THE STATE AND THE ORGANIZATION OF ECONOMIC ACTIVITY

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The analytic framework introduced in the previous chapter depicts governance regimes and governance transformations as the products of the strategic actions and institutional structures of private actors and the state. This conception of how the state helps to constitute sectors in a national economy differs sharply from the conventional literature on state-economy relations. Economists and non-economists alike typically take the structure of the economy and the direction of economic development as given. In this view, states may help clear the way for accumulation, and distort, retard, or accelerate the accumulation process. But states do not decisively influence the forms of economic organization and coordination of economic activities. States may be more or less autonomous, and states may be weak or strong. But they are rarely seen as transformative in this sense (Weiss 1988). Even institutional political economists who have produced so much valuable theory and research on the causes of variations in the forms and effectiveness of state intervention have not come up with good predictions of the forms of capitalism that are likely to be promoted by state intervention (Weiss 1988).

The problem lies in the conception of state intervention into the economy and the focus of state literature on different types of intervention. The very notion of intervention perpetuates the imagery of a clear separation of state and economy where markets, for example, can, or at least did, once upon a time, exist in a truly laissez-faire condition, completely autonomous of the state’s influence. Most orthodox economists, as we have seen, seem to assume this without question or at least treat it as a useful fiction. Yet the historical record does not support this assumption (Polanyi 1944; Lazonick 1986: 2). Rather markets and other forms of economic governance are intimately linked to an ancillary set of institutions and the state (Hall 1986: Chap. 2). Even Oliver Williamson (1975, 1985), who

1 Portions of this chapter were published previously as “Property Rights and the Organization of Economic Activity by the State.” American Sociological Review 5(5): 634–47, adapted by permission of the American Sociological Association.

2 Douglass North (1981) is an obvious exception to this characterization.
argued that alternative forms of economic governance are private responses to market failures, maintained that market transactions are contractually based, which means, we would add, that they are dependent on the state as a result. After all, it is the state that provides the legal framework within which contracts are written and upheld. As Linda Weiss (1988: 162) notes, "politics does not so much 'triumph' over economic forces. It enters into their overall configuration."

Fred Block (1987: 21-2) has suggested that rather than thinking about the state and the economy as potentially autonomous from each other, it is more fruitful to think of them as being permanently connected by a membrane that selectively permits the passage of resources and information back and forth. But of what does this membrane consist and how can we pinpoint the ways in which states help constitute the economy? In order to address these issues, we must specify the types of policy actions that are available to states and the structural features of states that come into play in governance transformations. The distinction between the state as an actor (or an ensemble of actors) and the state as a political-institutional structure is central to the analysis that follows.

THE STATE AS ACTOR AND AS STRUCTURE

As some of the state literature reminds us (e.g., Krasner 1978b; Stepan 1978; Skowronek 1982; Evans, Rueschemeyer, and Skocpol 1985), the state is comprised of many actors, who, for a variety of reasons, deliberately pursue policy options that may have the intended or unintended consequences of contributing to or blocking governance transformations. If we are thinking of the American state, the variety of state actors and the multiple levels at which they operate become a central focus of analysis. Whereas for much of American history, the federal state did not interact closely with the economy, subnational states (the "states" and local authorities) have been continuously involved in the constitution of sectors and industries since the colonial period (Handlin and Handlin 1969; Hughes 1977; Walsh 1978; Eisenger 1988). As important as the distinction between federal, state, and local levels is, the very special role of courts, judges, and the legal profession as distinctive actors in the history of the American economy must not be overlooked (Scheiber 1978, 1980a, 1980b, 1981; Shapiro 1986). For much of American history, the courts were the only state institution that could stand outside of political party domination and claim to perform an integrative state-like function. Courts determined the meaning and effect of laws passed by the legislature, shaped the boundaries of intergovernmental relations, invoked the state’s prerogatives over the economy, and became the chief source of economic surveillance. The courts became the American surrogate for the administrative apparatus familiar in European states. Indeed, American judges have adopted a peculiarly
aggressive posture toward substantive policy making and an exceptional governing role (Skowronek 1982).

Thus, when we speak of American state actors in the constitution of the economy, we must remember how active subnational governments have been and the distinctiveness of the courts' economic roles. To treat state agencies as important actors in the economy is not to take a position on the relative autonomy of the American state(s), that is, whether state actors have interests and goals of their own or whether state actors merely act on the interests and goals of dominant societal actors. There are ample examples of both in American history, as we will see. Although the preponderant opinion of scholars is to see the American state as thoroughly penetrated, colonized, and dominated by societal interests, the importance of the courts and of legal doctrine, and of war and economic crisis clearly call for more nuanced conclusions. What will be interesting and important to do is to attempt to discern whether distinctive economic structural consequences flow from actions driven by “state interests” and those that emerge out of the play of societal interests. We return to this question later.

Important as state actions are in constituting the economy, we should not neglect the structural features of the state. We argue that state structures have entered into the constitution of sectors of the American economy in three distinct ways: as an arena, as an organizational configuration, and as defining distinctive locations for economic activity. As an arena, state institutions provide differential access for various societal groups to influence or penetrate the economic policy-making process. It is not necessary to embrace a pluralist theory of policy making to recognize that there are institutional opportunities (not necessarily equally distributed) for those outside the state to engage the policy process in ways that have pertinent effects on policy, including the obstruction of policy formation and implementation, and therefore, governance transformation. In this sense, we follow Peter Gourevitch (1986: 28), who maintained that state structure is much like a prism through which the influence of societal actors is refracted. As a result, although state actors and dominant coalitions may strive for effective economic policy, including the reorganization of economic activity, their efforts are undermined occasionally for structural reasons. Indeed, this condition is often attributed to the United States, particularly in comparison to other advanced capitalist democracies (e.g., Shonfield 1965; Badaracco 1985).

Structurally speaking, the American state is also a distinctive organizational configuration that is peculiarly predisposed to struggles within the state. The roles of the executive, legislature, and judiciary, of executive agencies and independent regulatory commissions, and of federal and state governments have always been and remain sharply contested in the United States. These struggles engage not only competing state actors but also
Special interests seeking to capture or insulate parts of the state as a way of advancing a particular economic interest. Therefore, this institutionally fragmented state bears within it a structural propensity for stalemate and instability that has borne heavily on processes of governance transformation in such sectors as railroads and telecommunications.

On both of these structural dimensions, one can trace a state building trajectory since the nineteenth century that reflects the sway of political competition, and class- and interest-based struggles. Thus, early struggles over economic development took place at a state level and often the balance of power favored agrarian interests. With time, the courts and state legislatures came to protect and promote enterprise and commerce, thereby releasing what Willard Hurst (1964) called “entrepreneurial energies.” Defensive mobilizations by agrarian and labor interests in state legislatures were frustrated first by the courts and subsequently by the growing size of firms as their activities spread across state lines. Eventually, the focus of mobilization shifted to the national level as small businessmen, farmers, progressive reformers, and labor took advantage of the intensive party competition of the time to press their case in Congress. Regulation of the railroads and antitrust legislation reflect this mobilization, but the federal structure of the state facilitated forum shopping, where sectors that were targets of either regulation at a state level or of court-enforced state and federal antitrust laws were able to secure more benign and predictable regulation from the executive branch and Congress. The 1910s through the 1930s saw rear-guard actions by the Supreme Court in defense of efficiency and laissez-faire, thus frustrating populist political mobilizations at both state and federal levels. World War I, the Depression, and World War II accelerated the centralization of power at the national level and the growth of the executive branch. Planning advocates in the federal government encouraged the organization of labor and farmers to establish a system of countervailing power vis-à-vis business that they hoped would foster corporatist-style industrial planning. The New Deal also saw extensive regulation of big business and finance and the creation of more sector-specific regulatory agencies. For a time, the Supreme Court relinquished authority to the executive branch in antitrust and regulatory matters, thus introducing a period in which the property rights of business could be made subject to government manipulation in the interests of other classes or clients of the New Deal. By the end of World War II, Congress had abolished many important New Deal agencies. The Pentagon assumed control of the Reconstruction Finance Corporations’ (RFC) assets and the Small Business Association took over the RFC’s remaining functions. The national state became a mass of fragmented agencies without unifying institutional mechanisms. The Pentagon and military–industrial complex became arguably the most powerful state actor in the economy with decided consequences for agrarian and labor interests. The early post–War period
also marked an initial shift of economic resources toward the south and southwest. A new Pentagon-centered complex emerged linking military bureaucracies, southern and southwestern senators and congressmen, and business interests organized at a state level. Increased competition developed among states and communities to offer favorable investment opportunities through the manipulation of business, corporate, and labor law, tax policies, and the provision of publicly funded infrastructure projects. Through legislation, such as the Taft–Hartley Act, Congress further reinforced the power of conservative coalitions at the state level in the south and the west. Deregulation and continued efforts to subsidize business development in the 1970s and 1980s further demobilized populist interests and strengthened the hand of business against labor. The courts, particularly those presided over by Reagan Administration appointees, reasserted their autonomy and decisively shifted legal doctrine to benefit large corporations on efficiency grounds.

Besides politically constituting the economy as an arena reflecting societal forces and as organizational congeries reflecting intrastate struggles, the legal–constitutional structure of the American state has also defined distinctive locations for economic activity that shape the strategic choices and relative opportunities of economic actors in their mutual economic interactions. Here the federal character of the American state is again important. The existence of constitutionally separate levels of government and of fifty separate state governments has played an important role in the development of regionally distinct economies (Markusen 1985, 1987) as well as important regional cleavages in American politics (Bensel 1984; Sanders 1986).

Harry Scheiber (1978) noted the importance of mercantilist rivalries among the states in American economic history. The fact that labor law and much of incorporation, contract, and regulatory law has remained largely the province of state governments, for example, has permitted some states (notably in the south) to adopt policies that were more favorable to business than those in the north, thus facilitating the migration of industries from the north and upper midwest to the south in pursuit of cheaper labor and less-restrictive environmental regulations (e.g., Goodman 1979; Bluestone and Harrison 1982; Newman 1984). We will see that such opportunities have entered into governance transformations in the dairy, meat, steel and automobile sectors. Given the surge in the 1970s and 1980s in state and local economic development efforts (e.g., Eisinger 1988; Fosler 1988), there is every reason to anticipate that this impact of constitutional structure on economic structure will continue to play an important role in the American economy.

We have seen how the state constitutes the economy instrumentally as a set of actors, and structurally by providing political arenas and organizational configurations through which economic policy is made and de-
The state and economic governance

ployed, and by defining the spaces within which economic activity occurs. But what types of policy tools does the state use to constitute the economy in these ways?

