeline' of drugs, consumer-goods companies with strong reputations for successful product development, and firms well positioned in high-growth markets, need not be as concerned about current profitability. New firms in high-technology fields can often secure funds from venture-capital companies that develop the resources and technical expertise to monitor their performance directly and trade ownership stakes in these firms for the high risks they take.[26] On the whole, however, the markets for corporate governance in LMEs encourage firms to focus on the publicly assessable dimensions of their performance that affect share price, such as current profitability.

(ii) In the *industrial relations arena*, firms in liberal market economies generally rely heavily on the market relationship between individual worker and employer to organize relations with their labor force. Top management normally has unilateral control over the firm, including substantial freedom to hire and fire.[27] Firms are under no obligation to establish representative bodies for employees such as works councils; and trade unions are generally less powerful than in CMEs, although they may have significant strength in some sectors. Because trade unions

obvious dimensions of corporate progress in an environment that lacks the close-knit corporate networks conveying such information in CMEs. Intense monitoring by a loan officer is feasible only when small sums are involved, since it exposes the bank to problems of moral hazard that are especially acute in countries where officers can take advantage of fluid labor markets to move elsewhere.

[26] Note that we avoid a distinction often drawn between countries in which firms can raise 'long-term' capital versus those in which only 'short-term' capital is available because this distinction is rarely meaningful. Many companies in LMEs with established market reputations can raise capital for projects promising revenues only in the medium to long term, and firms often finance the bulk of their activities from retained earnings. Of more relevance are the rules governing hostile takeovers, whose prospect can induce firms to pay more attention to corporate earnings and the price of their shares.

[27] Partly for this reason, the market valuation of firms in LMEs often depends more heavily on the reputation of its CEO than it does in CMEs.

and employer associations in LMEs are less cohesive and encompassing, economy-wide wage coordination is generally difficult to secure. Therefore, these economies depend more heavily on macroeconomic policy and market competition to control wages and inflation (see Franzese in this volume; Hall and Franzese 1998).

The presence of highly fluid labor markets influences the strategies pursued by both firms and individuals in liberal market economies. These markets make it relatively easy for firms to release or hire labor in order to take advantage of new opportunities but less attractive for them to pursue production strategies based on promises of long-term employment. They encourage individuals to invest in general skills, transferable across firms, rather than company-specific skills and in career trajectories that include a substantial amount of movement among firms.

(iii) The *education and training systems* of liberal market economies are generally complementary to these highly fluid labor markets. Vocational training is normally provided by institutions offering formal education that focuses on general skills because companies are loath to invest in apprenticeship schemes imparting industry-specific skills where they have no guarantees that other firms will not simply poach their apprentices without investing in training themselves. From the perspective of workers facing short job tenures and fluid labor markets, career success also depends on acquiring the general skills that can be used in many different firms; and most educational programs from secondary through university levels, even in business and engineering, stress 'certification' in general skills rather than the acquisition of more specialized competencies.

High levels of general education, however, lower the cost of additional training. Therefore, the companies in these economies do a substantial amount of in-house training, although rarely in the form of the intensive apprenticeships used to develop company-specific or industry-specific skills in CMEs. More often, they provide further training in the marketable skills that employees have incentives to learn. The result is a labor force well equipped with general skills, especially suited to job growth in the service sector where such skills assume importance, but one that leaves some firms short of employees with highly specialized or company-specific skills.

(iv) *Inter-company relations* in liberal market economies are based, for the most part, on standard market relationships and enforceable formal contracts. In the United States, these relations are also mediated by

rigorous antitrust regulations designed to prevent companies from colluding to control prices or markets and doctrines of contract laws that rely heavily on the strict interpretation of written contracts, nicely summarized by MacNeil's dictum: 'sharp in by clear agreement, sharp out by clear performance' (Williamson 1985). Therefore, companies wishing to engage in relational contracts with other firms get little assistance from the American legal system, as Casper observes.

In some fields of endeavor, such as after-sales service, companies can engage successfully in incomplete contracting by building up reputations on which other parties rely. But extensive reputation-building is more difficult in economies lacking the dense business networks or associations that circulate reputations for reliability or sharp practice quickly and widely. Because the market for corporate governance renders firms sensitive to fluctuations in current profitability, it is also more difficult for them to make credible commitments to relational contracts that extend over substantial periods of time.

How then does technology transfer take place in liberal market economies? In large measure, it is secured through the movement of scientists and engineers from one company to another (or from research institutions to the private sector) that fluid labor markets facilitate. These scientific personnel bring their technical knowledge with them. LMEs also rely heavily on the licensing or sale of innovations to effect technology transfer, techniques that are most feasible in sectors of the economy where effective patenting is possible, such as biotechnology, microelectronics, and semiconductors. In the United States, the character of standard-setting reinforces the importance of licensing. Since few sectors have business associations capable of securing consensus on new standards, collective standard-setting is rarely feasible. Instead, standards are often set by market races, whose winners then profit by licensing their technology to many users (see also Tate in this volume). The prominence of this practice helps to explain the presence of venture-capital firms in liberal market economies: one success at standard-setting can pay for many failed investments (Borrus and Zysman 1997).

In LMEs, research consortia and inter-firm collaboration, therefore, play less important roles in the process of technology transfer than in CMEs where the institutional environment is more conducive to them. Until the National Cooperative Research Act of 1984, American firms engaging in close collaboration with other firms actually ran the risk of being sued for triple damages under antitrust law; and it is still estimated that barely 1 to 7 per cent of the funds spent on research and development in the American private sector are devoted to collaborative research.

It should be apparent that there are many institutional complementarities across the sub-spheres of a liberal market economy (see Fig. 1.4). Labor market arrangements that allow companies to cut costs in a downturn by shedding labor are complementary to financial markets that render a firm's access to funds dependent on current profitability. Educational arrangements that privilege general, rather than firm-specific, skills are complementary to highly fluid labor markets; and the latter render forms of technology transfer that rely on labor mobility more feasible. In

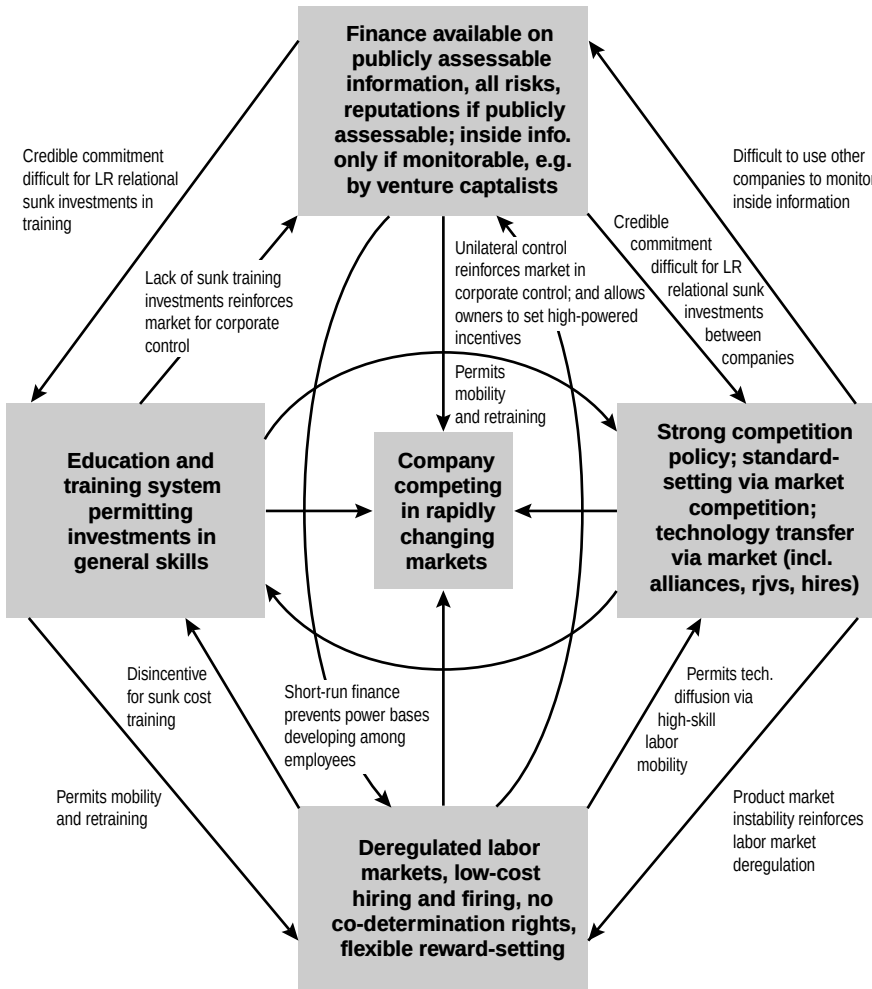

Fig. 1.4 Complementarities across subsystems in the American liberal market economy

the context of a legal system that militates against relational contracting, licensing agreements are also more effective than inter-firm collaboration on research and development for effecting technology transfer.

Special note should be taken of the complementarities between the internal structure of firms and their external institutional environment in liberal and coordinated market economies. In LMEs, corporate structures that concentrate authority in top management make it easier for firms to release labor when facing pressure from financial markets and to impose a new strategy on the firm to take advantage of the shifting market opportunities that often present themselves in economies characterized by highly mobile assets. By contrast, in CMEs, where access to finance and technology often depends on a firm's attractiveness as a collaborator and hence on its reputation, corporate structures that impose more consensual forms of decision-making allow firms to develop reputations that are not entirely dependent on those of its top management. By reducing the capacity of top management to act arbitrarily, these structures also enhance the firm's capacity to enter credibly into relational contracts with employees and others in economies where a firm's access to many kinds of assets, ranging from technology to skills, may depend on its capacity for relational contracting. Lehrer's chapter explores some of these linkages between corporate structure and the external environment in more detail.

