

Chapter 2

Regulatory Reforms and Theoretical Framework

2.1 Conventional Explanations

Triggered by neoliberal market reforms in the United Kingdom and the United States in the 1980s, regulatory reforms, such as privatization of public ownership and market liberalization, rapidly and extensively spread to many regions. This was believed to be the solution to state failure in a market economy. Acknowledging the diminishing role of the state in managing and controlling a market economy, scholars have questioned the transformation of state authority in the globalized and liberalized telecom market. The impact of structural and institutional changes on regulatory reform has been widely discussed in the literature.

Whereas economic and technological discussions identify the emergence of a market-based economy, as determined by the technological needs of the telecommunications sector and interest groups, political explanations find that behind deregulation lies a genuine concern by state authorities for the power of the state. These explanations raise a question regarding the significance of changes in the influence of the state's interventions in the private sector. They differ depending on whether the liberalization associated with globalization implies a reduction of the state's influence or merely the reorganization of state supervision over a sector.

2.1.1 Economic Explanations

Economists typically attribute the transformation of a regime to shifting economic inefficiencies, which create pressure for change. They believe, predicated on the neoclassical economic design, that the efficiency of the market is the best mechanism for allocating resources within a society. Historically, public utilities—such as telecommunications—have been regarded as naturally monopolistic. A natural

monopoly¹ is defined as a situation “when the market is served most cheaply by a single firm” (Baldwin and Cave 1999: 203). According to this argument, the telecommunications industry, like railways, requires heavy “sunk costs.” That is, telecommunications demands a great deal of investment in network infrastructure, but this cannot be used for other purposes. Thus, telecommunications is considered to have the characteristics of a natural monopoly since the participation of many companies in the market would increase costs, which would then be passed on to consumers. For this reason, the state would protect the monopolistic provider from competitors. The monopolistic service provider would benefit from regulation since regulation prevents the entry of any competitor into the market. In the monopolistic situation, a telecommunications service provider has an incentive to use its arbitrary power in the market to raise prices, refuse interconnections, and discriminate in its choice of customers. In summary, this view argues that natural monopolistic regulation in telecommunications is an appropriate policy for an industry characterized as “a narrow range of technologies” and “economies of scale.”

This tradition of analysis applies economic models to the public interest theory.² According to proponents of this theory, regulation is meant to benefit the public interest by protecting consumers against monopolistic power (Wilson 1980; Posner 1974). The purpose of regulation is to achieve certain publicly desired results that the market may fail to produce (Baldwin and Cave 1999: 19). The theory argues that a monopolistic service provider would likely charge excessive prices and therefore some form of regulation is needed to protect the public interest. It assumes that regulated industries have special characteristics that prevent effective competition. According to the theory, some industries are regulated because their unusual market power can enable them to abuse other businesses and the public. The regulatory power of the state limits the choices of capitalists for the long-term interest of both the industry and the public. According to this logic, regulation is a substitute for market competition and protects the public from the arbitrary exercise of the monopolistic power of the service provider.

Stigler (1971) investigates micropolitics, contending that political authority provides regulations to meet the demands of private interests, in return for political favors. He argues that the demand for regulation does not come from the consumers who want to protect themselves from monopolistic power but rather from firms that use regulation to raise entry barriers, restrict competition, or obtain direct government subsidies. Such companies attempt to use regulation as an instrument to gain or retain market share or to sell telecommunications services, terminals, or switching equipment.

¹ The standard definition of natural monopoly is based on a cost function that assigns total costs to outputs. If a firm can construct and operate the service at a lower cost than other firms, the existence of a natural monopoly in the local exchange is justified for the regulators of the industry.

² For a more extensive review of regulation theory, refer to Robert Baldwin and Martin Cave, *Understanding Regulation: Theory, Strategy, and Practice* (Oxford: Oxford University Press, 1999), and Paul L. Joskow and Roger G. Noll, *Regulation in Theory and Practice: An Overview*, California Institute of Technology Social Science Working Paper 213 (May 1981).

Stigler's private interest theory asserts that alternative governing mechanisms will develop when markets fail to operate effectively. It argues that the transformation of a governing structure occurs when participants with sectoral interests try to increase their power and control. The interest changes of market participants and the rise of a technologically driven service economy spawn inefficiency, which in turn invites deregulation and privatization (Kaiser 1986; Shepherd 1984). Participants struggle over the formation of new governing arrangements to the extent that the transformation will institutionalize the interests and new power relationships of the market actors.

Williamson (1985) developed a sophisticated explanation of a regime transformation with his "transaction cost theory." When the costs of conducting and monitoring a transaction through the market become excessive, actors turn to more efficient governing arrangements, such as corporate hierarchies, or an obligational network that reduces the transaction costs within the private sector. Firms build corporate hierarchies through horizontal mergers in order to reduce and control market competition (Perrow 1981).

In the telecommunications sector, most of the literature understands new arrangements as being motivated by changes in the interests and influence of multinational consumers, caused by the growth of international markets (Noam and Wolfson 1997; Brock 1981; Hills 1986; Crandall 1990; Atkinson and Coleman 1992; Snow 1986; Bishop et al. 1995). Jill Hills (1986) finds the roots of deregulation in the United States in the demands of corporate users of telecommunications services for lower costs and a greater choice of products. Domestic ISDN (Integrated Service Digital Network)³ under public control would not only make the provision of private information networks redundant but also introduce higher costs to multinational businesses. Thus, deregulation in the United States was based on the desire to strengthen American business firms in general and to permit AT&T and IBM to market their products abroad. Meanwhile, the rationale for liberalization and privatization in Britain arose from the relocation options of multinational companies. Pressure for liberalization came from London's financial community and from computer companies, which are the heaviest users of telecommunications. According to Hills (1986: 3), "Multinationals, for whom communications is an increasing proportion of expenditure, will relocate or threaten to relocate where regulation is least and prices for international business are lowest." Melody (1999) claims that the fundamental cause of the rapid dissemination of telecommunications reform is the failure of market and technological change. He asserts that the technological innovation of the equipment manufacturing sector and the rise of new telecommunication services resulting from this innovation contributed to new market competitors entering the monopolistic telecommunications market. He claims that the toleration of monopoly and oligopoly under past market policies failed to control this kind of market expansion. Therefore, the present telecommunications market reform is the result of reforms to create a liberalized political environment to overcome the failures of the

³ An integrated service network provides digital connections between users and network interfaces.

old industrial arrangement (Melody 1999: 8–10). Scholars with a market-oriented perspective argue that the role of the state should remain only that of a regulator, who sets the rule of law in the market, and that market actors should take the rest of the responsibilities in the market regulation process.

