

# **New perspectives on the spatial dimensions of economic coordination: tensions between globalization and social systems of production**

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## **ABSTRACT**

This article argues that the coordination of economic institutions is occurring simultaneously at various spatial levels (e.g. subnational region, nation-state, transnational region, global). The institutional arrangements which at one time were congruent at the national levels are now more dispersed at multiple spatial levels. Impressive economic performance now requires that economic actors be well coordinated in all spatial areas simultaneously. In short, actors are increasingly nested in institutional arrangements which are linked at all levels. The parts of each system have become far more interdependent than was the case only two decades ago, and the increasingly complex distribution of power and resources across geographical levels is further evidence of how economic institutions have become nested in multiple worlds. This perspective about the diffusion of power suggests that there is slowly evolving a set of institutions for the governance of societies at multiple levels, but this process is poorly understood and its long-term consequences are rarely discussed.

The future is very much open, but a perspective on long-term historical trends suggests that one of the major challenges of our time is to create a new theory of governance involving institutions and local territories nested in a world of unprecedented complexity, one in which subnational regions, nation-states, continental and global regimes are all intricately linked.

## **KEYWORDS**

Governance; economic coordination; globalization; social system of production; nestedness; path dependency.

## **INTRODUCTION**

As great financial power is dispersed among several hundred multinational corporations and at least two dozen states, the trajectory of

world capitalism seems to have become even more open and unpredictable than in the past several centuries. To most analysts who try to get some perspective on where the world is tending, there is even more confusion and myopia than usual. One hears utterances that history is coming to an end, that we are entering a period of unprecedented turbulence and chaos, and that a global fog is descending upon us as we blindly tap our way into the third millennium (Fukuyama, 1992; Arrighi, 1997: 28; Wallerstein, 1995: 1, 258; Hobsbawm, 1994: 558–9).

In many respects, the world is more complex than at any time in the past. For several centuries, economic coordination has been occurring, in varying degrees, at four different levels simultaneously: (1) regions within nation-states; (2) the nation-state; (3) transnational regions, such as the European Community; and (4) the global level. Even though some economic coordination has long occurred at each of these levels, most analysts have long been confident that one level was more dominant than the others, and they could know where most of the coordination of economic activity was centered. For much of the last century, most analysts were very confident that the dominant form of coordination took place at the level of the nation-state. But in the contemporary period the degree to which economic coordination is primarily at the level of the nation-state is a matter of some controversy.

For some observers, we have entered a new era of history called the Period of Globalization. For these analysts, however, defining globalization has proven to be very complex and controversial. Implicit in most of the literature on globalization is the view that most economic activities have become internationalized and that the nation-state has lost its capacity as the locus of economic governance (Hirst and Thompson, 1997: 337, 1994). It is true that there has been an increasing internationalization of money and the capital markets during the past twenty-five years and that this represents a major change. Focusing on this phenomenon, many have concluded that national economies are no longer governable because international financial capital can penetrate national borders in an unprecedented manner. In response, Tomlinson (1988) and others (Hirst and Thompson, 1994, 1997) argue that the internationalization of financial markets is not at all a new process and that at earlier moments of similarity, analysts did not rush to conclude that this marked the demise of the nation-state. For example, the penetration of financial capital in the United Kingdom and a number of other national economies was greater between 1905 and 1914 than has been the pattern in recent years. Moreover, foreign trade as a percentage of GDP was also greater in these same countries between 1905 and 1914 than in our own day (Tomlinson, 1988; Hirst and Thompson, 1997). Those who see globalization as the dominant trend in our own day counter by arguing that other things are different in the contemporary

world from in the early part of the century. Not only are the international financial markets increasingly penetrating the nation-state but this is happening at the very time of a paradigm shift in economic ideology: the change in the financial markets is occurring simultaneously with the deregulation of national economies. And it is this deregulation of national economies combined with the globalization of the financial markets which is leading to a convergence in the governance of economic activity at all levels (e.g. at the local and subnational levels and at the level of the nation-state).

It is the contention of this article that the globalization thesis is overstated. Such a view gains some credibility from the fact that another group of analysts sees the world moving in the opposite direction. Indeed, the disintegration of Yugoslavia and the Soviet Union, the threatened breakup of a number of African states, the intensification of ethnic regionalism (in Quebec, Scotland, Wales, northern versus southern Italy, among the Bretons, Corsicans, Catalans, Basques) suggest that the forces of localism and tradition are still very vibrant. And there are increased efforts to develop effective mechanisms of economic coordination at local levels of society. Moreover, there is a rich and vast complementary literature which has emphasized the extremely important role of regional economies and their coordinating mechanisms for the production of high-quality products in the contemporary world (Herrigel, 1995; Pyke and Sengenberger, 1992; Pyke *et al.*, 1990; Sabel and Zeitlin, 1985; Schmitter, 1997). Meantime, within national states, there are social systems of production, parts of which also play an important role in coordinating economic activity at the level of total societies. Social systems of production are historically shaped, are not converging or adapting toward one best system, and are resistant to the forces of globalization.

In sum, the contemporary world is far more complex than many observers recognize. Economic coordination is occurring at multiple levels, and no single level is decisive in shaping the world in which we live. Moreover, the levels are nested and linked with each other. One of the great challenges of our time is to comprehend the nature of this nestedness and the linkages which exist among the four levels mentioned above. Clearly, the idea that societies are converging toward one single set of practices brought about by the forces of globalization is both *ahistorical* and overly simplistic.