1.5 Comparing Coordination

Although many of the developed nations can be classified as liberal or coordinated market economies, the point of this analysis is not simply to identify these two types but to outline an approach that can be used to compare many kinds of economies. In particular, we are suggesting that it can be fruitful to consider how firms coordinate their endeavors and to analyze the institutions of the political economy from a perspective that asks what kind of support they provide for different kinds of coordination, even when the political economies at hand do not correspond to the ideal types we have just outlined.

It is important to note that, even within these two types, significant variations can be found. Broadly speaking, liberal market economies are distinguishable from coordinated market economies by the extent to which firms rely on market mechanisms to coordinate their endeavors as opposed to forms of strategic interaction supported by non-market institutions. Because market institutions are better known, we will not explore the differences among liberal market economies here. But a few

words about variation in coordinated market economies may be appropriate, if only to show that variation in the institutional structures underpinning strategic coordination can have significant effects on corporate strategy and economic outcomes.

One important axis of difference among CMEs runs between those that rely primarily on *industry-based coordination*, as do many of the northern European nations, and those with institutional structures that foster *group-based coordination* of the sort found in Japan and South Korea. As we have seen, in Germany, coordination depends on business associations and trade unions that are organized primarily along sectoral lines, giving rise to vocational training schemes that cultivate industry-specific skills, a system of wage coordination that negotiates wages by sector, and corporate collaboration that is often industry-specific. By contrast, the business networks of most importance in Japan are built on *keiretsu*, families of companies with dense interconnections cutting across sectors, the most important of which is nowadays the *vertical keiretsu* with one major company at its center.

These differences in the character of business networks have major implications. In Germany, companies within the same sector often cooperate in the sensitive areas of training and technology transfer. But the structure of the Japanese economy encourages sharp competition between companies in the same industry. Cooperation on sensitive matters is more likely to take place within the *keiretsu*, i.e. among firms operating in different sectors but within one 'family' of companies. The sectoral cooperation that takes place usually concerns less sensitive matters, including recession cartels, licensing requirements, and entry barriers as well as the annual wage round (Soskice 1990*a*). Partly for this reason, the attempts of MITI to develop cooperative research projects within sectors have had very limited success; serious research and development remains the preserve of the laboratories of the major companies.

This pattern of *keiretsu*-led coordination also has significant implications for patterns of skill acquisition and technology transfer. Serious training, technology transfer and a good deal of standard-setting take place primarily within the vertical *keiretsu*. Workers are encouraged to acquire firm- or group-specific skills, and notably strong relational skills appropriate for use within the family of companies within which they have been trained. In order to persuade workers to invest in skills of this specificity, the large firms have customarily offered many of them lifetime employment. And, in order to sustain such commitments, many Japanese firms have cultivated the capacity to move rapidly into new

products and product areas in response to changes in world markets and technologies. This kind of corporate strategy takes advantage of the high levels of workforce cooperation that lifetime employment encourages. To reinforce it, Japanese firms have also developed company unions providing the workforce with a voice in the affairs of the firm.

Japanese firms tend to lack the capacities for radical innovation that American firms enjoy by virtue of fluid market settings or for sector-centered technology transfer of the sort found in Germany. Instead, the group-based organization of the Japanese political economy has encouraged firms there to develop distinctive corporate strategies that take advantage of the capacities for cross-sector technology transfer and rapid organizational redeployment provided by the *keiretsu* system. These translate into comparative institutional advantages in the large-scale production of consumer goods, machinery, and electronics that exploit existing technologies and capacities for organizational change. Although Japan is clearly a coordinated market economy, the institutional structures that support group-based coordination there have been conducive to corporate strategies and comparative advantages somewhat different from those in economies with industry-based systems of coordination.

The varieties of capitalism approach can also be useful for understanding political economies that do not correspond to the ideal type of a liberal or coordinated market economy. From our perspective, each economy displays specific capacities for coordination that will condition what its firms and government do.

France is a case in point, and the chapters in this volume by Lehrer, Culpepper, and Hancké explore some of the implications of this approach for it. Collaboration across French companies is based on career patterns that led many of the managers of leading firms through a few elite schools and the public service before taking up their positions in the private sector. Lehrer observes that the top managers of many French firms, therefore, have close ties to the state and weak ties to the rest of the enterprise. As a result, he argues, they are less likely to pursue the corporate strategies found in Britain or Germany and more likely to look to the state for assistance than their counterparts in other nations. Using the case of vocational training, however, Culpepper shows that there are clear limits to what states can do in the absence of strong business associations capable of monitoring their members. Hancké examines how large French firms are adapting to these limits, suggesting that many are taking industrial reorganization upon themselves, sometimes devising new networks to coordinate their activities.

In sum, although the contrast between coordinated and liberal market economies is important, we are not suggesting that all economies conform to these two types. Our object is to advance comparative analysis of the political economy more generally by drawing attention to the ways in which firms coordinate their endeavors, elucidating the connections between firm strategies and the institutional support available for them, and linking these factors to patterns of policy and performance. These are matters relevant to any kind of political economy.

1.6 Comparative Institutional Advantage

We turn now to some of the issues to which this perspective can be applied, beginning with a question central to international economics, namely, how to construe comparative economic advantage. The theory of comparative economic advantage is important because it implies that freer trade will not impoverish nations by driving their production abroad but enrich them by allowing each to specialize in the goods it produces most efficiently and exchange them for even more goods from other nations. It can be used to explain both the expansion of world trade and the patterns of product specialization found across nations. The most influential version of the theory focuses on the relative endowment of basic factors (such as land, labor, and capital) found in a nation and suggests that trade will lead a nation to specialize in the production of goods that use its most abundant factors most intensively (Stolper and Samuelson 1941).

However, recent developments have dealt a serious blow to this account of comparative economic advantage. The most important of these include the expansion of intra-industry trade and increases in the international mobility of capital. If the theory is correct, nations should not import and export high volumes of goods from the same sector; and there is a real possibility that international movements of capital will even out national factor endowments. As a result, some economists have become skeptical about whether comparative advantages really exist, and many have begun to seek other explanations for the expansion of trade and the geographic distribution of production.

Some explain the growth of trade, and intra-industry trade in particular, as the result of efforts to concentrate production in order to secure returns to scale (Helpmann 1984). Others explain the concentration of particular kinds of production in some nations as the result of firms' efforts to secure the positive externalities generated by a group of firms

engaged in related endeavors at the same site, whether in the form of appropriate labor pools, the availability of relevant intermediate products, or technological spillovers. This approach predicts that companies making similar products will cluster together, whether in Silicon Valley or Baden-Württemberg (Krugman 1991).

Both of these theories are valuable as far as they go, and nothing in our own is inconsistent with them, but we think they do not go far enough. Both explain why the production of some kinds of goods might be concentrated in a nation, but they say little about why production of *that* type should be concentrated in *that* particular nation, while other nations specialize in other kinds of production. Agglomeration theory explains why firms engaged in similar endeavors cluster in places like Silicon Valley or Baden-Württemberg, but it cannot explain why firms engaged in activities that entail high risks, intense competition, and high rates of labor turnover cluster in Silicon Valley, while firms engaged in very different activities that entail lower risks, close inter-firm collaboration, and low rates of labor turnover locate in Baden-Württemberg. We still need a theory that explains why particular nations tend to specialize in specific types of production or products.

We think that such a theory can be found in the concept of *comparative institutional advantage*. The basic idea is that the institutional structure of a particular political economy provides firms with advantages for engaging in specific types of activities there. Firms can perform some types of activities, which allow them to produce some kinds of goods, more efficiently than others because of the institutional support they receive for those activities in the political economy, and the institutions relevant to these activities are not distributed evenly across nations.

The contention that institutions matter to the efficiency with which goods can be produced receives considerable support from the growing body of work on endogenous growth. Many economists have observed that national rates of growth cannot be explained fully by incremental additions to the stock of capital and labor and fixed rates of technical change. Endogenous growth theorists have suggested that the institutional setting for production also seems to matter to national rates of growth; and various efforts have been made to specify what features of that setting might be important, generating suggestions that include: economies of scale available from oligopoly positions, economies of scope arising from experience in related endeavors, network externalities generated by firms engaged in similar activities, and the nature of property rights regimes (Romer 1986, 1994; Grossman and Helpmann

1992; Aghion and Howitt 1998).[28] There is now widespread recognition that the institutional context can condition rates of growth and technological progress.

To date, however, most efforts to specify these institutions have concentrated on market relationships and the legal framework for them, neglecting the non-market relations that may be equally important to such outcomes. The latter receive more emphasis in the literature on national innovation systems and some analyses of competitive advantage (Dosi et al. 1988; Porter 1990; Barro and Sala-i-Martin 1995; Edquist 1997). Most of this literature, however, looks for the ingredients of *absolute* advantage, i.e. it identifies factors more of which will improve the performance of any economy. We seek institutional features that might confer *comparative* advantage and, thus, be better suited to explaining cross-national patterns of product or process specialization (Zysman 1994).

The basic logic of our approach should be apparent. We have argued that, in some political economies, firms make more extensive use of non-market modes of coordination to organize their endeavors, while in others firms rely mainly on markets to coordinate those endeavors. Broadly speaking, these differences correspond to the level of institutional support available for market, as opposed to non-market, coordination in each political economy. Using a distinction between liberal and coordinated market economies, we have identified many of the institutional features of the political economy relevant to these differences and suggest that these correspond to cross-national differences in corporate strategy.

The important point to be added here is that the availability of these different modes of coordination conditions the efficiency with which firms can perform certain activities, thereby affecting the efficiency with which they can produce certain kinds of goods and services. In short, the national institutional frameworks examined in this volume provide nations with comparative advantages in particular activities and products. In the presence of trade, these advantages should give rise to cross-national patterns of specialization.

Although there may be types of comparative advantage that these institutional frameworks confer that we have not yet explored, we focus here on their impact on *innovation* since a firm's capacity to innovate is crucial to its long-run success. The key distinction we draw is between *radical* innovation, which entails substantial shifts in product lines, the development of entirely new goods, or major changes to the production

[28] Note that strategic trade theory focuses on a similar set of variables (cf. Krugman 1986; Busch 1999).

process, and *incremental* innovation, marked by continuous but small-scale improvements to existing product lines and production processes. Over the medium to long term, efficiency in the production of some kinds of goods requires a capacity for radical innovation, while, in other kinds of goods, it requires a capacity for incremental innovation.