The basic assumption of this argument is a classic economic one—that most forms of regulation are costly to market participants. This view regards deregulation as the correction of government intervention, which causes economic inefficiency and disrupts the beneficence of a self-regulating and self-equilibrating market. The driving force of regulatory reform comes from actors who compete for the prize of a new governing arrangement, and their political resources determine how successful they are. According to this model, those who enjoy political resources—such as votes and money—can get what they want from the state, especially if they are able to effectively lobby to overcome problems of collective action.⁴ Therefore, all anyone needs to know to explain and predict regulatory outcomes is who has the loudest voice based on the strength of the political resources they possess.⁵ Changes in policies are viewed as direct results of the constraints that governments face, leaving little room for variation in national economic policy strategies. National economies and nation-states become anachronistic and powerless to shape a different course of development (Ohmae 1995). Thus, Ohmae suggests that convergence in a market governing model is ineluctable, as a consequence of sheer market forces.

From the market-centered perspective, telecommunications policy is developed by the universal and unavoidable exigencies of international markets and technology. Although this explanation has some merit for understanding pressures from the market actors, it cannot provide an adequate framework to analyze the nature of the telecom market reforms that have taken place over the years. Unlike the assumption of most economic explanations, the state and the market are not clearly separated. Historical records do not support this assumption (Polanyi 1944). Polanyi avers that the state has been directly responsible for the transformation of economic governance (Polanyi 1944: 139–141). Markets and other forms of economic governance are intimately linked to a set of institutions and the state (Hall 1986). Moreover, as long as this view holds, it is difficult to recognize the existence of “reregulation” (Vogel 1996; Borrus et al. 1985) in the telecommunications industry. As several

⁴Jeffrey Frieden best articulates this kind of explanation of deregulation in the financial markets. His main argument is that sectors most vulnerable to government policy change (because they face high costs when shifting resources to other uses, because of their asset specificity) and best able to organize to overcome collective action problems (this is so by default because the holders of high-specificity assets are small in size and have the highest stake) can get what they want because they can lobby most effectively for policies they want. Increased international capital mobility strengthens the interest of holders of financial assets (banks, financial investors, and multinationals) as opposed to holders of fixed assets (national industry), leading the former to promote policies that will further increase international financial integration. See Jeffrey Frieden, “Invested Interests: The Politics of National Economic Policies in a World of Global Finance,” *International Organization* 45(4): 439 (1991).

⁵George Stigler, “The Theory of Economic Regulation,” *Bell Journal of Economics and Management Science* 2(1): 3–21 (1971).

works on the liberalization of the telecom and financial markets note (Loriaux 1991; Hills 1986; Borrus et al. 1985; Moran 1991; Vogel 1996), significant steps have been taken to strengthen or introduce regulatory reforms. Empirically, for example, neoliberal governments have attempted to reshape their economic laws and principles since the 1980s by emphasizing formal and written rules and shifting away from informal regulations, especially in the telecommunications market. Thus, the interests of the market actors alone do not reveal the motivation of the state and subsequent path of institutional transformation in this field.

2.1.2 Technological Explanations

In neoclassical economic theory, the underlying assumption is that technology is freely available to all countries and to all firms within countries (MacKenzie and Wajcman 1999; Williams and Edge 1996). There is no cost involved in assimilating the transferred technology, because alternatives are available at all factor prices. All firms remain equally efficient; therefore, technical effort is unnecessary and irrelevant. This explanation argues that technological developments occur along a single predetermined trajectory and that people have only a little room to drive or influence the direction of their development. Although cultural and ideological aspects are recognized in the literature, their influence is not enough to change the predetermined track. Therefore, political efforts remain minimal throughout the evolution of the new technologies.

This tradition stresses the technological sources of market-led changes—such as the rapid advances in communication and information technologies—in explaining the liberalization of the telecommunications industry (Snow 1986; Bickers 1991; Kaiser 1986). Brock (1981) argues that technological progress—such as the satellite or the interaction of the computer and communications industries—provides the change in the industrial boundaries between the computer and communications. Such progress once caused a reduction in regulatory barriers. In the United States, for example, there was a clear distinction between data-processing services (data) and telecommunications (voice). AT&T controlled the telecommunications market in the 1950s and 1960s. However, the increased use of computer technology in the telephone system, as well as the increased use of telephone lines in computer systems, brought the two industries into closer interaction. In particular, AT&T's monopoly began to crumble in the face of competition in the customer premises equipment (CPE) market, although it was able to retain its effective control over the switches themselves. Their competitors' first break came when terminal equipment (i.e., the receiver) was connected to their analog telephone lines. The connection broke down the distinction between the regulated telecommunications and deregulated data-processing industries, causing the Federal Communications Commission (FCC) in the United States to allow providers of "enhanced service" to access the network. This decision caused the removal of end-to-end circuit control by a single company in the United States (Brock 1981: 266–277; Hills 1986: 50–77).

According to this view, satellite communications and microwave transmission call into question the natural monopoly of the telecommunications market created by the state. New digital telecommunications systems provided competitive service for the first time. The technological development of telecommunications and data processing led to a distinction between the basic voice telephone services and enhanced fax and mobile telephone services. Furthermore, a new range of services offer a variety of consumer and business products that may be difficult for national telecommunications monopolies to produce without the participation of private firms. Rapidly increasing costs in technology make it difficult for the state to prevent the liberalization of the equipment and services markets. It is too costly for the government to rely on traditional domestic supplies for telecommunications equipment.

Technological characteristics and changes are important factors in understanding the liberalization of the mobile telecom sector. Telecommunications technologies cause dramatic structural changes in industries and bring about a new form of political structure and political activities. In this sense, the development of technology is not an independent and background factor but an interdependent and concrete factor situated directly within the policy choices of regulatory reform.

However, any technological inventions would not be accepted if they caused serious friction with the dominant rules of social, political, and economic operations. An important thing to remember when researching the mobile telecom market is that the technology does not develop from scientific logic and cannot be dealt with in isolation from the rest of the economic and social system. Recent research suggests that technological changes are attempted within “the social fabric” (Archibugi and Michie 1997) in which specific innovation activities develop. The technology evolves in path-dependent ways, contoured and channeled by what might be thought of as “technological paradigms” (Dosi 1982).⁶ Thus, in this view, the choices of major actors, within certain constraints, determine the general course and effects of communication technologies.

