6.1 Introduction

The telecommunications sector has undergone extensive changes in recent years. Many state-owned operators were privatized and the sector experienced a trend of liberalization worldwide, motivated by the evolution of new technologies and services, the growing importance of telecommunications for national economies and the development of international trade in telecommunications services. As a result, in most countries, the telecommunications sector has experienced a fundamental change in structure, from that of monopoly to competition.

Following the period of growth in the telecommunications industry in the late 1990s, the "dot com bubble" burst at the beginning of the 21st century, resulting in a steep drop in stock market value for major operators. The crisis in the telecommunications market affected numerous companies, but did not deter the development of new technologies and the evolution of the information and communications technology (ICT) sector. In order to adapt to these new developments, countries have been undertaking a review of their existing frameworks, enacting new legislation and creating new regulatory authorities to implement the legal and regulatory framework. Such a framework is essential for the sector, particularly as countries move from state control to market competition, and is necessary to attract new entrants as well as private investment.

Based on analysis of legal and regulatory frameworks worldwide, studies conducted by industry experts and institutions such as the World Bank, and information collected by the International Telecommunication Union, this report provides an update of the 2000 Telecommunications Regulation Handbook published by *infoDev*. It serves as a best practice toolkit for regulators and policymakers in the context of the current ICT environment.

The importance of conducting this study is evidenced by the significance of the legal and regulatory framework as an enabler of development of the sector. Effective regulation requires the implementation of a supporting legal and regulatory framework to create an environment that promotes public confidence and ensures stability, transparency, competition, investment, innovation, and growth in the sector. Many of the laws, regulations, and best practice examples examined in this study address the fundamental change in the telecommunications industry from that of monopoly to competition and its evolution within the ICT sector, and provide guidelines for effective regulation for competition. However, while the toolkit highlights best practices for effective regulation, it is important to realize that the implementation of such practices may vary from country to country, requiring consideration of local political, economic, social and other conditions and circumstances in designing the appropriate legal and regulatory instruments.

The study of regulatory reform in today's converged ICT environment can be analyzed by considering three main interdependent and mutually reinforcing aspects: (I) the general legal context of regulatory reform; (ii) the institutional and organizational aspects of regulation; and (iii) the regulatory processes.

This study begins by addressing the question: **Why regulate?** Regulatory intervention is necessary to ensure the successful transition of a monopolistic telecommunications market to a competitive one, to safeguard consumer interests, to maintain an effective competitive marketplace, and to foster the long-term development of the ICT sector. Effective regulation has resulted in many benefits, such as greater economic and technological growth, increased investment in the sector, better quality of service, lower prices and higher penetration rates. The level of regulatory intervention will vary from country to country, and will depend on various factors, including the level of market maturity, the legal and regulatory framework, and the regulatory issues arising from new technologies and services.

In **Chapter 3**, the question of how to regulate is addressed. How regulatory activities are conducted depends on the level of maturity of the market, and the particular cultural, legal and regulatory framework of each country. Regulation does not occur in a vacuum, and is determined to a great extent by different factors such as: (i) the different legal traditions and systems existing in a particular country that determine the structure of the legal and regulatory framework; (ii) the international commitments undertaken by governments that need to be harmonized with national legal and regulatory frameworks; (iii) the impact of other legislation affecting the sector, which can influence the effectiveness of the legal and regulatory framework, and (iv) the level of maturity of the market, which affects the interaction between sector-specific telecommunications legislation and overall competition policy.

Chapter 4 addresses the impact of convergence on regulation. The union of telecommunications, broadcasting, and information technology is dissolving the once clear lines that distinguished the mode of delivery and allowed for the distinct regulation of these different sectors. Convergence can create uncertainty with respect to the regulation and classification of services, to the extent that it occurs at different levels: (i) at the service level, with bundled services (such as the "triple play" of voice, data and video); (ii) at the industry level with mergers among entities of different industries; and (iii) at the network and terminal equipment level, such as the ability to use computers for telecommunications, as well as the introduction of new means of providing traditional services, such as Voice over Internet Protocol (VoIP). Regulators have responded to convergence by adopting more streamlined legislation and regulatory procedures, which allow for greater flexibility in dealing with new technologies and services. Additionally, as regulators revise legal frameworks, they must consider existing rules that are spilling over into the ICT sector such as intellectual property rights, as well as new activities such as spam or computer viruses, which impact consumers in a negative way. **Chapter 5** identifies what it means to be an effective regulator, and the different dimensions of effectiveness, including structural and financial independence and functionality. One of the main benchmarks for assessing the effectiveness of a regulator is the degree of actual and perceived autonomy from government control and industry influence. To be effective, regulators must gain credibility and have the authority to enact and enforce their decisions. Regulatory procedures must be transparent, accountable and predictable and ensure integrity of the process. An effective regulator strengthens public and investor confidence that all market players will be treated equally, and increases the stability and objectivity of the regulatory process. Additionally, Chapter 5 provides an analysis of the organizational and institutional approaches to regulation, and discusses institutional design options, the separation of power and relationship of the regulator with other entities, the legal status of regulators, their funding and staffing process, and the application of an ethics regime. There is no one single model, since each regulator's institutional design, powers, degree of autonomy, composition, and jurisdictional authority depends on the country's legal, political and institutional framework. However, a strong legal framework needs an efficient institutional and organizational framework to support it. To regulate effectively, regulators must create institutional frameworks that provide structural, political, and budgetary independence, as well as sufficient competency and the necessary organizational structure to carry out its functions. As such, regulators must have an adequate number of staff with the proper skills and capacity to carry out the regulatory activities. Moreover, they must be perceived by stakeholders as objective and unbiased. This can be enhanced by ensuring that ethics codes or rules are in place and the regulatory staff has no perceived or actual conflicts of interest.

Lastly, **Chapter 6** addresses the functional aspects for effective regulation including the clear definition of the functions and competencies of the regulator, accountability of regulators, and the implementation of open and transparent regulatory processes. Effective regulation requires that the decision-making process be conducted in a transparent and participatory manner, so that the regulator is accountable to the government and to the public. Transparency in regulation, and the encouragement of public participation in the decision-making process, legitimizes the regulator's actions and fosters consensus building in the industry, which facilitates compliance with regulatory decisions. To function effectively, regulators also need the proper authority and power to intervene in the operation of the telecommunications market, such as licensing operators and services, enforcing laws and decisions, and resolving disputes among licensees. In addition, enforcement of compliance with regulatory decisions is crucial for effective regulation, because without the ability to enforce laws, a regulatory regime is practically meaningless. As markets mature, many regulators are encouraging industry self-regulation, such as industry self-reporting, for enforcement purposes and reliance on alternative resolution techniques to resolve conflicts, which helps regulators to maintain oversight over the growing number of competitors in the ICT sector.

Next: 6.2 Why Regulate? ➡