Radical innovation is especially important in fast-moving technology sectors, which call for innovative design and rapid product development based on research, as in biotechnology, semiconductors, and software development. It is also important to success in the provision of complex system-based products, such as telecommunications or defense systems, and their service-sector analogs: airlines, advertising, corporate finance, and entertainment. In the latter, competitiveness demands a capacity for taking risks on new product strategies and for the rapid implementation of such strategies within large, tightly coupled organizations that employ a diverse personnel.

Incremental innovation tends to be more important for maintaining competitiveness in the production of capital goods, such as machine tools and factory equipment, consumer durables, engines, and specialized transport equipment. Here, the problem is to maintain the high quality of an established product line, to devise incremental improvements to it that attract consumer loyalty, and to secure continuous improvements in the production process in order to improve quality control and hold down costs.

Coordinated market economies should be better at supporting incremental innovation. This follows from the emphasis we have put on the relational requirements of company endeavors. It will be easier to secure incremental innovation where the workforce (extending all the way down to the shop floor) is skilled enough to come up with such innovations, secure enough to risk suggesting changes to products or process that might alter their job situation, and endowed with enough work autonomy to see these kinds of improvements as a dimension of their job. Thus, incremental innovation should be most feasible where corporate organization provides workers with secure employment, autonomy from close monitoring, and opportunities to influence the decisions of the firm, where the skill system provides workers with more than task-specific skills and, ideally, high levels of industry-specific technical skills, and where close inter-firm collaboration encourages clients and suppliers to suggest incremental improvements to products or production processes.

The institutions of coordinated market economies normally provide high levels of support for these relational requirements. Highly coordinated *industrial-relations systems* and *corporate structures* characterized by

works councils and consensus decision-making provide employees with the guarantees that elicit their cooperation. The *training systems* of CMEs typically provide high skill levels and the requisite mix of company-specific and more general technical skills. Appropriate *contract laws* and *dense networks of inter-corporate linkages* allow firms to form relational contracts with other firms; and *systems of corporate governance* that insulate firms against hostile takeovers and reduce their sensitivity to current profits encourage long employment tenures and the development of the inter-firm and employee relations that foster incremental innovation. By encouraging corporate strategies based on product differentiation rather than intense product competition, these inter-corporate networks also tend to promote incremental, rather than radical, innovation. A reputation for risk-taking or cut-throat competition is rarely an asset in such networks.

By contrast, although some can occur there, the institutional features of liberal market economies tend to limit firms' capacities for incremental innovation. Financial market arrangements that emphasize current profitability and corporate structures that concentrate unilateral control at the top deprive the workforce of the security conducive to their full cooperation in innovation. Fluid labor markets and short job tenures make it rational for employees to concentrate more heavily on their personal career than the firm's success and on the development of general skills rather than the industry- or company-specific skills conducive to incremental innovation. The complexion of contract law and antitrust laws discourages inter-firm collaboration in incremental product development.

However, the institutional framework of liberal market economies is highly supportive of radical innovation. *Labor markets* with few restrictions on layoffs and high rates of labor mobility mean that companies interested in developing an entirely new product line can hire in personnel with the requisite expertise, knowing they can release them if the project proves unprofitable. Extensive *equity markets* with dispersed shareholders and few restrictions on mergers or acquisitions allow firms seeking access to new or radically different technologies to do so by acquiring other companies with relative ease, and the presence of venture capital allows scientists and engineers to bring their own ideas to market. As Lehrer's study of the airline industry shows, the concentration of power at the top typical of *corporate organization* in an LME makes it easier for senior management to implement entirely new business strategies throughout a multi-layered organization delivering complex system goods or services. Such firms can also acquire or divest

subsidiaries quickly. *Inter-firm relations* based primarily on markets enhance the capacities of firms to buy other companies, to poach their personnel, and to license new products—all means of acquiring new technologies quickly.

By contrast, in CMEs, although dense inter-corporate networks facilitate the gradual diffusion of technology, they make it more difficult for firms to access radically new technologies by taking over other companies. Corporate structures characterized by strong worker representation and consensus decision-making make radical reorganization of a firm more difficult, as each of the affected actors contemplates the consequences for his relationship to the company. The long employment tenures that such institutions encourage make it less feasible for firms to secure access to new technologies by hiring in large numbers of new personnel.

In short, the institutional frameworks of liberal market economies provide companies with better capacities for radical innovation, while those of coordinated market economies provide superior capacities for incremental innovation. Therefore, to the extent allowed by transport costs and the efficiency of international markets, there should be national patterns of specialization in activities and products; and these should reflect rational responses to the institutional frameworks identified here rather than random geographic agglomeration.

Figs. 1.5 and 1.6 provide some evidence for these propositions. Using data from the European Patent Office, they report indices measuring the degree to which innovation in Germany and the United States is concentrated into any of thirty technology classes that vary according to whether technological progress in them is typically characterized by radical or incremental innovation.[29] Higher scores reflect greater specialization in that kind of technological innovation, and the charts include data from 1993–4 as well as 1983–4 to assess stability over time.

The striking finding is that Germany specializes in technological developments that are just the reverse of those in the USA. Fig. 1.6 is almost the mirror image of Fig. 1.5. Firms in Germany have been more active innovators in fields predominantly characterized by incremental innovation, including mechanical engineering, product handling, transport,

[29] The data are from the European Patent Office and calculated for thirty classes of technologies. For technology class *i* (e.g. machine tools) Germany's relative specialization is measured by the share of German machine-tool patents in total German patents *less* the share of global machine-tool patents in global patents. We are grateful to Tom Cusack for substantial assistance with the calculations for Figs. 1.5 and 1.6. See Cusack and Frosch 2000 and Grupp et al. 1995.

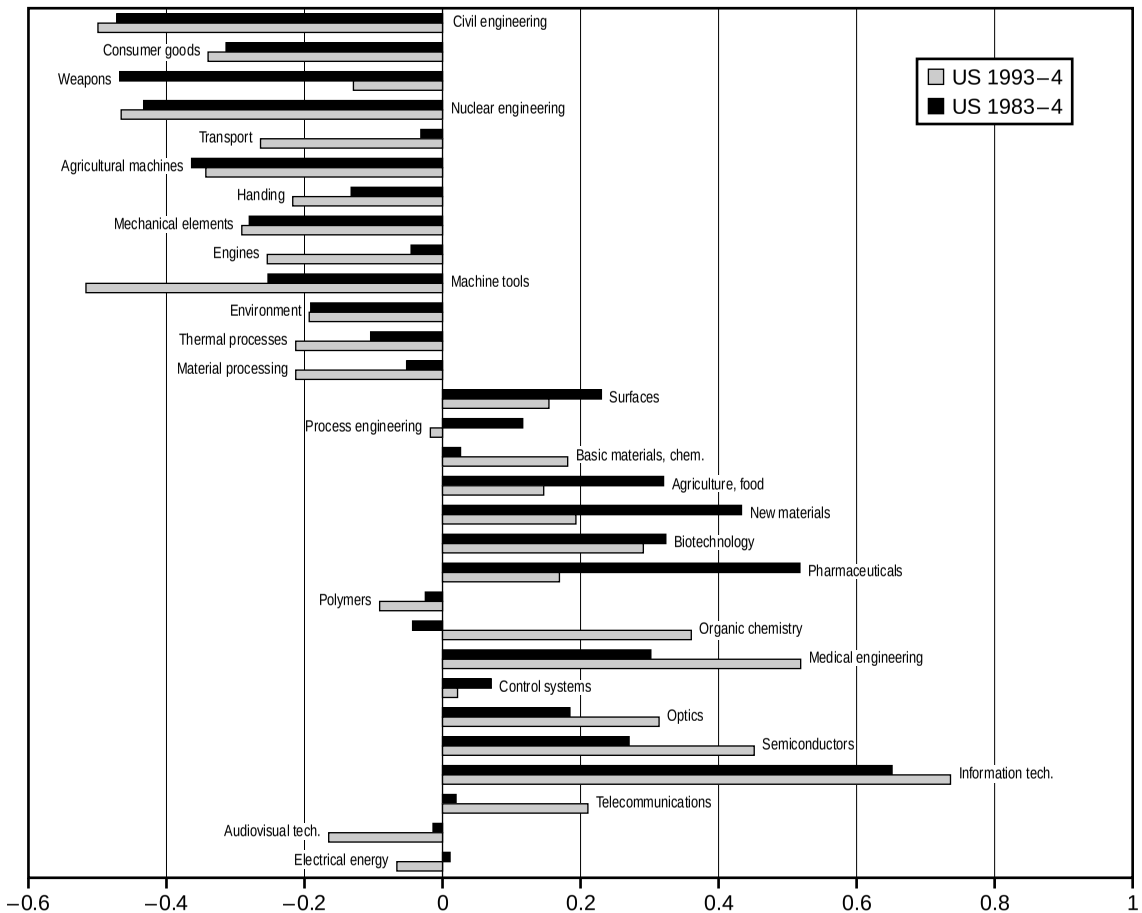

Fig. 1.5
Patent specialization by technology classes in the United States, 1983–1984 and 1993–1994

Note: Positive figures indicate the nation specializes more heavily in patents in that technology class. For details, see n. 29.

Source: European Patent Office data.