The recent view points to the close interaction between social and technical elements and draws attention to technological capabilities⁷ as embodiments of social and institutional settings (Nelson and Winter 1982; Nelson 1996; Dosi et al. 1988; Piore and Sabel 1984). Nelson and Winter (1982), from the Schumpeterian notion of innovation, challenge the neoclassical model, which neglects actors’ decision-making constraints, posed by bounded rationality, organizational routines and inertia, political and legal frameworks, and other organizational and institutional obstacles. Piore and Sabel (1984) recognize that technological changes create the opportunity for institutional transformations, and that political and other struggles by actors

⁶ A technological paradigm can be defined as a pattern for solution of techno-economic problems. (For a discussion and a definition, see Dosi 1982.) A technological paradigm defines the technological opportunities for further innovations. Thus, technology develops along relatively ordered paths. A technological trajectory is the activity of technological progress along the economic and technological trade-offs defined by the paradigm (Dosi et al. 1988: 225).

⁷ Technological capabilities consist of the resources needed to generate and manage technical changes, including skills, knowledge and experience, and institutional structures and linkages (Bell and Pavitt 1997: 89).

would ultimately determine the technology and the accompanying set of governing mechanisms. In this view, technology is no longer seen as a simple residual or an exogenous element but an endogenous factor in producing economic growth and regime transformation. The community and institutional structure shape technological developments, and, consequently, the technological trajectories are defined in reference to particular societies (Dosi et al. 1988; Zysman and Tyson 1989; Nelson 1998). Following this line of thought, this research also considers that the characteristics and implications of technology and its development should be discussed alongside a broad range of social and economic factors.

2.1.3 State-Centered Explanations

Scholars who identify themselves as members of the political economy school immerse themselves in studying the changing role of the state in governing market and industrial policy. Even with the relatively expanding and parallelized relations between the firm and the government and the formation of decentralized industrial policies, the state remains the more powerful actor in determining the nation's industrial policies and the enforcement structure and implementation process of the market. Market liberalization and regulatory reform is a strategy used by the state to survive and is a political result formed and planned under the lead of the state (Painter and Wong 2007; Chu 2009: 279–297). Statists find the reasons for the formation of the regulatory reforms in East Asia by analyzing the strategies and intentions of states rather than assessing international political economy variables such as globalization and the emergence of international regimes.

The statist tradition goes back to the observation that markets are the creation of government and politics (Polanyi 1944). Polanyi remarked that, even in Britain, “the road to the free market was opened and kept open by an enormous increase in continuous, centrally organized and controlled interventionism” (Polanyi 1944: 140). A national institutional structure creates the foundation for nationally specific patterns of industrial adjustment and economic development (Zysman 1983). The literature emphasizes a diversity of ways in which different histories and institutions govern their national free enterprises. It also highlights the ways in which international constraints and socioeconomic institutions affect the incentives and strategies of actors and their interactions, in economic policymaking and implementation.

The literature focuses on how divergent responses in reforms are determined by variations in domestic institutional arrangements and historical policy traditions, and how some countries have better economic performance in the international political economy (Zysman 1983; Hall 1986). Scholars from this tradition vary in their emphasis on different institutional arrangements but agree that economic performance involves peculiar institutional arrangements that are different from those of other industrial capitalist countries (Johnson 1982; Woo-Cumings 1991; Wade 1990; Amsden 1989; Evans 1995). This particular aspect of institutional structures in East Asia is often called the “East Asian developmental model” and is

characterized by industrial policy, competent and meritocratic bureaucrats, policy networks between the state and big business, the state's "moral ambition to develop" (Loriaux 1999), and the taking of an active role and risk in economic development. From this tradition, several studies show how different domestic institutional variables affect the strategies of participants and thereby the industrial outcomes in various sectors, such as steel, automobiles, semiconductors, and telecom-switching equipment in the Korean economy (Moon and Prasad 1994).

From this tradition, some telecommunications literature addresses the political process of monopoly erosion in telecommunications (Derthick and Quirk 1985; Johnson 1989; Ziegler 1997; Thatcher 1994). This view opposes deregulation as a direct product of technological and market forces. It argues that deregulation cannot be explained in terms of the economic theory of regulation, emphasizing that new economic conditions induce regulated firms to turn away from the old regime. As a case study of the telecommunications sector has proven, these regulated firms, in most cases, fought vigorously against deregulation (Derthick and Quirk 1985). Derthick and Quirk (1985) argue that political actors and institutions are responsible for a new governing initiative toward liberalization in telecommunications. On the European telecom industry, Ziegler (1997) and Thatcher (1994) provide valuable insights into how national factors—such as the structure of elites and historical legacies of industrial modernization—shape innovation and the development of national telecom industries. At times, it seems more appropriate to characterize the changes in the telecommunications market as "re-regulation" rather than deregulation (Vogel 1996). States know that monopoly keeps the price high and encourages poor management of economic resources, the deterioration of services, and inefficiency. Vogel argues that the government might implement "strategic re-regulation" in order to prevent the loss of bureaucratic authority that the liberalization process might incur or in order to increase its power in the process of regulatory reform (*ibid.*: 16–18). With an extension of Vogel's idea, statisticians argue that governments are required to play more by the rule of law in order to manage the liberalized market function that is the outcome of a government strategy to meet international market pressure (Levy 2006).

From this perspective, the change in the telecommunications market reflects the interplay of shifting power relations rather than technological and market imperatives. It is clear that an analysis of the transformations within the Korean telecommunications industry should take the political institutions, interests, and strategies of the state in the domestic realm into consideration. Given that telecommunications policy decisions are ultimately controlled by the state bureaucracy—if not directly made by it—focusing on the interest of the state is relevant. However, this study does not rely only on political institutions and the interests of governmental authorities for two reasons. First, although domestic institutions help in understanding policy innovations within stable domestic institutions, they poorly explain the exact mechanisms of institutional responses to rapid changes under changing international circumstances and domestic political pressure. The diffusion of the regulatory transition in various infrastructure service sectors, including telecommunications, raises the past explanatory power of the model employing only domestic institutional variables. A high level of government intervention is no longer feasible in

many countries, including first-generation developmental states (Hayashi 2010). Some of the literature on the East Asian political economy has largely overlooked the international and structural variables (Amsden 1989; Campos and Root 1996; Weiss 1998). Accordingly, with the onset of the Southeast Asian financial crisis in 1997, much analysis on East Asian domestic institutions had difficulty in explaining why the same domestic institutional features that were formerly praised were now denounced as problems (Woo-Cumings 1999b; Winters 1999; Pempel 1999). This induces us to look at how the structural and international changes of the sector—such as global market structure and technological development—affect the state's structures and actions leading to regulatory reform of telecommunications.

