The global financial crisis has served as a wake-up call on the importance of effective regulation, raising questions about the role of government and the laissez-faire approach that had prevailed — notably in the financial sector. According to an ITU report, Trends in Telecommunication Reform 2009*, released on 9 March 2010, one area in which government and industry are now reassessing their roles concerns the development of a new broadband economy. The report asserts that, regardless of changes in investment appetite, negative capital market conditions and financial crisis, the number of investors and the diversity of investors’ objectives will ensure that investment in the information and communication technology (ICT) sector remains robust and varied.

The report argues that telecom/ICT regulators need to maintain a delicate balance between a hands-on and a hands-off approach to regulation. This, the report says, will be critical in ensuring the healthy development of the sector and in meeting social goals.

“Although the global ICT industry has seen reduced sales in equipment and manufacturing, lower demand and curtailed investment, the sector has

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* This article is adapted from the report Trends in Telecommunication Reform 2009, released by ITU on 9 March 2010. The report deals with the theme “Hands-on or hands off? Stimulating growth through effective ICT regulation”. It draws on discussions held during ITU’s annual Global Symposium for Regulators, held in November 2009 in Beirut, Lebanon, which brought together more than 600 regulators from around the world. It focuses on new market expectations, and identifies the different regulatory approaches taken around the world to stimulate ICT growth and increase access to broadband services.

An Executive Summary of the report is available at: HYPERLINK www.itu.int/ITU-D/treg/publications/trends09.html The report is on sale to ITU members and the general public and can be purchased online at: HYPERLINK www.itu.int/publ/D-REG-TTR.11-2009/en
Trends in telecommunication reform

Policy and regulation

Confronted the crisis more successfully than many other sectors,” says Sami Al Basheer Al Morshid, Director of ITU’s Telecommunication Development Bureau. Mr Al Basheer adds that “certain markets — namely mobile cellular and Internet — have been buoyant. And because of the business opportunities they represent, developing countries remain attractive — especially those that have embarked on regulatory reform initiatives.” But he also notes that “the answers to many of the complex regulatory questions now facing the industry are still far from clear”.

Regulatory trends

The past two decades seem to confirm the power of the regulatory reform trinity: separate regulators, competition, and privatization (see Figure 1). By following, adapting or reinventing these approaches, countries around the world have revitalized their ICT markets, transforming them into digital economies. Importantly, most countries have created separate regulatory authorities that are independent in their decision-making. The number of separate regulatory authorities has increased from only 12 in 1990 to 153 at the end of 2009.

Regulators have gradually opened fixed-line services to competition, almost always privatizing the national fixed-line incumbent along the way — some 124 fixed-line incumbents had been privatized by 2009. The traditional role of regulators has been primarily to regulate access to the telecommunication market through licensing, assigning spectrum and other scarce resources, dealing with interconnection issues and contributing to universal access support programmes. Now the focus has shifted towards creating an enabling environment for investment, fostering market growth and ensuring effective digital inclusion for all.

Connectivity, openness and vulnerability

The field of vision for regulators is expanding to include the wider ICT sector, yet in many countries regulators do not have effective powers to look beyond telecommunications. The changes occurring through convergence of technologies and networks expose regulators to new areas that were traditionally the domain of other government departments and agencies — or nobody’s domain at all.

Regulators must understand the wider ICT ecosystem and the evolving symbiotic relationship between computer processing and the transport of electromagnetic signals. Similarly, regulators need a better understanding of the management of networks and the role of manufacturing in the development of technologies.
Regulators’ mandates are sometimes not clear. For example, their role in dealing with cybersecurity has not been clearly defined in most countries. Similarly, responsibility for media content has not usually been associated with jurisdiction over networks and services, so traditional telecommunication regulators may find themselves struggling to address market power problems involving media content. Meanwhile, some regulators do not have the power to enforce competition policies, which are overseen by a different agency.

Because of the importance of standardization and patents, regulators also need to engage with standards-setting bodies and processes. In many countries, the courts or a specific competition regulator may have primary responsibility in this area, but for regulators charged with promoting access to ICT, along with innovation in networks and services, it is an important concern.

Investment and stimulus plans
The ICT investment environment has undergone a startling transformation in the past year. According to the World Bank, a sharp pullback in syndicated bank lending has occurred, as commercial banks and other financial institutions in high-income countries attempt to shore up capital ratios by limiting new lending or by calling in existing lines of credit. In addition, initial public equity offerings from key emerging markets have dried up just as stock markets have collapsed. The collapse of major investment banks such as Lehman Brothers has only added to the overall turmoil. Exchange rates too have been severely affected. All of these developments have contributed to a very uncertain investment market in the ICT sector — one fraught with potential pitfalls and volatile conditions.

Operators have examined the impact of the crisis on their international investment strategies and on the profitability of the operations in which they have already invested. There appear to be two major reactions to the current investment challenges. Some operators have stopped investing or have scaled back their investment targets. Other operators view the current crisis as an opportunity to invest in selected markets at a significantly reduced premium.

Regulators and policy-makers can proactively address the problems inherent in the global downturn
This can play the role of a “stimulus plan”. Smart regulation equals investment — and investment drives growth and development. The good news is that the ICT sector is on fairly solid ground with respect to the development of regulatory and institutional frameworks.

Convergence and interconnection

Converged technologies are boosting competition. Voice over Internet protocol (VoIP) services allow broadband, cable modem and wireless service providers to compete directly with one another, as well as promoting competition by enabling new service providers to compete without owning their own network infrastructure.

The regulatory framework for future interconnection will definitely extend beyond the regulation of voice interconnection. The emergence of IP-based networks and the coexistence of telecommunication companies and Internet environments are already putting pressure on existing regulatory practices. There are indications that established interconnection regulatory regimes may not be flexible enough, and may not be able to solve problems in the market effectively. Some changes in interconnection practices have already taken place naturally (such as
implementation of capacity-based interconnection), and more changes will be required in the future. It also seems clear that most of the changes in interconnection regulatory models are following Internet interconnection approaches.

The coexistence of substantially different network environments, however, raises challenges for regulators. Can the mechanisms that have sustained interconnection in the Internet world to date be followed in the future? Will they be able to ensure and sustain stable interconnection? Is the “hands off” regulatory approach still the right approach? These questions have become critical and remain open for discussion.

The telecommunication industry is evolving towards a future in which IP-based networks will gradually replace circuit-switched networks, both for fixed and mobile services. Even so, regulators will need to ensure effective and reliable network interconnection, in order to maximize value and reach as many customers as possible. The separation of transport and service functions not only enables seamless interconnectivity, it provides maximum flexibility to drive services over multiple networks. In short, IP offers a future of more interconnection, rather than less.

However, IP networks will coexist for the foreseeable future with older legacy networks. Thus the need for legacy interconnection regulations will not disappear — indeed, the complex interconnection environment may well call for greater oversight.

The growth of VoIP services is changing the telecommunication landscape, bringing new players into competition with incumbents and rewriting the sector’s economics.

While governments and regulators move to embrace this growing reality, operators are adapting to the altered competitive landscape and the emergence of new business models. All of this bodes well for further integration of networks, services and applications in the era of convergence.

Consumer protection for the connected customer

The need to be connected and “always-on” affects the way consumers live and the way business is transacted. Whether through high-speed broadband or a dial-up connection, access to the Internet has become synonymous with access to markets, information, social networks and education.

In order to ensure that consumers benefit fully from the services the Internet has to offer, regulators need to ensure that networks are efficient and reliable, widely accessible (including in remote, rural areas) and affordable. The challenge is to promote favourable market conditions for competition and innovation, while at the same time protecting consumers’ interests.