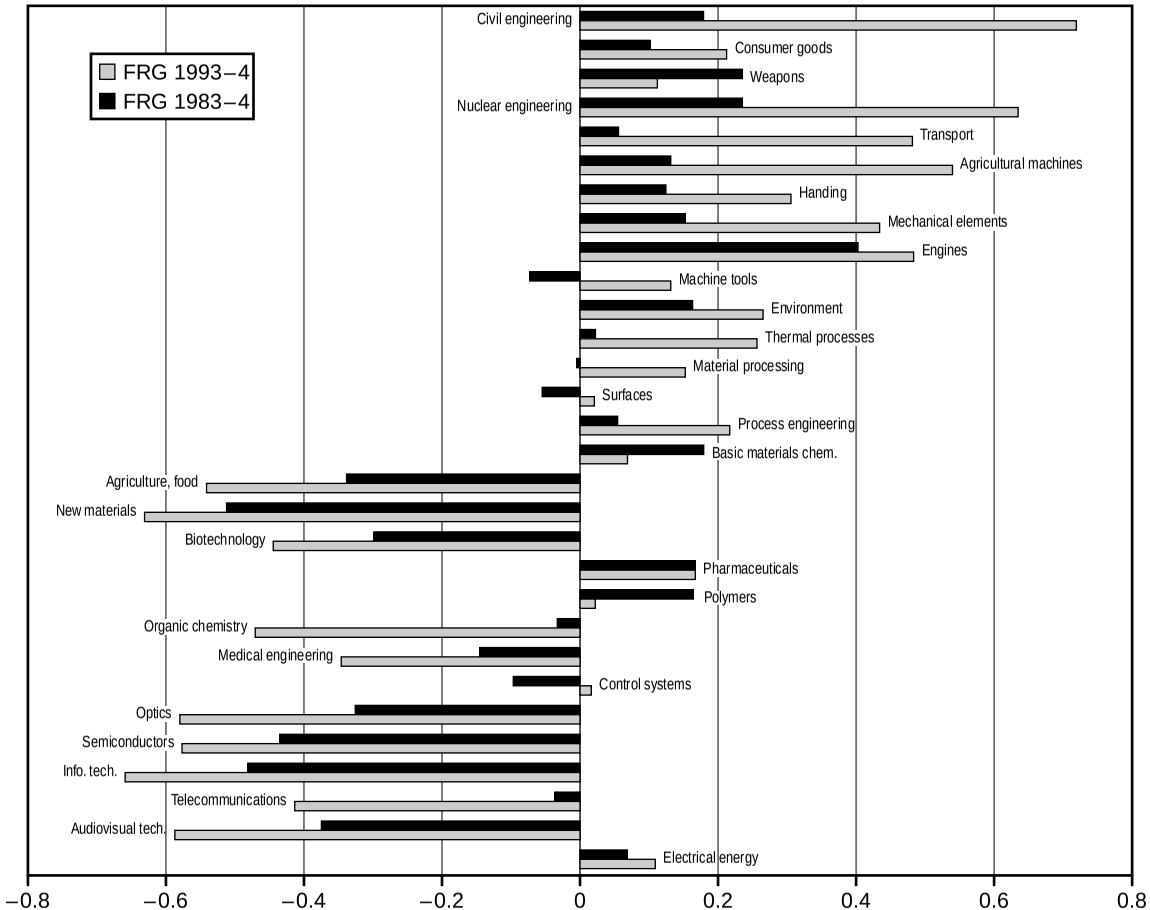

Fig. 1.6
Patent specialization by technology classes in the Federal Republic of Germany, 1983–1984 and 1993–1994

Note: Positive figures indicate the nation specializes more heavily in patents in that technology class. For details, see n. 29.

Source: European Patent Office data.

consumer durables, and machine tools, while firms in the United States innovate disproportionately in fields where radical innovation is important, such as medical engineering, biotechnology, semiconductors, and telecommunications. These patterns are consistent over time and precisely the ones our analysis would expect. There does appear to be specialization in innovation across nations, with firms in the liberal market economy specializing in radical innovation, while those in the coordinated market economy concentrate on incremental innovation.

We have focused on innovation here because it is one of the most crucial dimensions of economic success. However, the institutional structures of LMEs and CMEs may confer other kinds of comparative advantages yet to be explored. Firms in coordinated market economies, for instance, are well placed to secure high levels of quality control, by virtue of their close relationships with workers and suppliers; and such a capacity may give them advantages in products for which demand turns more heavily on quality relative to price. Conversely, the ease with which firms in liberal market economies can cut costs by releasing workers, given fluid labor markets and high levels of managerial prerogative, may provide them with advantages in products for which demand is highly price-sensitive.

Economists have also long believed that skill levels can be important to comparative advantage, and our analysis suggests that the availability of labor with particular types of skills will be dependent on precisely the kinds of institutions that distinguish liberal from coordinated market economies. The extensive facilities for inter-firm collaboration that foster high levels of industry-specific skills in some CMEs and company-specific skills in others may provide those nations with advantages for producing goods that require such labor, while the fluid labor markets and support for the development of general skills in LMEs may make the production of goods and services that require less skilled but lower-cost labor more viable there.

We have stressed the paradigmatic cases of liberal and coordinated market economies, but the perspective can be extended to institutional variation of other types. As we have noted, for instance, the group-based coordination characteristic of some CMEs provides firms with better capacities for diffusing technology across sectoral boundaries than do industry-based systems of coordination; and these capacities may give nations with group-based coordination special advantages in particular industries (Soskice 1994*a*). We have provided an explicit basis for understanding how comparative institutional advantage might operate, but there are many dimensions to it that remain to be investigated.

1.7 New Perspectives on Comparative Public Policy-Making

Comparative political economists have been as interested in patterns of economic policy-making as in problems of economic performance. Accordingly, it is appropriate to note that the analytical framework developed in this volume also opens up substantial new perspectives on both economic and social policy-making with relevance for the domestic arena and international relations.

1.7.1 Economic Policy-Making

The approach we take to the political economy suggests some important revisions in the way we normally think about the problematic facing economic policy-makers, especially on the supply side of the economy. A substantial literature in comparative political economy, going back to Shonfield (1965), construes the problem facing policy-makers as one of settling on the actions that firms or other private-sector actors should take in order to improve economic performance and then devising a set of incentives, whether regulatory or financial, to induce them to take those actions. This was what the 'strong' states of France and Japan were once said to be so effective at doing (Johnson 1982; Zysman 1983). Broadly speaking, the problem was seen as one of inducing economic actors to cooperate with the government.

From our perspective, however, the principal problem facing policy-makers is quite different: it is one of inducing economic actors to co-operate more effectively with each other.[30] This follows from our view of the economy as an arena in which multiple actors develop competencies by devising better ways of coordinating their endeavors with one another. When firms coordinate more effectively, their performance will be better, and the result will be better overall economic performance. In some cases, more effective coordination among other actors, such as trade unions and employers, will also enhance performance.[31] Accordingly, one of the principal ways in which policy-makers can improve national economic performance is to secure better forms of coordination among private-sector actors.

[30] The formulations in these paragraphs are influenced by the work of Pepper Culpepper (1998, forthcoming) and owe a good deal to conversations with him.

[31] Here, as elsewhere in this chapter, when we refer to 'more effective' coordination, we mean coordination by the actors on actions providing equilibria that are Pareto-superior to those that preceded them in the sense that they make at least some of the actors better off without making others worse off.

In some cases, markets can be used to secure this coordination, and so the task facing policy-makers is to improve the functioning of markets. This is not always easy, but there are some well-known techniques for accomplishing this task. However, there are other cases in which firms can perform certain endeavors well (whether wage-bargaining, collaborating with other firms in research and development, or the like) only by coordinating with others in contexts of strategic interaction. Here, the problem is one of improving the equilibrium outcomes that arise from strategic interactions, and less is known about how to accomplish that. Culpepper describes this problem as one of securing 'decentralized cooperation'. It entails persuading private-sector actors to share information, improving their ability to make credible commitments, and altering their expectations about what others will do. As we have noted, the development of supportive institutions and the cultivation of a base of common knowledge may be crucial here (Ostrom 1990; Ramirez-Rangel 2000; Culpepper forthcoming).

This formulation highlights the difficulties facing economic policy-makers, especially when they are seeking to enhance non-market coordination. In such contexts, states cannot simply tell economic actors what to do, not only because the outcomes are too complex to be dictated by regulation but because states generally lack the information needed to specify appropriate strategies. States may establish agencies, but what agencies can do is limited. In many cases, effective strategic coordination depends on the presence of appropriately organized social organizations, such as trade unions and employer associations, that governments can encourage but not create. As Culpepper's analysis of vocational training shows, effective cooperation also requires common knowledge that may develop only out of experience over time. Where norms and institutions supporting effective cooperation already exist, policy-makers may be able to improve its operation with complementary regulations, but it is difficult to induce such cooperation *ex nihilo* (Culpepper 1998).

It follows that economic policies will be effective only if they are *incentive compatible*, namely complementary to the coordinating capacities embedded in the existing political economy (Wood 1997). In liberal market economies, where coordination is secured primarily through market mechanisms, better economic performance may demand policies that sharpen market competition, while coordinated market economies may benefit more from policies that reinforce the capacities of actors for non-market coordination. Because the institutional context of the British economy encourages the acquisition of general skills and militates against

sectoral coordination, its government is likely to enhance skill levels more by expanding formal education than by trying to foster sectoral training schemes modeled on the German. Conversely, competition policies that serve Britain well might erode the capacities of German firms for non-market coordination.

Wood (1997 and this volume) goes beyond this to argue that the viability of policy depends not only on the organization of the political economy but on the organization of the political realm (see also Katzenstein 1978*b*, 1987).[32] Let us distinguish between 'market incentive' policies and 'coordination-oriented' policies. The former rely on market-based incentives to induce actors to perform more effectively. The latter attempt to improve the competencies of firms, such as their skill levels or technological capabilities, by addressing firm needs with relative precision. Thus, coordination-oriented policies must be based on high levels of information about the activities of the firm. But, as Wood points out, firms are reluctant to share such information with governments whose position as powerful actors under a range of unpredictable influences raises the risks that they will defect from any agreement and use the information they have acquired against the firm. The transaction costs to governments of coordinating the activities of many private-sector actors can also be prohibitively high. In short, this kind of policy-making is marked by information asymmetries, high transaction costs, and time-inconsistency problems.