While the world is changing rapidly, it changes in a very path-dependent way. Of course, path dependency does not imply historical determinism, but it does suggest that: (1) each society has its own past, present and future; (2) all roads do not lead to the same destination or end point; and (3) the historical paths taken by societies in their social development lead to enormous variability (David, 1988; Arthur, 1988a,

1988b; Håkansson and Lundgren, 1997). The directions of the future of particular societies are very much influenced by the directions set in their past. As Joseph Schumpeter observed (1983: 9), economic systems do not change capriciously or simply as a result of new technological forces but at all times in ways connected 'with the preceding state of affairs'. It is true that there are moments of great change, but even these are linked with previous paths. And diverse paths of social development of historical variation place enormous constraints on the capacity of mechanisms to be effective in coordinating all economic activity at the global level. The financial markets are only a small part of the global economy, and even if there is a globalization of the financial markets, economic coordination of the rest of the global economy is much more complex. It is the historical diversity of path-dependent ways that helps account for the fact that despite the enormous activity taking place in the globalization of the financial markets, systems and institutions which are societally specific are not withering away but instead continue to reflect much social diversity throughout the world (Whitley, 1992a, 1992b; Crouch and Streeck, 1996). One way of capturing this social diversity is to focus on societies' social systems of production.

### **SOCIAL SYSTEMS OF PRODUCTION**

A social system of production is the way that the following institutions or structures of a country or a region are integrated into a social configuration: the industrial relations system; the system of training of workers and managers; the internal structure of corporate firms; the structured relationships among firms in the same industry on the one hand, and on the other, firms' relationships with their suppliers and customers; the financial markets of a society; the conceptions of fairness and justice held by capital and labor; the structure of the state and its policies; and a society's idiosyncratic customs and traditions as well as norms, moral principles, rules, laws and recipes for action. All these institutions, organizations and social values tend to cohere with each other, although they vary in the degree to which they are tightly coupled with each other into a full-fledged system. While each of these components has some autonomy and may have some goals that are contradictory to the goals of other institutions with which it is integrated, an institutional logic in each society leads institutions to coalesce into a complex social configuration (Hollingsworth, 1991a, 1991b). This occurs because the institutions are embedded in a culture in which their logics are symbolically grounded, organizationally structured, technically and materially constrained and politically defended. The institutional configuration usually exhibits some degree of adaptability to new challenges, but continues to evolve within an existing style. But under new circumstances or unprecedented

disturbances, these institutional configurations are exposed to sharp historical limits as to what they may or may not do (Schumpeter, 1983; David, 1988; Arthur, 1988a, 1988b; Håkansson and Lundgren, 1997).

Why do all of these different institutions coalesce into a complex social configuration, which is labeled here as a social system of production? The literature suggests two contrasting interpretations. Part of the answer – indeed a controversial one – is that these institutions are functionally determined by the requirements of the practice of capitalism in each time and place (Habermas, 1975). Another explanation emphasizes the genesis of the actual configuration, via a trial and error process, according to which the survival of firms, regions or countries is the outcome of complex evolutionary mechanisms (Maynard-Smith, 1982; Nelson and Winter, 1982). However, the problem is even more complex. Markets and other mechanisms for coordinating relationships among economic actors place constraints on the means and ends of economic activity to be achieved in any society. The other coordinating mechanisms include different kinds of hierarchies, various types of networks and associations (e.g. trade unions, employers and business artisan associations; see Hollingsworth and Lindberg, 1985; Campbell *et al.*, 1991). These various coordinating mechanisms provide actors with vocabularies and logics for pursuing their goals, for defining what is valued, and for shaping the norms and rules by which they abide. In short, in contrast to the logic of the neoclassical paradigm, the argument here is that economic coordinating mechanisms place severe constraints on the definition of needs, preferences and choices of economic actors. Whereas the neoclassical paradigm assumes that individuals and firms are sovereign, this article is based on the assumption that firms are influenced by the hold that institutions have on individual decision making (Campbell *et al.*, 1991; Etzioni, 1988; Streeck and Schmitter, 1985; Hollingsworth *et al.*, 1994; Hollingsworth and Boyer, 1997; Magnusson and Ottosson, 1997; North, 1990).

Standard neoclassical economic theory has tended to downplay the role of production and consequently of firms. Even the transaction cost theorists who are concerned with analyzing the firm as a coordinating mechanism have been relatively unconcerned with the various components of a social system of production. Indeed, as long as there was widespread optimism about the efficacy of Keynesian economics, there was relatively little concern among neoclassical economists with the supply side of the economy. Even in the opinion of most Keynesians, a group of experts should ideally be able to shape the size of aggregate demand while the supply side of the economy would be left to the two minimalist institutions of neoclassical economics – markets and managerial hierarchies. For more than two decades, however, it has become increasingly obvious that some of the most competitive and successful

patterns of industrial output and industrial production in capitalist economies do not derive from the neoclassical prescription of unregulated markets and corporate hierarchies complemented by a neoliberal democratic state. Indeed, empirical evidence has been growing for some years that certain highly successful production patterns require for their emergence and survival institutional arrangements and environments the very opposite of the prescriptions found in the neoclassical paradigm (see especially Streeck, 1991, but also Hollingsworth and Streeck, 1994). Thus if we are to understand the behavior and performance of contemporary economies, social scientists have increasingly realized that concerns about social systems of production must be brought into the picture.