Second, a political explanation of regulatory reform tends to exaggerate the extent, continuity, and consistency of the particular trends of the change that the explanation seeks to emphasize. As Horwitz (1989) shows in the United States telecommunications liberalization, while deregulation is a political phenomenon, the politics of deregulation also has a clear underpinning of economic rationality. The neglect of economic rationality in telecommunications reform, in favor of political interests, overemphasizes the power of the state in the governing transformation. The decision to invite liberalization into the telecom market is likely to cause further changes in its internal and external environments. Internally, it produces changes of preferences and strategies in the private sector that may undermine the state's initiation of the liberalization policy. Externally, the initiation of liberalization in the market alters the state's competitive position in the international market as foreign telecom companies revise their interests and experiences vis-à-vis the Korean telecom market. The development of new communications technologies and the internationalization of telecom markets can affect existing industrial and regulatory regimes, increasing the possibility of fundamental changes in economic governance. The state policy will then be more subject to the structural changes in the market and technological demand. In this regard, despite the important sites of transformation, the changes in the structural and technological environments should complement the analysis of domestic economic institutions.

2.2 Research Framework

2.2.1 *The Governance Perspective*

During the late 1990s and early 2000s, researchers had dichotomous perspectives on the role of the state in the market and political arena: the retreat of the state versus bringing the state back in (Strange 1996; Evans et al. 1985). Scholars holding neo-liberal ideas believe that the authority of the state has declined because of the emergence of transnational governmental institutions such as international regimes and global governance, while scholars on the other side focus on the analysis of the effectiveness of state intervention in the development of the economy and in the liberalization process.

After long and hard debates over these issues, scholars pointed out that the state–market dichotomy model fails to elucidate a systematic relationship between the evolution of market structures and changing forms of governance. The concept of governance seems to replace the state–market dichotomy, which means the state and the market are part of the same integrated ensemble of governance (Bernhagen 2003; Underhill and Zhang 2005). New modes of governance that emerged during the 1990s have been the institutional response to the rapid change in the environment surrounding the state and the industry. Globalization and neoliberalism challenge command and control by the bureaucratic state and change traditional state regulations in fundamental ways (Schneiberg and Bartley 2008). The complex challenges in the political economy demand new methods to administer the economy through “coordination, steering, and regulation” (Kooiman 1993). It was structural change that provided the basis for new economic strategies and arrangements.

Indeed, the current historical process—in the form of internationalization of economies, advancement of complex technologies, and the proliferation of transnational actors and strategic alliances to share research and development (R&D) costs—has blurred the boundaries between domestic politics and international structure. The model of a developmental or corporatist arrangement has lost its effectiveness as a means of coordinating with rapidly changing patterns of interdependence within and across borders. Most of the states and firms have tried to steer their changed contexts in a “de-centralized and cooperative way” and to “select options among possible actions” (Jessop 1997). This suggests that we need an alternative approach in order to capture the sources and outcomes of changes in the current world economy. As Rosenau (1992) suggests, globalization implies a proliferation of authorities across multiple levels: subnational, transnational, international, and global. The world is now composed of not only state-centric but also multicentric realms. This means there is a transformation of the location of authority in the context of globalization. While the capacity of a government to control its domestic policy is the core factor directly shaping the emerging character of a regime, other sources of authority are now sharing the domain of state authority in the economy.

In the telecommunications sector, at the peak of the state’s power over society, the state exercised its right to control the means of communication through a state monopoly. In the last decade, a rapid decline in this power was caused by a combination of technological change, demands in the market, and policy changes in telecommunications, which were driven by the interests of the state. The structural changes of the monopolistic telecommunications market raised doubts about the capacity of the state to cope with the complexity of the task with which the market was now confronted. With the changes in both telecommunications technology and markets, political institutions could no longer exercise efficient monopolistic regulation. Therefore, “a much more complex economic governance structure has emerged as a result, in which the [capacity] of governments to steer their national economies is only one aspect, although still undoubtedly a crucial one in understanding how economies are governed” (Gamble 2000: 134).

State agencies pull back from monopoly in telecommunications and either introduce competition or improve the conditions for competition by employing legal

regulation or by putting administrative rules into the legal form. The result of the shift is to narrow the options open to states and to extend the opportunities for the firms engaged in the services and telecom equipment markets. Increasing reliance on new forms of governing that emphasize coordinated and negotiated patterns of public and private cooperation is supplanting old forms of monopoly in the telecommunications market. Thus, “strategic context-steering” (Jessop 1997)⁸ is emerging as a new way of governing the economy. “Governance”⁹ has been used to label this type of institutional response to the changes in the global economy. Governance is supposed to convey something subtly different from the government—some kind of alternative to the rule of the government. The concept of governance is associated with the neoliberal trend toward market liberalization. Governance as a form of market-conforming model, which emphasizes efficiency and competition in the market, becomes more pervasive in order to deal with the rapidly changing global environment.

Most scholars who focus on governance search for “a new story about the state which confronted its weakness and the market alternatives” (Rhodes 2000: 66) in the context of a globalized market economy. The meanings of governance develop into two categories, depending on the role of the state in an economy. On the one hand, it understands economic “governance” as supplanting the concept of “governing” or “government” (Rhodes 1996; Kooiman 1993). This view understands governance as self-organizing interorganizational networks characterized by interdependence and interactions between network members (Rhodes 1997: 15; Rosenau 1992: 5). It emphasizes the development of civil society, self-steering mechanisms, and self-organizing networks as conditions for the development of governance based on civil society.