The governments of coordinated market economies have taken advantage of the strong business associations, trade unions, and other para-public organizations in their political economies to resolve these problems. Because such associations are independent of the government and responsible to their member-firms, the latter are more inclined to trust them with enough private information to administer a coordination-oriented or 'framework' policy effectively. And because these associations are in a good position to monitor and even gently sanction their members, they can often secure the coordination that a policy demands with lower transaction costs. Thus, producer-group organizations enter into 'implicit contracts' with the government to administer the policy, drawing some benefits of their own in the form of enhanced resources and authority.

This is where the organization of the political realm matters. Business associations and their members will be willing to form such contracts,

[32] The analysis in the following paragraphs owes a great deal to Wood (1997) as well as his chapter in this volume.

which usually entail some information-sharing, only if the government's commitment to abide by them is credible. As Wood (1997) observes, however, that commitment will be more credible where the relevant producer groups have enough structural influence to punish the government for any deviations from its agreements. This structural influence may rest on a number of bases: the authority of producer organizations inside political parties, the entrenchment of neo-corporatist practices in enough spheres of policy-making that defection in one can be punished in another, or policy-making procedures decentralized enough to allow producer groups many points of access and some veto points. Of course, the influence of producer groups will also depend on the character of those groups themselves: they must be encompassing and powerful enough to mobilize a serious constituency if they need to sanction the government. In short, coordination-oriented policies should be more feasible in nations with both a coordinated market economy and a political system in which producer groups enjoy substantial structural influence.

Coordination-oriented policies will be more difficult to implement in liberal market economies because their business and labor associations usually lack the encompassing character required to administer such policies well. In addition, producer groups may be less willing to enter into such implicit contracts in nations where they do not possess enough structural influence to sanction the government for deviations from them. This should be an especially important problem in nations where the powers of the state are highly concentrated in the political executive or where the influence of producer groups inside political parties is very limited.

In contradistinction to some others, then, this analysis suggests that the attributes normally associated with the 'strength' of a state may prevent governments from implementing many kinds of policies effectively. Wood (1997) shows that the failures of successive British schemes for industrial rationalization were rooted, not in the 'weakness' of the British state, as many who underline the limited levers in the hands of the authorities have suggested, but in its very strength: the Westminster system concentrates so much power in the political executive that producer groups were reluctant to trust it (cf. Sacks 1980; Leruez 1975; Shonfield 1965). Despite its many powers, the French state has also had difficulty implementing schemes for regional or technological development that require coordination among private-sector actors, partly because it concentrates power in Paris and cannot find encompassing producer groups to operate them (Culpepper 1998; Levy 1999*a*).

In general, liberal market economies should find it more feasible to implement market-incentive policies that do not put extensive demands on firms to form relational contracts with others but rely on markets to coordinate their activities. These include regional development schemes based on tax incentives, vocational programs focused on formal instruction in marketable skills, and government subsidies for basic research. Because of the bluntness of the instruments available to states and the importance of markets to these economies, deregulation is often the most effective way to improve coordination in LMEs.

This analysis of institutional complementarities between political regimes and political economies raises some intriguing issues about the patterns observable in the developed world. Many liberal market economies have Westminster systems of government that concentrate power in the political executive, while coordinated market economies tend to be governed by consociational, coalitional, or quasi-corporatist regimes. Several factors could lie behind this congruence.[33] However, some amount of co-evolution cannot be ruled out. If regimes that provide structural influence to encompassing producer groups find it more feasible to implement coordination-oriented policies, while states in which power is highly concentrated have more success with market-incentive policies, the character of the political regime may contribute to the development of a particular type of economy. Levy (1999*a*) argues forcefully for a variant of this view in the case of France.

To put a similar point in more general terms, the character of the political regime may condition the levels of asset specificity found across nations (see Alt et al. 1996). We have already argued that the institutional structure of the economy encourages certain kinds of investments. The fluid market settings of liberal market economies encourage investment in switchable assets, while the dense institutional networks of coordinated market economies enhance the attractiveness of investment in specific or co-specific assets. Political regimes characterized by coalition governments, multiple veto points, and parties that entrench the power of producer groups may also be more conducive to investment in specific assets than ones that concentrate power in highly autonomous party leaders, because (i) regimes of this sort are well positioned to provide the framework policies that sustain the institutions supporting specific investments and (ii) because they provide producers with more direct influence over government and the capacity to punish it for deviating

[33] Since many LMEs were once British colonies, the diffusion of cultural norms in the economic and political spheres may be a factor here, and, of course, the USA provides a notable exception to this rule.

from its agreements, such regimes offer investors more assurance that policy will not shift in such a way as to damage the value of assets that cannot readily be switched to other uses.[34] Thus, we should expect to find more investment in specific assets in nations with such regimes. These are issues that merit further investigation.

1.7.2 Social Policy

The varieties of capitalism approach to political economy also opens up new perspectives on social policy. In particular, it highlights the importance of social policy to firms and the role that business groups play in the development of welfare states. Convention associates the development of social policy with organized labor and progressive political parties, on the assumption that business generally opposes such initiatives. However, Mares (1998*a* and this volume) shows that business groups have played key roles in the development of social policy for over a century and develops a parsimonious model to explain the policies in which various types of firms will have interests. Her work advances an important literature exploring the contribution that business groups have made to the construction of welfare states (Pierson 1995*a*; Martin 1999; Swenson 1997, 2001; Mares 1997*b*, 1998; Estevez-Abe 1999*a*).

The relational approach we take to company competencies naturally draws attention to the support that social policies can provide for the relationships firms develop to advance their objectives. Social policy is often thought to interfere with labor markets by raising labor costs or the reservation wage. But the contributors to this volume explore the ways in which social policies can improve the operation of labor markets, notably from the perspective of the firm. Unemployment benefits with high replacement rates, for instance, can improve the ability of firms to attract and retain pools of labor with high or specific skills. Disability benefits and early retirement benefits can allow firms that operate production regimes requiring employee loyalty to release labor without violating implicit contracts about long-term employment. There are many respects in which social policies can be crucial to the relational strategies of firms.

For this reason, there should be a correspondence between types of political economies and types of welfare states. And that appears to be the case. Virtually all liberal market economies are accompanied by

[34] Katzenstein (1987) shows how the structural features of the German political system hem in most governments, while Gamble and Walkland (1987) show how frequently British governments have changed regulatory regimes important to business.

'liberal' welfare states, whose emphasis on means-testing and low levels of benefits reinforce the fluid labor markets that firms use to manage their relations with labor (Esping-Andersen 1990). As Estevez-Abe, Iversen, and Soskice note, liberal social-policy regimes also encourage individuals to develop the general, rather than specific, skills that corporate strategies in LMEs tend to require.

Although the social-policy regimes that accompany coordinated market economies are more varied, there are many respects in which their distinctive features lend support to the corporate strategies found in such economies. Large companies in Japan find it easier to secure employee loyalty and company-specific skills because they provide many of the social benefits that might otherwise be the responsibility of the state (Estevez-Abe 1999*a*). Many of the firms in CMEs operate product market strategies and associated production regimes that require a workforce equipped with high levels of industry-specific skills. Workers must be persuaded to invest in such skills, however, especially given the risk that, if they are laid off and must take employment in another sector, they may never realize their investment. In such contexts, as Estevez-Abe, Iversen, and Soskice point out, the pension and unemployment-benefit schemes offering generous replacement rates closely tied to wages often found in coordinated market economies help to assure workers that they can weather an economic downturn without having to shift to a job in which their investment in specific skills does not pay off.

Governments introduce social legislation for many reasons, some of them conditioned by partisan competition and the demands of labor. But the contributors to this volume argue that business also has important interests in social policy and a role in its development. Mares (1998) traces the way in which social policy emerges from alliances between business groups, trade unions, and public officials in Germany and France, while Estevez-Abe (1999*a*) and Iversen and Soskice (2000) explore the politics that leads specific types of political economies toward distinctive welfare states. In the sphere of social policy, the varieties of capitalism approach is helping to open up several new research agendas.

1.7.3 National Interests in the International Arena

The international arena is also an important sphere for policy-making. What states cannot secure domestically, because of political resistance or transnational externalities, they often seek in negotiations about international regimes (Krasner 1983*b*; Keohane 1984; Putnam 1988). These regimes now have a substantial impact on national societies, especially

in Europe where the regulations of the European Union have become almost as important as national policies. For this reason, it is important to understand how the rules or regulations of such regimes are determined, and a number of approaches can be taken to that problem. One of the most influential, however, argues that the character and regulations of regimes and of the EU are determined by their member states, operating from conceptions of national interest (Moravcsik 1991). In this context, it has become important to be able to specify what a government's conception of its national interest will be and whence such conceptions derive, especially in the economic sphere.

Analysts have taken several approaches to identifying the conceptions of national economic interest that motivate governments in international negotiations. Some formulations associate them with prevailing economic conditions, such as the levels of inflation or unemployment in the nation (Moravscik 1998). Others employ neoclassical economic doctrine to specify the welfare gains likely to accrue to the nation from a particular outcome, such as freer trade (Frieden and Rogowski 1996). The conceptions of national interest from which government officials operate in international negotiations are most often seen, however, as a response to pressure from domestic interests. The direction of that pressure can then be specified in a number of ways. Most who take this approach use an economic theory to identify the impact a decision will have on particular sectors and an institutional theory to predict which sectors will have more influence over the government (Milner 1988, 1997; Frieden 1991; Garrett and Lange 1996).

There is some value in all these approaches, especially for specific cases, but the conceptions of national interest they generate can be nebulous or of limited generality, especially when rooted in transitory economic conditions or shifting parallelograms of sectoral pressure. Without prejudice to the alternatives, the approach to comparative capitalism developed in this volume provides another way of specifying how states will define their national interests in international economic negotiations. It suggests that their stance toward new regulatory initiatives will be influenced by judgements about whether those initiatives are likely to sustain or undermine the comparative institutional advantages of their nation's economy. Governments should be inclined to support such initiatives only when they do not threaten the institutions most crucial to the competitive advantages their firms enjoy.[35]

[35] Note, of course, that governments can misperceive the impact of a proposed regulation and that other factors will often also enter into calculations of national interest. These formulations are deeply influenced by the work of Fioretos (1998).