Production involves more than technology. It is for this reason that a number of social scientists have an increasing concern with social systems of production. The same equipment is frequently operated quite differently in the same sectors in different countries, even when firms are competing in the same market (Hollingsworth *et al.*, 1994; Maurice *et al.*, 1980; Sorge, 1989; Sorge and Streeck, 1988). Variations in production and process technologies are influenced, partly, by variations in the social environments in which they are embedded. In other words, firms are embedded into complex environments, which among other things place constraints on their behavior. Thus, a social system of production is of major importance in understanding the behavior and performance of an economy. How the state and other coordinating mechanisms (e.g. markets, networks, private hierarchies, associations) coalesce and are related to particular social systems of production are important determinants of economic performance.

During the past sixty or seventy years there have been several broad types of social systems of production in the histories of Western Europe, North America and Japan. One system, labeled in the literature as a Fordist or a mass standardized social system of production, tended to produce highly standardized goods on a large scale with highly specialized equipment, operated by semiskilled workers. In contrast to Fordist production systems, there have been various types of flexible social systems of production, each tending to produce a wide array of products in response to different consumer demands, supported by a skilled workforce with the capability of shifting from one job to another within a firm.

Because both standardized and flexible social systems of production are ideal types, it is important to emphasize that, for analytical purposes, each is subject to the usual strengths and weaknesses of ideal types. They are not meant to be descriptive statements about specific firms, industrial sectors or individual firms at specific periods of time. Rather, they are heuristic devices to sensitize us to possible interrelationships

that might exist among a broad set of variables or social categories. Neither type ever existed in a pure form in space or time. Even where a standardized mass social system of production was the dominant paradigm, there were always firms, or even entire industries, that were organized on opposite principles. The two organizing principles were complementary one with another: mass standardized production tended to respond to the stable component of demand, while batch or medium-size production systems tended to cope with the variable part of the same demand. So the coexisting forms of production broadly shared the same short-run flexibility and long-run performance. It is not uncommon for different components of varying social systems of production to exist simultaneously in a particular country (Herrigel, 1995). For example, standardized social systems of production have always required customized machines or some form of flexible production. And flexible social systems of production have required standardized equipment and therefore some standardized production processes. In other words, the customization of products has long been based on the standardized production of component parts and equipment. A number of scholars (Hirst and Zeitlin, 1990; Pollert, 1991; Sabel, 1991; Zeitlin, 1997) have made the important point that firms frequently engage in hybrid forms of production, producing both long and short runs of particular products, sometimes engaging in both flexible and standardized production, but that these hybrid type firms are usually embedded in a dominant type of social system of production.

Of course, flexible systems of production predate Fordist systems of production. Sabel and Zeitlin (1985), as well as others (Hounshell, 1984; Zeitlin, 1992), have demonstrated that flexible social systems of production existed in a number of nineteenth-century industrial districts of Europe and Great Britain, from Lyon to Sheffield, as well as in parts of the United States. Though flexible systems of production both pre- and postdate Fordist, mass standardized systems of production, we must recognize that in recent years flexible social systems of production have become further differentiated into various subtypes. In the literature, one is labeled the flexible specialization system of production (FSP) and another is labeled the diversified quality mass system of production (DQMP) (Aoki, 1988; Boyer and Coriat, 1986; Hirst and Zeitlin, 1990; Streeck, 1991). Originally, these models emerged from an analysis of local structural conditions; they were mainly concerned with coordination among actors and were less concerned with technology or innovation. For example, industrial districts with flexible systems of production existed long before the development of recent information technologies (Sabel and Zeitlin, 1985). On the other hand, the adoption of new, micro-electronic production technology has increased the number of areas of the world that have social systems of flexible production (e.g. either FSP or

DQMP). Therefore, the existing institutions are filtering the emergence and diffusion of new technologies, and conversely, over the long run, some radical technological innovations seem to call for epochal changes in institutions. The success and ultimate outcome of these changes is quite uncertain.

In any case, the high flexibility of microelectronic equipment and the speed with which it can be shifted to a variety of products have permitted previous mass producers to engage in customized quality production and producers with only small batches of specific items to shift to larger batches of production. Thus, there has been a restructuring of two different trajectories of production: craft producers have been able to extend their production volume without sacrificing their high quality standards and customization, and many mass producers have had the capacity to upgrade their product design and quality and thus to reduce the pressures of price competition and shrinking mass markets (Sorge and Streeck, 1988).

There was no single and unique pattern of industrialization. Forms of flexible specialization existed in the United States during the nineteenth century, for example in the textile industry (Scranton, 1984). As dominant forms of production, however, they were defeated by standardized mass production, at least in the United States but not everywhere, especially in Germany and Italy (Herrigel, 1995; Piore and Sabel, 1984; Sabel and Zeitlin, 1985). This was because the social environments in which production was embedded varied greatly from society to society.

Thus, in our own day, there are both similarities and differences between the social system of FSP and the social system of DQMP. Rather than viewing these two perspectives as competing or conflictual, it is best to see them as complementary (Elam, 1992; Sorge, 1989; Sorge and Streeck, 1988). In contrast with social systems of standardized mass production, both FSP and DQMP require workforces with broad levels of skills, i.e. employees who have 'learned to learn' about new technologies and who can work closely and cooperatively with other employees and management. Moreover, these systems tend to require that firms develop long-term stable relations with their suppliers and customers.

Social systems of mass production have performed best when firms serve large and stable product markets, and have products and process technologies that are relatively stable or have a low level of technological innovation (Chandler, 1962, 1977, 1990). However, technological complexity and the speed of technical change are not to be confused. For example, the car industry used to implement rather simple components but nevertheless exhibited complex coordination problems (Tolliday and Zeitlin, 1991). Markets, corporate hierarchies and inegalitarian and short-lived networks are the dominant forms of coordination in social systems

of mass production. On the other hand, social systems of flexible specialization and diversified quality mass production tend to function more effectively when firms are responding to small market niches with product markets that are unstable and volatile (the Italian garment industry) or whose product and process technologies change rapidly (micro-electronics, biotechnologies) and are quite complex (aircraft industry, luxury cars). For firms to perform well under these circumstances, they require different forms of coordination from those that are most effective for social systems of mass standardized production.