The other category understands governance as coordinated decision-making and policy implementation as the boundaries between the state and the market become blurred. Stocker regards governance “as a set of institutions and actors drawn from but also beyond government, where boundaries and responsibilities for tackling social and economic issues are blurred, the several institutions are power-dependent, and resulting networks are autonomous and self-governing” (Stocker 1998: 18). This view develops a more diverse picture of the role of state authority and its exercise and focuses on a new coordinating system among the autonomous but interdependent actors. While regarding governance as an alternative to free markets or strong

⁸Jessop defines governance as “strategic context-steering.” In “strategic context-steering,” he argues that the invisible hand of the market is combined with the visible hand of the state in a context of negotiated decision-making. Thus, on the one hand, market competition is balanced with cooperation. On the other hand, the state is no longer the sovereign authority for governance. It becomes but one participant among others in the pluralistic guidance system and contributes its own distinctive resources to the negotiation process (Jessop 1997: 117).

⁹A comprehensive account of global change is essential to illuminate changes associated with globalization. The global order is to be conceived “as all-encompassing” (Rosenau 1992). Hewson and Sinclair consider that a historicist epistemology and ontology are essential for understanding globalization. Historicist theory aims at proximate explanatory constructions, which correspond to the changing forms (Hewson and Sinclair 1999). My aim is to understand the origins of forms of governance in order to anticipate their transformation into other forms over time, rather than the pragmatic concerns of most positivist or problem-solving work.

state intervention, it suggests that “government in a governance arrangement” gives a certain degree of hierarchy to the government as a coordinator in a governing arrangement (Jessop 1997; Scharpf 1994).

Governance as the minimal state encapsulates the preference for small governments in recent regulatory reform but says little of political rhetoric in economic governance. As Osborne and Gaebler argue, while the new modes of governance stress competition, markets, and customers, the transformation of the public sector involves “more governance (more steering),” if it is not “more government” (Osborne and Gaebler 1992: 34). The government itself is important because the decisions it makes can affect choices in technology and changes in the market. Other actors in a governance arrangement “cannot serve as gatekeepers, allocate resources and information, influence and structure property rights, or affect governance and governance transformation in other ways as does the state” (Campbell et al. 1991: 31). Thus, “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 deployed, and by defining the spaces within which economic activity occurs” (ibid.: 360–361). This position of the state means that there may be a certain degree of hierarchy in a governing arrangement, in which higher levels constrain lower levels while interdependent or independent actors try to establish their own preferred projects.

The emergence of governance as a new mode of governing an economy does not lessen government’s action, because governance is a shift in the nature of government action from commanding specific outcomes in a sector to creating and maintaining new markets, and from imposing its policies to steering or negotiating its intentions with partners in the private sector. What we can observe in the development of the telecommunications industry, therefore, is not the decline of the state but a process of state transformation as the center of political power and authority.

A focus on the network or interdependence between the state and business (or the society) can be found not only in the governance literature but also in the developmental state literature. The developmental state is “not an imperious entity lording it over the society but a partner with the business sector in a historical compact of industrial transformation” (Woo-Cumings 1999a: 27). Evans (1995) argues, for example, that the state has to be “embedded” in the society in order for it to be developmental. The mutual relationship between the state and the society is considered as a key to guaranteeing the success of economic transformation in most of the literature on the developmental state. However, I argue that the governance perspective is broader than the developmental state perspective in that governance literature tries to analyze the external impacts on the relationship between the state and society. Although both the governance and the state perspectives explain the interdependent or cooperative relationship of the state and business, the governance perspective focuses on explaining how global and structural changes affect the interests, strategies, and the relationship of the state and business. Thus, the governance perspective is very useful to explore the emergence and transformation of the regulatory regime because of its focus on the complex interrelations of structure, interests, and strategies of various players in a globalized world.

In the new political economy, the word “governance” is used to grapple with a change in the meaning of government involvement in the economy and its relationship with society. At this level, governance denotes a “representation of coordinations of social systems and the role of the state in that process” (Pierre 2000: 3). Lindberg and Hollingsworth, from a sociology tradition, conceptualize governance as a matrix of interdependent social exchange relationships or transactions that occur in an industry or sectors (Lindberg et al. 1991). Therefore, markets, corporate hierarchies, networks, and the government itself are specific forms of the governance system. Some literature also focuses on networks in which public and private sectors interact at the local government or subnational government level (Rhodes 1996).

2.2.2 *Types of Governance in the Mobile Telecom Market*

Modes of governance as an institution are the result of a bargaining process in the economy. Bargaining processes between actors are influenced by the relative positions of the state and the industry, which are shaped by their respective influence over each other. A mechanism for the new arrangement is realization of the benefit of negotiation or coordination. The possible side effects of the failure of coordination encourage “agents/agencies to take account of the possible adverse repercussions of their own action on third parties or other systems and to exercise self-restraint as appropriate” (Jessop 1997: 103). A system of governance must possess politically viable arrangements such as a mechanism of social coordination and control. The selection of a governing regime therefore results in a new regime that is a politically feasible arrangement (Bickers 1991). Hence, different types of governance appear when the nature of interactions between the state and the private sector players changes.

This study distinguishes four types of governing mechanisms in telecommunications: state monopoly, centralized network governance, flexible network governance, and liberal governance, based on the distinctive goals of governance, ownership structure of telecom companies, levels of competition in the industry, and characteristics of state–industry relations.¹⁰ I argue that a state monopoly in the

¹⁰ For this categorization of different types of regulatory reforms, I am greatly indebted to the work of Vogel (1996). Vogel categorizes four different types of regulatory reforms: pro-competitive reregulation, juridical reregulation, strategic reregulation, and expansionary reregulation. However, my analytical distinction of different regulatory paths does not use the word “reregulation,” which accompanies his four types of regulatory reforms. Vogel (1996: 16) argues that the regulatory reform in the telecom and financial markets was “a combination of liberalization and reregulation” rather than “deregulation.” While this view correctly points out the elements of reregulation in regulatory reform, Vogel’s distinction of liberalization and deregulation is problematic in the sense that the regulatory reform must accompany deregulation of the formal or informal rules in order to liberalize the domestic markets. Liberalization may encompass not only deregulation but also a reregulation trend in regulatory reform. Thus, Vogel’s distinction of liberalization and deregulation at the expense of emphasizing reregulation phenomena may not reveal the actual process of regulatory reform.