In this volume and others (1998), Fioretos applies this perspective to the positions taken by Britain, Sweden, France, and Germany in negotiations leading up to the Maastricht Treaty. He argues that many of the conflicts between Britain and the other member-states of the EU, leading to its opt-out from the social charter, can be traced to British efforts to protect the institutions of its liberal market economy. The positions taken by member states in those negotiations toward the industrial policies of the EU also correspond to the concerns they were likely to have about preserving the distinctive institutional infrastructures of their nations and particular types of relations among firms.

This approach can be applied to a wide range of issues associated with the evolution of the European Union. Germany's reluctance to accept deep financial deregulation may derive, for instance, not simply from a desire to maintain the rents of its financial sector but from a concern to preserve the capacities for network monitoring that sustain the terms on which domestic capital is available to its firms (cf. Story and Walter 1997). Britain's efforts to secure regulations that enhance market competition in many sectors may reflect an interest in securing a competitive edge for its own firms, whose corporate strategies and structures are already appropriate for operating in such environments.

Even some of the positions that member-states have taken toward the development of the institutions of the European Union may be explicable in these terms. We have argued that the success of a national economy can depend on whether it is supervised by a state with institutions appropriate for supplying the kind of economic policies that sustain it. As the EU takes on additional economic responsibilities, its members may be concerned to ensure that the agencies and techniques used to administer them are congruent with the needs of their own economies. Thus, states and actors from coordinated market economies can be expected to seek institutions conducive to the formation of implicit contracts between public authorities and business associations, while those from liberal market economies should want to avoid agencies interventionist enough to interfere with the operation of market mechanisms. Such considerations cannot fully explain the design of European institutions, but they may figure in the process (cf. Schmidt 1997; Pollack 1997).

This perspective may help explain why it has been so difficult for the EU to secure full regulatory harmonization and why it has resorted, instead, to the 'mutual recognition' of national regulations (K. Nicolaides 1993). Transaction costs alone do not seem to provide enough of an explanation. If the structure of the European economies were broadly similar, it should be possible to agree on 'best practice', allowing a transition

period for laggards to catch up. But there are profound institutional differences among the political economies of Europe, on which the firms of each nation have come to rely for competitive advantage. Although, as market economies, all can agree on some measures, to enforce high levels of regulatory homogeneity on the member-states would be to compromise the institutions and firm strategies on which national comparative advantages depend. It is not surprising that there has been no consensus on such matters. More than national tradition has been at stake. This suggests that, despite some significant effects, international negotiations are unlikely to be vehicles for the cross-national institutional convergence that some expect from them.[36]

1.8 The Dynamics of Economic Adjustment

Although we have emphasized differences among political economies that have been relatively durable, ours is not a static conception of the political economy. On the contrary, we expect the corporate strategies, policies, and institutions of each nation to evolve in response to the challenges they face, and our approach contains a number of conceptual tools for understanding both the nature of contemporary challenges and the shape this evolution is likely to take. In this section, we discuss some of the dynamic elements of the analysis that are covered in more detail in subsequent chapters.

1.8.1 The Challenge of Globalization

The developed economies are currently experiencing profound changes. A technological revolution is creating entirely new sectors, based on biotechnology, microprocessors, and telecommunications, whose products are transforming business practices across the economy. A wave of managerial innovations has seen companies around the world adopt new forms of supplier–client relations, just-in-time inventory systems, quality control, and team production. Economic activity is shifting from the industrial sector into the service sector. Capitalism seems to be in the midst of one of those 'cycles of creative destruction' that Schumpeter (1950) identified.

[36] As Streeck (1996*b*) and Scharpf (1995: ch. 2) have pointed out, precisely because they cannot legislate regulatory convergence, international regimes and the EU may resort to measures that enhance market competition, thereby intensifying the pressures for convergence that come from another direction, namely via processes of competitive deregulation. There is much to be said for this view. For further discussion, see the section on 'globalization' below.

If technology provided the spark for this revolution, the accelerant has been liberalization in the international economy. With declining transport and communication costs, more liberal trade and financial regimes have inspired vast new flows of goods and capital across national borders, including a large increase in foreign direct investment. All the developed economies are more open than they were twenty years ago, and intense international competition is enforcing innovation on many firms. The watchword for these developments has become *globalization* —a term summing up the hopes of some for global prosperity and the fears of many that their way of life will be lost to international forces beyond the control even of their government (Berger and Dore 1996; Keohane and Milner 1996; Friedman 1999).[37]

For political economy, the principal issue raised by globalization concerns the stability of regulatory regimes and national institutions in the face of heightened competitive pressure (Boyer and Drache 1996; Rodrik 1997). Will institutional differences among nations of the sort we have identified remain significant or will the processes of competitive deregulation unleashed by international integration drive all economies toward a common market model?

To these questions, the conventional view of globalization prominent in the press and much of the literature gives an ominous answer. It is built on three pillars. First, it sees firms as essentially similar across nations at least in terms of basic structure and strategy. Second, it associates the competitiveness of firms with their unit labor costs, from which it follows that many will move production abroad if they can find cheaper labor there. And, third, these propositions generate a particular model of the political dynamic inspired by globalization, of the following type.

In the face of threats from firms to exit the economy, governments are said to come under increasing pressure from business to alter their regulatory frameworks so as to lower domestic labor costs, reduce rates of taxation, and expand internal markets via deregulation. What resistance there is to such steps will come from trade unions, seeking to protect the wages of their members, and social democratic parties, seeking to preserve social programs. The precise effects that each nation suffers in the face of globalization will thus be determined by the amount of political resistance that labor and the left can mount to proposals for

[37] We use the term 'globalization' in this chapter to refer to the developments that have made it easier for companies to locate operations abroad, including the liberalization of trade, the deregulation and expansion of international financial markets, the new accessibility and expansion of markets in what was the communist world, and declining transportation or communication costs.

change. But, because international interdependence provides capital with more exit opportunities than it does for labor, the balance of power is said to have shifted dramatically toward capital. In short, this is a model that predicts substantial deregulation and a convergence in economic institutions across nations. Conventional views of globalization contain a 'convergence hypothesis' analogous in force, but considerably less sanguine in implications, to an earlier one based on theories of industrialism (Kerr et al. 1960; Graubard 1964).

To date, the principal challenges to this view have come in two forms. Some scholars argue that the internationalization of trade and finance has not been as extensive or unprecedented as is often believed. Others argue that national governments are not as defenseless in the face of these developments as they appear, because governments have simply used international institutions or the excuse of global pressure to pursue reforms they wanted in any case (Wade 1996; Boyer 1996; Cohen 1996). There is some validity to both arguments. However, the analysis developed in this volume provides another basis for reevaluating the effects of globalization.

1.8.2 Reconsidering Globalization

The varieties of capitalism approach calls into question each of the assumptions underpinning the conventional view of globalization. First, it suggests that firms are not essentially similar across nations. On the contrary, firms in LMEs and CMEs develop distinctive strategies and structures to capitalize on the institutions available for market or non-market coordination in the economy. There is substantial evidence that firms in different types of economies react differently to similar challenges (Knetter 1989). Thus, we should not expect identical responses from them to globalization.

Second, our perspective suggests that firms will not automatically move their activities off-shore when offered low-cost labor abroad. Cheaper labor that comes with commensurate skill and productivity levels is always attractive, but firms also derive competitive advantages from the institutions in their home country that support specific types of inter- and intra-firm relationships. Many firms will be reluctant to give these up simply to reduce wage costs. Comparative institutional advantages tend to render companies less mobile than theories that do not acknowledge them imply.

Of course, with international liberalization, there will be some movement of corporate activities across national borders, as firms seek access to new markets and new sources of supply, but our approach suggests

dimensions to this movement that conventional views do not anticipate. It implies, for instance, that firms based in LMEs may be more inclined to move their activities abroad to secure cheaper labor than companies based in CMEs, because the former already coordinate their endeavors using the market structures that less developed nations usually provide, while the latter often pursue corporate strategies that rely on high skills and institutional infrastructure difficult to secure elsewhere.

Our concept of comparative institutional advantage also suggests that firms may exploit new opportunities for movement to engage in a form of *institutional arbitrage*. By this, we mean that companies may shift particular activities to other nations in order to secure the advantages that the institutional frameworks of their political economies offer for pursuing those activities. Thus, companies may move some of their activities to liberal market economies, not simply to lower labor costs, but to secure access to institutional support for radical innovation. This helps to explain why Nissan locates design facilities in California, Deutsche Bank acquires subsidiaries in Chicago and London, and German pharmaceutical firms open research labs in the United States. Conversely, companies may locate other activities in coordinated market economies in order to secure access to the quality control, skill levels, and capacities for incremental innovation that their institutional frameworks offer. General Motors locates its engine plant in Düsseldorf rather than in Spain. Over time, corporate movements of this sort should reinforce differences in national institutional frameworks, as firms that have shifted their operations to benefit from particular institutions seek to retain them.

Finally, our perspective calls into question the monolithic political dynamic conventionally associated with globalization. It predicts one dynamic in liberal market economies and a different one in coordinated market economies. In the face of more intense international competition, business interests in LMEs are likely to pressure governments for deregulation, since firms that coordinate their endeavors primarily through the market can improve their competencies by sharpening its edges. The government is likely to be sympathetic because the comparative advantage of the economy as a whole rests on the effectiveness of market mechanisms. Organized labor will put up some resistance, resulting in mild forms of class conflict. But, because international liberalization enhances the exit options of firms in LMEs, as noted above, the balance of power is likely to tilt toward business. The result should be some weakening of organized labor and a substantial amount of deregulation, much as conventional views predict.