Markets and hierarchies as coordinating mechanisms can work effectively in mass standardized systems of production even if the transacting actors are embedded in an impoverished institutional environment – one in which such collective forms of coordination as associations and promotional networks are poorly developed (Hollingsworth, 1991a, 1991b). But social systems of flexible specialization and diversified quality mass production work best when transacting actors are embedded in an institutional environment in which collective forms of coordination are highly developed. Broadly speaking, both of these social systems of production are basically incompatible with neoliberal regimes of unregulated economies (Pyke and Sengenberger, 1992; Streeck, 1991). Nevertheless, the relative success of the Japanese transplants in the United States and the United Kingdom does challenge the view that these alternatives to typical Fordism cannot be implemented in countries with weakly developed collective forms of coordination (Boyer, 1991; Florida and Kenney, 1991; Kenney and Florida, 1988, 1993; Oliver and Wilkinson, 1988). The long-term success of flexible specialization and diversified quality mass social systems of production requires a high degree of trust and cooperation among economic actors – between workers and managers within firms and between firms on the one hand and their suppliers and customers on the other (Boyer and Orlean, 1991; Hollingsworth, 1991a, 1991b). This can be organized in some localities with a strong tradition of providing the collective goods of trust and cooperation (examples are the German cooperative partnership between labor and management and the Italian industrial districts). Firms operating in isolation from such collective goods may provide local examples of flexible production or diversified quality mass production, at least in the short run (e.g. Japanese transplants in the United States and the United Kingdom). But in the long run, successful firms that are involved in flexible social systems of production must engage in cooperative behavior with suppliers, competitors and employees far in excess of what is needed for markets and hierarchies to function effectively and in excess of what single firms can develop for themselves (Streeck, 1991; Hollingsworth and Streeck, 1994). But in order to understand why these different types of production exist, it is important to understand the different social environments in which they

are embedded and the different historical traditions from which they have evolved.

## MULTIPLE SPATIAL LEVELS OF COORDINATION

In previous work, Hollingsworth *et al.* (1994) were primarily concerned with economic coordination at the sectoral level, both within and across countries. Here, the concern is much more with variations in forms of coordination and social systems of production within particular spatial-territorial areas. More specifically, the concern is with understanding the interaction of spatially based forms of coordination with social systems of production. Economic coordination varies by territory, for social institutions are historically rooted in local, regional, national or even transnational political communities with their shared beliefs, experiences and traditions.

By subnational region, is meant a territorial area with little or no state sovereignty over its borders. It is in particular regions within countries where the social systems of flexible specialization have been located. Obviously, the development of regional economies does not necessarily lead to social systems of flexible specialization. The concern here is with the existence of regional economies having a high concentration of small firms that are integrated into a social system of flexible production, a subject about which Sabel and Zeitlin have written both insightfully and extensively (Sabel and Zeitlin, 1985; Zeitlin, 1992). Historically, when the demand for products was differentiated and diverse, different forms of production have existed from those in use when demand has been more stable and homogeneous. In general, the more stable the demand and the less frequent the change in technology, the more firms have found it advantageous to organize production in large vertically integrated firms and to reap economies of scale by producing standardized products and extending the market. Historically, such a process tended to justify the large investment in single-purpose machines operated by relatively low-skilled workers (Chandler, 1962, 1977, 1990). But when demand has been differentiated, markets have been volatile, and/or technology has changed rapidly, then firms have chosen flexible strategies – flexible machines, labor and/or marketing. More specialized firms must constantly innovate. Being relatively small, however, they require a host of common services that individual firms lack the capacity to provide: sophisticated training facilities in order to develop a highly skilled labor force, a continuing supply of credit, and complex marketing capacity. In response to these needs, producers in some areas have engaged with other firms – sometimes competitors, sometimes firms in complementary industries – to produce collective goods. The collective activities have historically varied, but the most common have been

cooperative training institutes and cooperative marketing facilities (e.g. to forecast fashion trends, to monitor foreign technical standards, to establish cooperative sales facilities, local trademarks). Over time and across industries, the cooperative mechanisms for this kind of coordination have varied, but without artisan, employer and/or worker associations, this form of collaboration and cooperation has failed. In sum, for a social system of flexible production to survive, firms must be integrated into collective institutions which can balance cooperation and competition (Zeitlin, 1992).

Where social systems of flexible production are more developed, the boundaries between firms and their environment are extremely blurred, so much so that such firms are very reluctant to move from one region to another. Thus, local governments in Sardinia and Sicily have a limited capacity to attract firms from Prato even by offering free land, cheap labor and low taxes because the Prato firms are embedded in all kinds of collective institutions that provide a variety of world-class inputs. The underlying social conditions that facilitate the development of such social systems of production vary. Sometimes that development has emerged from a population viewing itself as a religious minority while elsewhere it has emerged from a common ethnic base, common craft pride, common forms of professionalization or common political affiliation. Without some forms of common social bonds, it has historically been difficult to develop the collective institutions which are prerequisites for social systems of flexible production, though as Sabel (1992) has argued, common social bonds are not a necessary condition for an emergence of such a system (also see Zeitlin, 1992).