POLICY ACTIONS THAT CONSTITUTE THE ECONOMY

States decisively constitute the economy by directly or indirectly influencing the selection of governance regimes. Governance regimes arise from the strategic choices and relative power of economic actors. Hence, we must understand how state actions (or inactions) and state institutional forms may condition or structure the strategic choices and power positions of producers (and other economic actors) along the two dimensions of our governance mechanism typology, introduced in Chapter 1: the choice between formal and informal types of organization, and the choice of bilateral or multilateral forms of exchange. Two broad types of policy tools seem important in this regard: production and allocation of resources and information, and regulation of the behavior of parties to exchange through the manipulation and enforcement of property rights.

State agencies participate directly in the economy by providing or producing resources and information, and by manipulating the allocation of resources and information between the state and the economy and within the economy itself. Monetary, fiscal, and exchange-rate policies have these effects, but operate at a macrolevel, that is, they are not targeted at specific industries or sectors. Of more direct relevance to our concern with sectoral or industry-level governance are state procurement, subsidies, tariffs, state borrowing and provision of capital, and direct state investments in the production of education and training, research and development, and transportation and communications infrastructures. This type of policy tool has been the focus of much attention in the study of policy interventions by those who have argued that the state's capacity for intervening effectively into the economy depends largely on its ability to allocate resources, such as finance capital and technology (e.g., Katzenstein 1978; Zysman 1983; Thurow 1984; Skocpol 1985: 18; Cox 1986; Gourevitch 1986; Hall 1986). But for the most part, this work centers on the interaction between different organizational forms of state and civil society, on the one hand, and their effects on state policy and, in turn, economic performance, on the other. Most researchers have not examined how state policy affects the institutional organization, that is, the governance, of economic activity. We agree with Richard Samuels (1987) that too often state policy per se, rather than the transformation of economic institutions, has been the dependent variable in political economic research – a serious omission insofar as these transformations have profound and long-lasting consequences for the effectiveness of the state's economic policy and an industry's performance.
In his fine study of energy markets in Japan, Samuels is concerned with determining how state policy either reinforces or displaces the market as the institution primarily responsible for economic governance. Our governance mechanism typology allows us to relate state actions to two critical dimensions of institutional organization at a sectoral or industry level.

The second type of policy tool that influences the selection of governance regimes is one that has been important historically (Horwitz 1977; North 1981; Scheiber 1981), but that has received less sustained attention in the literature on economic policy and state intervention: the state’s capacity to define, enforce, and redefine property rights, the rules which determine the conditions of ownership and control of the means of production. Our understanding of property rights is different from that which is found generally. Property rights often are viewed as defining the relationship between an individual and a commodity, such that someone is said to own or control the means of production to some degree. Yet, for us, property rights also expresses a relationship among people insofar as one person’s ownership and control often corresponds with another’s absence of ownership and control. Because property rights specify relations among people, not just between people and things, property rights also define the institutional basis of power relations in the processes of production, exchange, and accumulation. This conception of property rights is admittedly a broad one insofar as it incorporates regulatory policies whose effects are to alter rules and relationships of exchange that are rooted in the right to deploy certain kinds of control over property. For example,

3 Economists in the so-called new institutional history tradition, such as North, Demsetz, Ekelund, and Tollison, Field, and Libecap, do explicitly analyze property rights as both dependent and independent variables, departing sharply from standard neoclassical practice. Property rights are defined as rules and laws “governing ownership of, use of, rights of access to, and rights of appropriation of resources, productive factors and output,” and include “physical goods, productive factors, and intangible property such as knowledge, music, and specialized technique” (Caporaso 1989: 143). Changes in property rights are typically explained in terms of exogenous changes in endowments, preferences, and technology, with the underlying teleological assumption that efficiency drives the process. Power is rarely incorporated into the analysis and if the state enters in, it is as a producer of inefficient property rights (e.g., North, 1981). For an interesting discussion and critique of the new institutional history, see Caporaso (1989). For an explicit consideration of how states establish property rights, see Thomson and Krasner (1989). The economic theory of regulation (Posner 1974; Stigler 1975; Peitzman 1976) sees regulatory policies as property rights policies to the extent that they seek to limit entry into an industry or profession. Their basic proposition is that such policies are manipulated by economic actors seeking monopoly rents and that the state is “captured” by such interests in a conspiracy against economic efficiency and the public interest.

4 Our thinking here has been influenced by Geoffrey Hodgson’s (1988: Chap. 7) extended criticism of the orthodox property rights school in economics. For a review of the orthodox literature, also see Bowles (1984).
labor laws limit or facilitate the power of workers to organize, and antitrust laws limit the exercise of monopoly ownership rights, as do entry and price regulations that are directed against oligopoly and monopoly. Hence, the ability to define and enforce property rights enables the state to determine social relations, and, therefore, the balance of power among a wide variety of economic actors within civil society. It follows that political struggles among actors outside and within the state define property rights policies and that the outcomes of these struggles will vary over time and across sectors.

We do not want to convey the impression that the state always establishes property rights policies, or, for that matter, production and allocation policies, in a carefully conceived or planned manner. Often these actions are devised in an ad hoc and piecemeal fashion in response to particular problems and conflicts that develop in the economy. Nor are we suggesting that the state necessarily creates these policies autonomously from the influence of actors in civil society. Recent state theory suggests that the degree to which autonomy occurs is highly variable (e.g., Skocpol 1985; Block 1987; Samuels 1987), and we agree. In fact, we are making no claims about the state’s autonomy in such matters. Our point is simply that state actors, not those in civil society, make the final decisions about which property rights and production and allocation policies to choose, if any — decisions that may well be forced upon them by circumstances in the economy that are beyond their control. Thus, we make no claims to having a theory of why the state structures or constitutes the economy. We want to understand the conditions under which the institutional structures of economic governance change, and the roles that the state plays in these transformations, so our focus is on how the state influences economic governance. Nevertheless, we will speculate here and there about why the state pursues the policy options that it does, as, for example, when we discuss the economic conditions associated with one or another pattern of state action.

To summarize, we have identified two broad types of policy tools through which state actors or state agencies may constitute the economy. States produce and allocate resources and information, and states define and enforce property rights. But exactly how do these types of policy action systematically affect the strategic behavior and relative power of economic actors, and thereby the institutional organization of the economy or of economic sectors? We first consider how the state affects strategic choices

5 Neo-Marxists also recognize that state policy may affect property rights, but they tend to focus on the state’s influence on the property rights of the capitalist class (e.g., Block 1987: 86). We are equally interested in exploring how the state affects the property rights of other classes and groups.
and relative power along the dimension of informal and formal organization, and then along the dimension of bilateral and multilateral exchange. In so doing, we develop two typologies of state action. Coupled with our understanding of how the state constitutes the economy as both actor and structure, they provide the conceptual tools for analyzing governance transformations in our eight cases.

INFORMAL AND FORMAL ORGANIZATION

As we have seen, most of the literature that explores the transformation of markets into hierarchies relegates the state and state actors to a subordinate position, relative to economic and technological factors, as causes of governance transformations. Yet, many students of American economic and legal history have argued that state actions have, whether intentionally or not, contributed decisively to the generalized impulse to scale and concentration so typical of many sectors of the American economy. Government procurement, subsidies, charters, and borrowing were important stimuli. According to McCraw (1984), tariff policy, the most important policy of the nineteenth-century federal government, accelerated the development of domestic manufacturers in the decades spanning the Civil War. Combined with military demands of Civil War mobilization and the granting of special charters to corporations in order to raise private capital for infrastructure development, these state actions contributed to the decline of entrepreneurial firms and the emergence of large concentrated firms and sectors (see also Galambos and Pratt 1988). Many scholars have pointed to the propulsive effects of federal and state subsidization of the railroads in promoting concentration and laying the foundations for mass-production industry in the United States (Solo 1974; Piore and Sabel 1984; Weiss 1988). Infrastructure investments, such as this, in noncollective or privately appropriable goods played an important part in the nation’s early economic development.

Mobilization for World Wars I and II seems to have further reinforced the trend toward economic concentration (away from markets and most forms of obligational networks). Much of the money spent by the War Production Board, the Office of War Mobilization, the RFC, and the military bureaucracies went to the largest firms, such as General Motors, Ford, Alcoa, and U.S. Steel, in the oligopoly, core sectors of the economy (Hooks forthcoming). More competitive, peripheral industries, such as aircraft, shipbuilding, and electronics, also received massive public investments in the war effort, again through the largest firms (Markusen, 1987: Chaps. 5–6; Hooks forthcoming). In the post–World War II demo-

6 For a more detailed historical account of how the economy developed generally along these dimensions, see Chapter 2.
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Utilization, the federal government sold its vast military production facilities to war contractors at very low prices. Using profits earned from sales to the military, the largest firms were able to purchase the most efficient industrial plants in the country, reinforcing their dominant positions in both core and peripheral sectors. In conjunction with the federal government's earlier procurement policies, these sales were the culmination of a massive double subsidy that helped transform the organizational terrain of several important economic sectors by reinforcing oligopolies, such as in steel, where the state spent $770 million on steel plants during the war (Markusen 1985: 83). Continued heavy spending by the much expanded Pentagon bureaucracy in the post-War years led to a quasipermanent link between a new and powerful state actor and dependent sectors or industries, further generalizing the economywide trend toward scale and concentration.

Property rights and regulatory policies seem to have pushed in the same direction. State legislatures and the courts often defined property rights in ways that spawned economic development and the rise of big enterprises (Hurst 1960, 1977; Horwitz 1977; Scheiber 1980b: 1166). State legislatures between 1830 and the 1880s chartered business corporations by the thousands, and eventually passed general incorporation acts that limited entrepreneurial risk and liability (Keller 1981: 57; Hurst 1982: 127). For example, in response to court decisions in New Jersey that had questioned the legality of recently favored trusts, the state legislature adopted laws of incorporation that fostered the rise of big enterprises, mergers, and combinations by permitting firms that were incorporated there to hold stock in both local companies and those beyond its borders, a policy that several other states later adopted (Sanders 1986: 153). Thus, as one prominent legal scholar concluded, laws of incorporation "substantially reduced the volume and importance of resource allocation accomplished wholly by market bargaining, and increased allocations made through the discipline of private organizations" (Hurst 1982: 50).

Morton Horwitz (1977) emphasized the ways in which the legal system, lawyers and the legal profession, and courts and judges contributed to the transformation of the economy in the first half of the nineteenth century. Judges and policy makers in state governments who supported economic development gave enormous assistance to the early development of the American business system, thereby facilitating monopolies, trusts, over-investment in railroads, and the accumulation of vast fortunes that helped produce oligarchical organization in the rest of the economy. Horwitz stressed the role of private law rather than constitutional law, that is, the judicial promulgation of common law rules in the areas of torts, contracts, property, labor, and corporate law, as the more important vantage point for understanding how law, economics, and society intersected in the United States. Scheiber and Hurst confirmed much of this picture for the
post–Civil War period. Hurst showed how law and the courts helped release entrepreneurial energy by favoring what he called dynamic property over static vested rights (Hurst 1964). Scheiber (1981) stressed how property rights have been defined and redefined by legislatures and courts to help stimulate economic development by favoring new technologies and new forms of entrepreneurial organization. He concluded that “the wonderful abstraction called the ‘market’ had structure and distribution of advantage defined in large part by conscious political decision-making, the investment of public funds, and the shifting purposive allocation of property rights and privileges” (Scheiber 1981: 104).

