



Work in progress  
for public discussion

WORLD BANK TECHNICAL PAPER NO. 489

**WTP489**

October 2000

# Telecommunications Legislation in Transitional and Developing Economies



*Tim Schwarz*  
*David Satola*

## Recent World Bank Technical Papers

- No. 406 Milazzo, *Subsidies in World Fisheries: A Reexamination*
- No. 407 Wiens and Guadagni, *Designing Rules for Demand-Driven Rural Investment Funds: The Latin American Experience*
- No. 408 Donovan and Frank, *Soil Fertility Management in Sub-Saharan Africa*
- No. 409 Heggie and Vickers, *Commercial Management and Financing of Roads*
- No. 410 Sayeg, *Successful Conversion to Unleaded Gasoline in Thailand*
- No. 411 Calvo, *Options for Managing and Financing Rural Transport Infrastructure*
- No. 413 Langford, Forster, and Malcolm, *Toward a Financially Sustainable Irrigation System: Lessons from the State of Victoria, Australia, 1984–1994*
- No. 414 Salman and Boisson de Chazournes, *International Watercourses: Enhancing Cooperation and Managing Conflict, Proceedings of a World Bank Seminar*
- No. 415 Feitelson and Haddad, *Identification of Joint Management Structures for Shared Aquifers: A Cooperative Palestinian-Israeli Effort*
- No. 416 Miller and Reidinger, eds., *Comprehensive River Basin Development: The Tennessee Valley Authority*
- No. 417 Rutkowski, *Welfare and the Labor Market in Poland: Social Policy during Economic Transition*
- No. 418 Okidegbe and Associates, *Agriculture Sector Programs: Sourcebook*
- No. 420 Francis and others, *Hard Lessons: Primary Schools, Community, and Social Capital in Nigeria*
- No. 421 Gert Jan Bom, Robert Foster, Ebel Dijkstra, and Marja Tummers, *Evaporative Air-Conditioning: Applications for Environmentally Friendly Cooling*
- No. 422 Peter Quaak, Harrie Knoef, and Huber Stassen, *Energy from Biomass: A Review of Combustion and Gasification Technologies*
- No. 423 Energy Sector Unit, Europe and Central Asia Region, World Bank, *Non-Payment in the Electricity Sector in Eastern Europe and the Former Soviet Union*
- No. 424 Jaffee, ed., *Southern African Agribusiness: Gaining through Regional Collaboration*
- No. 425 Mohan, ed., *Bibliography of Publications: Africa Region, 1993–98*
- No. 426 Rushbrook and Pugh, *Solid Waste Landfills in Middle- and Lower-Income Countries: A Technical Guide to Planning, Design, and Operation*
- No. 427 Mariño and Kemper, *Institutional Frameworks in Successful Water Markets: Brazil, Spain, and Colorado, USA*
- No. 428 C. Mark Blackden and Chitra Bhanu, *Gender, Growth, and Poverty Reduction: Special Program of Assistance for Africa, 1998 Status Report on Poverty in Sub-Saharan Africa*
- No. 429 Gary McMahon, José Luis Evia, Alberto Pascó-Font, and José Miguel Sánchez, *An Environmental Study of Artisanal, Small, and Medium Mining in Bolivia, Chile, and Peru*
- No. 430 Maria Dakolias, *Court Performance around the World: A Comparative Perspective*
- No. 431 Severin Kodderitzsch, *Reforms in Albanian Agriculture: Assessing a Sector in Transition*
- No. 432 Luiz Gabriel Azevedo, Musa Asad, and Larry D. Simpson, *Management of Water Resources: Bulk Water Pricing in Brazil*
- No. 433 Malcolm Rowat and José Astigarraga, *Latin American Insolvency Systems: A Comparative Assessment*
- No. 434 Csaba Csaki and John Nash, eds., *Regional and International Trade Policy: Lessons for the EU Accession in the Rural Sector—World Bank/FAO Workshop, June 20–23, 1998*
- No. 435 Iain Begg, *EU Investment Grants Review*
- No. 436 Roy Prosterman and Tim Hanstad, ed., *Legal Impediments to Effective Rural Land Relations in Eastern Europe and Central Asia: A Comparative Perspective*
- No. 437 Csaba Csaki, Michel Dabatisse, and Oskar Honisch, *Food and Agriculture in the Czech Republic: From a “Velvet” Transition to the Challenges of EU Accession*
- No. 438 George J. Borjas, *Economic Research on the Determinants of Immigration: Lessons for the European Union*
- No. 439 Mustapha Nabli, *Financial Integration, Vulnerabilities to Crisis, and EU Accession in Five Central European Countries*
- No. 440 Robert Bruce, Ioannis Kessides, and Lothar Kneifel, *Overcoming Obstacles to Liberalization of the Telecom Sector in Estonia, Poland, the Czech Republic, Slovenia, and Hungary: An Overview of Key Policy Concerns and Potential Initiatives to Facilitate the Transition Process*
- No. 441 Bartłomiej Kaminski, *Hungary: Foreign Trade Issues in the Context of Accession to the EU*

(List continues on the inside back cover)

# Telecommunications Legislation in Transitional and Developing Economies

---

*Tim Schwarz*  
*David Satola*

*The World Bank*  
*Washington, D.C.*

Copyright © 2000  
The International Bank for Reconstruction  
and Development/THE WORLD BANK  
1818 H Street, N.W.  
Washington, D.C. 20433, U.S.A.

All rights reserved  
Manufactured in the United States of America  
First printing October 2000  
1 2 3 4 04 03 02 01 00

Technical Papers are published to communicate the results of the Bank's work to the development community with the least possible delay. The typescript of this paper therefore has not been prepared in accordance with the procedures appropriate to formal printed texts, and the World Bank accepts no responsibility for errors. Some sources cited in this paper may be informal documents that are not readily available.

The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations, or to members of its Board of Executive Directors or the countries they represent. The World Bank does not guarantee the accuracy of the data included in this publication and accepts no responsibility for any consequence of their use. The boundaries, colors, denominations, and other information shown on any map in this volume do not imply on the part of the World Bank Group any judgment on the legal status of any territory or the endorsement or acceptance of such boundaries.

The material in this publication is copyrighted. The World Bank encourages dissemination of its work and will normally grant permission promptly.

Permission to photocopy items for internal or personal use, for the internal or personal use of specific clients, or for educational classroom use, is granted by the World Bank, provided that the appropriate fee is paid directly to Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, U.S.A., telephone 978-750-8400, fax 978-750-4470. Please contact the Copyright Clearance Center before photocopying items.

For permission to reprint individual articles or chapters, please fax your request with complete information to the Republication Department, Copyright Clearance Center, fax 978-750-4470.

All other queries on rights and licenses should be addressed to the World Bank at the address above or faxed to 202-522-2422.

ISBN: 0-8213-4823-X  
ISSN: 0253-7494

Tim Schwarz is a partner in the Communications Practice group of the international law firm Clifford Chance, located in its London, England, offices. David Satola is senior counsel in the Finance and Private Sector Development unit of the Legal Department at the World Bank, located at its headquarters in Washington, D.C., USA. The views expressed in this paper are the authors' own and they should not be attributed to the World Bank, its Executive Board of Directors, its management, or any of its member countries.

#### Library of Congress Cataloging-in-Publication Data

Schwarz, Tim, 1959-

Telecommunications legislation in transitional and developing economies / Tim Schwarz, David Satola.

p. cm. — (World Bank technical paper ; no. 489)

Includes bibliographical references

ISBN 0-8213-4823-X

1. Telecommunication—Law and legislation—Developing countries—Evaluation. I. Satola, David, 1960-. II. Title. III. Series.

K4305.S39 2000

384'.09172'4—dc21

00-043767  
CIP

# TELECOMMUNICATIONS LEGISLATION IN TRANSITIONAL AND DEVELOPING ECONOMIES

## TABLE OF CONTENTS

	Page
<b>Foreword</b> .....	vi
<b>Acknowledgments</b> .....	vii
<b>Abbreviations and Acronyms</b> .....	viii
<b>Introduction</b> .....	ix
<b>I. Scope of TDC Telecommunications Legislation</b> .....	1
<b>A. Trends and issues</b> .....	1
1. <i>Privatization and liberalization trends</i> .....	1
a. <i>Private sector participation</i> .....	1
b. <i>Liberalization</i> .....	2
2. <i>WTO Agreement</i> .....	2
3. <i>Technological velocity and the focus on services</i> .....	3
4. <i>Licensing</i> .....	4
5. <i>Growth of wireless services</i> .....	4
a. <i>Frequency allocation and licensing</i> .....	4
b. <i>Coordination of other radio regulations</i> .....	6
c. <i>Mechanisms to enhance investor confidence</i> .....	7
6. <i>Other scarce resources</i> .....	7
a. <i>Numbers</i> .....	7
b. <i>Infrastructure sharing</i> .....	7
7. <i>Interconnection</i> .....	8
8. <i>Cost-based charging and the prohibition against cross-subsidies</i> .....	8
<b>B. Competition concerns</b> .....	9
1. <i>Type of anti-competitive conduct</i> .....	9
2. <i>Abuses of dominance</i> .....	9
3. <i>Anti-competitive agreements</i> .....	10
4. <i>Anti-competitive structural changes</i> .....	11
5. <i>Interface between competition and telecommunications legislation</i> ...	11
6. <i>Transitional measures where there is no general competition law</i> .....	12
<b>C. Real property law</b> .....	13
1. <i>Importance of real property rights</i> .....	13
2. <i>Substantive real property rights required by new entrants</i> .....	13
3. <i>Procedural rights required by new entrants</i> .....	14
4. <i>Implications of existing TDC real property law</i> .....	14
<b>D. Other relevant legislation</b> .....	15

E. Broadcasting and the implications of convergence .....	16
F. Separation of PTT's activities.....	17
G. Postal regulation and trends .....	17
<b>II. The Telecommunications Regulatory Function .....</b>	<b>20</b>
A. Importance of effective regulation.....	20
B. Investor confidence enhancement mechanisms .....	21
C. Key regulatory design issues .....	21
D. Role of the Ministry .....	22
1. <i>Investor concerns and link with regulator independence</i> .....	22
2. <i>Key decisions for Minister</i> .....	23
3. <i>Involvement of other Ministers, the Cabinet, Parliament</i> .....	23
E. Functions of the TRB.....	24
F. Independence .....	25
1. <i>Advantages and disadvantages of independence</i> .....	25
2. <i>Lack of independence in the past</i> .....	25
3. <i>Structural models</i> .....	26
4. <i>"Independence enhancement" mechanisms</i> .....	26
G. Checks and balances between Ministry and TRB.....	27
1. <i>Checks and balances mechanisms</i> .....	27
2. <i>Modification and renewal</i> .....	28
3. <i>Gradual transfer of powers from Ministry to TRB</i> .....	29
H. Appeals against decisions of the TRB .....	29
I. Multi-sectoral regulatory approaches .....	30
1. <i>Advantages and disadvantages</i> .....	30
2. <i>Practical strategies for implementing a multi-sectoral approach</i> .....	33
<b>ANNEX Framework Telecommunications Legislation .....</b>	<b>A-i</b>
Part I – General .....	A-1
Article 1 General objectives of the Law .....	A-1
Article 2 Definitions.....	A-2
Article 3 Application and scope.....	A-5
Article 4 Objectives of the Minister and the Commission.....	A-5
Part II – Functions of the Ministry.....	A-7
Article 5 Functions of the Ministry.....	A-7
Part III – The Commission.....	A-8
Article 6 Establishment and composition of the Commission.....	A-8
Article 7 Appointment and removal criteria .....	A-10
Article 8 Tenure, re-appointment, resignation and removal .....	A-11
Article 9 Remuneration of Commissioners and Commission staff....	A-12
Article 10 Financing of the Commission .....	A-12
Article 11 Budget and audit .....	A-13
Article 12 The functions of the Commission.....	A-14
Article 13 Enforcement powers of the Commission.....	A-15

Part IV: Licensing Regime.....	A-17
Article 14 Types of license .....	A-17
Article 15 Licensing requirements .....	A-18
Article 16 Licensing process .....	A-20
Article 17 License conditions .....	A-21
Article 18 Modification of licenses.....	A-22
Article 19 Duration and renewal .....	A-24
Article 20 Revocation of licenses .....	A-24
Part V: Universal service .....	A-26
Article 21 Universal service.....	A-26
Part VI: Frequency.....	A-27
Article 22 Special rules regarding frequency.....	A-27
Part VII: Miscellaneous regulation .....	A-28
Article 23 Equipment type approval .....	A-28
Article 24 Tariffs.....	A-29
Article 25 Interconnection .....	A-30
Article 26 Directory and emergency services information .....	A-31
Article 27 Numbering plan .....	A-32
Article 28 Property rights.....	A-33
Article 29 Confidentiality .....	A-34
Part VIII: Investigation and Offenses .....	A-35
Article 30 Investigation of complaints & dispute resolution .....	A-35
Article 31 Offenses .....	A-36
Part IX: Final and Transitional Provisions.....	A-37
Article 32 Entry into force, consequential repeal and amendments and transitional measures.....	A-37

## Foreword

This paper examines the design of telecommunications legislation in countries with transitional and developing economies engaged in liberalizing and privatizing their telecommunications sectors. While recognizing the cliché that this sector is evolving at a dizzying velocity, the authors intended not to address every issue or eventuality of sector development. Rather, the purpose of this paper is to provide a framework for debate on a policy level about a myriad of choices facing policy makers and legislators, taking into account the rate of change in one of the world's most dynamic sectors. This paper is also a synthesis of international best practice from the developed world, the developing world, from countries with common law legal traditions as well as civil law, and others. It is retrospective (taking advantage of lessons learned, both positive and negative) and forward looking. It does not purport to be a model law and is not intended to be used as one, but as a device for decision makers to identify issues raised by the particular circumstances posed by their markets and to craft solutions to those needs.

Ko-Yung Tung  
Vice President and General Counsel  
Legal Department  
The World Bank



## **Acknowledgments**

The authors are indebted to all of the ministry and PT&T officials around the world who have listened to, discussed, debated and argued with, tested, and criticized the authors on the context of telecommunications sector reform, from the ashes of which this paper rises as a synthesis, and without which the authors might not have been motivated to record their thoughts. In the final preparation of the text, the authors express their appreciation to Oriana Bolvaran (LEGPS); and for up-to-date reality checks on substantive developments, the authors wish to acknowledge the many staff of the Telecommunications Unit of the World Bank, especially Björn Wellenius for his intellectual leadership in advocating this project.

## Abbreviations and Acronyms

ART	Autorité de Régulation des Télécommunications
CATV	Cable Television
EC	Commission of the European Communities
EU	European Union
FCC	Federal Communications Commission, United States of America
FTL	Framework Telecommunications Legislation
ISP	Internet Service Provider
Minister, Ministry	The Minister or Ministry responsible for telecommunications, as the context indicates
MFN	“Most Favored Nation”
MSR	Multi-sectoral Regulator
OFTEL	Office of Telecommunications, United Kingdom
PSTN	Public Switched Telecommunications Network
PTT	Posts, Telecommunications and Telegraphs
TDC	Countries with transitional or developing economies
TRB	Telecommunications Regulatory Body
USO	Universal Service Obligations
WTO	World Trade Organization

# TELECOMMUNICATIONS LEGISLATION IN TRANSITIONAL AND DEVELOPING ECONOMIES

## Introduction

This paper examines the design of telecommunications legislation in countries with transitional and developing economies ("TDCs") engaged in liberalizing and privatizing their telecommunications sectors. The outlook of this paper is at once historical (insofar as it attempts to synthesize good practice) and prospective (insofar as it is intended to be used as a tool for legislative drafting).

The World Bank has been involved in telecommunications liberalization and privatization in a wide range of TDCs and has thereby acquired considerable experience in advising on the design of telecommunications legislation in sometimes very different legal and market environments.

An effective legal and regulatory framework is essential in order to attract private investment into the telecommunications sector of most TDCs and to ensure that the TDC has the best chance of achieving the benefits for the country as a whole that flow from a competitive telecommunications sector. This is particularly so where, as is currently the case, potential investors have a wide range of telecommunications opportunities to choose from world-wide, in non-TDCs as well as in TDCs.

Essentially, an investor-friendly legal and regulatory framework can provide a TDC with "money for nothing", encouraging investors to pay a premium for legal and regulatory certainty and security. In the absence of such a framework, investors are likely to discount, sometimes heavily, for legal and regulatory risk.