Examples in the contemporary world of regions with social systems of flexible production include Jutland in western Denmark, the Småland region in southern Sweden, and areas in the central and northeastern parts of Italy. Each of these districts produces highly specialized products. For example, Bologna produces machine tools and small appliances, while Tuscan and Venetian towns manufacture textiles and footwear. Whether in the contemporary world or in the nineteenth century, social systems of flexibly specialized production involved an integration of petty entrepreneurship, family-based small-scale artisan firms and/or municipalism. While flexibly specialized systems of production are pursued in a variety of institutionalized forms, there are limits to their ranges of variation (Grabher, 1993; Pollert, 1991; Sabel, 1992). Clearly, unregulated markets do not provide adequate incentives for the survival of flexible social systems of production. Cooperation among competing producers, a minimum of conflict between employers and their employees, and long-term stable relations with suppliers and customers are prerequisites for the survival of flexible production systems.

Occasionally, the national state has been a modest actor in facilitating the emergence and persistence of flexible specialized production systems, but more frequently regional and local governmental authorities have promoted this form of social system, as with various German *Länder* or Italian local authorities. For example, the state has often facilitated the development of training institutes for labor, and provided low-cost loans as well as market and export information. However, the state alone has rarely been capable of promoting and developing the institutions necessary for the emergence of a flexible social production system.

Thus far, countries such as the United States and the United Kingdom have been deficient in the communitarian infrastructure necessary for the emergence of institutions with the capability of generating the high levels of trust among competing economic actors essential for successful social systems of production. Nevertheless, this is not absolutely fatal, since public authorities can use existing institutions to mimic or help in implementing flexible systems of production. Social systems of diversified quality mass production have certain similarities with those of flexible specialization. Both social systems of production are embedded in distinctive environments and are not easily imitated by other societies. But whereas firms with a high degree of flexible specialization tend to be small artisanal firms located in modest-sized regions – though there are exceptions – the key to understanding diversified quality mass production is the increased flexibility of large firms. New technology has enabled large firms to make their production functions more flexible and to reduce the batch size of specialized products inside large systems of production. Whereas social systems of flexible specialization engage in diversified low-volume production and emphasize economies of scope, diversified quality mass social systems of production combine economies of both scope and scale and are thus able to emphasize quality differentiated mass production. In other words, scale is one of the major variables differentiating diversified quality mass production from flexible specialized production systems. Significantly, the territorial space in which firms are embedded also differs. In contrast to flexible specialization social systems of production, diversified quality mass social production systems are generally either embedded in much larger regions or are more coterminous with an entire nation-state (Mueller and Loveridge, 1995). Nevertheless, wherever flexible social systems of production survive, whether they are systems with small firms engaged in flexible production or systems with larger firms engaged in diversified quality mass production, they are tightly integrated with the society's business associations and labor unions, the industrial relations system, the capital markets and the systems of training for both labor and management of an industrial district.

It is difficult to disentangle what differences between flexible specialization systems of production and diversified quality mass production

are related to their inner and theoretical properties and what parts of their systems derive from the fact that they have evolved in distinctive regions or nations with idiosyncratic institutional configurations. A priori, mass production presupposes institutions that transcend a region in a particular nation-state: a vast transportation system and other kinds of infrastructure, large quantities of capital, macroeconomic stabilization in order to prevent large and unexpected economic fluctuations, etc. These factors suggest the need for a host of *national* institutions. Historical analyses and international comparisons demonstrate that diversified quality mass production systems are *actually* embedded in national sociopolitical structures, while flexible specialization systems can be embedded in subnational sociopolitical structures.

Diversified quality mass social systems of production are unlikely to exist unless they are embedded in national sociopolitical structures that are democratic corporatist in nature. Examples of contemporary societies with relatively strong neocorporatist institutional arrangements, and hence strong diversified quality mass forms of social production, were Germany and Sweden of the 1980s. Both had highly developed systems of trade unions and business associations that were embedded in an ideology of partnership, mitigating intense class conflict, and emphasizing a careful balancing of conflict with cooperation among competing firms. For students of democratic corporatism, Japan poses a problematic case. Japan, like most democratic corporatist societies, has both peak associations of business and, at the level of the firm, a strong ideology of social partnership between labor and capital. But there is an absence of well-organized labor unions at the level of the nation-state. Nevertheless, the strong emphasis on social partnerships that exists in Japan leads many scholars to classify it as a democratic corporatist society. Therefore, it is understandable that Japan also has a social system of diversified quality mass production (Pempel and Tsunekawa, 1979; Schmitter and Lehmbruch, 1979).

How do we explain the absence of a diversified quality mass system of production in the United States? Indeed, why did its opposite, a system of mass standardized production, excel there and in many respects persist? In general, the larger the spatial-territorial area in which a social system of production exists, the larger the number of parties and interests that must be involved in efforts to develop national forms of collective coordination (e.g. labor unions, business associations). Thus, a country as large as the United States, in contrast with smaller democracies, has a very complex economy (e.g. large numbers of industrial sectors), as well as regions with uneven levels of development and racial, religious and ethnic diversity. With so much heterogeneity of interests, it has historically been more difficult to develop highly institutionalized collective forms of economic coordination. When these society-wide

collective forms of coordination are either absent or weak, markets and corporate hierarchies are more prominent as forms of coordination, and as a result Fordist systems of production are more likely to occur (Hollingsworth, 1991a, 1991b). Nevertheless, a variety of cooperative ventures may exist among firms even in an environment that is weak in highly institutionalized forms of collective behavior. Hence, in the United States there are among business firms numerous joint ventures, cross-licensing agreements, franchises and various forms of strategic alliances (Porter, 1986, 1990). Thus in the entertainment, biotechnology, publishing, microelectronics or software industries, there is a great deal of networking as a form of economic coordination (Powell, 1990).