In coordinated market economies, however, the political dynamic inspired by globalization should be quite different. Here, governments should be less sympathetic to deregulation because it threatens the nation's comparative institutional advantages.[38] Although there will be some calls for deregulation even in such settings, the business community is likely to provide less support for it, because many firms draw competitive advantages from systems of relational contracting that depend on the presence of supportive regulatory regimes. In these economies, firms and workers have common interests to defend because they have invested in many co-specific assets, such as industry-specific skills. Thus, the political dynamic inspired by globalization in these countries is likely to entail less class conflict and to center around the formation of cross-class coalitions, as firms and workers with intense interests in particular regulatory regimes align against those with interests in others (cf. Swenson 1991, 1997).[39]

This analysis explains several outcomes in the spheres of policy and politics that are otherwise puzzling. Globalization was expected to weaken trade unions across the industrialized world. But comparative data show that trade union membership and the locus of collective bargaining has dropped far more substantially in some nations than in others (Lange et al. 1995; Ebbinghaus and Visser 2000). Our analysis predicts most of the patterns observed (see Table 1.2). Trade unions have been weakened by business initiatives and deregulation in LMEs but remain strong in CMEs where cross-class coalitions help to preserve them and some degree of wage coordination (see also Thelen in this volume).

Instead of the monolithic movement toward deregulation that many expect from globalization, our analysis predicts a bifurcated response marked by widespread deregulation in liberal market economies and limited movement in coordinated market economies.[40] This is precisely

[38] Note that we are not claiming all types of non-market institutions contribute to the efficiency of the economy. We have identified some specific types of inter- and intra-firm relations and supporting institutions that we associate with effective firm performance. There are other 'non-market' institutions in many economies that simply generate economic rents or detract from economic efficiency. The point is to distinguish among them and not to label all 'non-market' institutions efficient or inefficient.

[39] Note that this observation corresponds to the predictions of Frieden and Rogowski (1996) that class conflict is more likely in economies where switchable assets predominate and sectoral conflict characterized by cross-class coalitions more likely in economies where asset specificity is high. However, because firms and workers share some interests in all economies, we do not exclude the possibility that some cross-class coalitions will also be formed in liberal market economies, as Swenson (1997) suggests.

[40] We use 'deregulation' as a convenient shorthand to refer to policies that remove regulations limiting competition, expand the role of markets in the allocation of resources, or

Table 1.2 Changes in trade union density and the level of collective bargaining, 1950 – 1992

Liberal market economies

	Trade union density			Bargaining level[a]		
	1950 – 73	1974 – 84	1985 – 92	1950 – 73	1974 – 84	1985 – 92
Australia[b]	54	52	49	3.0	3.1	3.0
Canada	30	33	32	1.0	1.8	1.0
UK	45	51	41	1.7	2.1	1.0
United States	29	23	15	1.3	1.0	1.0
LME average	39	40	34	1.7	2.0	1.5

Coordinated market economies

	Trade union density			Bargaining level[a]		
	1950 – 73	1974 – 84	1985 – 92	1950 – 73	1974 – 84	1985 – 92
Austria	63	58	55	2.2	2.0	2.0
Belgium	48	68	69	2.0	2.9	2.5
Denmark	59	77	81	4.0	3.3	2.8
Finland	41	78	88	3.2	2.8	2.8
Germany	38	40	37	2.0	2.0	2.0
Japan	34	31	25	1.4	2.0	2.0
The Netherlands	40	36	28	3.7	3.4	2.1
Norway	58	61	63	3.8	3.6	3.6
Sweden	71	86	95	3.7	3.7	2.9
Switzerland	37	35	29	2.0	2.0	2.0
CME average	49	57	57	2.8	2.8	2.5

[a] 1 = plant-level wage-setting; 2 = industry-level wage-setting; 3 = central wage-setting without sanctions; 4 = central wage-setting with sanctions. Value recorded is the average for the period indicated.

[b] Trade union series ends in 1989.

Sources: Visser (1996). Compiled in Golden et al. (1997).

the pattern of policy across the OECD in recent decades. Deregulation has been far-reaching in the liberal market economies of Britain, the United States, New Zealand, Canada, and Australia but much less extensive in the coordinated market economies of northern Europe and east

sharpen market incentives in the economy. Of course, we recognize that all deregulation is implicitly a form of reregulation (Vogel 1996).

Asia (Vogel 1996; Ellis 1998; Story and Walter 1997; Wood 1997; King and Wood 1999).[41] Moreover, Wood and Thelen report finding just the sort of politics this approach would lead one to expect in both liberal and coordinated market economies in recent years (this volume; Wood 1997; Thelen 2000).

Ultimately, it is not surprising that increasing flows of trade have not erased the institutional differences across nations. After all, world trade has been increasing for fifty years without enforcing convergence. Because of comparative institutional advantage, nations often prosper, not by becoming more similar, but by building on their institutional differences.[42]

1.8.3 Developments in the Market for Corporate Governance

There is another side to globalization, however, with effects that some argue are more ambiguous. It lies in the pressures stemming from the internationalization of finance, where developments have recently been dramatic, if not unprecedented.[43] International flows of capital have grown exponentially in the past two decades, raising levels of both direct and portfolio investment (cf. Simmons 1999). This puts pressure on the institutions of coordinated market economies in several ways. International financial markets have become increasingly important sources of capital for large firms. But, lacking the facilities to monitor the progress of a company closely, distant investors usually prefer to supply capital on arm's-length terms that emphasize transparent, balance-sheet criteria. Therefore, firms seeking access to these funds face pressure to revise their accounting standards, appoint independent directors, and deliver the high rates of return associated with 'shareholder value'.

Even more important is the wave of international merger and acquisition activity that has taken place over the past decade, as firms of all sorts reposition themselves to take advantage of the liberalization of world markets. It has had several effects. Firms based in coordinated

[41] We predict some, if more limited, deregulation in CMEs because, alongside non-market institutions, they also use market mechanisms whose operation can be improved by a measured amount of deregulation.

[42] The effects of trade integration seem to have fallen, less substantially on the differences between CMEs and LMEs, and more heavily on practices of state intervention of the sort once prominent in France and the developing world, as governments found that *dirigiste* policies cannot ensure competitiveness on international markets (cf. Hall 1990; Ziegler 1997; McArthur and Scott 1969).

[43] As Zevin (1992) points out, international capital markets were probably more integrated in the decades before World War I than they have ever been since.

market economies, such as Germany, that have usually not been as concerned about their rate of return on capital or share price as American firms have acquired a new interest in such matters because many hope to use their own shares to make foreign acquisitions to consolidate their competitive position in global markets that are opening and reconfiguring rapidly.[44] Shares that are highly valued can be a significant asset in merger and acquisition contests.

Similarly, some of the large banks and insurance companies in CMEs that once cultivated close relations with manufacturing firms have been disengaging from them in order to free up resources for global expansion. The German government has recently facilitated such moves by lowering capital-gains taxes on the sale of corporate shareholdings. Where steps such as these reduce cross-shareholding enough to undercut the protection it provides firms against hostile takeovers or government regulations on such acquisitions are relaxed, the heightened dangers of takeover could also provoke changes in corporate strategy in CMEs. Many firms would have to become more attentive to the value of their shares and earnings in order to deter takeovers.

These developments threaten traditional practices in CMEs in several ways. On the one hand, they could disrupt the intricate systems of cross-shareholding and inter-corporate linkage that provide capacities for network monitoring, thereby reducing the access of firms to capital that is not tied to current profitability. On the other, they could force firms whose strategies and structure have reflected responsiveness to a wide range of stakeholders, including employees, to become more attentive to shareholders and rates of return; and this might reduce their capacity to make credible commitments to long-term collaborative relationships with other firms and employees. That could engender shifts in strategy extending all the way down to production regimes.

However, while important, the impact of international financial developments can easily be misinterpreted. There is no doubt that large companies in CMEs will have to make the long-run, risk-adjusted real rates of return demanded by world financial markets. But that is not inconsistent with internal management practices that maximize comparative institutional advantage. These pressures have led many companies to develop closer relationships with works councils rather than the reverse, simply because employee cooperation becomes more, not less, important in such contexts. Moreover, it is not a rational strategy for

[44] We are grateful to Michel Goyer for drawing our attention to this point (see Goyer 2001).

shareholders to insist on Anglo-Saxon management practices if that has the effect of lowering rates of return.

Germany provides a case in point. Although the large German banks are seeking a global role, they are still engaged with German industry and regional banks maintain important *Hausbank* relationships (cf. Ziegler 2000; Griffin 2000; Vitols 2000).[45] Many German firms have embraced international accounting standards, but there are still few independent directors on their boards and 'shareholder value' has been used mainly as a slogan to justify reorganizations that would have been dictated in any case. Although hostile takeovers have become more common in France, they remain rare in Germany, where regulatory regimes and cross-shareholding militate against them.[46] The market for corporate governance is changing but at a pace that may allow firms to retain many aspects of their long-standing strategies.

1.8.4 Analyzing Change in National Systems

Much of the work on comparative capitalism lacks developed conceptions of how national systems change. As a result, the literature on globalization tends to cluster around two poles. On one side are works that focus on institutions and the ways in which they reproduce stable patterns of behavior. Their relatively static view implies that national systems are unlikely to change very much in the face of globalization. On the other are works that attribute great force to the pressures associated with globalization. They tend to see national practices as inertial factors that will be transformed by these pressures.

Our approach offers a more dynamic conception of national political economies in the sense that it anticipates change in them and contains specific propositions about the processes through which it will occur. Some of these should already be apparent from the account we have given of globalization. However, it may be useful to summarize some of the key implications about dynamics in this approach.

We see national political economies as systems that often experience external shocks emanating from a world economy in which technologies, products, and tastes change continuously. These shocks will often unsettle the equilibria on which economic actors have been coordinating

[45] The important role played by the German banks in the rescue of the construction group Philip Holzmann provides one example.

[46] As of 1999, the combined equity stake of hard-core shareholders and the shares voted by German banks in the firms on the German DAX-30 still averaged 39% of those firms' shares (figures supplied by Michel Goyer).

and challenge the existing practices of firms. We expect firms to respond with efforts to modify their practices so as to sustain their competitive advantages, including comparative institutional advantages. Thus, much of the adjustment process will be oriented to the institutional recreation of comparative advantage. In its course, firms and individuals will modify their relational investments, seeking new competencies that entail new relations with other firms or employees.