The main purpose of this paper is to highlight some of the issues which policy makers and legislators in TDCs may wish to bear in mind, as just one of many inputs, when preparing an effective legislative framework for telecommunications privatization and liberalization.

A clear understanding of the policy direction to be undertaken in the telecommunications sector in the TDC is essential<sup>1</sup>. This policy will preferably be published, or at least publicly available. In a very real sense, the organic telecommunications law of any country is merely a reflection of the government's policy in the sector. In too many cases, the temptation will be to avoid what may be difficult policy decisions and go straight to the preparation of a national law. This type of policy reverse-engineering will invariably be unsuccessful and may also result in incoherent or weak legislation that fails to provide certainty to investors.

---

<sup>1</sup> See, e.g. Wellenius, Björn, "Telecommunications Reform – How to Succeed", *Privatesector* NOTE N° 130, October 1997, The World Bank.

Accordingly, this discussion, and the FTL, are based as the assumption that a clear sectoral policy has been articulated and is to be reflected in a new law. It is for this reason that it is hoped that the FTL can be used as tool or device in the policy debate and that neither the FTL be used or other legislation be adopted in a policy vacuum.

### **Structure of this paper**

This paper has three components. The first section outlines the scope and underlying principles of telecommunications legislation; the second section outlines the regulatory imperatives of telecommunications legislation and a third component, which is an annex containing framework telecommunications legislation.

Section I examines a number of key issues concerning the appropriate scope and coverage of telecommunications legislation in TDCs and the interface between a TDC's telecommunications law and other legislation with a direct or indirect impact on the telecommunications sector.

Section II examines the functions and certain design options of the telecommunications regulatory body ("TRB") in TDCs and the way in which decisions concerning the design of the TRB can be reflected in a TDC's telecommunications law. One particular issue examined in Section II is the option, increasingly under consideration by TDCs, of establishing a MSR responsible not just for telecommunications but also for other utility sectors.

The Annex contains a framework for examining primary telecommunications legislation ("FTL") in a TDC: a text designed to reflect, in more or less legislative format, the points made in Sections I and II with an article-by-article commentary.

**CAVEAT:**

The FTL, together with the other commentary contained in this paper, is not intended to be legislation, but rather to be a guide to legislative drafting. In that sense, the FTL is intended to be a device to generate discussion about issues affecting the telecommunications legal and regulatory environments of TDCs as they move towards a modern competitive activity in the sector.

In critically reviewing the FTL, users must bear in mind that:

- It is not tailored to the specific circumstances of any particular market, although it does draw upon the experience in a wide range of TDC and non-TDC countries
- It is not specifically tailored to either the common law or civil law system, although it does reflect aspects of both
- It addresses some issues which, according to some TDCs' legal tradition, would more naturally be dealt with in secondary legislation, licenses or non-telecommunications primary legislation – and vice versa
- It does not take account of the fact that certain TDCs are subject to special international treaty obligations<sup>2</sup>

For these reasons, the FTL should not be regarded or used by any TDC as a template or model for its telecommunications law but as a reference tool - one of many<sup>3</sup> - for legislators and policy makers to use in forging specific responses to the particular dynamics raised while embarking on the liberalization and privatization of their telecommunications sector.

---

<sup>2</sup> For example, the obligation incumbent on a number of Central and Eastern European countries to align their telecommunications legislation with that of the European Union.

<sup>3</sup> An example is the "Model Telecommunications Bill", version 18 June 1998, of the Southern Africa Development Community (SADC).



## I. SCOPE OF TDC TELECOMMUNICATIONS LEGISLATION

This section provides a brief overview of the fundamental underlying tenets and scope of the telecommunications legislation in countries with transitional or developing economies ("TDCs") with the exception of general regulatory functions which, because of their central importance to the FTL, are handled separately in Section II. This section also briefly examines the relationship between a TDC's general telecommunications law and other legislation with a direct or indirect impact on the telecommunications sector.

### A. Trends and issues

The scope of a modern, flexible telecommunications law requires that it be responsive to current global trends in the sector in such a way that enables the TDC to position itself on a competitive footing *vis-à-vis* other telecommunications markets. Following is a summary of key trends that have been taken into account as background for the FTL.

#### 1. *Privatization and liberalization trends*

In most TDCs, telecommunications services have traditionally been provided, along with postal services, on a monopoly basis, by a state-owned PTT, operating under a government department or ministry. The clear trend among TDCs is to move away from this traditional position towards privatization and liberalization of their telecommunications sectors. This trend is set to accelerate following the recent WTO Agreement on the liberalization of basic telecommunications services<sup>4</sup>. This paper addresses certain sustainable legal and regulatory responses to managing the transition from a monopoly to a competitive environment with private sector participation.

*a. Private sector participation.* Participation by the private sector in the formerly state-dominated telecommunications sector can come in a variety of forms. For example, licensing private operators, opening the incumbent to private ownership or management or both. In this paper, privatization is used generally to refer to the opening of the share capital of the incumbent state-owned operator to ownership by private parties (through a share sale to a strategic partner or flotation of shares), or through permitting private parties to manage the incumbent (through a management contract).

Privatization also implies a separation of the former PTT. The trend in many TDCs is to separate out the postal and telecommunications activities of the state-owned PTT, with, say, the telecommunications activities being transferred into a newly formed joint-stock

---

<sup>4</sup> The WTO is discussed in more detail in § I.A.2., below.

company<sup>5</sup>, the postal activities being transferred to a statutory corporation<sup>6</sup> and the regulatory activities of the PTT being transferred to a new regulatory body.<sup>7</sup>

Initially, the State will own 100% of the shares in the telecoms joint-stock company but will then often “privatize” by selling a stake to a “strategic investor”. The stake may be a majority stake, or a minority stake accompanied by a degree of management control. Some TDCs may also dispose of a tranche of shares through an initial public offering.

**b. Liberalization.** In terms of liberalization, the broad trend in many TDCs is to leave the incumbent operator with a monopoly over “basic” services (e.g., voice telephony between fixed points, telex, telegraph), or international long distance services, and the corresponding network infrastructure, for an initial exclusivity period of, say, three, five or seven years. This extended monopoly period is intended to enable the incumbent to make necessary structural adjustments prior to the introduction of competition (such as tariff rebalancing, debt and labour force restructuring) – and such extension should be strictly limited to the time necessary to undertake those adjustments.

Most other market segments (e.g., terminal equipment, mobile data and value added networks and services) will be opened up to competition immediately, although limits will typically be placed on the number of mobile cellular licenses issued due to radio spectrum constraints.

In a few TDCs,<sup>8</sup> a more radical approach has been taken to the liberalization of “basic” services where licenses for a second network operator have been awarded prior to, or at the same time as, selling a strategic stake in the incumbent operator, leaving the latter with no exclusivity period.

## **2. WTO Agreement**

In February 1997, 68 countries plus the EU submitted their commitments to market access in the telecommunications sector under the framework of the General Agreement on Trade in Services, which has become known as the WTO Telecoms Agreement.<sup>9</sup> The

---

<sup>5</sup> Rather than transfer the PTT's telecommunications activities directly into a joint-stock company governed by ordinary company law, some TDCs decide, as an initial step, to transfer the telecommunications activities into a statutory corporation established under special legislation which can serve as the legal basis for reserving to the State certain rights which may not be available under ordinary company law, and also confer special privileges on the statutory corporation (e.g., exemptions from taxation and from legal liability for deficient performance).

<sup>6</sup> Increasingly, however, the same liberalization and privatization strategies applied to the telecommunications sector are being applied to the postal sector. See § I.G., below

<sup>7</sup> There may be a potentially adverse effect on the independence of the new TRB by transferring into it “lock, stock and barrel” personnel who previously worked in the PTT. See § II.F, below, for a discussion generally on the independence of the regulatory function.

<sup>8</sup> Ghana and Uganda are examples.

<sup>9</sup> See, e.g., Braga, Carlos A., “Liberalizing Telecommunications and the role of the World Trade Organization”, VIEWPOINT NOTE N° 120, July 1997, The World Bank.



cornerstone of the WTO Telecoms Agreement is the Reference Paper<sup>10</sup> which provides a framework for regulatory reform. The WTO Telecoms Agreement is a multilateral common ground for the opening up of trade in telecommunications services. Implementing the regulatory principles of the Reference Paper in national telecommunications legislation is a signal to the global telecommunications investment community that a country is “open for business” on terms which will generate confidence in investors.<sup>11</sup> Treatment of the WTO Telecoms Agreement is beyond the scope of this paper. However, the regulatory principles discussed in this paper reflect the Reference Paper and one of the theories underpinning the FTL is implementation in national legislation of those principles.

### 3. *Technological velocity and the focus on services*

The focus in this paper and the FTL is on telecommunications *services*, not networks or the underlying technology over which those services are being provided. The industry lessons of the last years have taught that technological developments occur at a velocity heretofore unknown, rendering “*traditional*” distinctions based on technology increasingly irrelevant. The discussion and the general framework of the FTL is intended to be technology neutral. Even the distinction of the treatment of wireless telecommunications is made on the basis of wireless services, not a particular wireless technology. For example, the reality of today’s world makes it almost impossible to speak of the telecommunications network consisting of only one type of technology. Operators offering “*basic services*” deploy a variety of technology – copper wire, fiber optics and wireless. And those operators are choosing which technology to deploy increasingly on economic and commercially efficient bases.

Accordingly, licensing of “*networks*” is avoided in favour of licensing of “*services*”. Operators in a competitive environment will be increasingly motivated by commercial efficiency in the investment and deployment of their infrastructure. A technology-neutral telecommunications law will also provide flexibility for the introduction of new services using new technologies as they become available, without constraining the regulatory function. The same could be said of “*converging*” services. Notions of granting exclusivity over infrastructure are anathema in this new environment, yet enabling incumbent state-owned operators to cling to exclusivity over infrastructure will surely have a dampening effect on sector growth because it fails to allow, much less encourage, economically efficient investment in the best infrastructure over which to deploy a service. Finally, a focus on services that encourages efficient investment is consistent with and fosters the offering of cost-based services; an essential element for a truly competitive environment.

<sup>10</sup> 36 I.L.M. 35-1 (1997). The GATS, the Reference Paper, individual commitments of countries and related instruments are available on-line at [www.wto.org](http://www.wto.org).

<sup>11</sup> As one author so aptly put it, participating in the WTO is a “competitive differentiator among developing nations”. See, Shears, Matthew, “Int’l Liberalization: The WTO and Implications for EU Markets and Regulation”, *Int’l Bus. Lawyer*, at 299, July/August 1997.

#### 4. *Licensing*

In the “old” regime, licensing or authorizing an operator to provide service or install a network was a discretionary act, and lack of a clear licensing regime either prevented operators from entering markets or increased the risk factor of their investments. The FTL has been prepared to reflect a growing trend in the sector to divide licensing into three basic categories – individual licenses, class licenses and services for which no license is necessary. “*Individual*” licenses are licenses that are individually applied for, or won pursuant to a competitive process. Even in a transparent regulatory environment, individual licenses may be necessary<sup>12</sup>. Tenders, however, would have to be fair, objective and transparent; and criteria for license grants applied in an objective and non-discriminatory manner. “*Class*” or “*general*” licenses are licenses that are available to any qualified operator applying to the TRB for authorization, or that apply to any entity falling within their terms. Here, the TRB would prepare and publish criteria which prospective operators would have to meet, and would also prepare a standard form of operating license under which qualified applicants would have to operate. There may be other services for which no license would be necessary, but in which the TRB may have an interest in knowing who is actively participating.<sup>13</sup> From a policy perspective, how the government of a TDC decides which services fall into which category will differ from country to country and should take into account specific local circumstances.

In addition to the process by which licenses are awarded, license terms must be fair, open and transparent with the objective of creating among operators of equivalent services a level playing field to ensure fair competition from which consumers will benefit and the sector can grow. Licenses are either published or publicly available.

#### 5. *Growth of wireless services*

##### a. *Frequency allocation and licensing*

Use of radio technologies to provide telecommunications service in TDCs, often to previously inaccessible areas, is assuming increasing importance, due to the emergence of new wireless local loop and other technologies.

Although the approach taken in some TDCs is to address the regulation of radio spectrum in a special radio law separate from the general telecommunications law (and separate from the general broadcasting law), others recognize the convenience and economies of scale derived from having one, integrated regulatory function in the telecommunications sector. By the same token, many TDCs have decided to establish a regulator separate

---

<sup>12</sup> Generally speaking such licenses are for services where either there is a scarce resource involved (i.e. cellular) or when the state has an interest in ensuring that the service is provided (i.e., “basic” services or universal service).

<sup>13</sup> For example ISPs, may be subject to no licensing obligations, but rather may be subject to a regime where they must submit a declaration that they are providing such services.

from both the TRB and the broadcasting regulator. The separate radio regulator may comprise representatives from all the Ministries<sup>14</sup> using radio spectrum in the TDC.

Because frequency management<sup>15</sup> historically involved a variety of governmental players over a range of activities and a scarce resource, it has an undeniable political dimension. The aim here is to separate out the political dimension and isolate the regulatory aspects. The government of a TDC will have an interest in ensuring, from a policy perspective, that radio frequency is fairly allocated among different users and in accordance with international standards. Once allocated to the telecommunications sector, use of that frequency will have certain regulatory aspects, including licensing and monitoring. Again, the government may have an interest in restricting use of frequency, even in the telecommunications sector, but increasingly, however, as markets are liberalized, these restrictions are being relaxed because the reasons for the restrictions are now addressed through strict regulatory devices, such as license conditions and penalties for improper use.

The overall construction of the radio frequency regime, as reflected in the FTL is as follows: the Ministry retains overall policy discretion over frequency in the telecommunications sector, and, probably in conjunction with an inter-ministerial committee, decides how frequency is allocated among sectors. The TRB assigns or licenses frequency-based services in the telecommunications sector. It is recognized that in some legal systems the TRB may not have constitutional authority to execute licenses. In those circumstances it is recommended that license tenders (for individual licenses<sup>16</sup>) be conducted by the TRB (who then makes recommendations to the Minister for ratification), and that conditions for general licenses for frequency-based services<sup>17</sup> be determined by the TRB. The TRB also monitors frequency use in the telecommunications sector and could type-approve terminal adoption equipment used in the sector. A key component of its frequency licensing responsibility would be able to ensure fair assignment of frequency blocs among operators of equivalent services.

In terms of licensing, a “*one-stop shopping*” mechanism is recommended to boost investor certainty. This means that the license to operate the frequency-based service should be the same as the authorization to use the frequency to provide the service. A cellular operator should not have to go to one governmental entity to obtain permission to offer a service and another to obtain the authorization to use the frequency necessary to do so.

---

<sup>14</sup> Ministries with an interest in radio spectrum include ministries responsible for defense, civil aviation and public safety/emergency services.

<sup>15</sup> Frequency Management can encompass the allocation of the frequency band among different uses (such as civil aviation, military, telecommunications, broadcast, civilian and other uses), the licensing of frequencies within the telecommunications sector, control of use of frequencies and other technical monitoring matters.

<sup>16</sup> See, §I.A.4 for a discussion of the differences between individual and class or general licenses; and Article 14, FTL.

<sup>17</sup> Certain services, such as paging, could appear to be suitable for class licenses even though using “scarce” frequency.

Regardless of whether radio frequency matters are dealt with in the general telecommunications law or separately, the following highlight some reasons for its special treatment.

- a number of different State entities have radio spectrum needs (e.g., army, police, emergency services, air and sea transport)
- a surplus amount of radio spectrum may have been allocated to, say, the military and may need to be retrieved for the purposes of liberalization by a regulator possessing broad political support, thus requiring inter-ministerial agreement on allocation
- regulation of radio spectrum raises a number of specific regulatory issues (e.g., controlling harmful interference and overlapping spectrum coverage at national boundaries conformity to international frequency allocations) the same is true whether spectrum is being used for telecommunications or for broadcasting purposes, for example
- regulation of radio spectrum may require special powers (e.g., robust search and seizure rules for interference-causing radio equipment) which do not depend upon whether the spectrum is being used for telecommunications or for broadcasting purposes.