Korean mobile market transformed into “centralized network governance” and later into “flexible network governance” according to the structural and technological changes in the telecommunications market. Centralized network governance represents a state-orchestrated network of institutions and mechanisms in which various interests of the state, local actors, and the global economy are represented and coordinated. In centralized network governance, bureaucratic authority exercises control over the telecom sector and privatized telecom companies as a strategic planner of the industry. Flexible network governance appears when competition is introduced in the telecom market and the need to coordinate conflicting interests among multiple players arises. Although the state still maintains a significant role, it performs its role through coordination with independent private sector players.

The characteristics of state and industry relations can be distinguished in terms of the degree of centralization of regulatory authority and the extent of influence of the private sector on government. At one extreme, the government controls the industry directly. Private firms lose virtually every possibility of influencing the government’s strategies. At the other extreme, the government and private sector players seldom exert any influence over each other. In between, there are two different models. In one model, the interests and strategies of the state and firms are interdependent. There is continuous bargaining for cooperation among participants regarding proper sectoral or national institutions (mesocorporatism or mesodevelopmentalism). In the other model, the firms become stronger partners and try to influence government policies to create a favorable regulatory regime. The balance of influence shifts in favor of firms. This categorization enables a conceptual mapping of different governance structures in telecommunications, based on the power relations between the sector and political institutions.

Centralized, flexible, and liberal governances all aim to transform the monopolistic telecom services market by introducing competition and market mechanisms and by changing or eliminating regulations to facilitate effective operations of the telecom market. One of the main differences between centralized/flexible network governance and liberal governance is the relative emphasis on the roles of the market and the state. While liberal governance gives priority to the market and relies on the market mechanism for most functions, centralized and flexible network governance models reserve more significant roles to the state. In centralized and flexible network governance models, the state has a strong interest in and incentives to intervene in the telecom market either through formal planning mechanisms or informal networks in order to promote a consensus on national goals. By contrast, liberal governance relies on a laissez-faire free market as the main steering mechanism in the belief that it promotes maximum efficiency, flexibility, and adaptability.

State Monopoly: Under a state monopoly, the state owns and operates the monopolistic telecom service provider. The state-owned telecom company is often viewed as a policy arm of the government in order to realize the policy objectives of the state. The primary goal of the regulation of monopoly in telecommunications is twofold. The first goal is to protect the monopoly status of the public telecommunications operators (PTOs) and to maintain revenue and cross-subsidization policies

in order to deliver universal service. Another predominant regulatory concern is to prevent the PTOs from exploiting customers. This concern leads to a regulation of prices and overall profit of the PTO. Telecommunication service is regarded as a public service, and state authorities aim to provide a universal basic telephone service for a large base of people. Under a state monopoly, competition is regarded as being less important than making good telecom services available to a large population. As in many infrastructure sectors, telecommunications is a regulated monopoly with state ownership and direct state control over entry, exit, pricing, and investment.

Centralized Governance: *Centralized governance* emerges when the state gives up ownership of monopoly PTOs. It is characterized by top-down hierarchical coordination among interdependent actors by the state. The government can introduce privatization to enhance the service quality and the efficiency of the telecom sector when the public nature of the telecom business and universal service become less important. However, even after privatization, the state maintains a strong influence over the telecom sector and the operations of the privatized telecom companies. The strategy of the state is to create an internationally competitive telecom sector. State authorities usually try to soften the impact of liberalization in order to protect domestic equipment manufacturers and service providers from the potential entry of foreign competition.

The state changes old regulations into new ones in order to enable authorities to retain regulatory control. The role of the state is somewhat interventionist in the economy in the sense that its policies aim to guide resource allocation toward sectors with high value added and solve coordination problems in areas such as technological acquisitions. The state as *strategic planner* attempts to initiate a public–private research consortium in order to coordinate interests between the state and the private sector. The public–private consortium often assures protection and growth of the domestic telecom service and equipment manufacturing businesses and promotes the purchase of domestic equipment, as shown in the development of digital CDMA technology in Korea. Government agencies resist devolution of regulatory power, while the private sector tries to influence the governing structure. The embedded conflict between the state and the private sector and failure of this type of governance create the possibility of new strategies for a regulatory regime.

Flexible Network Governance: *Flexible network governance* is based on a flexible network that aims for coordination and cooperation in the changing public and private sectors in a globalized market. It is located somewhere between centralized governance and liberal governance in terms of the degree of involvement of bureaucratic authorities. The introduction of fierce competition in the telecom market often triggers the emergence of flexible network governance because the state's power and influence weaken when it no longer guarantees the survival of private telecom companies in a highly competitive market. With the continuous development of market openness and the growing complexity of the policymaking process—according to increased competition, the influx of information, and rapid development of technology—the state gradually loses its ability to maintain the previous type of governance and turns to *flexible network governance*. The requirements for flexibility

Table 2.1 Types of governance in the mobile telecom market

Mode of governing	State monopoly	Centralized network governance	Flexible network governance	Liberal governance
Goals of governance	Universal service Network development Modernization	Efficiency Consumer protection National competitiveness	International competitiveness	Free competition Assurance of market mechanism
Government strategy toward firms	Direct control	Coalition and cooperation	Cooperation	Mediation
Relative position of firms	Dependent without influence	Interdependent	Independent with influence	Independent with influence
Governance mechanisms	State direct control	Hierarchical networks	Formal or informal networks	Market
Tools	Formal or informal rules	Mix of formal or informal rules	Codified Legalistic	Codified Legalistic
Technology standard	State-governed standard	State-initiated and controlled standard	Strict but flexible	Loose and multiple standards
Carrier selection	State monopoly	License	License	Lottery Auctioning
Technology development	State-directed	State-initiated	Industry-initiated	Market-oriented
Degree of market competition	Monopolistic market	Monopoly or limited competition	Competitive market	Highly fragmented Competitive market with no dominant player

associated with technological innovations and telecom market development, and for increasing the level of independence of various economic actors from the influence of government authorities, undermine the basis of hierarchical, top-down coordination. Autonomous and independent actors in a governing regime often resist any type of top-down command. Although the state maintains an active role, under *flexible network governance* its role is seen as that of a *coordinator* rather than a strategic planner. The state's task is to facilitate the operations of the market rather than to impose its own goal or agenda on the market.

Liberal Governance: The role of the state to guide the telecom industry becomes minimal under *liberal governance* through devolution of regulatory power to independent agencies. The major role of the state is to be an *umpire* or *mediator* in the economy. The state promotes competition, with the strong belief that free competition in the market mechanism will maximize overall efficiency in terms of lower prices, more choices, and better quality of service. This type of regulation is found most conspicuously in the United States and Britain (Table 2.1).