Other scholars have documented the relationship between the economic regulatory policies and Supreme Court decisions of the late nineteenth and early twentieth centuries and how they facilitated the development of scale and concentration (e.g., Kolko 1963; Solo 1974; Stigler 1975). McCraw (1984, 1986) has argued that, ironically, antitrust law and enforcement also had the same effects. Indeed, he saw antitrust policy as a very successful, if inadvertent, industrial policy that gave an enormous boost to horizontal and vertical integration. The Sherman Act, he pointed out, was a reaction to the trust movement of the 1870s and 1880s, which itself was a product of high tariffs and internal improvements due to infrastructure building policies. But as implemented, antitrust targeted mainly associations of small businessmen and peripheral firms and industries. Large firms and sectors were able to pursue policies of horizontal and vertical integration, thus avoiding direct violation of the antitrust statutes as interpreted by the courts. Martin Shapiro (1986) made a similar argument about the role of the court in recent decades in legitimizing various forms of concentration on efficiency grounds.

This is not to say that all state actions favor the development of industrial strategies that culminate in hierarchical governance. For example, subsidies for research and development, targeted at small firms, infrastructure investment in collective or publicly appropriable goods, such as general education, and legal protections for parts suppliers, subcontractors, and labor have facilitated and supported less formally organized forms of governance, notably markets. Yet the tendency for state action to favor economic concentration and formally organized governance is unmistakable.

To summarize, there is reason to doubt the axiomatic view of so many American economists that the organizational structure and economic performance of the nineteenth- and early twentieth-century American economy can be attributed to the absence of significant government interventions. Governments at local, state, and federal levels have contributed through production and allocation and through property rights actions to economic development in ways that were not neutral in terms of either the organizational strategies preferred by economic actors or the relative power positions of small and large firms as well as producers and
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Table 12.1. State actions that constitute the economy: Informal to formal

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<th>Type of policy tool</th>
<th>Type of organizational strategy favored</th>
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<td>Informal</td>
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<tr>
<td>Provision and allocation of</td>
<td>• R&amp;D targeted to small firms</td>
</tr>
<tr>
<td>information and resources</td>
<td>• Infrastructure investment in <em>collective</em> goods (i.e., education)</td>
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<tr>
<td>Property rights and the</td>
<td>• Legal protection for parts suppliers, subcontractors, and labor</td>
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<td>regulation of the behavior of</td>
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<td>parties to exchange</td>
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suppliers. We have summarized these general points in Table 12.1 in the form of a typology of state actions that constitute the economy by favoring one or another form of organizational strategy. Before using this typology and the historical background on which it is based to analyze the governance transformations that are chronicled in our case studies, we must explain how state actions have affected the strategic choices of economic actors to organize exchange through bilateral or multilateral exchange.

**BILATERAL AND MULTILATERAL EXCHANGE**

Our reading of American economic and legal history gives support to the broad generalization that in this country state actions have tended to reinforce actor strategies and power distributions among producers, labor, finance, suppliers, and others in ways that favor bilateral over multilateral exchange. This is the case even though the federal government has at one or another time overtly sought to *promote* promotional networks and associational forms of governance! Notable examples of such efforts occurred during World War I (Cuff 1973), the associative era of the 1920s (Kolko 1976: Chap. 4), the early New Deal experiments with the corporatist organization of industries through the National Recovery Administration

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7 Agriculture and especially dairying are obvious exceptions.
(NRA) and its codes (Hawley 1966), and in the 1970s and 1980s when the state, for example, has helped to subsidize and grant legal protections to research-and-development consortia in technologically sophisticated industries that are threatened by international competition.

We offer two possible explanations for this lack of symmetry between intention and results. First, as we have seen, policy actions, such as procurement, tariffs, and various subsidies, on the part of different state agencies and at different levels of the American state have tended to reinforce, if not propel, trends toward scale and concentration. One consequence of the domination of hierarchy over market and network forms of organization is an implicit support for the power of large corporate organizations and their managers vis-à-vis labor, parts and resource suppliers, customers and consumers, finance, and the state itself. As many observers have pointed out, the large American corporate hierarchy has become extraordinarily self-sufficient and autonomous from control by, responsibility to, or dependence upon workers and their organizations, financial institutions, or state agencies. This power position would seem to reinforce incentives for self-interested, utilitarian, and opportunistic behavior vis-à-vis other economic actors. Mutual interdependence of interests and power resources and a recognition of the need for coordinated or collective action – the underlying bases for multilateral exchange – is much less likely to characterize firms and industries dominated by large, hierarchically organized producers. Examples of this are the unwillingness of business writers of the early New Deal NRA codes to involve labor or attend to the demands of consumers or small business, and the very limited success of later Depression efforts to foster corporatist-style industrial planning by strengthening the hand of labor in the National Labor Relations Act and the Fair Labor Standards Act (Hawley 1966: 195; Hughes 1977: 173; Galambos and Pratt 1988: Chap. 5).

A second reason for the American state's support or revealed preference for bilateral exchange in spite of deliberate if episodic efforts to promote multilateral exchange has to do with the aforementioned institutional fragmentation of the state and the special role of courts and legal doctrines and ideologies in the American economy (Solo 1974; Scheiber 1980a, 1980b; Skowronek 1982). Although the executive and the legislature have occasionally supported or promoted multilateral forms of economic governance, the courts at federal and state levels, and in constitutional and private law actions, have fairly consistently undermined such efforts in the name of Lockian norms of a radical individualist-normative vision rather than an organicist or communitarian vision that might justify multilateral governance or state planning (Solo 1974). For example, pools, cartels, or the efforts of trade associations to assume extensive coordinating roles typically have been overturned as antitrust violations or have collapsed because courts have been unwilling to enforce what they perceive as being
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Illegal contracts. Ultimately, the NRA itself was declared unconstitutional by the Supreme Court.

Both explanations of the preference for bilateral exchange rely for the most part on state actions with respect to property rights. But the direct participation of state agencies in the production and allocation of information and resources has also militated against multilateral exchange and collective goods. Although there are many examples of state actions that have been designed to produce collective infrastructure goods in technical education and job training, and in research and development, the larger thrust of state procurement, subsidy, and borrowing actions has been in support of private accumulation and privately owned or noncollective infrastructure goods. This was the case with nineteenth-century federal land grants and state and local subsidies to the construction of railroads, and the long-standing practice of state agencies at many levels to issue revenue bonds in private markets to be invested in those public facilities that most closely corresponded to short-term, commercial concerns rather than long-term construction of public goods (Walsh 1978; Horwitz 1977; Scheiber 1980a, 1980b, 1981). Not only were private or noncollective infrastructural goods favored by these types of state actions, but so too was the power of new capital and entrepreneurs vis-à-vis farmers, workers, and old capital. Thus, as David Vogel (1987) has pointed out, it is simply historically incorrect to argue that the state in the United States has not actively promoted industry and industrial modernization. U.S. states have consistently supported the interests of industry and done little to impede the political and economic triumph of large-scale business. No other nation made so few efforts to protect traditional sectors or the interests of labor during periods of transformation or rapid industrial growth. Labor legislation and regulation at the federal level have not accorded the kinds of rights and protections to labor that are commonplace in other advanced capitalist societies. The absence of plant-closing laws and the de facto dominance of state governments in the domain of labor law have further reinforced bilateral strategies on the part of dominant industrial actors. Cooperative relations between labor and business, or among producers and between them and suppliers and finance seem to depend heavily on state coercive regulation, active state encouragements, or explicit exemption from antitrust and other property rights provisions. Where associations and promotional networks, such as research-and-development consortia and cartels, have thrived for a time in the United States, these conditions typically have been met. The dairy industry is a good example.

Table 12.2 summarizes our analysis of how different types of state policy tools may be used to favor bilateral or multilateral exchange. This typology, the previous discussion of how policy tools influence the formal or informal organization of governance, summarized in the typology of Table 12.1, and our understanding of how the state constitutes economic governance
### Table 12.2. State actions that constitute the economy:
Bilateral to multilateral

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<th>Type of policy tool</th>
<th>Type of economic-exchange strategy favored</th>
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<tr>
<td>Provision and allocation of information and resources</td>
<td>Bilateral:</td>
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<tr>
<td></td>
<td>• Most procurement</td>
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<td></td>
<td>• Tariffs</td>
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<td>• Subsidies to individual firms</td>
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<td>• Infrastructure investment in noncollective goods (i.e., railroad subsidies)</td>
</tr>
<tr>
<td></td>
<td>Multilateral:</td>
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<tr>
<td></td>
<td>• Infrastructure investment in collective goods (i.e., education, job training)</td>
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<tr>
<td></td>
<td>• Subsidies to networks and associations of firms (i.e., R&amp;D consortia)</td>
</tr>
<tr>
<td>Property rights and the regulation of the behavior of parties to exchange</td>
<td>Bilateral:</td>
</tr>
<tr>
<td></td>
<td>• Legal protection of firm authority (i.e., limiting responsibility to labor, finance, communities)</td>
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<td>• Antitrust law</td>
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<td>• Regulatory enforcement of market competition</td>
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<td>Multilateral:</td>
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<td></td>
<td>• Antitrust exemptions</td>
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<td>• Legal protections for R&amp;D consortia, industrywide and national associations</td>
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<td>• Legal enforcement of cartels</td>
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As an actor and as a structure provide the necessary conceptual foundation and historical background with which to interpret the data that are provided in our eight case studies. We have argued that the central tendency in American economic history has been for state actions to have favored scale and concentration and autonomous bilateral exchange rather than interdependent multilateral exchange. But there are interesting exceptions and sectoral variations, as our subsequent analysis reveals. Thus, there is nothing inevitable (or irreversible) about states constituting economies in these particular ways. In many European countries and in Japan, state actions have tolerated or promoted trade associations, cartels, promotional networks, codetermination with labor, and close institutional links between industrial and finance capital. Furthermore, although these states have also favored concentration, scale, and corporate hierarchies, they have also frequently supported and fostered small firms, networks, and complex subcontracting relationships as an integral part of their industrial economies and as a complement or possible successor to vertically and horizontally integrated hierarchies. In this sense, our two typologies of how state actions constitute the economy can denote a range of strategic possibilities for state actors. Perhaps, where state actors are relatively autonomous or have the
organizational capacity to develop a coherent state interest, state actors may be more able to develop strategies in production and allocation and in property rights to favor multilateral exchange and the provision of collective goods, as well as alternatives to hierarchical governance. Promotion by state actors in Europe of corporatist arrangements would seem to be a case in point. Where the state lacks autonomy and institutional capacities, the opposite may be true. Where strong hierarchies with the power to dominate their exchange partners and with little institutionalized dependence on finance are well established and where the state is weak in the previous sense, it may be very difficult for state actors to successfully promote or even decisively support nonhierarchical or multilateral and cooperative strategies, even where technological and competitive conditions may counsel them. Unfortunately, the data to speak confidently on these matters do not exist in our case studies or in the general historical and legal literatures that we have reviewed. Nevertheless, comparisons with other countries are suggestive as are some of our case studies. We return to these issues in what follows.