***b. Coordination of radio regulations***

The preference which underlies the FTL is for including in the telecommunications law regulation over frequency allocated to the telecommunications sector. However, if separate “radio” regulation is required in a TDC, it is essential to provide for close coordination between the telecommunications regulatory function and the regulatory functions of other “radio” regulators.

Where a TDC has not established such close coordination, investors requiring both a telecommunications license and a radio license can experience a number of problems, including the following:

- speedy issuance of one license but delays in the issuance of the other license
- issuance by the TRB of a telecommunications license but refusal by the radio regulator of a radio license
- differences in the key provisions in the telecommunications license compared with the radio license (e.g., investor-friendly revocation provisions in the telecommunications license but investor-hostile revocation provisions in the radio license).

These types of problems are more acute where, as in the case of a cable TV operator providing both broadcasting and telecommunications services, a **broadcasting** license<sup>18</sup> may be required in addition to a telecommunications and radio license.

**c. Mechanisms to enhance investor confidence**

When preparing telecommunications and broadcasting legislation, a TDC can reduce the adverse impact on investors of these types of problems by providing for:

- a “one-stop shop” approach whereby an operator who requires, say, a telecommunications, radio and broadcasting license can deal with just one of the three regulators involved and rely upon that regulator to liaise with the others to ensure that the applications for all three licenses are processed in a timely fashion
- the key terms (e.g., duration, revocation, modification, renewal) of all the licenses to be harmonized and mutually consistent so that an investor does not have to run the risk for example of being protected from revocation of his telecommunications license while having very little protection against having his radio license revoked.

**6. Other scarce resources**

Spectrum is not the only “scarce” resource affecting the operations competing providers of telecommunications services. Others addressed in the FTL include numbering and infrastructure sharing.

**a. Numbers**

Numbers are an important part of operating a telecommunications business. Regulation of a number plan is probably best left to an impartial party like the TRB. First, numbers are increasingly becoming identified with particular operators. As new entrants come into the market place in a liberalized environment, one of their operational issues will be managing the numbers of their subscribers. Each operator should be assigned sufficient blocs of numbers to run its business. Number bloc(s) should be assigned to operators on a fair basis and non-discriminatory basis. The incumbent should not get all the “good” number blocs while its competitor, even though assigned the same quantity of numbers as the incumbent, does not have the same size number blocs, for example. This would result in a kind of competitive disadvantage suffered by the new entrant.

**b. Infrastructure sharing**

Sharing infrastructure is not necessarily the same as interconnection, but it is just as important for the orderly opening up of a telecommunications market. Where possible, operators should share ducts, towers, poles and other infrastructure elements of their networks. As wireless technologies are increasingly deployed, one can image the proliferation of towers that would occur if operators were not encouraged to share their infrastructure. This incentive towards environmental responsibility and market efficiency is balanced against the interest of operators to have their networks or the provision of

---

<sup>18</sup> See, § I.E., below, for more on broadcasting.

their services free from interference. It is also recognized that the requirement to share infrastructure must not be abused by those requesting sharing. Indeed, from the point of view of legal mechanism, the regime established for infrastructure sharing established under article 28 of the FTL is nearly identical to that for interconnection under article 25 of the FTL.

### **7. *Interconnection***

Perhaps the single most contentious regulatory issue is interconnection. Fair interconnection terms are essential for operators to be competitive in a liberalized market place. Interconnection consists of technical, physical and financial components. Increasingly the fees that operators charge each other for interconnection are becoming cost-based. It may be necessary in the early stages of liberalization to phase - in such cost-based charges, as it is likely that the incumbent will not be able to determine its costs. The role of regulation in interconnection as reflected in the FTL is to set forth some basic principles about interconnection and then to empower the regulatory function with the ability to enforce those principles. Publication, or public access to written interconnection agreements is an important step towards establishing the necessary transparency. Also, clear procedures for requesting interconnection and handling disputes about it should be enshrined in the FTL.

### **8. *Cost-based charging and the prohibition against cross-subsidies***

The approach taken in the FTL favors cost-based charges and discourages cross-subsidization of services. It is recognized that many TDCs are by definition in transition – a transition that often involves moving from a position where the cost of providing telecommunications services was not reflected in the charges for those services. This meant that income derived from lucrative services (such as international services) could be used to support those that were less remunerative. However, as the transition to a liberalized environment occurs and new entrants emerge, they would suffer a competitive disadvantage *vis-à-vis* the incumbent if the incumbent were allowed to continue to subsidize its operations, thus dampening investment enthusiasm. Therefore, the TRB will have an important function in the early stages of reform to ensure that tariffs charged are not excessive, or at least do not distort competition. This can be accomplished by publishing tariffs and the TRB ensuring that stringent tariff provisions exist in operating licenses. In the licensing regime it is also important to create a level playing field among operators of same-services through ensuring such operators have nearly identical license terms and conditions.

In order for this legal mechanism to work, breach of tariff provisions must carry with it a penalty. As the market develops, the incumbent will have developed its accounting procedures and methodologies and cost-based accounting for charges can occur.

It is also recognized that determining costs can be difficult, involving determinations of short-term and long-term cost, etc. How each TDC will determine the bases of cost will naturally vary according to local accounting practices. Consequently, little in the way of detail in this regard is included in the FTL.

## **B. Competition concerns**

### ***1. Type of anti-competitive conduct***

However well-conceived a TDC's privatization and liberalization strategy might be in the telecommunications sector, it is unlikely fully to succeed unless accompanied by strong controls on anti-competitive conduct. Many TDCs, however, ignore, or accord a low priority to, the competition law aspects of telecommunications liberalization and privatization.

A newly liberalizing and privatizing telecommunications sector in a TDC will be subject to a number of different types of anti-competitive conduct, in particular:

- abuses of dominant position
- anti-competitive agreements
- anti-competitive changes in market structure.

The incumbent operator (and any strategic investor in the incumbent) will often have much to gain from weak anti-competitive controls. However, new entrants into liberalized segments of the market (e.g., a second network operator, cellular operators, value-added service providers) will regard effective controls on anti-competitive conduct as essential and will often be deterred from entering the market unless such controls are in place.

Moreover, if there is not a competition law of general application, the importance of including provisions for fair competition in the telecommunications law is magnified. Even if a law of general application exists, the telecommunications law should address fair competition between operators on certain key technical matters, such as interconnection, frequency allocation and numbering plan, as well as a general prohibition against cross-subsidies among different licensed services provided by the same operator. Where a competition law also exists, close coordination between the TRB and the general competition regulator will be necessary in relation to fair competition over certain technical matters raised in the telecommunications law.

### ***2. Abuses of dominance***

Typically, the incumbent operator in a TDC may enjoy enormous market power which will increase, following privatization, with the injection of the know-how and capital of a strategic investor.

The incumbent will generally enjoy a legal monopoly over "basic" services and, possibly, corresponding network infrastructure for an initial period (e.g., 3, 5 or 7 years). Even after "basic" services are liberalized, it may enjoy a de facto monopoly for some time to come.

The incumbent is also likely to have substantial existing operations, and therefore a “head start” in areas that are subject to immediate liberalization such as the manufacture and supply of terminal equipment, data and value added services.

In these circumstances the potential for abuses by the incumbent operator of its dominance are legion and can include:

- **cross subsidies** - using the revenues from its monopoly activities (e.g., voice telephony services) to cross-subsidize those of its activities which are subject to competition (e.g., equipment manufacture, value-added services. Internet service provision)
- **predatory pricing** - pricing below cost in newly liberalized areas so as to eliminate or deter new operators or service providers from entering the market, only to raise its prices later so as to recover the losses sustained as a result of the predatory prices
- **discrimination** - discriminating between similarly placed customers (e.g., discriminating against one customer because it is also a competitor) or discriminating in favour of its own liberalized activities
- **monopoly premiums** - pricing its monopoly services (e.g., voice telephony, interconnection or leased line services) at excessive levels
- **tying arrangements** - tying the provision of a monopoly service (e.g., voice telephony service) to the purchase by a customer of a liberalized service or product (e.g., terminal equipment or a value added service).

The controls on abuse of dominance need, however, to be sensitive to a number of specific features of a newly liberalizing telecommunications sector in a TDC. For example, the controls on anti-competitive cross-subsidies will need to take into account the traditional cross-subsidies between international/long distance services and local services, which will reduce as the incumbent operator gradually re-balances its tariffs.

### **3. *Anti-competitive agreements***

A threshold point to bear in mind when a TDC designs appropriate controls on anti-competitive conduct is the link between abuse of dominant position and anti-competitive agreements. One of the ways in which the incumbent operator in a TDC can use its dominance is to impose anti-competitive contractual conditions (e.g., tie-ins, exclusivity) on the parties with which it contracts, whether these are other operators, service providers, equipment suppliers or retail subscribers.

Other types of anti-competitive agreements which a TDC may wish to control include:

- **preferential treatment** - joint ventures between the incumbent operator and a private operator for the provision of liberalized services whereby the incumbent provides the joint venture company with preferential treatment in terms, for



example, of access to leased lines, shared use of the incumbent's facilities and customer information derived from the monopoly services of the incumbent

- **price fixing** - price fixing, or otherwise collusive, agreements in segments of the market where there is *limited* competition (e.g., between, say, cellular operators limited in number due to scarcity of radio spectrum, or between the incumbent operator and a second network operator in countries limited license numbers such as Ghana or Uganda)
- **exclusive arrangements** - exclusivity agreements between the strategic investor in the incumbent operator and the incumbent itself (e.g., for the exclusive supply by the strategic investor of network equipment to the incumbent, or for the exclusive routing of the incumbent operator's international traffic through the strategic investor's hub in, say, Western Europe).

#### 4. *Anti-competitive structural changes*

In the early stages of liberalization and privatization in a TDC, one of the key concerns is to prevent undue concentration of market power. Various types of controls are deployed to this end, including:

- outright divestiture (e.g., separating the international/long distance operations of the incumbent operator from its local operations into two separate, independently controlled entities)
- corporate separation (e.g., requiring the incumbent operator to transfer its equipment manufacture operations into a separate subsidiary)
- controls on anti-competitive mergers, acquisitions and concentrative joint ventures, requiring notification and clearance of potentially anti-competitive transactions by the TRB and/or competition regulator
- line of business restrictions (e.g., precluding the incumbent operator from applying for a cellular license)
- cross ownership controls (e.g., precluding the incumbent operator from acquiring a majority, or even a minority stake, in the second network operator).

#### 5. *Interface between competition and telecommunications legislation*

The FTL has been prepared on the assumption that investor confidence is significantly enhanced where a TDC has decided to put *general* competition legislation applicable to all sectors (including telecommunications) in place prior to, or at the same time as, launching a telecommunications privatization and liberalization program.

If a TDC has a competition law of general application in place in parallel with a telecommunications law, then a number of substantive and procedural questions arise concerning the interface between the general competition law and the telecommunications law. In particular, which anti-competitive practices should be

regulated under general competition law by a general competition regulator and which by the TRB under the telecommunications law.

The FTL addresses this interface on the basis that:

- the general competition law should apply widely to all types of anti-competitive conduct in the telecommunications sector that are not telecommunications-specific
- the telecommunications law should provide for the inclusion in licenses issued under the telecommunications law of controls on *telecommunications-specific* anti-competitive conduct<sup>19</sup>
- the telecommunications law should also provide *preventative* controls on telecommunications-specific anti-competitive conduct (i.e. controls designed to prevent particular anti-competitive conduct from occurring, rather than just attacking it once it occurs)<sup>20</sup>
- in relation to such telecommunications-specific anti-competitive conduct, the TRB should enjoy the same type of robust information-gathering powers and sanctions, as should, ideally, be conferred on the competition regulator under a TDC's general competition law
- the TRB and the general competition regulator should liaise closely in relation to the application of their respective powers to control anti-competitive conduct.

#### **6. *Transitional measures where there is no general competition law***

In practice, however, in many TDCs a telecommunications law will be adopted and a privatization and liberalization program launched without addressing the need to introduce general competition legislation to prevent many of the anti-competitive activities referred to above.

Where a TDC has indeed gone ahead with telecommunications privatization and liberalization without putting a general competition law in place, appropriate transitional measures (pending adoption of the general competition law) may need to be taken as a substitute for the controls which would have appeared in the general competition legislation.

<sup>19</sup> A TDC might, for example, take the view that the following categories of conduct would best be controlled by the TRB rather than by the general anti-trust regulator: (i) areas where "preventative" controls on anti-competitive conduct are necessary – see, footnote 17 below; (ii) "bottleneck" facilities, which may or may not be regulated under the general anti-trust rules (e.g., numbers, radio spectrum, infrastructure-sharing and property rights, control of space segment due to signatory status under international satellite agreements); and (iii) types of anti-competitive activity specific to the telecommunications sector (e.g., tying monopoly and value added services, exclusivity in international agreements).

<sup>20</sup> For example, preventative control over the incumbent operator abusing its dominant position by imposing anti-competitive contract terms on its subscribers by requiring the incumbent to obtain the approval of the Commission to the standard terms of its subscriber contract. Or, preventing excessive pricing of monopoly services through the imposition of price or tariff controls.

This may also require the inclusion in licenses of more substantive and procedural controls on anti-competitive conduct than would otherwise have been the case, and the conferral on the TRB, pending creation of a general competition regulator, of greater substantive and procedural powers over anti-competitive practices in the telecommunications sector than would otherwise have been necessary.

## C. Real property law

### 1. *Importance of real property rights*

New entrants to a liberalized telecommunications sector in a TDC will require certain property rights in order to construct, maintain and operate their networks. They will need reassurance that they will enjoy real property rights which are adequate - both substantially and procedurally - to meet their build-out and service obligations under their licenses.

New entrants will also need reassurance that whatever property rights they are to have will be equivalent to those enjoyed by the incumbent operator. Indeed, in certain cases, they will expect to have more favorable property rights than the incumbent operator (e.g., a right to share the incumbent operator's or other infrastructure).

Clearly, the importance to any particular new entrant of property rights will depend to a large extent upon the existing property rights it enjoys (e.g., a railway company with existing rights of way along its track) and the technology proposed (e.g., new entrants relying on wireless technology will generally have less need of rights of way and compulsory purchase powers than fixed link new entrants).

In many TDCs, particularly where the incumbent operator's penetration rate is very low, the property rights enjoyed by the *incumbent* will also assume a crucial importance for potential strategic investors in the incumbent who are seeking to build out the network.

### 2. *Substantive real property rights required by new entrants*

At a substantive level, three types of real property rights will be important for new entrants (and, in certain circumstances, the incumbent operator, too):

- rights of way (e.g., to lay install infrastructure)
- condemnation or eminent domain (e.g., compulsory purchase powers to build microwave towers)
- rights to share "bottleneck" infrastructure (e.g., to share the incumbent's ducts to co-locate on the incumbent's radio towers or to fly lines from the incumbent's poles).

Other rights (e.g., to cut trees, to fly lines in state-owned or environmentally sensitive areas) may be necessary in certain TDCs and in certain circumstances. In addition, new entrants will generally require property rights over both public and private land.

### **3. *Procedural rights required by new entrants***

At a procedural level, new entrants will need effective, streamlined legal mechanisms allowing them to acquire the above property rights expeditiously and at reasonable cost, including procedures for:

- acquiring essential property rights, in the absence of the landowner's consent, against payment of appropriate compensation
- obtaining shared access to the incumbent operator's "bottleneck" infrastructure, in the absence of the incumbent's consent, against payment of appropriate compensation
- assessing appropriate compensation payable by the new entrant to the landowner or to the incumbent operator (e.g., on the basis of actual physical damage incurred through the exercise of a property right or the reduction in the value of the affected property).

A threshold decision will be whether it should be the courts or the new TRB who should have responsibility for operating these procedures. The FTL has been prepared on the basis that it will be the courts, but an alternative approach, adopted in a number of TDCs, is for the TRB to have this responsibility.

Where the real property law of the TDC provides for different property rights in land, potential investors will want to see a clear indication of whose consent they need (e.g., just the owner of the freehold or also any leaseholders) in order to acquire a particular property right.

Finally, a TDC engaged in the liberalization of several utility sectors may wish to provide, through appropriate legal mechanisms, for the coordination of the exercise of property rights by different utilities (e.g., a telecommunications company and an electricity company) that are constructing their networks in the same geographical area. This avoids the same street being dug up repeatedly by each utility wishing to lay its network in that street.