To some observers, this kind of collaboration resembles the type of industrial districts in which flexible forms of social production flourish, but most of these forms of networking are not embedded in the same kind of rich institutional environment which Sabel, Zeitlin and others have discussed in their analyses of industrial districts. In most societies, geographical concentrations of related industries facilitate some degree of cooperation and trust, but these are generally developed quite modestly unless they are accompanied by an environment in which firms have membership in highly developed organizations of a collective nature.

### **COORDINATION AT LEVELS BEYOND THE NATION-STATE**

At the level beyond the nation-state, whether at the global or at the multinational regional level such as the European Union, collective forms of coordination, such as associations and unions, are either weakly developed or nonexistent (Coleman, 1997; Grant, 1997; Schneiberg and Hollingsworth, 1990). Moreover, the power of states as coordinating actors is weak at the transnational level. However, regardless of the spatial-territorial location, whether at the subnational region, the nation-state or the transnational level, there is a need for some institutional arrangement to coordinate relations among economic actors. Indeed, irrespective of the territorial level at which economic coordination is to occur, economic actors confront many of the same problems: the issues of promoting efficiency among transacting partners, reducing macro-economic instabilities, minimizing distributional conflicts, reducing conflicts and resolving disputes, and monitoring compliance in regard to domestic and/or international norms and rules (Campbell *et al.*, 1991: ch. 1).

Just as economic coordination in domestic economies is carried out by different types of institutional arrangements, this is also true at the transnational level. At the lowest level of control, the market is the most

prominent form of coordinating transactions among unrelated firms. At a higher level of control, there may be coordination through hierarchies such as transnational corporations or collective forms of coordination such as international trade associations or international cartels. Of course, coordination at the global level may also involve actions by nation-states, and their form of coordination may also vary from low control (e.g. bilateral agreements) to high control structures (supra-national government, colonial empires). International regimes are a form of middle-level control among states, somewhat analogous to international cartels or trade associations among unrelated firms (Eden and Hampson, 1997).

How do international regimes emerge and persist over decades? For some authors (Kennedy, 1987), the historical record suggests that a hegemonic power has been necessary for either the establishment or the persistence of international regimes. But when a hegemonic power is decaying without any evident successor, the stability of the international system is at stake. The 1920s provide an example of such a collapse (Kindleberger, 1978). Other authors argue that because international regimes provide public goods and lower transaction costs among their members, it is in the rational self-interest of states to abide by the rules and norms of regimes even if there is no hegemony to enforce them (Keohane, 1984; Snidal, 1985, 1991; Eden and Hampson, 1997). Of course, this argument assumes a 'pure' coordination problem and the absence of any conflict of interests. If, on the contrary, the configuration of the system is close to a Prisoners' Dilemma problem, the rational strategy of each nation will not lead to the emergence of cooperation. Conflict among international actors might then become severe, since a great deal of economic coordination takes place by markets and hierarchies at the global level.

Ultimately, it is the existence of international regimes that institutionalize the norms and rules that allows economic actors to carry out most effectively their transactions at a global level. Just as there are institutional arrangements that attempt to reduce transaction costs within nation-states, there are also international regimes, a major goal of whose is to reduce transaction costs. For example, the World International Patent Organization registers domestic patents and copyrights internationally and attempts to protect these forms of property rights at the international level, an activity which greatly reduces transaction costs in international trading. Regimes that provide specialized trading privileges for members also have the effect of reducing transaction costs. Examples include GATT, the European Union structure and NAFTA.

Other regimes have been established to cushion and to control the effects of autonomous macroeconomic policies by individual states. Some of the institutional arrangements created to bring this about

include the International Monetary Fund, the World Bank, the Bank of International Settlements, the Group of Seven and the European Monetary System (EMS). Finally, states attempt to minimize distributional conflicts with the following regimes: GATT with its preferences to less developed countries, the World Bank and the IMF.

Obviously the effectiveness of these regimes in lowering transaction costs, promoting macroeconomic stability and minimizing distributional conflicts varies from time to time and from one institutional arrangement to another. However, as regimes acquire greater effectiveness in coordinating economic activity at the supranational level, there will be some alteration of coordinating mechanisms at the level of the nation-state. Hence, the emergence of a common European internal market is expected to lead to some kind of deregulation of various European economies, providing for 'regime shopping' by mobile capital and to a lesser extent by labor as national borders are weakened or abolished. Throughout the European Union there may well emerge political institutional arrangements with greater pluralism, institutional fragmentation, deregulation and voluntarism – in short, socioeconomic-political forms of coordination that have many similarities to the neoliberal type of institutions that characterize the political economy of the United States. There is increasing concern that, as the various European societies become integrated into the European Union, there will be an undermining of the essential institutional prerequisites of the type of bargained, cooperative political economy which has facilitated the development of such social systems of production as diversified quality mass production in Germany or flexible specialization in Italy. Of course, it remains to be seen how much the emergence of a stable regime at the level of the European Union can erode local cultures, traditions and power structures on which flexible social systems of production are built. But even to pose the problem is to suggest that changes in coordination at one spatial-territorial location may alter the forms of coordination and social systems of production in place at other spatial-territorial locations.