The state and the transformation of governance regimes

How do the actions and structures of the American state help explain the governance transformations that have been described in our case histories? In what specific ways have the successive governance regimes of our eight sectors been constituted by the state? To what extent do our findings confirm the broad central tendencies identified earlier in this chapter? First, we explain how property rights actions have interacted with state structures to shape the selection process and governance outcomes. Second, we do the same thing insofar as production and allocation actions are concerned. Although production and allocation actions have been significant in shaping governance transformations, property rights actions have been much more decisive in our cases, so we discuss them first and more extensively.

In the stylized terms of the evolutionary model offered in Chapter 11, governance transformations are typically initiated by producers responding strategically and opportunistically to a range of possible strategic choices, created by changes in market conditions, technology, and in the institutional and political environment. These pressures for change lead producers to adopt new product strategies and perhaps new forms of internal organization that depend for their implementation on producers being able to experiment with, negotiate, or coerce new roles, rules, and rights in their exchange relationships with competitors, labor, suppliers, and sources of finance and innovation. The complex selection process that ensues is the product of the interplay among the strategic actions and constraining institutional contexts of economic actors and the state. Selection involves
spontaneous trial-and-error experimentation, formal and informal bargaining and negotiation, as well as overt struggle and coercion. Outcomes of selection depend on the ability of various actors to mobilize resources, take advantage of political opportunities, and devise appropriate goals and strategies that break out of existing rules and routines while conforming to new market conditions, and technological, political, and cultural constraints. In turn, the stability and durability of an emergent governance regime depends often on the state's ability and willingness to ratify and help legitimate it. Where the selection process produces a qualitatively different governance regime (which is not at all guaranteed), we describe those outcomes in terms of changes along the dimensions of formal-informal organization and bilateral-multilateral exchange. The state in the United States has played important roles through its property rights actions in all phases of the transformation sequence. However, the state does not necessarily become involved of its own volition. Rather, it often gets pulled into the process by other actors or by the imperatives of new political, economic, or technological circumstances. Hence, we do not suggest that the state necessarily takes an activist role in the transformation process or that this process is necessarily led by the state.

**PROPERTY RIGHTS ACTIONS, STATE STRUCTURES, AND GOVERNANCE TRANSFORMATIONS**

*Pressure for change*

The state may crystallize pressures for governance transformations in several ways. As an *actor*, the state may deliberately try to force change on a sector by changing, or threatening to change, property rights. For example, in the commercial nuclear energy sector, Congress passed legislation in 1954 that permitted private firms to own nuclear technology and forbade the federal government from building its own reactors for the purpose of producing electricity commercially. However, it was only after Congress threatened two years later to pass new legislation that redefined property rights so as to mandate the construction of six government-owned commercial plants that utilities began to consider more seriously the construction of nuclear plants. Had this proposed redefinition of property rights been enacted, the government would have competed with the utilities in the commercial electricity market. This threat helped convince utility companies to begin building nuclear plants, thereby creating a market, a new form of governance, for the technology's development. To provide further encouragement for the market's development, Congress passed the Price-Anderson Act in 1957 — legislation that redefined property rights again by restricting a utility's liability in the event of a nuclear accident to $60
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million. In turn, this limited the extent to which citizens could assert claims over utility property and reduced the utilities' investment risks (Campbell, Chapter 4 in this volume).

Redefining property rights also helped create a more competitive market in the telecommunications industry. AT&T had been able to establish a monopoly in telephone service during the late nineteenth century, in part because the courts had affirmed the company's right to control the technology through its ownership of hundreds of patents. However, the Federal Communications Commission (FCC) ruled in 1959 that both common carriers, such as AT&T, and private users should be permitted to use microwave frequencies for communication purposes. Eventually, the FCC also granted permission to companies, such as Microwave Communications, Inc., to interconnect their microwave systems with AT&T's telephone grid, thus triggering a dramatic governance transformation whereby a competitive market in long-distance service emerged in place of the old AT&T monopoly (Bickers, Chapter 3 in this volume).

The state may also exert pressure for change as an organizational configuration of fragmented and decentralized institutions that often creates property rights policies that are inadequate for solving an industry's dilemmas, occasionally because these policies are contradictory. For instance, scheduling, overcapacity, and other problems plagued the railroad sector during the nineteenth century. In the absence of federal regulation, sub-national regulatory agencies were unable to solve these problems because railroads had become an interstate business, thus transcending the jurisdiction of any one state's agency. Industry leaders created associations and pools to improve the situation through self-regulation, but these failed to fully control their members' behavior as cheating on collective agreements became rampant. Congress passed legislation in 1866 that officially permitted associational behavior among railroads, but the collective agreements that these associations crafted proved to be unenforceable because already existing common law held that the agreements were in restraint of trade and, therefore, illegal (McCraw 1984: 49). Two branches of government had developed contradictory property rights policies with respect to the collective control of railroads. The failure of multilateral governance caused the railroads to seek an alternative solution to their problems, a consolidation of companies through a wave of mergers that amounted to a transformation in governance from market to corporate hierarchy (Kennedy, Chapter 5 in this volume).

Finally, by providing arenas for public participation in the policy process, the state may create opportunities for outsiders to cause political problems that may trigger searches for new governance regimes due to actual or proposed changes in property rights policies. Cattlemen and ranchers used their access to Federal Trade Commission (FTC) officials during the late 1910s to complain about oligopoly pricing and other unfair practices by
the big vertically integrated meat packers, five of whom clearly dominated the purchasing, processing, and distribution of beef within the industry. In response, the PTC recommended government ownership of the stockyards, distribution outlets, and refrigerator cars after which the U.S. Attorney General sought indictments that charged the meat packers with monopoly and collusion. The meat packers believed that changes in policy governing their property rights were imminent, so they quickly agreed to relinquish their stockyard interests voluntarily, a compromise that the government accepted and that reduced the amount of vertical integration upstream, but permitted meat packers to retain control over everything else downstream in processing and distribution (Portz, Chapter 9 in this volume).

More recently, citizen groups and unions worked through Congress and the courts during the 1960s and 1970s to pass and enforce environmental, consumer, and labor legislation that restricted the property rights of manufacturers insofar as the operation of their facilities and quality of their products was concerned (Vogel 1983, 1987). These laws created new problems for industry that led occasionally to the creation of new forms of governance. For example, in the automobile sector, manufacturers responded collectively to new and stricter air-quality regulations by establishing in 1967 an Air Pollution Research Advisory Council and an Inter-Industry Emissions Control Program. These were formally organized, multilateral attempts to develop and cross-license emission-control technologies, and a marked departure from the industry's more typical form of governance, oligopolistic competition (Scherrer, Chapter 7 in this volume; White 1982). In the nuclear sector, after the demise in the mid-1970s of the Atomic Energy Commission and the congressional Joint Committee on Atomic Energy, policy forums responsible for the regulation of commercial nuclear energy became particularly accessible to a wide variety of environmental, antinuclear, and other groups that penetrated the policy process in ways that contributed to the development of new regulations. Regulatory changes contributed to delays in building and licensing nuclear plants, and to the escalation of costs for nuclear plant and radioactive waste-management projects. In turn, this exacerbated capital shortages for utilities that were engaged in nuclear construction and eventually destroyed the market for nuclear plants (Campbell, Chapter 4 in this volume).

The selection process

Once pressures for change have developed, the state may influence the selection process in ways similar to those just discussed. The state may participate in the search process as an actor, helping to craft a new governance regime in an industry by manipulating property rights. For example, dairy farmers tried to establish cooperatives and struggled with milk distributors during the 1910s to stabilize milk prices and production levels,
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....With only limited success. One obstacle was that the U.S. Justice Department opposed the formation of dairy coops and multilateral pricing schemes because officials believed that this violated antitrust law. However, under Herbert Hoover's guidance, the Federal Food Administration convinced the Justice Department not to interfere anymore, and helped organize and institutionalize price bargaining between the two groups, thus ensuring that a more multilateral form of governance would replace the previous, more bilateral and market-based forms. Eventually, Congress passed the Capper-Volstead Act in 1922, which officially exempted the coops from antitrust prosecution by legislating a new set of property rights that permitted collective governance (Young, Chapter 8 in this volume).

Similarly, antitrust exemptions, another example of the selective enforcement of property rights policy, became more frequent during the 1980s in the steel industry and fostered an increase in merger activity, a variety of joint ventures, and further concentration (Scherrer, Chapter 6 in this volume). In automobiles, although the Justice Department had forbidden in 1969 the cross-licensing of emission-control technology, it later reversed its position and permitted this new form of governance, and the Department of Transportation promoted a Cooperative Automotive Research Program in 1978, an industry-government joint venture to improve automobile quality (White 1982). As in the steel example, this was an effort to help the industry overcome its economic malaise. Yet perhaps the most dramatic case of a state-led search through shifts in property rights policies was in the railroad sector, where the federal government created its own rail companies, Amtrak and Conrail, by nationalizing and reorganizing several private railroads in a last-ditch effort to remedy the sector's financial dilemmas (Kennedy, Chapter 5 in this volume). In this case, property rights shifted from private to public control.

Sometimes state structure affects the selection process by determining the range of options from which private actors may choose to solve their governance problems. As noted earlier, federalism afforded subnational governments great leeway in devising property rights policies. For example, the Taft-Hartley Act granted state legislatures the right to outlaw union shops, thus making it extremely difficult for labor to organize in conservative regions that were not already predominantly unionized, such as southern and western states that often passed right-to-work laws that helped keep wages relatively low (Newman 1984). Similarly, in the automobile sector, cheap labor, as well as lower operating costs due to more lenient environmental codes, in regions away from Detroit helped encourage the development of just-in-time subcontracting relationships, where independent suppliers in the south and west began to provide parts (just-in-time for assembly) for the large automobile manufacturers. Traditionally, manufacturers had produced these parts within their vertically integrated firms, but when the industry began to suffer a profit squeeze...
during the 1970s and 1980s, subcontracting offered a way to reduce costs (Scherrer, Chapter 7 in this volume). The same thing happened in the steel industry during the 1960s and 1970s when regional disparities in labor costs due to different subnational property rights policies helped facilitate the development of small, independent minimills in the south that contributed to the development of market competition for specialty steel in a sector that had previously been dominated by an oligopoly (Scherrer, Chapter 6 in this volume). Movement to the south in pursuit of lower costs also helped firms in these and other industries undermine labor unions and, as a result, contributed to the deterioration of multilaterally organized mechanisms for settling labor-management problems, including the establishment of wages and benefits (Bluestone and Harrison 1982). In each of these examples, differences in property rights frameworks among subnational governments helped to encourage the development of new governance regimes by defining distinctive locations for economic activity, each offering different economic possibilities to private actors.