### **4. *Implications of existing TDC real property law***

In most TDCs, existing real property law does not provide adequately for the types of real property rights or the procedures that new entrants to the telecommunications sector need. This may, for example, be because in the TDC in question:

- there are existing rules for the acquisition of rights over public but not private property
- there are existing rules allowing the State to acquire land or rights of way compulsorily and to give private operators the "benefit" of the land, but no direct right for new entrants to acquire the rights in question directly themselves.

Where the existing TDC legislation is deficient in the above or other respects, three approaches are possible:

- amendments to the existing real property legislation
- introduction of new real property legislation
- inclusion in the telecommunications law of specific property rights tailored to the particular need of telecommunications operators.

The FTL has been prepared on the basis that, in general, the cleanest and most investor-friendly approach, is to remedy any deficiencies in the existing real property legislation either through amendments to the TDC's existing real property legislation or through the adoption of new real property legislation.

#### D. Other relevant legislation

Although the various types of legislation discussed above have perhaps the greatest implications for a TDC's telecommunications sector, many other types of legislation can impact (directly or indirectly) on a TDC's telecommunications sector and on the drafting of the telecommunications law.<sup>21</sup> From a development policy perspective, the legal regime as a whole must be considered when envisioning what shape the sector will take following liberalization and privatization. A number of areas of law (by no means exhaustive) to be considered follow:

- **company** – legislation affecting the way private investors organize their businesses and, in the case of privatizations, shareholder rights of minority investors
- **tax** – legislation affecting the attractiveness of making an investment in a TDC
- **state enterprise/privatization** – legislation dealing with the conversion of state-owned enterprises or parastatal organizations and the introduction of private participation in them, together with any related limitations
- **licensing/concessioning** – legislation of general application on a harmonized licensing and concessioning process and which may differentiate between the use of such terms-of-art as license, concession or authorization, for example
- **intellectual property** – legislation affecting the protection offered to proprietary information of private investors in the telecommunication sector in the TDC
- **insolvency** – legislation providing for the rights of creditors in insolvency or bankruptcy

<sup>21</sup> The legal environment as whole will provide certainty to investors in the telecommunications sector that will determine their readiness to pour capital, financial and otherwise, into a TDC. For a general discussion of the different levels of "protection" afforded investors by different legal systems, see, La Porta, Rafael, *et al.*, "Which Countries Give Investors the Best Protection?", *Privatesector* NOTE N° 109, April 1997, The World Bank. Quite apart from the telecommunications law, the treatment of shareholders and creditors under companies and insolvency/creditors rights laws, for example, will have a direct bearing on the nature of the investment in the sector.

- **price control** – legislation applicable to a wide range of sectors, which may not envisage the specific types of price controls used in the telecommunications sector (e.g., price cap, rate of return, benchmarking)
- **consumer protection** – legislation applicable to a wide range of sectors, which may not envisage the specific mechanisms often used to protect consumers in the telecommunications sector (e.g., obligation on incumbent operator to have its standard customer contract approved by the TRB)
- **data protection and privacy** – legislation applicable to a wide range of sectors, which may not envisage a number of the specificities of the telecommunications sector (e.g., the transmission of personal data over telecommunications networks to countries with poor or non-existent data protection regimes, data protection implications of call line identification unsolicited calls, automatic call forwarding)
- **criminal** – legislation, which may need to be supplemented in order to cover certain specific activities in the telecommunications sector (e.g., construction and operation of unlicensed networks, interception of telephone calls, obscene or nuisance telephone calls)
- **foreign investment** – legislation applicable to a wide range of sectors, which may impose foreign ownership restrictions which may need to be “disapplied” in relation to the telecommunications sector
- **exchange control** – legislation affecting the ability of a foreign operator to repatriate profits
- **special “public services”** – legislation applying harmonized rules to all the utilities sectors

As noted in the *Introduction*, certain TDCs may also be subject to special international treaty obligations which have significant implications for the way in which the telecommunications law is drafted.

#### **E. Broadcasting and the implications of convergence**

The telecommunications and broadcasting sectors worldwide are rapidly converging and it is becoming increasingly unclear whether certain “hybrid” services (e.g., video-conferencing, cable television, video-on-demand, Internet broadcasting) should be regarded, and regulated, as telecommunications services or as broadcasting services or as both. However, where a traditional non-telecommunications service (such as broadcast TV) or medium (such as CATV) is used to deliver a telecommunication service, it should be treated under the telecommunications law, and vice versa.

TDCs are increasingly recognizing the importance of ensuring that the interface between their telecommunications legislation and broadcasting legislation is carefully crafted given, in particular, that:

- investors need to know whether they will be regulated under telecommunications legislation or broadcasting legislation or both, and whether they will require telecommunications licenses or broadcasting licenses or both.
- investors in hybrid telecommunications/broadcasting projects need to know whether they will be caught by the foreign ownership controls which are often found in the *broadcasting* legislation (but not necessarily the telecommunications legislation) of many TDCs
- both telecommunications and broadcasting services require radio spectrum.

For these reasons the FTL has been prepared on the basis that the telecommunications law would be separated from the broadcast law.

#### **F. Separation of PTT's activities**

In some TDCs, the legal aspects of separating the telecommunications, postal and regulatory activities of the state-owned PTT<sup>22</sup> are addressed in the general telecommunications law establishing the TRB, telecommunications licensing regime, etc.

A number of TDCs, however, have taken the view that the legal aspects of PTT separation should not be dealt with in the general telecommunications law but in discrete "PTT separation" legislation since the issues addressed by the separation of the PTT will:

- generally be "one-off", with little relevance for the future once the separation has taken place, whereas the general telecommunications law will provide for the ongoing regulation of the TDC's telecommunications sector
- likely raise a number of sensitive social and political issues which may delay the passage of the telecommunications law through Parliament if the PTT separation issues are addressed in the general telecommunications law.

The FTL has, therefore, been prepared on the assumption that it is better to keep the PTT separation legislation and the general telecommunications legislation separate, although clearly they will need to be consistent.

#### **G. Postal regulations and trends**

The approach in some TDCs, following the separation of the postal and telecommunications activities of the PTT, is to deal with regulation of the postal sector and the telecommunications sector in the same law. Some TDCs have also decided to establish the same regulator for posts as for telecommunications. The reason for this approach is often historical, namely that postal and telecommunications services, prior to liberalization, have traditionally been provided and regulated by the same government department or ministry.

---

<sup>22</sup> The issues dealt with by this "PTT separation" legislation can include establishing a postal statutory corporation, transferring the assets, liabilities and employees of the PTT into the telecommunications joint stock company, the postal statutory corporation and the new TRB.

In a liberalized environment, however, the postal and telecommunications sectors demonstrate a number of important differences which do not exist when both posts and telecommunications services are provided under monopoly. In particular, it had been thought that the postal company and sector would:

- probably be loss-making, at least in the near term, whereas the telecommunications sector will often be profitable from the outset
- be subject to slower or more modest liberalization than the telecommunications sector, particularly as the national postal operator is often a major employer and therefore rapid organizational restructuring may be politically unpalatable
- remain state-owned, at least in the near and medium term, whereas the telecommunications sector will often be subject to early privatization
- be subject to different pricing controls than the telecommunications sector
- be subject to a different licensing approach with different types of license conditions
- raise important legal and regulatory issues which are not of direct relevance to the telecommunications sector, and vice versa.<sup>23</sup>

Many of these assumptions have recently been challenged, particularly in developed countries. Public postal operators may well be profitable, sometimes significantly so, in which case the need for ongoing monopoly rights or state ownership is less obvious. Moreover, public postal operators in these countries are focusing on expanding into global goods transport and logistic markets and on diversifying into e-commerce products and services and other related or complementary markets. If postal operators make investments and acquisitions in these markets while still state-owned and protected by monopoly rights, this raises difficult issues of (often cross-border) nationalization and of anti-competitive or unfair cross-subsidization or use of taxpayer funds.

Consequently, private market participants and international fora (such as the Universal Postal Union) have been lobbying recently for similar liberalization and privatization strategies to be applied to the postal sector. Indeed, it is now usually thought that the postal sector may benefit greatly from the introduction of competition and regulatory reform that has so invigorated the telecommunications sector.

A number of regulatory concepts and strategies are arguably transferable from the telecommunications to the postal sector. Indeed, in the European Union, the postal liberalization strategy adopted by the EC borrows heavily from that pursued in the telecommunications sector. Analogous issues in the postal sector include:

---

<sup>23</sup> Among the legal and regulatory issues raised by the postal sector which are not of direct relevance to the telecommunications sector are postal banking activities, email regulation. Among the legal and regulatory issues raised by the telecommunications sector which may not be of direct relevance to the postal sector are network interconnection (although analogies exist), leased line provision, numbering, equal access by subscribers to competing long distance carriers, equipment approval, radio frequency allocation and assignment, control of radio interference, frequency auctioning.



- universal practice (the obligation to provide a basic set of postal services throughout a territory to all users at an affordable price, including mail collection and delivery, and post box density)
- universal service funding mechanisms where the universal service obligation imposes an unfair burden on the provider
- tariff principles, such as the requirement for tariffs to be objective, non-discriminatory, transparent and geared to cost
- treatment of international settlement mechanisms (“terminal dues”), in particular, the need for cost orientation
- network access and unbundling, especially in relation to the home delivery network
- access to and management of addressee information and national postal codes.

Nevertheless, a number of differences between the sectors remain. Structurally, the sectors are very different: the postal sector is much more labor intensive and has lower barriers to market entry. Moreover, the postal sector usually covers not only “communications” activities analogous to the telecommunications sector, but also includes others such as goods transport, logistics, financial services and postal banking activities, and, increasingly, e-commerce initiatives such as digital signature certification and management of integrated Internet “shopping malls”.

Furthermore, although in the postal sector the regulatory function should (as in the telecoms sector) be separated from the ownership and policy functions, level of regulation required is much less. Legal and regulatory issues raised by the telecommunications sector which may not be of direct relevance to the postal sector include network interconnection, leased line provision, numbering, equal access by subscribers to competing long distance carriers, equipment approval, ration frequency allocation and assignment, control of radio interference, frequency auctioning. On the other hand, the postal regulatory function may include (relatively minor) additional tasks such as management of national postal codes and the opening of damaged or undelivered mail.

In light of these ongoing differences, many TDCs have decided to deal with the regulation of the postal sector and the regulation of the telecommunications sector in separate laws, rather than in the same law. The FTL has been prepared on this basis.

## II. THE TELECOMMUNICATIONS REGULATORY FUNCTION

This Section examines a number of key considerations concerning the design of the telecommunications regulatory function under a telecommunications legal regime, and the ways in which a TDC's decisions concerning the telecommunications regulator can be reflected in its telecommunications law. The focus of the FTL and this discussion is on the exercise of the regulatory *function* in the telecommunications sector rather than on the institutional design of the TRB. Clearly, the most common institutional response to the exercise of the function is to form an entity, usually under the FTL. The type, structure and organization of the TRB will vary greatly from jurisdiction to jurisdiction.

The regulatory function in TDCs is, by definition, in transition. Prior to the policy decision to introduce competition, the telecommunications regulatory function, if it existed, probably consisted of responding to central planning and perhaps ensuring price regulation. TDC's characterized by liberalizing markets will require some form of limited regulation to ensure the development of competitive market forces in the sector.

Among the *main regulatory functions* performed by the TRB include:

- **level playing field** – ensuring that operators compete fairly; and
- **transparency** – ensuring that regulatory decisions are open, fair and objective.

Among the *key attributes* of the regulatory function to be performed by the TRB:

- **transparency** – this is accomplished through publication – of decisions, and making publicly available licenses, interconnection, tenders, etc.; and
- **independence** – this is accomplished by separating the performance of the regulatory function from the political and operational functions in the sector.

In examining the manner in which the telecommunications regulatory function will be performed, policy makers should bear in mind the degree to which the basic regulatory framework will allow the exercise of discretion or, by contrast, the simple application of rules. For example, the TRB could be essentially a rule making body, such as the Federal Communications Commission (“FCC”) in the US, or an issue-specific advisory, investigative and enforcement body, such as the Office of Telecommunications (“OFTEL”) in the UK. A further option, increasingly under consideration in emerging markets, is establishing a Multi-Sectoral Regulator (“MSR”) responsible not just for telecommunications but for other newly liberalized utility sectors.

### A. Importance of effective regulation

A significant part of the telecommunications law will be made up of the provisions establishing the TRB and specifying the regulator's composition, functions, powers etc. The importance for investors of having an effective and credible TRB cannot be overstated.

Essentially, the establishment of an investor-friendly regulator processes can provide a TDC engaged in telecommunications sector reform with “money for nothing”, with investors paying a premium for legal and regulatory certainty and security.

As noted in Section I.B. in relation to anti-competitive controls, the incumbent operator (and any strategic investor in the incumbent) will often have much to gain from a weak or poorly designed regulator. However, new entrants into liberalized segments of the market will regard an effective regulator as essential, particularly in order to obtain adequate interconnection terms and access to bottleneck facilities. They will often be deterred from entering the market unless such a regulator is envisaged.

## **B. Investor confidence enhancement mechanisms**

Even where a TDC has designed its TRB carefully to ensure independence and competence, investors may still require reassurance during the early years of the TRB. This is particularly the case where the TRB enjoys a large degree of discretion in relation to regulatory issues of crucial importance to new entrants (e.g., interconnect pricing).

There are, however, a number of legal mechanisms which can be deployed, depending upon the legal framework of the TDC in question, to address investor concern as to the effectiveness or experience of the TRB, in particular:

- building into the license of the incumbent operator and of new entrants detailed, unmodifiable (or “frozen”) provisions establishing, for example, the retail, leased line and interconnection prices applicable for the initial part of license term (e.g., the first five years)
- providing in the licenses of the incumbent operator and of new entrants for decisions of the TRB to be subject to exclusive arbitration under a foreign law and in a foreign forum in which the investor has confidence
- in the case of the strategic investor in the incumbent operator, including in the Share Sale Agreement or Shareholders Agreement an obligation on the part of the Government to keep prices at an agreed rate for a certain period of time.

Depending upon the legal system of the TDC in question, special provisions may need to be included in the telecommunications law to ensure that these mechanisms can work. For example, in order to ensure that certain license conditions can be “frozen” for the first part of the license term, it may be necessary to state specifically in the telecommunications law that the modification provisions of the telecommunications law are subject to anything to the contrary set out in licenses issued under the telecommunications law.

## **C. Key regulatory design issues**

To be most effective in a liberalized environment, the regulatory function should be exercised independently. In practical terms, this implies some sort of separation of the regulatory from the political (policy setting) and operational (ownership) functions in the

sector. Traditionally, the telecommunications ministry was all three-regulator, owner and policy setter. In order to accomplish regulatory independence, the FTL contemplates an allocation of the different functions along the following structural lines:

<b>POLICY</b>	<b>REGULATION</b>	<b>OPERATION</b>
Ministry	Regulator	Owners

The main reason for the separation of these functions is to eliminate opportunities for the TRB to be in a conflict of interest and therefore to ensure that its regulatory decisions are independent of other influences.

The following are among the key issues which arise in many TDCs when designing an appropriate TRB:

- respective roles of the Ministry and the TRB
- independence of the TRB checks and balances between the Ministry and the TRB
- appeals against TRB decisions
- MSR option.

#### **D. Role of the Ministry**

##### ***1. Investor concerns and link with regulator independence***

A threshold question, when drafting the telecommunications law, will be which functions should be attributed to the Ministry and which to the TRB.

While recognizing that the Ministry will often wish to retain a number of key strategic functions such as selecting the major licensees, investors will generally prefer to see the decisions over which the Ministry has control kept to a minimum. Most of the ongoing, day-to-day regulatory functions should instead be the responsibility of an independent TRB.

In practice, however, in many TDCs there is an important political link between the scope of the Ministry's powers and the level of independence of the TRB: the more powers are accorded to the Ministry, the more palatable, from a political perspective, it will be to confer a healthy level of independence on the TRB.

A clear trend in TDCs is to leave key strategic decisions (such as overall sector policy and final selection or approval of the successful applicants for major licenses) with the **Ministry**, while locating responsibility for all other day-to-day regulatory issues (e.g., preparation of qualification criteria, launching and conduct of tenders, evaluation of tenders, issuance of class licenses, interconnection policy, etc.) with the **TRB**.