### CONVERGENCE OR DIVERGENCE AMONG SOCIAL SYSTEMS OF PRODUCTION

Discussions about convergence and divergence are still very much alive in the social science community. For example, some of the industrial organizational literature argues that firms competing in the same product markets tend to become similar in their structure and behavior, or else they disappear. In other words, the convergence thesis assumes that there is one best solution for organizing labor, raw materials and capital in order to manufacture and distribute goods. Producers, processors and distributors must at least emulate if not surpass their most

efficient competitors in order to survive. Every time a group of innovators discovers a new but highly efficient method of increasing output, their competitors are likely to follow. Thus competition and survival involve discovering and implementing the best techniques and strategies (Chandler, 1962, 1977).

However, the argument for such a convergence is far from convincing (Whitley and Kristensen, 1997). The key to understanding the degree to which the economic performance of countries will converge is influenced very much by the extent to which they have similar social systems of production. Because the social systems of production of modern societies are complex configurations of numerous institutional sectors, however, it is problematic that they can diffuse across countries, except over an extraordinarily long period of time. In fact, given the strong complementarities and syncretic flavor of any national system of innovation (Nelson, 1993), it would be surprising to observe an easy catching up by followers: the structural advantage taken by a leading country or industry initially prevents an easy imitation. Followers, while trying to imitate, usually encounter unexpected problems, which trigger a series of induced adaptations or even innovations that may finally deliver a different model, building on their own national specificities. When France and Germany tried to follow the first British Industrial Revolution, both countries moved toward quite different new models (Gerschenkron, 1962). Similarly, after World War II, many Japanese manufacturers wanted to follow American mass production practices, but got, quite unintentionally, diversified quality mass production (Ohno, 1989).

Not only are different coordinating mechanisms associated with different social systems of production, but also different coordinating mechanisms and different social systems of production result in different types of economic performance. Hence, as long as countries vary in the type of coordinating mechanisms and social systems of production that are dominant in their economies, there are serious constraints on the degree to which they can converge in their economic performance. Different social systems of production tend to maximize in a more or less explicit manner different performance criteria, usually mixed considerations about static and dynamic efficiency, profit, security, social peace and economic and/or political power. In short, in contrast to the implications of neoclassical economic theory, in real world economies there are no universal standards all economically rational actors attempt to maximize. Economic history provides numerous examples of how a variety of principles of rationality are implemented in different societies.

Whether or not a social system of production can sustain its particular performance standards depends not only on its intrinsic economic 'rationality', but also on where it fits into a larger system. If a particular

social system of production is immune from the competition of an alternative system, survival can be long-lasting. But if different social systems of production, with diverging criteria of good economic performance, meet in the world arena, the arbitrariness of nationally imposed constructed performance standards may be superseded by alternative performance criteria as a result of international competitiveness.

As Wallerstein (1995) and others (Chase-Dunn, 1989) have demonstrated, the world economy is also socially constructed, just as are national economies. Even if different social systems of production are competing in the international arena, it is not always possible to determine which is more competitively effective at any moment in time. Hegemonic nation-states can shape, *within the short run*, the rules of trade that favor their industrial sectors and firms. But the history of hegemonic powers suggests that in the longer run, social systems of production, sustained largely by military and political power, eventually give way to more dynamic and competitive social systems of production (Gilpin, 1987; Kennedy, 1987; Keohane, 1984). In our own day, as nation-states are increasingly integrated into a world economy, economic competition is likely to turn into competition over social systems of production. As a country's social system of production loses its international competitive advantage, its share of world output decreases, even if it is a hegemonic power. Such a country will slowly experience deindustrialization and/or will attempt to restructure its institutional arrangements and to readjust its performance preferences. But such a restructuring generally calls for a major redistribution of power within a society. Largely for this reason, societies have historically had limited capacity to construct a social system of production in the image of their major competitors.

But firms in lagging economies do attempt to mimic some of the management styles and work practices of their more successful competitors. We observed this in both the United Kingdom and the United States during the 1980s, where there emerged the concept of 'the internationalization of Japanese business' (Trevor, 1987). However, this phenomenon was grossly exaggerated. Many who contended that there was an emerging Japanization of the world economy had not confronted the problem of what is distinctively Japanese. True, some Japanese practices were exported elsewhere. But much of our scholarship on Japanese firms in foreign settings demonstrates that they pragmatically adapt to foreign conditions rather than duplicate Japanese practices. As Levine and Ohtsu (1991) observe, Japanese companies in foreign settings generally find that they must contend with the foreign culture as well as the laws and rules of alien governments, foreign unions and employers, all of which are at great variance with Japanese institutions. Of course, one may point to the joint venture which developed between Toyota and General Motors in Fremont, California, as well as the cases of Honda

and Nissan in the United States, as examples in which a number of Japanese management practices appear to have diffused to the American setting. But close examination of even these more extreme cases demonstrates a hybridization of Japanese and American practices. Nevertheless, this kind of hybridization did result in much more flexible patterns of production than were previously observed in the American automobile industry.

This, of course, raises the larger issue of joint ventures and strategic alliances taking place in advanced capitalist societies. In an era when the rate of technological change was relatively low and there were homogeneous demands for a particular product, production processes in an industry were relatively standardized, and production runs were quite long, vertical integration was an appropriate strategy for firms that faced high uncertainties and small numbers in their interdependent relationships with other firms. However, when technology changes very rapidly and the costs of technology are very high, firms are less inclined to engage in vertical integration, and joint ventures and strategic alliances become more frequent, particularly among firms in different societies. Of course, the motives for this form of coordination are varied: the search for economies of scale, the need for market access, the sharing of risks, the need to have access to technology, and the need to pool know-how if no one firm has the capability to achieve its goals. Such projects have occurred in a variety of sectors, but especially in the pharmaceutical, computer, aerospace, nuclear energy, electronics and automobile industries. Is the increasing frequency of this form of coordination leading to the convergence of national economies?