The state also influences the selection process by providing arenas for outsiders to penetrate the policy process and further limit the range of governance options. In the railroad sector around the turn of the century, small shippers and midwestern farmers gained access to the state through the courts and political parties, pushed for creation of the Interstate Commerce Commission, and convinced regulators to officially prohibit railroad pools, cartels, and associations from setting rates. This restricted the number of governance mechanisms from which the railroads could choose as they tried to stabilize prices, thus contributing further to the creation of large horizontally integrated railroads, perhaps the only alternative left after the gutting of the multilateral forms of governance (Chandler 1977; Kennedy, Chapter 5 in this volume).

As suggested briefly in Chapter 11, one of the most important ways in which the state influences governance selection is through its capacity to ratify or undermine new governance regimes once they have emerged. In this way, the state as an actor helps to determine when relative equilibrium returns to an industry. Generally, ratification occurs when, at the insistence of either private or state actors, the government confers legitimacy on a new regime by approving formally either the regime itself, or particular transactions that result from it. This stabilizes the new governance regime and leads to a termination of the selection process, unless it proves to be ineffective in resolving the problems that it was designed to cure. When ratification is not forthcoming, transactions often become difficult and the new regime becomes precarious. As discussed earlier, for example, it was only after 1866, when Congress passed property rights legislation that explicitly permitted administrative pools to coordinate rail traffic, that railroad companies began to use this form of governance with any regularity.

Of course, even when the state is willing, it may be unable to effectively
ratify governance regimes, particularly if its legitimacy is in doubt. For instance, concerns developed during the late 1960s that the Atomic Energy Commission had neglected its regulatory responsibilities—concerns that drew into question not only the Commission's legitimacy, but that of the nuclear sector as a whole. Triggered by a legitimation crisis over the Commission's nuclear plant safety policy in the early 1970s, antinuclear activity escalated as groups argued, in effect, that state-regulated corporate and market forms of governance were no longer acceptable, sued to shut plants that they believed utilities were operating unsafely, and lobbied state governments to halt further nuclear plant construction. In effect, the existing structure of governance and property rights was being challenged by those who sought to shift control over utility property in a more public direction. The inability of the Commission to lend legitimacy to corporate activity helped undermine the stability of transactions within the sector as it became more difficult for utilities to purchase and build nuclear plants. Congress eventually replaced the agency with the Nuclear Regulatory Commission to restore legitimacy to the regulatory process, avoid further charges that the sector was operating in ways contrary to the public interest, and stabilize sectoral governance once again (Campbell, Chapter 4 in this volume).

There are also times when the state is unwilling to ratify new governance regimes. Then selection tends to continue. Similarly, if the state refuses to continue ratifying an already established governance regime, then new pressures for change may emerge. Despite the 1866 railroad legislation, when the courts refused to enforce pooling and other collective agreements, railroads continued to search for alternative ways of rationalizing rail service, such as corporate mergers, a governance mechanism with a more legal and legitimate institutional status at the time insofar as such consolidations were legally acceptable. Hence, pools and associations were transitional forms of governance precisely because the state never fully ratified them (Kennedy, Chapter 5 in this volume). In the telecommunications sector, the Justice Department refused to continue tolerating many of AT&T's monopolistic practices and, in a deliberate attempt to push the sector in a more market-oriented direction, filed a divestiture suit against the company in 1974, a direct attack on the legitimacy of this sector's long-standing governance regime, which triggered a search for alternatives—a search that culminated in the breakup of AT&T's local service companies in 1984 (Bickers, Chapter 3 in this volume). Elsewhere, the Attorney General attacked meatpacking pools at the turn of the century that were coordinating prices. After the Supreme Court ruled that the pools were illegal in 1905, meatpackers replaced them with a holding company and then, after two more lawsuits challenged the holding company's legitimacy, developed an informal price-leading system (Portz, Chapter 9 in this volume).
Because ratification often involves the delineation and enforcement of property rights, the courts often play a pivotal role in ratifying governance regimes, particularly in the United States, where they are asked frequently to determine, under antitrust statutes, the acceptability of corporate hierarchies and different forms of multilateral governance. Although challengers, including state actors, who object to a particular form of governance often ask judges to rule on these matters, as in the Justice Department's 1974 attack on AT&T's local service monopoly, requests for court ratification occasionally come from dominant actors who benefit from the existing governance regime, and who seek to use the courts and prevailing property rights policies as a defense against potential governance transformations. In telecommunications, for instance, the Bell System filed hundreds of patent-infringement suits during the late nineteenth century against would-be competitors—suits that the courts usually upheld, thereby ratifying the corporation's right to monopolize the technology and dominate sectoral governance through a single corporate hierarchy. Indeed, the construction of a patent wall to preserve its monopoly was a deliberate strategy of the Bell System (Bickers, Chapter 3 in this volume).

Ironically, although Douglass North (1981) was one of the few economists to recognize that state officials play a pivotal role in the governance process by altering property rights, he failed to acknowledge their role in ratifying new governance regimes once they have materialized. Instead, he argued that in addition to a theory of the state with which to understand governance transformations, we also need a theory of ideology without which we cannot account for the routine willingness of economic actors to abide by the prevailing governance regime—a commitment, he suggested, that is necessary so that economic activity will be stabilized and not deteriorate into permanent chaos where every transaction becomes subject to legal challenge and dispute. In short, ideology is the key component that is required for stabilizing economic governance. However, as we have seen, it is often the state that provides this ideological guidance and stability, particularly through the courts.

After all the law is, among other things, an expression of a society's politically dominant ideology. Insofar as the ratification of governance regimes is concerned, it is the courts' job to determine whether these regimes are ideologically palatable. If they are found to be so, ratification will probably be forthcoming and they will remain intact, as in the Bell patent cases. If not, they will not be ratified, but rather will be undermined and destabilized, as occurred when meatpackers were unable to sustain their pooling agreements. Although courts tend to be conservative and uphold the status quo (Miliband 1969: 138–45; Hurst 1982), occasionally they do veer from precedent. There have been important ideological shifts in the U.S. courts that have precipitated changes in governance regimes (e.g., Solo 1974; Horwitz 1977; Hurst 1982; Hooks forthcoming). Other
parts of the state apparatus also provide this ideological judgment, such as regulatory agencies, where officials determine the legality of transactions and governance mechanisms. However, in these other institutional locations, approval is often much more subtle (and politics is often much more important). The Nuclear Regulatory Commission’s tacit approval of various multilateral forms of governance after the accident at Three Mile Island is a case of such subtlety (Campbell, Chapter 4 in this volume).

It should be stressed that when the state participates as an actor in the search for a new governance regime, that which emerges usually does not require formal state ratification later. For example, when the Federal Food Administration arranged for price bargaining among producers and distributors in the dairy industry during the 1910s, prices were managed effectively, and nobody challenged this particular form of governance for years. Furthermore, there was no need for overt government ratification beyond that which had already occurred by virtue of the state’s participation in the selection process. Similarly, during the search for a commercially viable nuclear energy technology, the state encouraged the formation of several collectively organized research groups that were never challenged and never required formal ratification (Campbell, Chapter 4 in this volume). Furthermore, few objected formally to the creation of the nationalized railroad companies, Amtrak and Conrail, by the Department of Transportation, although acceptance here was probably due as much to the unprofitable nature of these lines as it was to the state’s presence in the selection process per se.

On the other hand, when private actors try to select new governance regimes without the state’s active participation, demands for ratification will probably be more frequent. For example, in contrast to state-sponsored multilateral governance in the dairy sector, we have seen many privately organized forms of multilateral governance challenged in court and elsewhere such that the state was called upon to determine the legitimacy of the governance mechanisms in question. Railroad pools and associations, automobile research organizations, and meatpacking pools and holding companies were all challenged in ways that required the state to determine the legitimacy of each. Furthermore, in the steel industry, Chicago-area fabricators convinced the Federal Trade Commission to force steel producers to modify their privately organized, oligopolistic pricing systems in 1924, and again in 1938 (Markusen, 1985:82). When independent telephone companies took it upon themselves to form an association in order to compete more effectively with the Bell System in the early 1900s, federal

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8 This is not to say that once government officials ratify a particular governance arrangement, it will never be challenged, just that it will be more or less accepted by the actors involved for the immediate future. For example, although milk pricing and other forms of regulation were the norm in the dairy industry for decades, calls for deregulation emerged during the late 1970s and 1980s (Young, Chapter 8 in this volume).
and state authorities ruled that the organization was in violation of antitrust law. The point is that the state's presence in the selection process tends to lend a certain legitimacy and, therefore, stability to the governance regimes that emerge, as long as its own legitimacy is intact.

The examples we have discussed are not unusual. When the state is not actively involved in promoting new governance regimes, those most likely to become subject to ratification challenges in the United States are vertically or horizontally integrated corporate hierarchies, or multilateral forms of governance, such as associations or pools. Wolfgang Streeck and Philippe Schmitter (1985) have argued that associational forms of governance require that the state confer legitimacy and authority on them, as well as occasional help with enforcement, if they are to effectively govern their members. This may be so, but these governance mechanisms also require state legitimacy, at least in the United States, because they are multilateral forms of governance per se. In the United States, such forms of governance are often viewed as being in conflict with the principles of free competition as codified in antitrust law (e.g., Edmonds 1983). The same is often true for large corporate hierarchies, particularly when they have their genesis in mergers that significantly increase market concentration. Hence, it appears that in the United States, when the state is not directly involved as an actor in the creation of governance mechanisms that may appear to undermine the competitive market, actors often will request that the state decide later whether to ratify them.

In contrast, bilaterally organized forms of governance, including markets, limited joint ventures, and subcontracting relationships, are probably less likely to be challenged in this way. Of course, specific transactions that occur within these governance mechanisms are often disputed, such as when market contracts are challenged in court. However, the governance mechanisms themselves are not likely to be contested. Similarly, we suspect that collective price-leading arrangements will be subject to state ratification only infrequently but, probably for different reasons, the steel sector's oligopolistic pricing system notwithstanding. Although price leading is a multilateral form of governance, it would be very difficult to prove that participants had violated antitrust law or had otherwise undermined the operation of competitive markets because this form of governance is so underdeveloped in terms of a formal organizational structure, and because participants coordinate each other's behavior in such tacit and soft-spoken ways. This may be one reason why price leading, for example, has operated so successfully in the automobile and steel sectors for decades (e.g., Baran and Sweezy 1966: 60).