## 2. *Key decisions for Minister*

The choice as to which functions should be the responsibility of the Ministry is clearly a political choice which will vary from one TDC to another. The approach taken in the FTL is to attribute to the Ministry responsibility over the following strategic functions:

- decisions concerning overall liberalization policy (i.e., what segments should be opened up to competition, when and in what way)
- final selection or approval of the successful applicants for individual licenses (upon the recommendation of the TRB and based on transparent tendering procedures established and run by TRB) with the TRB having the power to issue class licenses
- determining the *initial* pricing regime for major operators (with the TRB having control over *subsequent* changes in the price controls through the periodic review mechanisms in the license - e.g., via modifying the “x” factor in an RPI-x price cap regime)
- determining the other initial terms of individual licenses for major operators<sup>24</sup>
- representation of the TDC in international telecommunications treaties and fora (e.g., ITU, Intelsat and cross-frontier initiatives such as “Africa One”).

## 3. *Involvement of other Ministers, the Cabinet, Parliament*

A TDC will also need to consider what roles (if any) should be written into the telecommunications law for other ministries and other government entities. Decisions where a TDC will, typically, consider a role for these entities include:

- the use of telecommunications facilities in times of war or other states of emergency
- the determination of the portion of the radio spectrum for use in the telecommunications sector (it may also be appropriate to establish an inter-ministerial committee comprising representatives of all government entities requiring radio spectrum)
- the price control mechanism (where the Minister of Finance will often have a role, sometimes alone but more often in conjunction with the Telecommunications Minister)
- the allocation of property rights to telecommunications operators and the coordination of street works by different utilities (where the Transport Minister, the Public Works Minister and local authorities may have a strong role to play, together with the Justice Minister in relation to compulsory purchase).

<sup>24</sup> In practice, in many TDCs embarking on a fast track privatization and liberalization program, the TRB will only be established *after* the license for the incumbent operator, and often the licenses for other major operators (e.g., a national mobile operator or, in the case of Ghana and Uganda, a second network operator), have been prepared (often with technical assistance provided under a World Bank loan) and granted by the Minister. Similarly, the draft interconnection agreement between the incumbent and, say, a national mobile operator may be prepared by the Minister, sent out in draft to potential strategic investors in the incumbent operator as part of the bidding package, and finalized between strategic investor and the Minister - all prior to the establishment of the TRB.

Some TDCs will require Cabinet involvement in certain of these or other decisions. Parliament may also be given a role (e.g., approving major licenses which the Telecommunications Minister proposes to grant).

#### **E. Functions of the TRB**

Clearly, the decision as to which functions should be conferred on the TRB will depend upon the political realities of the TDC in question. The approach adopted in the FTL is designed to effect an allocation of responsibilities, and a system of checks and balances, between the Minister and the TRB (discussed in § II.G., below) that would provide investors with a high level of confidence.

The FTL has, therefore, been prepared on the basis that the TRB would have, at minimum, the following functions:

- designing and operating of the tendering process for major individual licenses
- recommending to the Ministry who should get an individual license
- monitoring, enforcing, modifying and renewing individual licenses
- recommending to the Ministry when a license should be revoked (as noted above, on a Ministerial “veto only” basis)
- issuing class licenses
- controlling anti-competitive conduct in the telecommunications sector (in conjunction with the competition regulator)
- regulating tariff
- monitoring of the frequency spectrum allocated to telecommunications
- specifying of technical standards and approval of equipment
- regulating network interconnection
- allocating numbers and managing the numbering plan
- disputes resolution (between operators, between operators and service providers and between customers and operators or service providers)
- investigative powers
- liaison with other regulators, particularly the broadcasting regulator, the competition regulator and the radio regulator
- administering the universal service fund.

## **F. Independence**

A key threshold question a TDC needs to address when deciding what sort of regulator to establish in order to support the liberalization and privatization of its telecommunications sector is how independent the performance of the regulatory function should be from both:

- political influence exerted by the Government and the Ministry, and
- industry influence exerted by regulated companies.

### **1. Advantages and disadvantages of independence**

The advantages of creating an environment in which the regulatory function can be performed independently include:

- greater investor confidence in the objectivity and stability of the regulatory process and therefore greater foreign and domestic investment in the telecommunications sector
- greater economic benefits for the country because of increased investment and economic activity
- increased revenues for the State due to foreign and domestic investors being prepared to pay a premium for legal and regulatory certainty and security, and from increased tax revenues due to the increased economic activity
- opportunity to decouple the remuneration for the TRB staff from the civil service remuneration system, thereby attracting higher caliber, more committed and possibly less corruptible TRB staff.

The main “disadvantage” of an independent regulator (from the point of view of the government) is the loss by government and Ministry of some influence over the running of the economy and over some decisions which affect voters (e.g., by keeping local telecommunications prices low rather than rebalancing them if, as suggested in § II.D.2, above, control over *subsequent* pricing decisions is with the TRB).

### **2. Lack of independence in the past**

In the past, many TDCs have designed TRBs which have provided investors (particularly new entrants aiming to compete against the incumbent operator) with very little confidence because, for example:

- the TRB is located within the Ministry or, worse, within the PTT
- the Ministry has the power to appoint the members of the TRB
- the members of the TRB are subject to poor or non-existent conflict of interest controls
- the Minister has the power to remove members of the TRB

- the grounds for removal of members of the TRB are vague and discretionary
- appeals against decisions of the TRB are to the Minister
- the Minister controls the financing of the TRB as an entity and the remuneration of the members of the TRB as individuals
- the Minister has the right to issue “policy directions” to the TRB in relation to functions specifically allocated to the TRB under the Telecommunications Law.

### 3. *Structural models*

A key determinant of the independence of the TRB in a TDC will be how the TRB is established from an institutional perspective. There are a number of different models which a TDC may wish to examine when designing its TRB, each with different implications for independence.

These models include:

- autonomous regulatory agency (e.g., FCC)
- semi-autonomous agency (e.g., OFTEL)
- separate regulatory body within telecommunications ministry (e.g., ART, the French regulator)
- no special telecommunications regulatory body, but allocation of primary reliance for “regulation” of the telecommunications sector to the competition regulator and the courts (e.g., New Zealand).

### 4. *“Independence enhancement” mechanisms*

A TDC which decides to locate the TRB *outside* the Telecommunications Ministry will then have a choice of incorporating various “independence enhancement” mechanisms in the Telecommunications Law:

- use of a committee or commission structure (e.g., three Commissioners) rather than a single individual as the regulator
- appointment of Commissioners to be on the basis of professional qualifications rather than political allegiance
- appointment of Commissioners to be on an *ex officio* basis (e.g., one member of the Chamber of Commerce, another from the Law Society)
- appointment and removal of Commissioners by someone other than the Ministry (e.g., by the TDC’s President or by a cross-party Parliamentary committee)
- staggering the Commissioners’ terms of tenure so as to reduce the influence over appointment of any one government
- adoption of robust conflict of interest rules applicable to the Commissioners and their direct families



- strict limitations on the grounds for removing Commissioners
- ensuring the financial autonomy of the TRB by providing for it to be financed via license fees from the regulated industry
- ensuring that the Ministry does not have decision-making power over the level of remuneration of individual Commissioners (e.g., by placing this power with the Finance Ministry)
- ensuring that the Ministry does not have the right to give “policy directions” or otherwise influence the TRB in relation to regulatory issues over which it has been granted specific responsibility in the Telecommunications Law.

## **G. Checks and balances between Ministry and TRB**

### ***1. Checks and balances mechanisms***

There are a number of legal mechanisms which TDCs can deploy when drafting their telecommunications law to enhance investor confidence in the way the Minister exercises the strategic functions conferred on him, essentially by creating checks and balances between the Minister and the TRB.

One approach is to write into the telecommunications law a requirement that, although the Minister has the right to select the winning applicant for a major license, the selection can only take place following completion of a transparent, competitive bidding process, designed, organized and run by the TRB rather than by the Minister.

Another approach is to involve the TRB in the Minister’s key strategic decisions. For example, a TDC could decide to write into its telecommunications law, a power in the TRB:

- to recommend to the Minister which applicant should be awarded a major license, with the Minister being precluded from selecting an applicant which had not been recommended by the TRB
- to prepare and submit to the Minister a short list of license applicants that meet the technical and financial requirements stipulated in the bidding documents, from which Minister is required to select the winner
- to recommend to the Minister when a license should be revoked, with the Minister being precluded from revoking a license without the recommendation of the TRB.

A key issue which often arises where a TDC has decided to require the Minister to take a decision following the “recommendation” of the TRB is what the precise legal force of the recommendations is. A recommendation power in the TRB can have different implications in different TDCs and it is important to clarify for potential investors in the telecommunications law precisely what these implications are.

For example, a power on the part of the Minister to select the winning license applicant following a recommendation by the TRB, could mean that the Minister:

- has the right to reject the recommendation of the TRB and select his own candidate (i.e. the “recommendation” is essentially *non-binding* although it may have persuasive influence on a court if the Minister’s decision were challenged by way of judicial review)
- is only entitled to select a candidate who has been recommended by the TRB (i.e. essentially, the Minister has a *veto* power, being entitled to reject candidates recommended by the TRB).

The approach taken in the FTL is to confer on the Minister the power to issue a license only to a candidate recommended by the TRB and to revoke a license only on the recommendation of the TRB the Minister is precluded from issuing or revoking the license in the absence of such a recommendation (i.e., the veto approach referred to above).

Although not the approach taken in the FTL, an obligation on the Minister to select the winning candidate *from a short list* prepared by the TRB will also often provide an effective counterweight to the Minister’s power to select licensees, and enhance investor confidence in the licensee selection process.

Another device is for the TRB to prepare qualification criteria, agreed to by the Ministry. The Ministry could then refuse to approve a recommended license only if the TRB’s recommendation was somehow technically flawed (i.e., that the TRB did not properly apply the pre-determined criteria) or if the recommendation is otherwise against public policy.

## 2. *Modification and renewal*

A key question in creating an effective set of checks and balances between the Ministry and the TRB is what role the Ministry should have in relation to aspects of the license process *other than* selection of the major licensees and license revocation.

In some TDCs, the Ministry will also have a role in the *modification* and *renewal* of licenses. The approach adopted in the FTL, however, is to locate these powers with the *TRB* on the basis that:

- *modification* of a license will generally be necessary when there has been a relevant, significant change in the telecommunications sector since the grant of the license. The TRB will be closest in touch with ongoing developments in the telecommunications sector and best able to judge whether changes in the sector justify license modification
- *renewal of a license* should ideally, in order to provide maximum investor confidence, be automatic (provided a licensee has complied with its license conditions. The TRB is best placed to determine whether the license conditions have been met given the generally accepted role it will have of monitoring and enforcing compliance with license conditions.

### 3. *Gradual transfer of powers from Ministry to TRB*

A number of TDCs have adopted the approach of providing for the gradual transfer from the Ministry to the TRB of certain powers initially conferred on the Ministry. This mechanism may prove useful in a TDC where the Government is reluctant *initially* to confer significant powers on the TRB until it has attained requisite expertise, resources, investor and Ministerial confidence.

This transfer from the Ministry to the TRB can be effected in a number of ways, for example by providing in the telecommunications law for:

- the Ministry to have the *discretionary* power to delegate certain of its powers to the TRB
- the Ministry to have power to determine what the *initial* pricing regime to be included in the licenses of major operators should be, but with the TRB having the power to determine what changes should be made *subsequently* from time to time
- the *automatic* transfer of certain power (e.g., over prices or even the licensing function) at a certain specified point in time.

Clearly, the automatic transfer mechanism provides investors with greater confidence than discretionary transfer.

#### H. *Appeals against decisions of the TRB*

Investors in TDCs will look carefully at the way in which decisions of the TRB can be appealed. However independent the TRB itself may be, investors will lose confidence if its decisions must be appealed *to the Ministry*, as is the case in a number of TDCs.<sup>25</sup>

In other emerging markets, the decisions of the TRB can be appealed directly *to the courts* by way of judicial review, with the grounds and procedures for appeal being set out in special civil procedure legislation separate from the Telecommunications Law.

Many investors, however, have concerns about potential delays or lack of telecommunications-specific expertise in the judiciary of some TDCs.

A number of TDCs are, therefore, considering allaying investor concern by creating in their Telecommunications Laws a “bespoke” telecommunications appeals tribunal (“Telecommunications Tribunal”) tailor-made for the telecommunications sector.

Clearly, the threshold question is whether the legal system of the TDC in question will permit a bespoke Telecommunications Tribunal to be “carved out” from the normal judicial system. Assuming this is possible, the specific design of the Telecommunications Tribunal will depend heavily on the specifics of the legal system of the TDC in question.

<sup>25</sup> The recommendation of the ITU Legislative Guidelines (page 11), e.g., is also that appeals against decisions of the TRB should be to the Minister.

Typically, the aim will be to establish a Telecommunications Tribunal which would be:

- comprised of one or more judges specialized (or aiming to specialize over time) in telecommunications law, advised by a number of telecommunications experts (e.g., a telecommunications engineer and economist)
- dedicated to hearing appeals only against decisions of the TRB
- subject to streamlined procedures and time limits which would be much faster than the procedures and time limits normally applicable in the TDC's regular judicial system.

In a TDC where the judiciary is independent of the executive, a bespoke Telecommunications Tribunal comprised of one or more judges can provide investors with significant additional reassurance as to the overall independence of the regulatory process. One specific role that such a tribunal can play is to enhance investor confidence in relation to the license modification process (see, § II. G.2, above.).

## I. Multi-sectoral regulatory approaches

By far the most widely adopted approach in TDCs engaged in the liberalization and privatization of their telecommunications sectors is to create a single sector regulator, and this is the approach taken by the FTL.<sup>26</sup> Increasingly, however, instead of establishing a *sector-specific* regulator for the telecommunications sector and a separate regulator for each other sector being liberalized, a number of TDCs have already established<sup>27</sup> or are considering establishing an MSR responsible for a number of sectors.

Clearly, the *multi-sector* approach raises the threshold question as to what sectors the MSR should regulate (e.g., posts, broadcasting, electricity or water). A further question is whether responsibility for general competition regulation should also be located in the MSR given that so many competition issues will arise in a TDC as part of utility liberalization and privatization. The overriding concern from the standpoint of efficient, effective regulation in the telecommunications sector, regardless of the institutional arrangement, is that sufficient technical expertise exists to carry out what are often times sophisticated, complex technical functions (for example, analysis of interconnection disputes and radio frequency management).

### 1. Advantages and disadvantages

The following table sets forth some advantages and disadvantages of the MSR approach.<sup>28</sup> The issues address both the institutional aspects *and* matters affecting the independence and performance of the regulatory function. They are set forth in detail to

<sup>26</sup> If for no other reason that the focus of the FTL is on the independence and performance of the regulatory function, rather than the institutional aspects of the regulator.

<sup>27</sup> Notably Bolivia, Jamaica, Panama and El Salvador, although the number and type of sections covered varies from country to country

<sup>28</sup> For a further discussion of the advantages of an MSR institutional framework, see, Smith, Warrick, "Utility Regulators – Roles and Responsibilities", VIEWPOINT NOTE N°128, October 1997, The World Bank.

highlight issues to be considered in the policy framework underlying the regulatory function. It is likely that the resolution of these, and other issues, will differ from TDC to TDC.