Undoubtedly, the increased frequency of joint ventures and strategic alliances does lead to some convergence in certain management styles and work practices among cooperating partners. However, the diffusion of these practices does not bring about convergence in social systems of production. Before World War II, foreign firms attempted to borrow certain principles of scientific management that had become widespread in the United States, but in general the American practices were greatly modified when implemented. Moreover, in making these modifications, foreign actors did so within the developmental trajectory of their own social systems of production. Similarly in our own day, selected principles of Japanese management styles and work practices are diffused to other countries, but they are selectively integrated into local institutional arrangements.

Each country's social system of production is a configuration of a host of institutional arrangements. Each system is constantly changing and is open to influence from other systems. And indeed many technologies and practices diffuse from one society to another, but the direction of change is constrained by the existing social system of production. Thus,

the same technology may exist in numerous countries, but how it is employed varies from one institutional configuration to another.

One recent comparative study (Hollingsworth *et al.*, 1994) has demonstrated that, across countries, clusters of industries develop along particular trajectories, each having its distinct microeconomic dynamics within which markets, corporate hierarchies, networks, associations and governments operate. Because skills, management techniques and modes of governance are embedded in distinctive social systems of production, they do not easily diffuse from one nation to another. As a result, variation across countries in social systems of production remains substantial, even if there is convergence at the global level in how selected industries (e.g. chemicals, oil, large-scale aircraft, etc.) are coordinated.

This variation remains substantial for there have been great differences in the path dependencies of countries. For more than a century, the German economy had an emerging diversified quality system of production (Herrigel, 1995), whereas since the 1950s, the Japanese have hybridized mass production along with diversified quality production. In both countries, specific institutional arrangements allowed for the distinctiveness of their particular social system of production. In contrast, the United States has been very much constrained by its earlier Fordist mass production system and its 'short-termism' under the influence of its distinctive financial markets, weak unions and business associations, norms, rules and recipes for action.

## A DOUBLE SHIFT IN MODES OF COORDINATION

Economic coordination within societies takes place within social systems of production which evolve in directions which are quite path dependent. Because of the path dependency of societal evolution, variation remains quite distinctive among social systems of production throughout the globe. Even so there are common changes that are taking place within most social systems of production, trends which are in response to changes in the global economy. The intensification of foreign competition, the increasing sophistication of financial markets, the diffusion of a market ideology across the globe, and the decline of autonomy of state structures are bringing about marked changes in particular social systems of production. On the one hand, there is some movement toward an internationalization of the economy with the emergence of transnational rules of the game (e.g. the Maastricht Treaty, NAFTA, GATT), thus narrowing the opportunity for maneuver by nation-states. At the same time, there are shifts to more localized or regional arrangements, particularly in regard to some manufacturing sectors. These two movements suggest a double shift in terms of coordination from the

nation-state to the transnational regional and/or global level on the one hand, and on the other to subnational regional levels.

While the management of money continues to be an important function of the nation-state, national states have nevertheless experienced a considerably diminished capacity to conduct this activity. For example, the stabilization of exchange rates within the European Monetary System has reduced the ability of members of the European Union to use interest rates to solve problems. Meantime, some activities are easier to carry out at the regional than at the national level. Training and education programs, research and development policies, strategies involving international marketing tend to be more efficient when conducted at the regional or local level. As a result, nation-states are subjected to a double weakening by subnational regionalization on the one hand and on the other by a kind of supranationalization.

Increasingly, major institutions of coordination are intertwined at all levels of the world – at the subnational region, the nation-state, the transnational region and the global level. As a result, no single authority has the power to monitor and to regulate all economic activity in such a complex system and, as a result, coherence in economic coordination is becoming increasingly difficult.

More and more, the various functions of society do not occur at the same level. Coordination of money and finance are increasingly regulated at levels beyond the nation-state, whereas taxation, welfare functions and training take place within national boundaries. The rhetoric of business firms expresses preferences for market freedom, while the rhetoric of other groups targets the nation-state for protection against the effects of the logic of markets. Thus, the complexity of nest- edness makes coherent economic policy and institutional planning more difficult than ever. Market-type forces tend to regulate exchange and interest rates at the global level, while nation-states struggle to address the welfare, health and training of their citizens.

As societies experience a shift from a national embeddedness of economic institutions to institutions nested within a multilevel global system, it has become increasingly difficult for societies to adjust their industrial relations systems, levels of skills and system of innovation to external forms of competition.

The institutional arrangements that at one time were somewhat congruent at the level of the nation-state are now diffused at multiple spatial levels. This means that impressive economic performance requires that economic actors be coordinated at all spatial areas simultaneously. A well-coordinated system must have actors intricately linked with other actors at all levels.

Even so, coordination of economic actors at the level of the nation-state has not completely disappeared. However, the future of social

systems of production remains uncertain. So many contradictory forces are operating that it is quite difficult to gauge the direction of the global economy and its constituent parts. The future is very much open, but a long-term historical perspective suggests that taming the market has always been a more rewarding path for societies to take rather than myopically following it. Only short-term and marginal choices can be left to the market, whereas collective forms of coordination must be addressed by other forms of coordination. But as our institutions are increasingly nested in a world of subnational regions, nation-states, transnational regions and global regimes, we are faced with the perplexing problem of how to govern ourselves. Clearly, one of the great challenges of our time is to create a new theory of governance for coordinating institutions nested in a world of unprecedented complexity, one in which subnational regions, nation-states and continental and global regimes are all intricately linked.

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