Theoretical implications

The central concern of this section has been to demonstrate that through its property rights policies, the state constitutes economic activity on a
The state and economic governance

Continuous basis in the United States and that this occurs in a variety of ways, especially during the process of governance transformation. By establishing the rules within which economic activity takes place, the state constantly defines the range of organizational forms through which this activity may occur. Thus, the state is always interacting with the economy in important ways, regardless of whether or not it chooses occasionally to influence the behavior of economic actors through the production and allocation of resources and information, activity that we discuss in the next section. This has additional implications for theories that try to specify the relationship between the state and economy in the United States (and in other advanced capitalist countries) and for theories that seek to identify the conditions that precipitate governance transformations.

As noted earlier, many have argued that in the United States, the state is relatively weak because it is generally unable to allocate critical resources and information in ways that influence the organization of economic activity. Others have maintained that an additional source of state strength lies in well-developed administrative bureaucracies that are capable of monopolizing authority within their policy domains, centralized and insulated from the demands of lower levels of government and outside groups, and staffed with people sharing a common esprit de corps (e.g., Katzenstein 1978; Hall 1986). Dietrich Rueschemeyer and Peter Evans (1985: 51), for example, argued that “effective bureaucratic machinery is the key to the state’s capacity to intervene” in ways that influence the organization of economic activity. On these dimensions, the U.S. state appears again to be rather weak (Katzenstein 1978; Krasner 1978a), although, as Theda Skocpol (1985) argued, state strength in the United States, as elsewhere, is variable historically and across policy areas, depending in part on the political and institutional arrangements at hand.

However, we have seen that in the United States, the state has derived great strength from its ability to define and enforce property rights, at least insofar as we measure strength in terms of the state’s ability to orchestrate institutional transformations within the economy – criteria often used in such characterizations (e.g., Krasner 1978b: Chap. 3). FCC decisions to permit independent companies to link their microwave systems to AT&T’s telephone grids redefined property rights so as to foster a more competitively structured telecommunications industry. With threats to build government-owned reactors, as well as passage of the Price–Anderson Act, Congress provided definitions of property rights favorable enough to the utilities that a market for nuclear plants began to blossom. Regulatory decisions to permit dairy cooperatives in the late 1910s and early 1920s helped facilitate the development of multilateral forms of governance in that sector.

That the state has done this through various forms of regulatory policy is particularly interesting and ironic. Although much of the prevailing literature attributes relative weakness to states that rely heavily on adopting
the regulatory and rule-making policy tools (e.g., Zysman 1983: Chap. 2; Samuels 1987: 17), these tools may actually be sources of great strength for the state. Thus, to focus on the degree to which state actors have the ability to allocate the flow and direction of important resources and information is to offer a rather lopsided analysis of the state’s capacity to affect governance transformations. In this sense, we agree with John Ikenberry (1988: 203–8) that there is a much wider range of capacities for state strength then those commonly acknowledged in the literature.9

State strength is also derived in a second way from the capacity of government officials to manipulate property rights. Those who have contributed to the debates about weak and strong states recognized that state strength is dependent to a degree upon the organization of actors in society (e.g., Katzenstein 1978; Krasner 1978b; Stepan 1978: 84; Hall 1986; Samuels 1987). We agree with those who argued that state actors will tend to have greater success in forming and implementing the economic policies of their choice if dominant class interests in society are organizationally fragmented, rather than unified and against them (e.g., Rueschemeyer and Evans 1985; Samuels 1987). Yet the state’s control over property rights is often an important means of influencing the organization of societal groups in the first place. We are not suggesting that the state alone determines the organizational capacities of private actors. Nevertheless, how government officials manipulate property rights, such as those specified through antitrust and labor law, may facilitate or inhibit the collective organization of business and other groups, and, in turn, affect the degree to which state actors influence the governance process later. For instance, in the meat-packing industry, antitrust policies undermined pools and other multilateral forms of organization that big packers used to try to coordinate their activity during the early 1900s. Later, when the federal government tried to impose beef-grading schemes and enforce a degree of vertical divestiture, to which the big packers had agreed initially, these companies tried to resist, but failed, because they lacked an effective means of interfirm coordination (Portz, Chapter 9 in this volume). Thus, we reiterate Peter Hall’s (1986: 266–8) contention that there are reciprocal influences between the state and the organization of groups in society, but add that this reciprocity also influences state strength and is determined in part by the state’s ability to develop property rights policies.

Our argument about the importance of property rights also has implications for the recent debates about the conditions under which different types of governance emerge. As suggested in Chapter 11, much of this literature focuses on how the imperatives of economic efficiency (Chandler

9 For critical reviews of the literature about strong and weak states, see Skocpol (1985), Samuels (1987: Chap. 7), Wilks and Wright (1987), and Atkinson and Coleman (1989). It is noteworthy that none of these addresses the issue of property rights per se.
technology (Piore and Sabel 1984), profit cycles (Markusen 1985), and other largely society-centered conditions create pressures for such change. Ann Markusen (1985), for example, argued that as an industry forms initially and becomes more profitable, subcontracting and competition among many small firms develops, but eventually evolves toward vertically integrated corporate hierarchies. When profitability declines, then vertical disintegration is likely, and will be accompanied by increasing trade association activity and renewed subcontracting. Yet we have seen that governance transformations, such as these, may stem directly from shifts in property rights and, therefore, may be due to changes in political as much as economic circumstances.

This is not to say that economic conditions are unimportant, or that they alone never precipitate governance transformations. The point is that there are often times when property rights policy plays a substantial role in these transformations, either alone or in conjunction with economics. Indeed, although a more systematic study is beyond the scope of this chapter, the histories of the industries that we have discussed suggest, however tentatively, that frequently there may be a relationship between shifts in economic conditions, property rights policies, and governance regimes. We hypothesize that during times of economic decline in the United States, the state tends to define and enforce property rights in ways that facilitate the development of more formally and/or multilaterally organized governance mechanisms, such as corporate hierarchies and associations. Conversely, we suspect that during economic prosperity, the state tends to define and enforce property rights in ways that facilitate the development of more informal and less multilaterally organized governance mechanisms, such as the market.

For example, in the automobile sector, the federal government promulgated codes under the National Industrial Recovery Act during the Depression, which encouraged the formation of associations to establish pricing practices, supervise dealer-supplier relations, and set minimum wages throughout the sector (Dyer, Salter, and Webber 1987: 47–8). Furthermore, in 1936, the Automotive Manufacturing Association adopted, without government opposition, a basing-point price quotation system—a form of multilateral price stabilization (Markusen 1985: 169). In contrast, antitrust enforcement became more rigorous during the prosperous 1950s and 1960s as the federal government forced General Motors to relinquish its holdings in Bendix, Greyhound, and Hertz, and required Ford to divest its interests in Autolite (Dyer et al. 1987: 48; Scherr, Chapter 7 in this volume). Similarly, we saw that as automakers tried to form collective organizations in response to increased regulatory activity after 1965, the federal government blocked these efforts, as well as the cross-licensing activities that followed. Later, however, as the sector began to suffer its decline during the late 1970s and 1980s, the Justice Department agreed to
permit cross-licensing, and the Department of Transportation promoted the Cooperative Automotive Research Program.

Furthermore, we have seen that the federal government became more lenient with regard to antitrust when the steel industry began to decline in the 1970s. In the nuclear sector, after a major reactor accident at the Three Mile Island plant in 1979, an accident that many members of the industry feared might kill the nuclear option altogether, the federal government permitted the organization of several multilateral business organizations that were ostensibly designed to help the industry regulate itself more effectively (Campbell, Chapter 4 in this volume). On the other hand, some of the most extreme cases of antitrust enforcement in the industries sampled here occurred in telecommunications, where there was never a major economic decline. After the turn of the century, antitrust suits were filed against AT&T and led to a deal negotiated in 1913 between AT&T and the Attorney General that led to a partial divestiture of the firm's holdings. Of course, this paled in comparison to the federal government's regulatory and legal actions against AT&T since the mid-1960s that deliberately fostered a competitive market for long-distance services, and broke up the company's monopoly over local service (Bickers, Chapter 3 in this volume).

Not only does the state tend to facilitate the development of more multilaterally and formally organized governance mechanisms during downswings in a sector's economic performance and during wartime, but, we would further hypothesize, it also tends to define property rights during such times in ways that increase the advantage of business relative to other groups in society. By this we mean that business is not required to make as many concessions to the interests of other groups when making decisions about its use of the means of production. One might say that advantage refers to the relative autonomy with which business operates from the constraints of nongovernmental interests, as expressed through the property rights framework. For example, during the declines in the steel and automobile sectors, the federal government loosened its environmental regulations on these sectors in the hope of easing their economic difficulties. Indeed, many of these regulations had been promulgated during the 1960s and early 1970s, when these sectors, not to mention the national economy, were doing well, and when citizen groups were highly mobilized to push for such regulatory policies (Dyer et al. 1987; Scherer, Chapter 7 in this volume). Similarly, it was during a period of expansion in the meatpacking sector in the early twentieth century that the federal government imposed

10 The relative autonomy of business is an institutional condition because this autonomy varies in large part according to the institutionalized definitions and enforcement of property rights.
various beef-grading and other regulations (Portz, Chapter 9 in this volume). 11

Two important caveats are in order. First, and most importantly, although economic conditions may influence the probability that changes in property rights will increase or decrease the relative autonomy of business, politics will determine the specific outcomes of struggles over property rights policies. The Carter Administration during the late 1970s tried to promote a corporatist solution to the steel sector's economic stagnation, a proposal that provided in part for collective decision making among steel companies, but one that was opposed and defeated politically by organized labor and the steel firms themselves, who preferred a more conservative, protectionist policy (Scherrer, Chapter 6 in this volume). Similarly, intense political pressure from Congress and antinuclear groups caused the Nuclear Regulatory Commission to pass increasingly stringent regulations against utilities during the 1970s although the market for nuclear plants was collapsing (Campbell, Chapter 4 in this volume). Of course, these cases contradict our simple hypotheses about the relationship between economic conditions and the relative autonomy of business (the nuclear case), and about property rights, economic decline, and the type of governance transformations that are likely to emerge (the steel case). However, by doing so, they illustrate the important role that politics plays in mediating how economic conditions influence policy and governance outcomes.