Key Advantages	Key Disadvantages
<ul style="list-style-type: none"> <li>• reduce risk of “<b>industry</b> capture” because the creation of a regulator with responsibility for more than one sector can help avoid the rule-making process being captured by industry-specific interest groups</li> <li>• reduce risk of “<b>political</b> capture” because a regulator with responsibility for more than one sector will necessarily be more independent of the relevant line Ministries, and, in addition, the broader range of entities regulated by such a regulator will be more likely to resist political interference in a decision on, say, price regulation in one sector since that could set a precedent for other sectors</li> <li>• create more precedents, and therefore less uncertainty, for investors because a decision by an MSR in relation to <b>one</b> sector on a regulatory issue common to <b>other</b> sectors (e.g., the application of price cap regulation or cost accounting rules) will set a precedent that is valuable to potential investors in those other sectors</li> <li>• economies of scale in the use of one set of high caliber professionals (e.g., economists, lawyers, financial analysts), particularly important during the early stages of liberalization and privatization in a TDC when there is likely to be a scarcity of regulatory experience</li> </ul>	<ul style="list-style-type: none"> <li>• increase risk of “<b>industry</b> capture” by a dominant industry player not only of the single sector regulation but of the entire MSR body</li> <li>• increase risk of “<b>political</b> capture” by a dominant ministry of not only the single sector regulator but of the entire MSR body</li> <li>• increase risk that a precedent set in relation to one sector could be applied inappropriately in another sector (although this can also be mitigated by creating strong sector-specific departments underneath a central cross-sectoral decision-making body)</li> <li>• dilution of sector-specific technical expertise required where, for example, the skills of a tariff expert for one sector are not transferable to similar tariffing issues in another sector, or, for example, of a frequency engineer</li> </ul>
Other Advantages	Other Disadvantages
<ul style="list-style-type: none"> <li>• economies of scale in administrative and support services (e.g., computers, office space, support staff), particularly important where the costs of regulation can have a real impact on the affordability of basic services</li> <li>• flexibility in dealing with “peak load” periods, such as periodic price reviews, where intensive regulatory expertise is needed which may be spread across sectors if a multi-sectoral approach is adopted</li> <li>• economies of scale in the development and</li> </ul>	<ul style="list-style-type: none"> <li>• failure by the regulator cascades to other sectors</li> <li>• difficulty in achieving acceptance by relevant line Ministries of the <b>concept</b> of having an MSR</li> <li>• subsequent difficulty in achieving consensus from the relevant line Ministries on the <b>type</b> of MSR to be established</li> <li>• greater complexity in establishing the legal framework for the MSR, including the level of independence and allocation of functions as between the Minister and</li> </ul>

<p>implementation of the regulatory agency whereby, for example, uniform rules on license</p> <ul style="list-style-type: none"><li>• award or dispute settlement procedures can extend to more than one sector and therefore avoid the need to “re-invent the wheel” for each sector</li><li>• transfer of regulatory know-how between regulators responsible for different sectors, again particularly important when a country has limited experience in regulation</li><li>• effective means of dealing with <b>converging</b> sectors (e.g., telecommunications and broadcasting where it is increasingly difficult to decide what is a telecommunications and what is a broadcasting service, for example video-on-demand, or telecommunications and posts, for example email and fax remailing)</li><li>• effective means of dealing with the <b>bundled</b> provision of services (e.g., provision of both telecommunications and electricity by the same company) and with <b>coordination</b> requirements between sectors (e.g., where companies from a number of different sectors all need to dig up the same roads to construct their networks)</li><li>• avoidance of market distortions due to the application of different rules to competing sectors (e.g., electricity and gas, or road and rail)</li></ul>	<p>the regulator</p> <ul style="list-style-type: none"><li>• potential delays in the reform process due to the previous three disadvantages</li><li>• merging existing agencies may be problematic</li></ul>
--	--

## 2. *Practical strategies for implementing a multi-sectoral approach*

There are a number of ways in which an emerging market Government can, as a matter of practice, establish an MSR. Each has different implications for the way the provisions establishing the regulator in the Telecommunications Law are structured and drafted.

- establish an MSR (for telecommunications, electricity and water, for example) *from the outset* and gradually bring new sectors under its jurisdiction as and when the decision is taken to liberalize and privatize such new sectors.

This strategy probably provides investors with the clearest view from the outset of what the regulatory framework will be and a maximum sense of regulatory certainty and security. From a legal perspective, it is probably the least complex option to implement, requiring separate legislation to establish the MSR, with the functions and powers in each sector being set out in the sector-specific legislation applicable to each such sector. This strategy would, however, probably require the greatest effort in terms of obtaining consensus from relevant line Ministries and could thereby delay a TDC's reform process.

- use an existing, or create a new, *sector-specific* regulatory body to serve as the *core* for the MSR and gradually expand the mandate of the sector-specific regulator to cover additional new sectors as and when the decision is taken to liberalize and privatize such new sectors.

This second strategy could provide a practical compromise, providing the core for an MSR in the future. It would be necessary, however, to ensure in the provisions setting up the TRB in the telecommunications law that the initial, core sector-specific TRB did not contain too many "sector-specific" characteristics which might prevent its evolution into an MSR. For example, requirements that members of the initial TRB should have telecommunications experience would probably have to be avoided in favor of solid utility generalists.

- create a number of sector-specific regulators (e.g., one for each for telecommunications, electricity and water) and later *merge* them so as to form an MSR.

This final strategy is probably the least satisfactory because: (i) existing sector-specific regulators will have vested interests and incentives to resist the merger of their sector-specific regulator with other sector-specific regulators; and (ii) the advantages which flow from an MSR<sup>29</sup> are likely to be lost during the early stages in the liberalization and privatization of the relevant sectors (i.e., prior to the merger of the sector-specific regulatory bodies) which is likely to be the time when regulatory expertise is most needed.

<sup>29</sup> See, footnote 24, *supra*, and accompanying table and discussion.

The approach adopted in the FTL is the traditional one of establishing a single sector regulator, although it could be modified to accommodate an MSR.



## ANNEX: FRAMEWORK TELECOMMUNICATIONS LEGISLATION

CAVEAT: The following is not intended to be model legislation or used as a template for a law, but rather as a guide to legislative drafting and a device to generate discussion about issues affecting telecommunications legislation to be forged in light of the particular dynamics of a TDC.

### TABLE OF CONTENTS

<b>ANNEX Framework Telecommunications Legislation</b> .....	A-i
Part I – General .....	A-1
Article 1 General objectives of the Law .....	A-1
Article 2 Definitions.....	A-2
Article 3 Application and scope.....	A-5
Article 4 Objectives of the Minister and the Commission.....	A-5
Part II – Functions of the Ministry.....	A-7
Article 5 Functions of the Minister .....	A-7
Part III – The Commission.....	A-8
Article 6 Establishment and composition of the Commission.....	A-8
Article 7 Appointment and removal criteria .....	A-10
Article 8 Tenure, re-appointment, resignation and removal .....	A-11
Article 9 Remuneration of Commissioners and Commission staff....	A-12
Article 10 Financing of the Commission .....	A-12
Article 11 Budget and audit .....	A-13
Article 12 The functions of the Commission .....	A-14
Article 13 Enforcement powers of the Commission.....	A-15
Part IV: Licensing Regime.....	A-17
Article 14 Types of licenses.....	A-17
Article 15 Licensing requirements .....	A-18
Article 16 Licensing process.....	A-20
Article 17 License conditions .....	A-21
Article 18 Modification of licenses.....	A-22
Article 19 Duration and renewal.....	A-24
Article 20 Revocation of licenses .....	A-24
Part V: Universal service .....	A-26
Article 21 Universal service.....	A-26
Part VI: Frequency .....	A-27
Article 22 Special rules regarding frequency.....	A-27
Part VII: Miscellaneous Regulation.....	A-28
Article 23 Equipment type approval .....	A-28
Article 24 Tariffs.....	A-29
Article 25 Interconnection .....	A-30
Article 26 Directory and emergency services information.....	A-31
Article 27 Numbering plan .....	A-32
Article 28 Property rights.....	A-33
Article 29 Confidentiality .....	A-34
Part VIII: Investigation and Offences .....	A-35

Article 30 Investigation of complaints & dispute resolution.....	A-35
Article 31 Offences .....	A-36
Part IX: Final and Transitional Provisions.....	A-37
Article 32 Entry into force, consequential repeal and amendments and transitional measures .....	A-37

***Comment to Table of Contents***

*A Table of Contents is an essential element of making any complex legislation user-friendly*

## **PART I - GENERAL**

### **Article 1      General objectives of the Law**

The objectives of this Law are to:

- (i) promote development of the telecommunications sector in order to promote the growth of the economy as a whole;
- (ii) define the regulatory functions of the Ministry responsible for telecommunications;
- (iii) establish an independent telecommunications regulatory body and define its functions, powers and relationship with other governmental bodies and other relevant regulators;
- (iv) establish a fair, objective and transparent licensing regime for operators and service providers;
- (v) establish an effective approvals regime for Terminal Equipment;
- (vi) ensure efficient use of radio frequency spectrum;
- (vii) establish a general framework for interconnection;
- (viii) establish a general framework for the control of anti-competitive conduct in the telecommunications sector;
- (ix) assure universal access;
- (x) proscribe as offences certain types of conduct in the telecommunications sector.

#### **Comments on Article 1**

*Article 1 identifies the main objectives of the FTL.*

*Some TDCs use their Telecommunications Laws to spell out in detail their sector policy objectives (e.g., to sell a certain percentage of the incumbent operator or to issue a certain number of national mobile licenses). Indeed, in some TDCs, the Telecommunications Law is used to impose an obligation on the Government to privatize the incumbent operator and issue certain licenses by a certain date.*

*Many investors welcome this approach because they regard it as providing greater assurance that the sector policy strategy will in fact be implemented because it has been embedded in primary legislation. It is, however, more usual for a TDC to set out its sector strategy in a non-legally binding Government policy statement, rather than to include it in primary legislation.*

*Some TDCs also specify in the Telecommunications Law (as opposed to the incumbent operator's license) the monopoly rights to be enjoyed by the incumbent operator.*

*The FTL, however, takes the traditional approach of not spelling out in detail in the telecommunications law the TDC's sector policy objectives, nor specifying in the telecommunications law the monopoly rights enjoyed by the incumbent operator.*

## **Article 2      Definitions**

The following terms have the following meaning in this Law:

**“Competition Regulator”** means the body responsible for the control of anti-competitive conduct in TDC.

**“Appointing Authority”** means the entity or entities referred to in Article 5 as being responsible for appointing Commissioners.

**“Broadcasting License”** means a license issued under the TDC broadcasting legislation.

**“Broadcasting Regulator”** means the body responsible for the regulation of broadcasting in TDC.

**“Broadcasting Service”** means the transmission of radio or video programming to the public on a free, pay, subscription or other basis, whether by cable television, terrestrial or satellite means, or by other electronic delivery of such programming.

**“Class License”** means a license issued pursuant to Article 15 to a defined class of Operators or Service Providers and which applies automatically to any person falling within the defined class without that person having to apply for the license.

**“Chairman”** means the chairman of the Commission.

**“Commission”** means the Commission body established in Article 5.

**“Commissioners”** means the five Commissioners of the Commission appointed pursuant to Article 5.

**“Fund”** means the universal service account established pursuant to article 21 for purposes of financing the [universal service obligation].

**“Individual License”** means a license issued pursuant to Article 15 to a particular person upon the application of that person.

**“Minister”, “Ministry”** means the Minister or Ministry responsible for telecommunications, as the context indicates.

**“Operator”** means a person providing a Telecommunications Service.

**“Private Network”** a Telecommunications Network reserved for private use or shared by a closed group of users.

**“Public Telecommunications Network”** means a telecommunications network used for the provision of Telecommunications Services to the public.

**“Public Voice Telephony Services”** means the commercial provision to the public of the direct transport and switching of voice telephony in real time from and to network termination points.

**“Service Provider”** means any entity that provides a Telecommunications Service through its own, or through another’s Telecommunications Network.

**“Terminal Equipment”** means equipment intended to be connected directly or indirectly to the network termination point of a Telecommunications Network in order to send, transmit or receive Telecommunications Services, but does not include equipment intended to send, transmit or receive Broadcasting Services unless such equipment can also be used for Telecommunications Services.

**“Telecommunications Network”** means any wire, radio, optical or other electromagnetic system for routing, switching or transmitting Telecommunications Service between network termination points.

**“Telecommunications Service”** means any form of transmission or reception of signs, signals, text, images or other intelligence by means of a Telecommunications Network, but does not include Broadcasting Services.

**“Tribunal”** means the body established pursuant to article 30 [by] [within] the Commission for hearing disputes.

## **Comments on Article 2**

### *Bare minimum of definitions*

*Article 2 sets out the definition of the key terms used in the FTL. The aim of the FTL, however, is to keep the definitions to the bare minimum necessary for comprehension and clarity.*

*The telecommunications legislation of many TDCs contains multiple, detailed definitions of many different types of networks, services and equipment. This is necessary where the TDC in question has decided to specify in detail in its telecommunications law:*

- *its liberalization strategy (necessitating definitions, for example, of “value-added”, “data” and “mobile” networks and services)*
- *the exclusive rights to be conferred on the incumbent operator (necessitating definitions, for example, of “fixed” versus “mobile” voice telephony)*
- *the types of licenses or other authorizations that different networks will or will not require (necessitating definitions, for example, of “independent” and “internal” networks).*

*As noted below, and as reflected in Articles 14 and 15, the aim of the FTL, however, is to avoid the need for such multiple, detailed definitions by specifying that Public Telecommunications Networks and Public Voice Telephony Services (both fixed and mobile voice telephony services) require individual licenses from the Minister but that the Minister will specify **by decree** which of the networks and services other than these require a class license and which are exempt from*

the requirement to have a license.

Interface between telecommunications and broadcasting

With the rapid convergence between telecommunications and broadcasting, it is important that a TDC's Telecommunications Law should fulfil two objectives:

- specify which services are to be regarded as "telecommunications" and which as "broadcasting"
- clarify the extent to which the Telecommunications Law applies to each.

The definitions of "Telecommunications Services" and "Broadcasting Services" in Article 2 of the FTL are designed to fulfil the first objective by providing a clear dividing line between these two concepts.

However, given that the convergence between the two sectors creates a definitional "moving target", TDCs could enhance investor confidence by including in their telecommunications laws a "sweep up" power (or indeed obligation) providing for the Telecommunications Minister, in coordination with Broadcasting Minister, to determine, by decree, whether a new hybrid telecommunications/broadcasting service is a "telecommunications" service or a "broadcasting" service. An alternative formulation can be found in including in the telecommunications law a provision (see, Article 3) specifying that where a medium or service is used to provide what is essentially a telecommunications service, it will be deemed to be under the purview of the telecommunications law.

As for the second objective, the aim of the FTL is to ensure that telecommunications services carried over broadcasting networks (e.g., voice telephony provided over cable TV networks), and broadcasting networks used for both telecommunications and broadcasting services, and terminal equipment used for both telecommunications and broadcasting services, are covered by the licensing and terminal equipment approval requirements in the FTL.

The definitions also need to be read in conjunction with Article 15 which makes it clear that the requirement to obtain a telecommunications license under the FTL are without prejudice to any additional licensing requirements under relevant broadcasting legislation.

Public voice telephony

Article 2 contains a definition of "Public Voice Telephony Services". This concept is crucial since it defines the scope of the services over which, in nearly all TDCs, the incumbent operator enjoys a monopoly for an initial exclusivity period. The definition in Article 2 follows the traditional approach of focusing on whether voice telephony services which are provided to the public and in real time.

The dividing line between voice telephony services which are provided to the public and those which are not is notoriously difficult to draw, as is the dividing line between voice services provided in real time and those which are not.<sup>30</sup>

Since the determination of which services constitute "voice telephony" is a "moving target", TDCs could enhance investor confidence by including in their telecommunications laws a "sweep up" power (or indeed obligation) providing for the Minister to specify, from time to time, whether new voice telephony services (or enhancements to existing voice telephony services) are to be regarded as provided "to the public" and "in real time". The definition of "Public Voice Telephony Services" is also helpful in the determination of the universal service obligation, if any (see, Article 21, below), i.e., access to a certain level of voice

<sup>30</sup> This question arises, for example, in relation to internet telephony which is moving towards becoming real-time telephony.

telephony service.

*Every effort has been made to avoid the use in the FTL of a definition of "basic services". Again, a definition such as this is significant in the context of a limited period of exclusivity for an incumbent operator or where the licensing of services is somehow predicated on the underlying network infrastructure. "Voice telephony" provides a more flexible definition, respecting the reality that, in view of constant technological advances, operators deploy a variety of fixed and wireless infrastructure elements to offer a "voice" service, including circuit and even packet switching technology.*

*Finally, a flexible definition of "voice telephony" provides greater flexibility for the telecommunications law to apply to new services as they are introduced, such as wireless services using satellite technology*

### **Article 3      Application and scope**

- 3.1 This law applies to Operators and Service Providers and Telecommunications Services provided and Telecommunications Network operated within the national territory.
- 3.2 This law shall not apply to Broadcast Services, except as the same may be used to provide telecommunications services, nor to Military, public security, civil aviation, or other installations of other branches of government.