To do so, they will call on the existing institutional structures supporting coordination in the economy, including those that allow for deliberation and the making of credible commitments. In many cases, firms will need the cooperation of government, but we expect governments to be responsive to efforts to restore coordination, because they will come under pressure from producer groups and voters with substantial interests in existing institutions to do so (Iversen and Soskice 2000; Wood this volume). If coordination entails strategic interaction, however, more than institutional support is required to establish it. As we have noted, this sort of coordination also depends on the presence of a common knowledge set of beliefs that reflect relatively complete understandings of the roles and interests of the participants in the arrangement, as well as some confidence in the trustworthiness of the relevant institutions. Economic shocks and interim attempts to cope with them can unsettle such understandings. Therefore, their restoration will be a crucial, and difficult, component of the adjustment process.

Several points follow from this perspective. First, although we expect firms to attempt to sustain or restore the forms of coordination on which their competitive advantages have been built, after an economic shock, these efforts may entail changes to existing institutions or practices in the economy. Second, the importance of common knowledge to successful strategic interaction implies some asymmetry in the development potential of these systems. Because they have little experience of such coordination to underpin the requisite common knowledge, LMEs will find it difficult to develop non-market coordination of the sort common in CMEs, even when the relevant institutions can be put into place. Because market relations do not demand the same levels of common knowledge, however, there is no such constraint on CMEs deregulating to become more like LMEs. However, we have noted that the business communities of CMEs will not automatically support deregulation, since many firms may want to retain competitive advantages that depend on high levels of regulation.

Institutional complementarities should play an important, if ambiguous, role in these processes of adjustment. On the one hand, they raise

the prospect that institutional reform in one sphere of the economy could snowball into changes in other spheres as well. If the financial markets of a CME are deregulated, for instance, it may become more difficult for firms to offer long-term employment. That could make it harder for them to recruit skilled labor or sustain worker loyalty, ultimately inspiring major changes in production regimes (cf. Aoki 1994). Financial deregulation could be the string that unravels coordinated market economies. On the other hand, institutional complementarities generate disincentives to radical change. Firms and other actors may attempt to preserve arrangements in one sphere of the economy in order to protect complementary institutions or synergies with institutions elsewhere that are of value to them. Many German firms have devoted energy to revising rather than abolishing their vocational training schemes because they operate production regimes that demand particular types of skills.

The types of adjustment problems encountered in a coordinated market economy are well illustrated by some of the recent difficulties afflicting the German system of wage coordination.[47] For many years, the capacity of this system to generate wage increases moderate enough to sustain the competitiveness of German industry has depended on the ability of employers' associations to mount resistance to exorbitant wage demands, if necessary orchestrating lockouts of the workforce. In many cases, the major firms in a sector would resist high industry settlements, even if they could afford them, in order to maintain solidarity with smaller firms that could not afford them, increasing their own workers' wages only after an industry agreement had been reached.

In some sectors, the large firms have now rationalized their operations to take advantage of the opportunities presented by higher levels of international integration, moving some operations off-shore and reconfiguring supply chains. As a result, they have become increasingly sensitive to interruptions in production and inclined to veto lockouts. But this shift in stance has disrupted the existing equilibrium. Without the cooperation of large firms, employers' associations can no longer mount effective resistance to wage demands. As a consequence, some smaller or less efficient firms are dropping out of them; and trade union leaders who would normally be inclined to accept moderate wage increases in order to preserve employment are now finding themselves unable to do so because of pressure from their militants, who are no longer deterred by

[47] We owe this example to Kathleen Thelen (see Thelen and Kume 1999*a*; Thelen and Wijnbergen 2000).

the threat of lockouts.[48] The result has been a deterioration in the effectiveness of wage coordination and of employers' associations in some German sectors (Thelen and Kume 1999*a*; Thelen and Wijnbergen 2000; see also Manow and Seils 2000).

This is the type of adjustment problem that often arises in coordinated settings. However, there are good reasons for thinking that effective coordination can be restored in most such cases. As Thelen points out, such problems are not unprecedented in coordinated market economies. The equilibrium outcomes on which actors coordinate have been unsettled by economic shocks many times in the past. In each case, new equilibria have been found through processes of negotiation and compromise. The process of adjustment may well entail a period of conflict and suboptimal outcomes, as each side tests the power and resolve of the other. But the presence of institutions that entrench the power of the actors, whether employers or trade unions, give them strong incentives to cooperate with each other, and the availability of deliberative institutions facilitates coordination.

In 'negotiated economies' such as these, adjustment is often slower than it is in economies coordinated primarily by markets; but markets do not necessarily generate superior outcomes. Where encompassing producer groups have extensive 'strategic capacity' and strong incentives to reach agreement, the results can be equally satisfactory.[49] Coordinated market economies have a track record of meeting these kind of challenges (Hall 1997; Global Economic Forum 2000). In Sweden, for instance, peak-level bargaining broke down during the 1980s because it was no longer meeting the needs of firms facing new technologies and greater international competition; but the trade unions and employers developed new forms of wage-bargaining recoordinated at the sectoral level rather than revert to purely liberal arrangements (Pontusson and Swenson 1996).

In sum, this is an approach to political economy designed not only to identify important patterns of similarity and difference across nations but also to elucidate the processes whereby national political economies

[48] Of course, with the advent of economic and monetary union, the Bundesbank no longer has the capacity to discipline union members by threatening tighter monetary policies, and the capacity of the European central bank to do so is much lower now because it stands at one remove from the German economy (see Hall and Franzese 1998).

[49] By 'strategic capacity', we mean the capacity to formulate a collective strategy for the group and to mobilize support for it among the group. Typically, this entails highly articulated organization.

change. It anticipates institutional change in all the developed democracies, as they adjust to contemporary challenges, but provides a framework within which the import of those changes can be assessed.

The chapters that follow elaborate many of the themes raised in this introduction. Each uses the basic approach outlined here to explore a more specific set of issues, but we have not imposed a rigid template on the contributors and there are differences of emphasis among them. These essays encompass a wide range of cases, issue areas, and methodologies. They illuminate both the potential in the approach and the scope of the research agenda it opens up. Since we have referred to many chapters in the course of this Introduction, we will simply outline the organization of the volume here.

Part I of the volume displays the wide range of topics for which the varieties of capitalism approach has implications. The first two chapters explore issues in industrial relations with an emphasis on the institutional complementarities relevant to this sphere. Thelen examines recent developments in the industrial-relations arena, showing how institutions at the macro and micro levels of the economy interact to generate a politics that produces different outcomes in liberal and coordinated market economies. Franzese shows how the institutions for wage coordination and monetary policy-making interact with each other and with the sectoral composition of the organized workforce to influence national patterns of economic performance. These essays show why different types of economies can be expected to react quite differently to economic challenges.

The next two chapters investigate some of the implications of this approach for our understanding of social policy. Estevez-Abe, Iversen, and Soskice examine the relationship between particular varieties of capitalism and social-policy regimes, emphasizing the way in which different types of social policies encourage workers to develop specific or general skills, thereby reinforcing the product market strategies characteristic of firms in various types of economies. Mares makes a more general case for the contention that employers have strong interests in social policy and will want to influence its development. She devises a parsimonious model to elucidate the interests of different types of firms in social policy and presents case-study evidence to show that the interests they have articulated conform to her model. This work suggests that it is time to reevaluate the welfare state: social policies that were once seen as impediments to the operation of markets, imposed by labor or the left on business in the name of social protection, may actually be important adjuncts

to markets with real value for firms who have been actively involved in their design.

Fioretos concludes this part of the book by indicating how a varieties of capitalism approach can be used to address important issues in international relations, particularly the problem of how national interests are constructed for the purposes of international negotiations. He argues that the conceptions of national interest applied in such contexts are often rooted in the organization of their political economy and shows that the differences between German and British capitalism can explain many of the positions taken by these nations in the negotiations leading up to the Maastricht Treaty of the European Union.

Part II of the volume displays some of the new perspectives on public policy-making that this varieties of capitalism perspective opens up. Wood compares the development of labor market policy in Britain and Germany with a view to showing how the organization of the political realm interacts with the organization of the political economy to generate distinctive patterns of policy across liberal and coordinated market economies. Culpepper takes on issues of reform, exploring efforts to transplant vocational training schemes of the sort practiced in West Germany to East Germany and France. His analysis shows how difficult it is for governments to secure such coordination and how dependent the results are on the presence of supportive employer organizations. Hancké focuses on the case of France, arguing, contrary to conventional images of its *dirigiste* regime, that recent industrial adjustment there has been led, not by the state, but by large firms using the business networks available to them.

Part III of the book explores issues of corporate governance, firm strategy, and the law. Vitols provides a detailed comparison of the systems for corporate governance found in Britain and Germany and argues that, despite recent challenges, they remain distinctive. Lehrer takes the analysis down to the level of corporate strategy, developing a varieties of capitalism approach to strategic management that links the structure of the political economy closely to corporate strategy. Using the case of the airline industry, he shows how the approach can be used to explain national differences in corporate strategy. The chapters by Casper and Teubner show how a varieties of capitalism approach can be used to integrate work in comparative political economy with legal studies. Casper explores the way in which contract law and corporate strategies interlock in Germany and the United States. He shows that specific types of legal systems support distinctive forms of business coordination and that the latter influence the development of the law. Teubner also explores

the co-evolution of law and corporate behavior. Taking up 'good faith' doctrine in the British case, he argues that the character of a nation's production regimes will influence its receptivity to specific legal concepts and the application of those concepts. Finally, Tate examines the differences in systems of standard-setting characteristic of different varieties of capitalism, stressing the impact that collective arrangements for standard-setting can have on corporate behavior.

Together these essays suggest that a varieties of capitalism approach can be the basis for fruitful interchange among scholars interested in many kinds of issues in economics, industrial relations, social policy-making, political science, business, and the law.