The second caveat refers to Markusen (1985), who found that the relationships between profit cycles and the emergence of different governance forms varied according to the type of sector in question. Although we have not examined a cross section of natural resource, producer goods, and consumer goods sectors, as she did, we have discovered one important sectoral effect. The state promulgated more extreme property rights policies for the infrastructure sectors that we have examined than for others in the sense that these policies have occasionally given the state ownership and control, at least temporarily, over what was once private property. We have seen that nationalization of bankrupt rail companies occurred twice. Furthermore, as of this writing, negotiations are underway wherein the state of New York will purchase the Shoreham nuclear power plant from the Long Island Lighting Company now that political obstacles will prevent the plant from coming on line. Nothing so drastic occurred in the steel, meatpacking, dairy, or automobile sectors during their periods of decline. Even when the Chrysler Corporation was on the verge of bankruptcy in 1979, Congress only provided temporary federal loans and loan

11 This does not mean, however, that during economic upswings, property rights fundamentally favor the nonbusiness interests. Property rights in capitalist societies almost always tend to favor business interests. The issue here is simply one of degree.
guarantees (Edmonds 1983: 91-4; Scherrer, Chapter 7 in this volume). Only one other sector that we have studied, telecommunications, another infrastructure sector, experienced nationalization, and that was only for a short time during the First World War (Bickers, Chapter 3 in this volume). Hence, although the economic and political factors, discussed before, are probably more important in explaining the development and effect of property rights policies, there may also be important variations associated with the type of industry or sector in question.

PRODUCTION AND ALLOCATION ACTIONS, STATE STRUCTURES, AND GOVERNANCE TRANSFORMATIONS

As we saw earlier in this chapter, there is no shortage of evidence that state actors in the United States have actively subsidized economic development by providing or allocating resources and information. This has been especially true in periods of economic decline or in boom times when economic actors have been unable to procure the resources and information they needed for continuing or expanding production. Although state governments have historically been most active, the federal government has been prominent during wartime or in periods of high defense spending. On the other hand, with the exception of the general tendency, noted earlier, for government spending to implicitly support scale, concentration, and bilateral exchange, it is much more difficult to identify the effects that both specific production and allocation actions, and the related effects of state structures have had on the transformation of economic governance in our eight sectors. In order to do this, we would have to demonstrate that state actors provided critical resources and information in ways and at times that actually influenced the organization of economic activity as measured on the two dimensions of our governance mechanism typology.

Why is it more difficult to determine how state production and allocation actions, rather than property rights actions, influenced the strategies of economic actors and, in turn, governance transformations? Although the data are somewhat ambiguous, we hypothesize that there are two reasons for this difficulty. First, in general, this type of state action at the federal level has been more politically contested and, therefore, obstructed than has been the case with property rights actions. Property rights and regulatory actions are easily and routinely legitimated by reference to the state's roles of making, interpreting, and enforcing the law. In contrast, produc-

12 The short-lived nationalization in telecommunications and the prolonged debate during the 1950s about building state-owned nuclear power plants for commercial and military purposes suggests that the state's role in governance transformations may also be linked to its position in the geopolitical arena, a theme we have not explored here, but which may be worth further study (e.g., Ikenberry 1988).
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Production and allocation policies at the federal level tend to benefit some regions of the country more than others (e.g., Markusen 1985). Thus, at this level, these policies often become embroiled in interstate and regional political conflicts, and stalemate often results. Indeed, ever since Alexander Hamilton's Report on Manufactures, federal industrial policies have been blocked and disarmed by interstate and interregional competition as well as by class-based struggles (Zysman 1983; Bensel 1984; Markusen 1985, 1987; Vogel 1987; Eisinger 1988). However, production and allocation actions at the subnational level have met far less resistance because they are justified typically on grounds of improving the competitiveness of state-level businesses, and because labor and other challengers to business subsidies have been less well organized in general at the state level than at the national level, at least in the twentieth century. Yet, with the exception of industries that are highly concentrated regionally, such as automobiles in Michigan and dairying in Wisconsin and Minnesota, there is little evidence from our sectors that state-level production and allocation policies have been decisive in the constitution of governance regimes. Why? Because these policies vary so much from one state government to another, it is very difficult to determine the combined effect that all of these policies have on a particular sector of the economy. The one possible exception to this generalization is the railroad industry, where lavish state and local government spending in the nineteenth century, and federal land grants in excess of 130 million acres, spurred a pattern of railroad development that helped to establish the early monopoly position of the railroad companies. 13

The point is that production and allocation policies at the federal level have relatively little impact on governance transformations because their use is often blocked politically, and at the subnational level, their use is so varied that it is usually impossible to determine what their effects are over all.

Our second hypothesis that suggests why it is difficult to determine the effects of production and allocation actions on the structure of governance has to do with the relationship between the state's production and allocation actions, on the one hand, and the strategies of private economic actors, on the other. Since these state actions have been primarily designed either to directly subsidize private accumulation or to provide public funds to privately appropriable infrastructures, they are likely to reinforce already existing private production and exchange strategies and power relationships. Thus, it is often very difficult to isolate and determine the independent effects that state actions, as opposed to private actions, have on governance transformations. As John Zysman (1983) demonstrated, the United States

13 The development of oligopolistic railroads itself helped spur distribution system hierarchies in meatpacking and dairying (see Portz and Young, Chapters 9 and 8, respectively, in this volume).
typically pursues "company-led" industrial adjustment strategies where the state follows and reinforces the strategies that are already preferred by business. Indeed, we have clear examples of this in the preferential loans to steel during the Carter Administration, the Chrysler bailout, and protective tariffs and voluntary restraint agreements in steel and automobiles (Scherrer, Chapters 6 and 7 in this volume).

With these considerations in mind, what patterns seem to emerge from our case histories? In contrast to property rights, we find relatively few clear examples of state production and allocation actions that were explicitly designed to either counteract existing private strategies or power balances, or to promote a specific state interest. Dairying seems to be the most obvious case where federal and state government actors decisively and deliberately encouraged governance transformations through production and allocation actions in ways that altered private governance strategies and the existing balance of power among private actors. In the late nineteenth and early twentieth century, the federal government created land-grant colleges, experiment stations, and extension services that provided the institutional base for the later development of an information-sharing network that helped to coordinate economic activity. Again, in the 1930s, state provision of price supports, milk-marketing orders, and technical information explicitly contributed to the emergence of a new multilateral governance regime. Less clear cut are the impacts on governance regimes in the automobile, meat, and steel sectors of state government subsidies, tax provisions, and infrastructures that were dedicated to attracting business to their states or regions. Presumably, these measures were designed to attract companies that were searching for ways to cut labor and other costs, but there is considerable controversy over whether such steps were really decisive in the decision making of firms (Eisinger 1988; Fosler 1988).

Of course, after 1965, in response to political mobilization to implement national health insurance, Congress unintentionally triggered transformations in the hospital sector by devising the Medicare program that paid for medical care and increased access for the elderly in ways that absorbed much of the risk of investing in hospitals, and that led to capital market control of new investment and to new organizational forms, such as for-profit chains and contract management (Arnold, Chapter 10 in this volume). Whether the federal government can deliberately orchestrate another transformation through production and allocation actions in order to deal with the sector's cost and access problems, embedded in the third-party payment structure of the present regime, is less clear. Promotion of organizational changes, such as health maintenance organizations, and the manipulation of incentives via tax reimbursement policies in order to control soaring healthcare costs could founder because of fragmentation among
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The authorities, ideological and political opposition to government intrusion, and the structure of financial markets.

Nuclear energy provides the clearest example of a governance transformation that was triggered by state production and allocation actions in order to pursue a coherently articulated state interest. In the nuclear sector, the federal government provided technology, information, capital, and uranium enrichment services. It was the federal government that created a variety of multilateral research networks around national laboratories in order to develop a commercially viable reactor technology, and it was the federal government that offered incentives to utility companies to convince them to begin purchasing nuclear plants, thus inaugurating a market for this new technology. However, even in this case, state structures militated against the successful stabilization of the industry. Conflicts between federal and state governments over licensing, safety, radioactive waste storage and disposal, and reprocessing punctuated the short history of the sector. Furthermore, the Joint Committee on Atomic Energy, the Atomic Energy Commission, and the Nuclear Regulatory Commission exercised their mandates in ways that provoked a legitimation crisis and political mobilization using available entry points in other state agencies, both federal and subnational (Campbell, Chapter 4 in this volume).

Several additional points are worth noting. First, where the state’s production and allocation tools seem to have had discernible and independent effects on governance transformations, it was usually because state actors used them in ways that exerted pressures for change, as occurred in the development of research networks in the dairy and nuclear sectors. To the extent that state-level subsidies, tax benefits, and infrastructure projects were designed to lure auto, steel, and meatpacking companies to different regions of the country, state governments defined economic spaces in ways that may have created pressures for decentralizing these sectors. In contrast, we found relatively few examples of state actors participating in the selection process through production and allocation actions, such as when Congress stabilized decentralized coordination in the hospital sector through Hill-Burton grants for hospital construction (Arnold, Chapter 10 in this volume). More often, and this leads to our second point, the structure of the state often fragmented these efforts and stalemated policy making in this regard. For example, although actors in the federal government produced and allocated resources in order to develop a market for waste reprocessing services in the nuclear sector, the state’s organizational configuration fostered intrastate political stalemates between federal and state governments over waste disposal policy that undermined this market. Similarly, by providing various arenas, such as licensing hearings and accessible courts, to outsiders, the state’s structure provided these actors with opportunities that contributed further to the reprocessing mar-
ket's demise (Campbell, Chapter 4 in this volume). Third, insofar as the selection process is concerned, we have not found any examples where the state used production and allocation actions to ratify or legitimize emergent governance regimes. Indeed, legitimation via these tools seems difficult to secure in the American ideological, political, and institutional environment.

**Theoretical implications**

Our survey of the role of production and allocation tools suggests several theoretical conclusions. For example, the American state has been more aggressive as an economic player than much of the literature has recognized. Despite the difficulties associated with discerning the effects of production and allocation tools, we have noted many examples where federal and state governments have provided substantial inputs of resources and information at a sectoral level. There is every sign that this kind of activity will become increasingly prominent, especially at the state level (Eisinger 1988; Fosler 1988) and through various Defense Department projects at the federal level. Scholars who generalize about the relatively passive, noninterventionist, and allegedly weak role of the state in the United States would do well to pay more attention to state policy at the subnational level and to the Pentagon and the defense establishment as perhaps the strongest part of the contemporary American state (Hooks forthcoming). Nevertheless, property rights actions have been much more decisive in governance transformations, at least in our cases—a finding that is broadly consistent with the general observation that the U.S. state tends to prefer, and is better endowed in terms of legitimacy and institutional capabilities, to play the role of a regulator or umpire of economic activity, rather than the more involved player that actually participates in transactions (e.g., Shonfield 1965; Katzenstein 1978; Dyson 1983; Edmonds 1983:72).