#### **Comment on Article 3**

*Article 3 simply explains that the telecommunications law is restricted to telecommunications services in the telecommunications sector. While there are many installations operated by or on behalf of the government that resemble telecommunications services provided in the telecommunications sector, or that utilize frequency not reserved or allocated for use in the telecommunications sector (see, e.g., Article 22), it is necessary to carve out those matters which are outside of the domain of the TRB. This is consistent with the notion state has an interest in ensuring its fair regulation of a liberalized telecommunications sector with participation by private sector interests. This rationale will not apply to state operations.*

*As mentioned in the comment to Article 2, where a broadcast medium is used to deploy what is essentially a telecommunications service, the broadcast operator should not be able to shield itself behind a broadcast license as a means to avoid regulation under the telecommunications law if the service being provided is a telecommunications service. Again, this underscores the focus of FTL on services and not on networks or infrastructure.*

### **Article 4      Objectives of the Ministry and the Commission**

The Ministry and the Commission will perform their functions under this Law in order to achieve the following objectives:

- (i) providing Public Voice Telephony Services throughout TDC so as to meet reasonable demand at affordable prices;

- (ii) protecting the interests of subscribers, purchasers and other users of Telecommunications Services and Terminal Equipment in TDC;
- (iii) promote competition among Operators and Service Providers offering Telecommunications Services and ensure the efficiency of the economy of the provision of such services and the operation of related Telecommunications Networks in the national territory;
- (iv) promoting research and development and the introduction of new Telecommunications Services in TDC;
- (v) encouraging foreign and domestic-owned new entrants to invest in the TDC telecommunications sector;
- (vi) promoting close coordination with other Ministries and regulatory bodies with an interest in the TDC telecommunications sector, in particular, the Broadcasting and Competition Regulators;
- (vii) ensuring the availability of adequate Telecommunications Networks and Telecommunications Services to meet the needs of the TDC in the event of war, natural disaster and public emergency;
- (viii) creating an independent regulatory environment designed to achieve the above objectives, involving separation of operational and regulatory functions.

#### **Comments on Article 4**

*Article 4 lists the factors which the Ministry and the TRB are required to take into account when making their decisions (e.g., decisions as to what license conditions to include in a license). Clearly, the particular factors to be taken into account will vary according to the specific priorities of the TDC in question. Certain TDCs use the objectives provision to set forth in some detail their objectives in terms of sector expansion, access of rural and other disadvantage population to telecommunication services, and have even set forth certain "social engineering" objectives in their telecommunication legislation.<sup>31</sup>*

*In many TDCs, these decision-influencing factors will be taken into account by a court in determining whether or not to overturn on appeal a decision of the Minister or the Commission.*

*They can also provide potential investors with a useful indication of any particularly strong policy imperatives which the Ministry and TRB are expected to take into account in reaching their decisions. For example, a TDC could use the list of decision-influencing factors in order to send a message to new entrants that the competitive playing field will not just be a "level playing field" but will in fact be tilted aggressively in their favour.<sup>32</sup>*

<sup>31</sup> See, Telecommunications Act, 1996, of the Republic of South Africa (SA Act). The SA Act is available on-line at: [www.polity.org.za/govdocs/bills/1996/telecoms.html](http://www.polity.org.za/govdocs/bills/1996/telecoms.html).

<sup>32</sup> For example, through an interconnection pricing policy firmly based on the *incremental* costs to the incumbent operator of carrying an interconnecting operator's traffic, or through requiring the incumbent to allow new entrants to physically co-locate equipment in the incumbent's exchanges or ducts, or through a favourable equal access (as opposed to easy access) regime for subscribers to new entrant long distance operators.



## PART II - FUNCTIONS OF THE MINISTRY

### Article 5 Functions of the Ministry

The Ministry shall have the following functions:

- (i) negotiating international telecommunications treaties and participating in international telecommunications organizations on behalf of TDC;
- (ii) determining the overall policy for the TDC's telecommunications sector;
- (iii) issuing Individual Licenses pursuant to Article 16 and determining the conditions to be included in Individual Licenses (other than the license fees which shall be determined by the Commission);
- (iv) revoking Individual Licenses, provided that the Commission shall first have recommended to the Minister that the Individual License should be revoked pursuant to Article 20; and
- (v) agreeing to, or denying an application by a licensee to transfer an Individual License, provided that the Commission shall first have recommended that the license in question should be, respectively, transferred or not transferred.

#### **Comments on Article 5**

*Article 5 and Article 12 below are designed to allocate responsibilities between the Minister and the Commission along the lines suggested §§ II.D-F., above, and to incorporate the checks and balances identified in §II.G, above.*

*The formulation provided in Article 5 can vary greatly from country to country and from legal system to legal system. In some legal systems, only the minister would have the constitutional authority to "issue" a license. In those circumstances, in order to preserve the independence of the regulatory function (the separation of policy setting under ministerial control from regulation under the control of the regulator), devices can be put in place to assure that the discretion of the minister in "issuing a license" is well defined in order to assure investors that the licensing decision is made on fair and transparent basis. Such a device could include, (as described in § I.A.4, above), a system would include the establishment by the TRB of predetermined selection criteria which would be agreed in advance with the Ministry prior to the launch of a tender for an Individual License. Next, the TRB would be charged with launching the tender and evaluating responses to the tender according to those predetermined evaluation criteria. The TRB will make its recommendation to the Minister, which would then decide to issue the license and would be permitted to deny the issue of a license only on predetermined criteria, such as, where the recommendation of the TRB was somehow technically flawed, in error, or when the decision is against public policy. These limited circumstances provide a degree of transparency to the process.<sup>33</sup>*

<sup>33</sup> Such a system was adopted in the recently enacted Telecommunications Law, 1998, of the Republic of Bulgaria (Bulgaria Act) with respect to licensing of frequency-based services. See, Chapter 5, Section 2, Article 42 *et seq.* of the Bulgaria Act.

An alternative formulation, of course, is that the Ministry would be authorized in the FTL to devolve or delegate this licensing authority to the TRB.<sup>34</sup>

### **PART III - THE COMMISSION**

#### **Article 6 Establishment and composition of the Commission**

- 6.1 An autonomous telecommunications regulatory body, to be known as the Commission, is hereby created and shall be independent of the Ministry.
- 6.2 The Commission shall consist of five Commissioners appointed by the [Appointing Authority] by decree on the basis of their legal, technical, financial and economic expertise, whether in the telecommunications sector or not.
- 6.3 The five Commissioners appointed by the [Appointing Authority] shall elect from among themselves one member who will serve as Chairman.
- 6.4 The [Appointing Authority] will specify by decree the internal rules governing the operation of the Commission.
- 6.5 The Commission may appoint such officers, employees, consultants, advisory committees and establish such regional offices as may be necessary for the efficient performance of its functions under this Law.

#### **Comments on Article 6**

##### Institutional location of the Commission

*This Article will reflect whatever policy decision is made by a TDC as to the institutional location of the TRB (see § II.F.3, above). The approach adopted in the FTL is to adopt the most investor-friendly approach of locating the Commission **outside** the Ministry.*

##### Two approaches to the selection of Commissioners

*Two approaches to the selection of Commissioners can be used to enhance the latter's independence:*

- *appointment on an ex officio basis, that is the TDC's telecommunications law will identify a specific official within a specific institution (e.g., the Chairman of the Chamber of Commerce or the President of the Law Society) to be appointed as of right to the Commission*
- *appointment by an independent Appointing Authority on the basis of objective technical, economic, financial and legal qualifications (the approach adopted in Article 6 of the FTL).*

*The ex officio approach is particularly important where it is difficult, for whatever reason, to find a sufficiently independent Appointing Authority in the TDC in question.*

<sup>34</sup> Such an approach was adopted in the recently passed Telecommunications Law of the Republic of Cameroon, Law N° 98/014, 14 July 1998, at Chapter 1.

The *ex officio* approach can also serve as a mechanism for ensuring close cooperation between the Commission and, say, the Broadcasting Regulator, by providing in the telecommunications law for a senior official from the Broadcasting Regulator to be an *ex officio* member of the Commission.

A caveat which needs to be entered though is that, if the Broadcasting Regulator (or other regulator appointed as Commissioner on an *ex officio* basis) is in fact a political appointee under, say, the broadcasting legislation, there is a risk that political influence and a lack of independence may be introduced into the Commission "by the back door" as a result of the *ex officio* approach.

It is, of course, also possible to combine the two approaches, by having some Commissioners appointed on an *ex officio* basis and the others appointed by an independent Appointing Authority.

#### The "Appointing Authority"

The identity of the Appointing Authority will depend very much on the specific constitutional and institutional characteristics of the TDC in question. For example, in some TDCs, the most appropriate Appointing Authority could be the President, in others it could be a cross-party Parliamentary Committee. As noted at pages 22, 25 and 26 above, the telecommunications law of many TDCs can raise serious investor concerns by giving the **Ministry** the power of appointing the members of the TRB.

#### Legal status and powers of the Commission

Depending upon the legal framework of the TDC in question, it may be necessary to specify in the telecommunications law in some detail the legal status and powers of the Commission (e.g., corporate or unincorporated status, powers to sue and to be sued, power to acquire and dispose of moveable and immovable property).

#### Full-time and part-time Commissioners

Depending upon the size of the TDC and the extent of liberalization envisaged, it may be appropriate to provide in the telecommunications law for some of the Commissioners to be part time. If the Commission comprises Commissioners who are drawn from other regulators (e.g., the Broadcasting Regulator), it may be appropriate for such Commissioners to be part time due to their commitments to the regulatory bodies from which they are drawn.

#### Appointment/election of Chairman

There are two common approaches to deciding who the Chairman of the Commission should be:

- the Appointing Authority appoints not only the Commissioners but also the Chairman
- the Commissioners, having been appointed by the Appointing Authority, then go on to select their own Chairman from among themselves.

Article 6 adopts the latter approach on the basis that the day-to-day operation of the Commission is likely to be smoother where the Commissioners have selected their own Chairman.

#### Internal operational rules of the Commission

In many TDCs, the primary telecommunications legislation goes into great detail concerning the internal operating rules of the Commission. For the sake of simplicity, the approach taken in Article 6 is to provide for these rules to be dealt

*with in a decree, or similar instrument, issued by the Appointing Authority or in the internal regulations of the TRB promulgated pursuant to Article 12(xix), below.*

*In addition to addressing in more detail the operational regulatory functions of the TRB, the internal operating rules should deal with procedural issues such as the location of the Commission's headquarters and any regional offices, the quorum for meetings and for decisions, voting methods, including use of proxy voting, alternates for the Chairman, determination of the Commission's financial year and auditing and reporting requirements.<sup>35</sup>*

## **Article 7 Appointment and removal criteria**

No person may be appointed to the Commission if, or may be removed from the Commission unless, that person:

- (i) has been convicted of a criminal offence other than [minor offences];
- (ii) is an undischarged bankrupt;
- (iii) is incapacitated by mental or physical illness;
- (iv) is involved directly or indirectly in the management of, or has a financial or other commercial interest in, an Operator, Service Provider, telecommunications equipment manufacturer or supplier operating in TDC or in any other entity with an interest in the TDC telecommunications sector.

### **Comments on Article 7**

#### Symmetry between appointment and removal criteria

*Article 7 specifies in a symmetrical way the criteria which preclude a person from being appointed as a Commissioner and which entitle the Appointing Authority to remove a member (i.e. applying the same criteria to each issue). In contrast, the approach in many TDCs is to deal with these issues separately, an approach which has merits where, for example, the decision is taken that certain specific criteria for the removal of Commissioners are necessary (e.g., failure to attend a certain number of successive meetings of the Commission).*

#### Conflict of interest controls

*Investors will be looking for robust conflict of interest provisions to ensure that the Commissioners are not only independent of the Ministry but also are independent of network operators and service providers.*

*One approach entertained by some TDCs is to specifically provide for one or more of the members of the TRB to be a representative of a network operator or service provider. The justification given for this approach is that the TRB will then have a much better appreciation of the practical requirements of the companies it is regulating.*

*This approach, however, may alarm investors (except, of course, investors in the operator or service provider which happens to be represented on the TRB) because of the potential for conflict of interest it creates as between different operators and also the risk that the needs of other parties, in particular*

<sup>35</sup> See, also, comments on Article 8 concerning "after life" conflict of interest rules.

consumers, may be neglected by an operator-influenced TRB.

The conflict of interest provisions in a TDC's telecommunications law need to be carefully crafted so as to ensure that, on the one hand, they are sufficiently robust to re-assure investors as to the independence of the Commissioners. On the other hand, they should not be so wide as to discourage talented individuals from aspiring to be Commissioners. One key issue, for example, when designing the conflict of interest controls is whether they should apply not only to the interests of the individual but also his or her immediate family.<sup>36</sup>

"After life" conflict of interest controls

Some TDCs decide to introduce controls on Commissioners and Commission staff leaving the Commission to join, say, a network operator or service provider. When designing controls on the "after life" of Commissioners and Commission staff, a TDC will generally have to balance the need to ensure that the Commission is not compromised by the existence of too many "gamekeepers turned poachers", against the need to ensure that the "after life" controls do not deter talented individuals from considering a career with the Commission.

Removal criteria

The approach by many TDCs is to stipulate grounds for removal of the Commissioners which are very wide and vague. As noted at page 25 above, investors will have enhanced confidence in the independence of the Commissioners if the grounds for removal are narrowly and precisely defined as in Article 7.

## **Article 8 Tenure, re-appointment, resignation and removal**

- 8.1 Subject to Article 8.2 and 8.3, each member of the Commission will be appointed for a term of [four] years and may be re-appointed by the Appointing Authority for one or more additional terms of [four] years.
- 8.2 Three of the initial Commissioners will be appointed for four years and the remaining two initial Commissioners for two years.
- 8.3 If a Commissioner does not complete his or her term of office, the person appointed to replace that Commissioner shall hold office for the remainder of the latter's term.
- 8.4 A Commissioner may resign by giving written notice to the Appointing Authority but may only be removed by the Appointing Authority on the basis of one of the grounds in Article 6.

### **Comments on Article 8**

Staggered terms

Article 8 is designed to provide for a staggering of the terms of office of the Commissioners so as to reduce the influence of any one Appointing Authority. This is of greatest importance where the Appointing Authority is associated with a particular political party in the TDC in question. Clearly, the level of staggering can be increased (e.g., so as to have one member being replaced each year on a rolling basis) or decreased depending upon the specific institutional complexion

<sup>36</sup> Such a conception was adopted in the SA Law (See, Article 8, SA Law).

of the TDC in question. Usually the period for determining the “stagger” is linked to the maximum term of office of the Appointing Authority.

Term limits

It is common in some TDCs to place limits on the number of terms which Commissioners can serve. The rationale is often that term limits provide protection against particular individuals gaining inordinate influence over the Commission, and ensures the injection into the Commission of fresh thinking and new blood. The counter argument is that, particularly in TDCs with little regulatory resources, term limits may arbitrarily deprive a TDC of talented, experienced individuals with institutional memory, and also militate against consistency in regulatory decisions over the long term.

**Article 9 Remuneration of Commissioners and Commission staff**

- 9.1 The Chairman and the other Commissioners shall be remunerated on the same basis and enjoy the same benefits as [Benchmark Occupation].
- 9.2 The Commission shall have the right to pay its employees and consultants whatever it judges to be necessary in order to attract and retain suitably qualified, high caliber individuals.

**Comments on Article 9**

*In many TDCs, the members of the TRB and their staff are paid **civil service** salaries which, in many TDCs, may not be high enough to attract and retain suitable individuals.*

*Even if suitable individuals are initially attracted to the TRB when it is first established, they may be tempted to leave, taking their regulatory knowledge with them, once the market starts to open up, attracted by better prospects with, say, the newly privatized incumbent operator or new entrants.<sup>37</sup>*

*Even if they stay with the TRB, they may be more susceptible to corruption if there is a marked disparity between their remuneration and that of employees of the private sector companies they are regulating.*

*Article 9 is, therefore, designed to provide a legal mechanism which may be necessary in many TDCs to decouple the remuneration of the members and staff of the TRB from that of the TDC's civil service.*

**Article 10 Financing of the Commission**

The Commission shall be financed from:

- (i) sums appropriated by Parliament;
- (ii) license fees and equipment approval fees;
- (iii) money borrowed by the Commission; and

<sup>37</sup> It is worth noting that, in those TDCs that have introduced “after life” conflict of interest controls (see, comments on Article 7, above), these controls can constrain Commissioners and staff from being able to take advantage of remuneration disparities.

- (iv) grant gifts or donations from government or other sources acceptable to the Ministry and the minister responsible for finance.