2.2.3 *Variables for Governance Transformation*

The framework that I will employ to analyze the mobile telecom industry contains three relevant and interwoven elements. First, an understanding of changing international conditions and actors is important in order to understand the structural environment in which the Korean mobile telecommunications industry is developed. Henisz et al. (2005) argue that international pressures of coercion, normative emulation, and competitive mimicry strongly influence the domestic adoption of market-oriented reform in various countries. Thatcher (2006) claims that the dissemination of the privatization policies of EU nations can be attributed to the European Community's single market and the EU commission's strong regulatory reform policies. The rapid development of telecom technology, international market changes driven by the economic and political interests of the United States and other industrial countries, and fierce international competition in the telecom equipment market have all challenged the existing regulatory regimes in Korea. A liberal trade regime in the telecommunications sector—formed by the Uruguay Round, the World Trade Organization (WTO), and the International Telecommunications Union (ITU)—exercises market-opening pressure on the Korean government. Agreements such as the Korea–United States telecommunications trade agreement in 1992, the Korea-EC agreement on public telecommunications procurement in 1996, and the Korea-WTO liberalization commitment in 1997 represent the structural elements of the telecom sector. The hypothesis is that were it not for the development of communications technology and the globalization of the mobile telecom market, the Korean mobile telecommunications market would not have been deregulated and transformed into a market-based economy. In other words, its transformation was fundamentally contingent on international development of telecommunications technology and the market. This dependency is well reflected in the Korean regulatory reforms.

Second, an analysis of the interests and strategies of the state is important. The Korean government promoted a competition policy in the telecommunications market with a plan that involved initiatives regarding which products or technologies should receive focus and how public resources should carry out these initiatives. In particular, the Ministry of Information and Communications (MIC) was proactive in deregulating the telecommunications industry by allowing wider participation of the private sector in economic opportunities while encouraging the development of CDMA mobile technology. In other words, the MIC pursued dual responsibilities, not only by promoting the equipment industry but also by liberalizing the telecom services market. This study focuses on the interests and strategies of such institutions in the development of the telecom industry. These institutions constrain “choices by structuring the incorporation of interest groups, defining state capabilities, and shaping state and societal interests” (Vogel 1996: 22).

Third, private firms are important actors in the framework I employ. While the state is still a rulemaking body through authoritative and binding decisions, the functions of service provision and production are increasingly assigned to private actors (Jordana and Levi-Faur 2004). Lindblom and Woodhouse contend that

market-oriented societies have “a second set of public officials” (Lindblom and Woodhouse 1993: 7). The central role that business plays in public policymaking gives it resources that can be used to intervene in the policymaking process, even if corporate executives never exercised any influence over elections. Government officials must find out what businesses do and then give managers what they need to motivate production, jobs, and growth (*ibid.*: 93). Faced with the comprehensive and consistent efforts of the state to reform the telecommunications sector, the private sector has a dilemma in the domestic market. On the one hand, it wants to receive support from the state for the development of its business. On the other hand, it wants free access to the global market and all technology for international competitiveness. This study offers a detailed account of the strategies of the telecom firms toward government policies and the evolution of international telecommunications technology and the market.

My framework stresses international and structural factors as sources of domestic, political, and economic outcomes, without overlooking the importance of domestic actors in that mechanism. In this respect, my framework resides in between the institutionalism of the comparative political economy, which emphasizes particularity and diversity, and the structuralism of the international political economy, which emphasizes common problems and convergence (Strange 1996).

The transformation of a regime requires some initial pressure for making the change, but it does not develop automatically. Rather, actors perceive pressures for change and then initiate a search process (Campbell et al. 1991). Thus, structural constraints limit the range of interests and opportunities available to actors, but they do not determine the specific interests and opportunities that actors select. Transformation from one regime to another occurs over time when actors, whose choices are limited under structural constraints, adjust to pressure for change. They select new strategies for coping with this pressure and struggle to institutionalize it in a new governing regime. Both firms and state organizations are likely to initiate the search process. Both have distinct interests, organizational routines, time horizons, and performance standards through which they interpret the flow of information about economic and technological options (Nelson and Winter 1982). They behave not only on the basis of their own interests but also on their reactions to changes in domestic and international conditions, since they have different resources inherited from their past history. Hence, their influence manifests itself differently in the choice of governance regimes in different sectors and across time. They are likely to search for a governance regime advantageous to their special interests (Williamson 1985).

Governing mechanisms do not exist in isolation but occur in various combinations of forces in diverse industries and at various times in history (Lindberg and Hollingsworth 1991). Each industry is composed of different exchanges among many kinds of actors, and certain governing mechanisms are likely to exert greater influence over some exchanges than over others. Different governing mechanisms and structures will have singular capacities for handling special kinds of exchanges and problems.¹¹

¹¹ This study is aware that governance is not always more efficient than markets or states in dealing with the economy, and there always exists a possibility of governance failure, as in the case of markets or states.

This book maintains that the emergence and transformation of governance in mobile telecommunications is a consequence of the changes in the ideas and the interests of state institutions and the private sector, which respond to the interplay of technological, global, and local market structure. It is concerned with how the state's regulatory frameworks are constrained by its preexisting institutional conditions and by the telecom market structure at the national and international levels, and with how the Korean telecom market chooses a particular governing regime among the various options presented by the rapidly changing international telecommunications market and technology. The study demonstrates the characteristics of the Korean telecommunications market, its implications, and the dynamic transformation of a governing regime in reaction to the external environment in an age of globalization.

2.2.4 Sectoral Components of Telecom Politics

Technological advances in telecommunications in the past several years have rendered obsolete some of the institutions that had been effective in regulating the same sector. A regulatory reform must be compatible with the underlying technologies in an industry. This means “the characteristics of a technology are likely to be compatible with some, but not all, regimes” (Jessop 1997: 78). These incompatibilities limit the set of possible options for the state and the private sector. An understanding of the changes in telecommunications technology is essential to an analysis of its transformation and of its political, social, and economic consequences. This is because different sectoral characteristics of an industry—such as technological properties or market structure—may affect the variations of a governing regime.