As suggested earlier, our cases also demonstrate the problems of fragmented and decentralized policy making that have frustrated efforts to develop, or even debate, industrial policies (e.g., Shonfield 1965: 323; Edmonds 1983; Zysman 1983; Eisinger 1988). For example, although we saw that the Nuclear Regulatory Commission tried to promote the standardization of nuclear plants as a way to speed licensing and reduce costs of new nuclear facilities, the fear of violating antitrust law was partially responsible for discouraging utility companies from buying standardized plants (Campbell, Chapter 4 in this volume). In railroads, although Congress instructed the Interstate Commerce Commission to rationally allocate operations in the railroad sector, the courts limited the agency's authority and undermined its capacity to carry out this mandate until Congress passed further legislation between 1903 and 1910 to remedy this problem (Kennedy, Chapter 5 in this volume). Intrastate conflicts have also punctuated
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the current and prolonged governance regime selection process in telecommunications with Congress, the Federal Communications Commission, and the federal courts taking competing and conflicting stands on the future evolution of the sector. Therefore, there is reason to doubt that competing economic development policies at the state level can really add up to a strong thrust for industrial transformation under today's conditions. Often firms appear to play states off against each other as a way of cutting costs rather than reorganizing production or seeking longer-term relations with labor and suppliers, or close and lasting linkages with an industrial district or particular region of the country (Piore and Sabel 1984).

However, we have found instances where those parts of the state apparatus that were involved with sectoral governance were organized very differently and, as a result, had much different effects. The success enjoyed for a time by the very centralized and unified Atomic Energy Commission and the Joint Committee on Atomic Energy in choreographing the initial development of the nuclear sector is a case in point. Another is the Department of Transportation, which revived Conrail so successfully that some in Congress and the Reagan Administration came to believe that the company was capable of surviving on its own and was ready to be returned to the private sector. Thus, we are again impressed by the tremendous variation in the organizational configuration of the state and in the policy tools of federal agencies and subnational governments. These variations can only be detected through comparisons of specific economic sectors.

These findings lend support to the argument that it is difficult to identify a priori which policy instruments and resources a state may utilize in promoting structural change in the economy. It is only when policy tools are mobilized and put to the test that we can properly sort out the contributions of state autonomy, organizational capacities, and political-economic conditions. For example, what was different about the institutional capacities of the French state in 1945 when it succeeded in recasting national capitalism, and the French state in the post–World War I period when it failed in a similar effort? Weiss suggests that it was a greater sense of crisis and decline that enabled the same state to outflank segments of business that were associated with collaboration and defeat (Weiss 1988). This should be a caution to those who overgeneralize about the institutional capacities (or lack thereof) of state actors in the United States. Some parts of the federal state are endowed with impressive administrative and bureaucratic capacities and are able to operate within a system of state–society linkages that belie notions of a weak state. Defense and agriculture are well-known examples. Furthermore, the individual subnational governments display wide variations along these dimensions and in their industrial policy strategies (Eisinger 1988; Fosler 1988). Perhaps someday in the United States, a national economic and political crisis will also so discredit dominant economic actors and their preferred organizational and exchange strategies.
that new state-society coalitions can emerge around more proactive state strategies.

What is important insofar as governance outcomes are concerned is that, for the most part, the kinds of production and allocation actions that are preferred by state actors in the United States have tended to reinforce the relative autonomy of producers, encourage the development and maintenance of hierarchical organization, and discourage the development of multilateral exchange. The kinds of state production and allocation actions chosen and the reliance on individual property rights actions, thus, have significant structural consequences for the economy. Our findings, particularly in the dairy sector, also lend support to the generalization from comparative studies of corporatism that where clever and coherent state actors with ample resources exist at a sectoral level, producers and other economic actors have stronger incentives to develop strong associations or promotional networks, and that it is out of such multilateral governance regimes that effective industrial policy comes. Indirect intervention via property rights provides little such incentive to economic actors.

GOVERNANCE REGIMES, GOVERNANCE TRANSFORMATIONS, AND PRODUCTIVITY

The foregoing discussion has important implications for policy, particularly insofar as U.S. economic productivity has become a concern during the 1980s. One of the most important recent studies on industrial productivity problems in the United States was conducted by the Massachusetts Institute of Technology Commission on Industrial Productivity, which argued that the nation's productivity problems stemmed from several attitudinal and organizational weaknesses that pervade its production system (Dertouzos, Lester, and Solow 1989). The Commission criticized the preferences of American firms for organizing production hierarchically, their tendency to institutionalize arms-length relationships between firms and finance, thus perpetuating excessively narrow planning horizons, their inability to develop effective collective infrastructures for technological development, and their systematic neglect of human resources – a problem, according to the Commission, that arose from the ideological preferences and organizational strategies of firms that favored power imbalances between business and labor, and relatively uncooperative relationships between organizations. The Commission also criticized government policies as having failed systematically to encourage and support truly collective infrastructures, cooperative relations, power sharing, and negotiation and collaboration among participants in the production process. Moreover, they argued that governmental structures undermined efforts to encourage the more rapid development and diffusion of technology, and facilitated fragmentation.
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...and conflict rather than coherent, long-term perspectives in policy and regulation.

Whereas these characteristics of industry and the policy environment may not have adversely affected U.S. economic performance in the past, this is no longer the case. The MIT Commission argued that changes in technology, economic conditions, and consumer preferences have created a need throughout the economy for producing and delivering high-quality products and services in more flexible and adaptive ways that require more cooperation within firms, and among firms, workers, suppliers, and customers. In our analytical language, what is required are new governance regimes that tilt more toward multilateral exchange and nonhierarchical organizational strategies.

Despite its many insights, the MIT Commission did not consider how these changes might occur or how deeply rooted these behaviors are in existing strategies, structures and power relations. Our case studies and the theoretical perspective on governance transformations that we have developed in these two concluding chapters help rectify this omission by providing insights about how these problematic patterns of behavior and institutionalized relationships emerged historically, and especially how state actions and structures, among other things, have contributed to their development. Hence, we are in a position to at least speculate about the prospects for governance transformations in the directions that the MIT Commission recommended. Of course, in doing so, we recognize that we must be very cautious in generalizing beyond our sample of economic sectors because we find considerable variation within and across them, especially with respect to what we call their evolutionary trajectories.

To review briefly, we stressed in Chapter 11 and in this chapter that state actors and state structures are always part of the process whereby new governance regimes are selected. The state has acted directly in pursuit of its own goals or, more typically in the United States, as a mediator among or a reflection of social pressures. The state has deployed both property rights and production and allocation policy tools in ways that have influenced the strategic choices of private economic actors. In some instances, the state has refrained from doing anything other than enforcing existing property rights and leaving the terrain of economic activity to dominant private actors. Furthermore, the state's structure has influenced significantly the selection process by channeling politics as well as constraining political and economic strategies and struggles in distinctive ways. In this sense, politics also plays an important role in influencing how economic sectors are constituted and how they are transformed (or not) historically.  

[14] Doing full justice to the politics of governance transformations in our sectors is beyond the possibilities of this project. It would have required detailed legislative and legal...
private actors and how they are formed, and to the importance of political and institutional factors in shaping the ways in which the state helps constitute the economy, our model of governance selection clearly shuns deterministic accounts in favor of one that recognizes the complexities and contingencies that are involved in the governance transformation process.

Our findings converge generally with those of the MIT Commission with respect to the continued preference in the United States for governance regimes that are dominated by strategies of hierarchical organization and bilateral exchange. We also agree that the state tends to reinforce these tendencies. Of course, our case studies reveal exceptions where the state episodically has favored some forms of multilateral exchange, at least among producers, such as in associations or promotional networks. Yet, as we have seen, these efforts have failed frequently to survive due to the fragmented nature of state structures, political conflict and legitimation challenges, and hierarchical traditions that were fostered by state policies that implicitly favored industrial concentration. Indeed, as far as the evolutionary trajectories of our sectors are concerned, there are some cases, most notably automobiles, where obligatory networks, multilateral exchange, and other cooperative relationships have emerged recently as a complement to hierarchical governance. However, these forms of governance have not replaced outsourcing and the flight of capital to non-unionized states as strategic options for firms, and state property rights and production and allocation actions have not limited significantly the prerogatives of producers in this sector. In the nuclear energy sector, multilateral forms of governance have emerged, but only in order to cope with what private managers perceived as being failures and contradictions in government regulation and with the effects of antinuclear political mobilizations.

In fact, many of our cases reveal that there has been notable movement recently in the opposite direction from that which the MIT Commission recommended. In the meatpacking sector, production is becoming more, not less, concentrated, and relationships between meatpackers and labor, on the one hand, and between meatpackers and other producers, on the other, have been dominated by harsh coercion and disregard for worker health and safety, and intense competition, respectively. The dairy industry, traditionally the epitome of state-supported multilateral governance, seems to be moving in the direction of increasing concentration, regional conflict, and the breakdown of promotional networks as overproduction and rising costs to taxpayers are causing the state to withdraw its support.

histories of each sector, a task that could easily fill eight volumes on its own. The classic example of this genre is Willard Hurst's 700-page history of the nineteenth-century timber industry in Wisconsin. On the problems and promises of doing this kind of research, see Scheiber (1981).
Multilateral forms of governance have never emerged in a significant way in the telecommunications sector, where state-enforced market competition for long-distance service now coexists with the partially regulated regional “Baby Bells,” all in a political environment of uncertainty because of conflicts among regulators. In the steel sector, multilateral exchange strategies have weakened as trade associations have lost authority and as relationships with labor have worsened. The hospital sector has experienced increasing concentration and hierarchical organization. Recent efforts have been made to reprivatize and reduce budgets and technological support for Conrail and Amtrak, respectively – two notable examples of successful efforts to organize firms collectively, albeit through public takeover.

The point is that, although each sector has responded to its own set of shifting technological and economic conditions, our cases offer relatively few examples of enduring state support for multilateral exchange and the kind of cooperative relations that the MIT Commission favors. Nor is there much evidence that the preferences of private or state actors are shifting in that direction. To the contrary, our broadest and most consistent finding remains that in times of economic difficulty, such as the present, the state has tended to define property rights and allocate resources and information in ways that tilt to the advantage of producers relative to labor, suppliers, customers, and the public. The state tends to support multilateral exchange among producers, but not the development of longer planning horizons on the part of managers or cooperative relations among business, labor, and other participants in the production process. It follows that if changes in governance are to occur, they will apparently come primarily at the initiative of producers. Whether producers in competitive environments will do this without strong incentives or coercive pressure from the state to overcome the inevitable Prisoner's Dilemma constraints remains to be seen. Historical and comparative evidence and deductive theory suggest that this is not likely.