Sectoral approaches demonstrate how different characteristics shape the strategies of domestic institutions (Hirschman 1978; Frieden 1991; Rogowski 1988; Shafer 1994). They analyze the ways in which countries are incorporated into the world economy through specific sectors and how this relates to the governing regime in the particular economy and hence to the prospect of future development. For example, some explain how “market conditions” surrounding a sector constrain the ability of the state to restructure the economy for industrial upgrading (Shafer 1994). Some find that dissimilar sectors need different kinds of government since industrial policies must fit the requisite of competition in the market (Thorp and Durand 1997).

Wireless communication¹² is an access method or a transport mechanism that uses radio transmission rather than wired lines to provide telephone services. The wireless communication system is similar in functional design to the wired telephone network: it contains transmission systems and switches. While wireless communication is similar to a wired telephone system, its capacity is not restricted to a single circuit, because many services can be simultaneously provided for a wide variety of media. There are five main components to the cellular system: the mobile

¹² The term “wireless communication” as used here refers only to the use of mobile telephones.

phone, the cellular base station, the mobile switching center (MSC), the fixed network (transmission system), and the wired telephone network. A cellular network consists of cell sites, which are connected to a central switching station, which, in turn, links to the fixed network. Each cell site has a radio base station, each with its own radio transmitter and receiver.¹³ Wireless telecommunication has several characteristics, as described in the following sections.

Spectrum Constraints and Technology

The spectrum is the natural resource through which radio waves propagate and make communication possible. The wireless call capacity of cellular systems is proportional to the range of radio frequencies available. However, there is only a limited range of frequencies available for a wide range of communication services, which makes the barriers to entry high. Because of this limited spectrum availability, the government is responsible for allocating frequencies to mobile cellular carriers.

Since spectrum shortage threatens to affect the growth of the mobile services industry, new technologies that enable a more efficient use of radio spectrum are required in order to accommodate the continuously growing subscriber base. That is, the advances in mobile communications technology are largely driven by the scarcity of spectrum. Spectrum constraints and the high level of initial investment required, including license fees and network construction, have been major impediments to the development of the mobile telecom market.

Network Externalities and Standards

The presence of externalities is a justification for public ownership (Atkinson and Stiglitz 1980). A network externality between users arises when existing subscribers benefit as new subscribers join the network. A telecommunications industry, where there are network externalities, cannot develop independently without the common acceptance of technological standards (Liebowitz and Margolis 1994; Katz and Shapiro 1985). Obviously, all the cells and mobile devices must have a common standard to ensure interoperability with each other and with the fixed public telephone networks. Network externalities make consumers prefer national or global service providers to regional service carriers. They precipitate the coordination of a technology standard on regional and international levels and strategic alliances among mobile service providers. For example, European telecom firms collaborated to create Group Special Mobile (GSM) as a common standard for a future pan-European cellular mobile network. The development of GSM was envisaged as a solution for increasing the network externalities of Europe's cellular systems.

¹³For the main technological characteristics in modern telecommunications systems, see A.M. Noll, *Introduction to Telecommunications Electronics* (Boston, MA: Artech House, 1995).

First-Mover Advantages

The developer of the standard in the mobile telecom sector has many advantages as a first mover in the market. The first mover is in a better position to have a larger market share because customers are not apt to change their preferences once they have chosen a certain product. The market leader may be able to hold on to its position by making further technical improvements. Once a “first-mover advantage” is established in a given local or global market, network externalities can reinforce the dominant service’s position. First-mover advantages have been powerful in the history of other consumer products as well, including color televisions, cassette tapes, videocassette recorders, and compact discs.

Regulatory Policy

Telecom policies affect the development of mobile communications systems. First, spectrum-allocation issues have not traditionally been interconnected with past telecom policy discussions. However, the advent of mobile communications technologies, their rapid diffusion, and the promise of Personal Communication Service (PCS) has stimulated interest in the need to change spectrum policies. The regulatory environment can differ depending on how radio frequencies are managed. The government may license many mobile operators to encourage competition, or authorize a few operators to avoid excessive competition for available frequencies. This influences the structure and intensity of competition in the mobile market. Second, network externalities of mobile telecom services provide the reason for the enacting of a standard by the government. Given the variety of equipment and system components available, it is obvious that a mobile network works with technical specifications of hardware, software, and services prior to any commercial introduction to customers. The major problem for the regulator is how to set standards between so-called *de jure* and *de facto* standards. Regulators have a difficult time when attempting to strike a balance between the use of official standards and market forces to set new standards. A market-determined standard may result in fragmented standards elsewhere. Or official standards made to avoid the high social costs of equipment incompatibility may be unreasonable to vested interests (Grindely 1995: 210–211). Third, because of first-mover advantages, which give incumbent mobile carriers top market positions, inviting competition into a telecom market does not directly lead to a competitive market as intended.

Faced with a dramatically changing international telecommunications market and technology, policymakers in most countries undertook a series of regulatory reforms in their mobile services markets. However, because of the characteristics of spectrum scarcity, network externalities, and first-mover advantages, mobile telecommunications may have become the object of stronger government regulation than other sectors. The different sectoral characteristics of an industry may affect the variations of a governing regime. The institutional analysis of telecommunications therefore should be complemented by sector-specific explanations that are

sensitive to sectoral characteristics such as market structure and the technological characteristics of the industry.

Technological properties as a sectoral variable do not automatically lead to the adoption of a particular technology. Albeit within constraints, both the firm and the government have choices regarding which technologies to adopt and develop. To understand the process of technological innovation and change in the related regulatory regime, a study should clarify *how and how much* national systems encourage or challenge the interests and strategies of the firms and the government authorities to change the governance arrangement. Some find that different sectors need different kinds of government since industrial policies must fit the requisite of competition in the market (Thorp and Durand 1997). What is important in the study of a technology-driven industry such as telecommunications is to understand how specific technological properties reconfigure the strategies of industrial development and internal dynamics of a governing structure (Kitschelt 1991). A study of the national systems of innovation (NSI: Nelson and Winter 1982; Nelson and Wright 1992; Lundvall 1992; Zysman 1983) provides a clue for understanding how technological innovation drives the developmental path of an economy. The national institutions affect the environment within which a firm operates, selects broad strategies, and makes decisions about the product and process innovation. The analysis is to examine the way in which the rapid technological innovation in the telecommunications industry affects a regulatory regime in telecommunications.

Building Telecom Markets
Evolution of Governance in the Korean Mobile
Telecommunication Market

Jho, W.

2014, XVIII, 222 p. 3 illus., Hardcover

ISBN: 978-1-4614-7887-4