### **Comments on Article 10**

#### Self-financing mechanisms

*As noted in § II.F, above, it is important for the independence of the Commission to provide it with a source of funding which is outside the control of the Minister and, preferably, includes a self-financing component.*

*Article 10 is designed to do this by providing for the Commission to be partially funded through the license fees charged to the incumbent operator and new entrants. Under Article 12 of the FTL, the Commission has responsibility for the issuance of **class** licenses and setting fees payable for these licenses. Under Article 5, the Ministry is responsible for the issuance of **individual** licenses. Accordingly, the power to determine the license fees for individual licenses has been specifically carved out of the Ministry's responsibility (by Article 5(iii)) and placed with the Commission.*

#### Funding via donations and contributions

*The telecommunications legislation of many TDCs provides for the TRB to be financed, inter alia, from "donations and other contributions", often without any specific controls over where the "donations and other contributions" may come from. Investors (other than those proposing to make "donations or contributions" to the TRB) will often be alarmed by the risk of the TRB becoming beholden to commercial interests without same sort of approval.*

### **Article 11 Budget and audit**

- 11.1 Within two months of the commencement of any fiscal year of the Commission, the Chairman shall submit a budget for the operation of the Commission to the Commission for approval.
- 11.2 The Commission shall keep books and records of its operations and prepare within three months of the close of each fiscal year a statement of its accounts.
- 11.3 The accounts of the Commission shall be audited.

### **Comment on Article 11**

#### Establishment of budget

*The key provision regarding the budget is that there be some control between the party preparing the budget and the party approving the budget. In some circumstances, depending primarily on the appointment modalities of the Commission as a whole, the preparation of the budget by the Chairman and its approval by the Commission would be sufficient. Otherwise, a typical control measure is for the Commission prepare the budget and the Ministry approve it. A disadvantage of ministerial approval is that it does provide a degree of control by the Ministry over the Commission, thus undermining its independence.*

#### Budget content

*The content of the budget can be detailed in secondary legislation, although some TDCs have detailed budgetary requirements in the text of their telecommunications law. The dynamics of each situation will dictate the level of detail to be included in a telecommunications law as well as the level of checks*

*and balances and other controls which must be reflected therein.*

Auditing

*Again, depending on the legal system in a TDC, there may be an existing legislative or constitutional requirement requiring public enterprises, such as the TRB, be audited by the auditor-general or similar officer. In other circumstances, the audit may be done and prepared by an independent firm using generally acceptable accounting principles applicable in the TDC.*

Relation to USO

*The preparation of the budget of the Commission, the ability of the Commission to open accounts, and the auditing of its budget and those accounts is extremely important in cases where TDCs have a USO and where the USO is to be funded in part through a universal service fund which in turn is managed by the TRB. In cases where there is a USO, it is important that a separate fund and separate accounts be established and maintained for the universal service fund. For more on universal service, see, Article 21, below.*

**Article 12 The functions of the Commission**

The Commission shall:

- (i) advise the Minister on general sector policy;
- (ii) ensure the application of this law and related legal and regulatory instruments;
- (iii) design and run the tendering process for Individual Licenses;
- (iv) make recommendations to the Minister as to which of the applicants for an Individual License should be awarded the license and determining fees therefor;
- (v) prepare forms and issue Class Licenses;
- (vi) monitor and enforce compliance by licensees with the conditions of their licenses, including tariffs;
- (vii) modify licenses, in conjunction with the Competition Regulator, where appropriate;
- (viii) make recommendations to the Minister as to whether or not a license should be revoked;
- (ix) specify technical standards for, and approve, Terminal Equipment;
- (x) establish a frequency plan and manage frequency allocated to the telecommunications sector;
- (xi) regulate interconnection between Operator and Operator, and Operator and Service Provider;
- (xii) manage the numbering plan and allocate numbers to Operators and Service Providers;
- (xiii) on its own initiative or upon request, investigate complaints against licensees, and make such other investigations as are within its competencies in order to ensure compliance with this law;



- (xiv) resolve disputes between Operators, between Operators and Service Providers, and between customers and Operators or Service Providers;
- (xv) in conjunction with the Competition Regulator, control anti-competitive conduct in the telecommunications sector;
- (xvi) where required by the Minister, represent TDC in international telecommunications organizations;
- (xvii) administer the universal service fund;
- (xviii) maintain registries of licenses and license applications, equipment approvals and applications and interconnection agreements and, except where justified by reasons of commercial confidentiality, make the documents in the registry available to the general public;
- (xix) promulgate such regulations governing its day to day business and operations and as may give effect to the performance of its duties pursuant to this law; and
- (xx) cooperate closely with the Broadcasting Regulator.

### **Comments on Article 12**

*As noted above, this Article and Article 5 above are designed to allocate responsibilities between the Minister and the Commission along the lines suggested in § II.D-F, above, and to incorporate the checks and balances identified in § II.G, above. The list of functions of the Commission is drafted so as to be "back to back" with the list of functions of the Minister set out in Article 5. An important function worth noting specially is the investigative power of the TRB, whether upon request or on its own initiative, to ensure compliance with the legislation.*

### **Article 13 Enforcement powers of the Commission**

- 13.1 Without prejudice to any special powers contained in licenses issued under this Law, the Commission shall, for the purposes of carrying out its functions under this Law, have the same powers (including sanctions for non-compliance) as the [High Court] to:
- (i) require the production of documents and information by licensees and any other third parties;
  - (ii) search premises and seize documents, equipment and other items;
  - (iii) require attendance and examination of witnesses;
  - (iv) issue temporary and final injunctions in the event of breach of license conditions;
  - (v) fine licensees for breach of license conditions;
  - (vi) award damages payable by licensees to third parties injured as a result of the breach by a licensee of its license conditions.

- 13.2 The Commission will specify by decree the circumstances in which fines and damages will be calculated and the rules it will apply in calculating the level of fines imposed and damages awarded.

### **Comments on Article 13**

#### Robust enforcement powers

*It is essential that the TRB should have teeth. However well-conceived may be the substantive controls in a TDC's telecommunications law and licenses issued under it, investors will have little confidence in the TRB if it has weak information gathering powers and/or weak sanctions at its disposal.*

*In some TDCs, the TRB has judicial powers and can therefore, for example, issue injunctions, impose fines and award damages to injured third parties without having to go to the courts. This is the approach adopted in Article 11 of the FTL. In other TDCs, the TRB will often have to go to court in order to enforce a breach of license condition.*

#### Information gathering powers

*The type of information gathering powers which a TDC will wish to include in its telecommunications law will depend very much on the institutional and legal framework of the TDC in question. The approach taken in the FTL has been to "benchmark" the powers of the Commission to those of another organization (e.g., the High Court) with robust information gathering powers.*

*If there is no suitable entity in the TDC in question against which a TRB information gathering powers can be benchmarked, or there is such an entity but its information gathering powers are deficient in some important respect, then specific information gathering powers will need to be written into the TDC's telecommunications law.*

#### Sanctions

*As with information gathering powers, the sanctions which a TDC will make available to its TRB will depend very much on the institutional and legal framework of the TDC in question. As with information gathering powers, they need to be robust, but not draconian.*

*There is a strong tendency in many TDCs to stipulate sanctions in their telecommunications legislation which are perceived by investors as being draconian, for example:*

- *seizure, without compensation, of the network and equipment of a licensee in breach of its license*
- *imprisonment of officers of telecommunications companies found to be in breach of license conditions.*

*The FTL is also based on the assumption that the TRB should have at its disposal, not only robust sanctions, but also a **variety** (or armory) of sanctions which can be applied in a graduated way depending upon the seriousness and frequency of the license breach.*

*This armory could comprise, in particular, the power to:*

- *issue interim and final injunctions*
- *fine licensees*
- *award damages to third parties adversely affected by a licensee's breach of*

*license conditions*

- *partially revoke licenses (see, Article 20, below).*
- *fully revoke license (see, Article 20, below).*

*Investors in TDCs welcome prospective guidance as to the financial consequences they risk if they breach their licenses. Accordingly, Article 13.2 imposes an obligation on the Commission to specify by decree the circumstances in which fines and damages will be calculated and the rules it will apply in calculating the level of fines imposed and damages awarded.*

*Consistency with other regulators' enforcement powers*

*Generally, a TDC will need to ensure that the enforcement powers it confers on its TRB are consistent with those of other regulators, particularly the Competition Regulator. This will be particularly important where, for example, the TRB enjoys concurrent power with the Competition Regulator, to control anti-competitive conduct in the telecommunications sector.*

**PART IV - LICENSING REGIME****Article 14 Types of license**

- 14.1 Telecommunications Services are provided in the national territory subject to Individual Licenses (subject to Articles 15 (i) and 22), Class Licenses (subject to Articles 15.1(ii), 17 and 22), or unless specifically covered by an Individual License or a Class License, may be freely provided without a license.
- 14.2 Licenses for Operators or Services Providers of same-Telecommunications Networks or same-Telecommunications Services shall not unfairly discriminate between or among such Operators or Service Providers.
- 14.3 Issuing telecommunications licenses shall be carried out pursuant to the provisions of this law on a fair, objective and transparent basis.
- 14.4 Unless otherwise provided by the Minister pursuant to the terms of this law, or where scarce resources or technical reasons would otherwise prohibit it, no restriction on the number of Operators for a Telecommunications Service shall be made.

**Comments on Article 14**

*Article 14 generally sets forth the licensing regime. It is also drafted to address a competitive environment in which, with the exception of voice telephony services and frequency-based services, there will be no limitation on the number of new entrants.*

*Article 14 is designed to establish a simple and pro-competitive licensing regime comprising:*

- *individual licenses for public telecommunications networks and public voice telephony services*
- *class licenses for all other networks and telecommunications services*
- *exemptions for certain networks and services (e.g., private networks, internal government or military networks).*

## Article 15 Licensing requirements

- 15.1 Without prejudice to any requirement for a Broadcasting License, no person may operate:
- (i) a Public Telecommunications Network or provide Public Voice Telephony Services without an Individual License;
  - (ii) any other type of Telecommunications Network or provide any other type of Telecommunications Service unless that Telecommunications Network or Telecommunications Service is exempted by the Minister under Article 15.2 or subject to a Class License issued by the Commission.
- 15.2 The Minister shall specify by decree which Telecommunications Services are from time to time exempt from the requirement to have a license and which are subject to Class Licenses.
- 15.3 All other services may be provided without a license.

### **Comments on Article 15**

#### Streamlined licensing regime

*The tendency in many TDCs is to create complex licensing regimes which can confuse potential investors, create unnecessary bureaucracy, tie up scarce regulatory resources and delay the issuance of licenses.*

#### Impact of liberalization program

*The design of the licensing provisions in a TDC's telecommunications law will depend to some extent on the specific liberalization program envisaged by the TDC. Article 15 assumes, for the sake of argument, that public telecommunications infrastructure and public voice telephony (fixed and mobile) will not in the near term be **fully** open for competition and will therefore need to be individually licensed, whereas all other networks and services will be open to full competition and therefore should be subject to automatic authorization under class licenses.*

*If instead, however, a TDC decides to delay full liberalization of **other** networks or services, for example basic data services, then these services would also need to be made subject to an **individual** licensing requirement.*

*In this context, one legal mechanism which can be used in order to take account of the fact that networks and services which are initially subject to limited competition (and therefore **individually** licensed) will eventually become fully liberalized (and therefore susceptible to a much lighter **class** licensing regime) is to confer a power on the Minister at any time by decree to disapply the requirement for individual licenses once the networks and services subject to limited competition become subject to full competition.*

#### Different methods of authorizing telecommunications activities

*The regime in Article 15 is based on the grant of exemptions and two types of license – individual and class. A number of other approaches to authorizing telecommunications activities are used in TDCs including:*

- *concessions (often used, for example, in BTO, BOT type arrangements)*

- *cahiers des charges, accompanying licenses under the French system*
- *special arrangements for the incumbent operator (e.g., contract with the State)*
- *declarations, registrations (and other "light" authorization techniques which will often be a substitute for class licenses).*

*Investors in a TDC will be concerned to know precisely what the legal status is of the particular type of authorization on offer, for example, whether it is:*

- *an administrative law document such as a license, with the investor having a right of judicial review against the State*
- *a contractual document such as a concession, with the investor and the State entitled to contractual remedies against each other.*

*Equivalent licensing status as between incumbent operator and new entrants*

*Investors in a new entrant will be concerned at any differences in the way the incumbent operator is authorized as compared with new entrants. Many TDCs provide in their telecommunications laws for the incumbent to operate under an authorization which has a different legal status from, say, the license under which new entrants are authorized.*

*For example, a TDC's telecommunications law may provide for all of some of the incumbent's rights and obligations to be set out in a special pluri-annual contract with the State with a different legal status to that applicable to new entrants. This contract with the State might, for example, have entirely different modification rules to the new entrants' licenses.*

*In general, therefore, a TDC wishing to reassure new entrants will have much to gain from ensuring that its telecommunications law provides for the authorizations of the incumbent and of new entrants to have the same legal status. This is the approach taken in Article 15 of the FTL which admits of no distinction between the way that the incumbent and new entrants are authorized (both via individual licenses).*

*One-stop-shop for multiple licenses*

*Article 15.1 makes it clear that the telecommunications licensing requirements are without prejudice to any additional licensing requirements there may be under the TDC's radio or broadcasting legislation. As noted at page 7 above, one provision which TDCs may wish to introduce into their telecommunications law is a "one-stop-shop" mechanism ensuring that an investor requiring, say, a telecommunications license, and a broadcasting license in order to set up in business can look to just one of the regulators to handle and coordinate the application process for all three licenses and to ensure that all three licenses are mutually consistent.*

**Article 16 Licensing process**

16.1 Without prejudice to Article 32, the Minister shall only issue Individual Licenses following the completion of a fair, objective and transparent, competitive bidding process designed and run by the Commission pursuant to Article 16.2.

16.2 Tender requirements for Individual Licenses.

- (i) the Commission will draw up and submit to the Minister for agreement qualification criteria. Such agreement shall be made within of 30 days of submission by the Commission or, if Ministry fails to agree within such time, will result in the qualification criteria for the Individual License to be deemed to be accepted by the Ministry. Such criteria will be published by the Commission in a journal of general circulation.
- (ii) the Commission will prepare a tender document.
- (ii) the Commission will be responsible for forming an evaluation committee to review and evaluate the responses to tenders and will cause such committee to submit its recommendation on a successful bidder of the tender to the Minister for approval.
- (iii) such tender document shall include a draft license which shall be prepared by Commission; and
- (iv) the Commission shall determine and publish such other procedures and documents as are necessary for the conclusion of the tender consistent with the principles of fairness, openness and transparency.

16.3 Special rules for each service subject to a Class License.

- (i) the Commission shall draw up a list of criteria which each applicant for a Class License shall be required to meet in order to obtain such a Class License;
- (ii) the Commission shall draw up a form of license for each such Telecommunications Service subject to Class License; and
- (iii) the Commission shall evaluate applications for Class Licenses, and upon satisfaction that applicants meet the minimum requirements applicable to each such Telecommunications Service shall award a Class License for the provision of such Telecommunications Service and such service shall be provided on the basis of such license.

**Comments on Article 16**

*In many TDCs, important licenses are awarded on a non-transparent, bilateral basis, often for much lower license fees than they would have commanded in an open, transparent process. In many cases, the service obligations imposed in licenses awarded on such a non-transparent basis are much less onerous than if the license award process had been transparent.*

*Article 16 is designed to ensure that "important" licenses are awarded according to a transparent process, bolstered by checks and balances between the Commission and the Minister, with responsibility for designing and running the process allocated to the Commission and responsibility for finally selecting the winning applicant, issuing the license and determining the license conditions (except for license fees) allocated to the Minister.*

*The licensing process set forth in Article 16 is one of the key areas in which the independence of regulatory function is to be exercised. As explained in the comments to Articles 5 and 12, the licensing processes described in Article 16 are essential to ensure the independence of the Commission.*

*The level of detail provided in the tendering process will vary from country to country, but is advised that some minimum description of the ability and power of the Commission in respect of preparing, launching and evaluating tenders be set forth in the telecommunications law, understanding that secondary legislation may be more appropriate for setting forth the detail in certain jurisdictions.*

*The FTL avoids providing for auctions as a way of licensing frequency based services.*

#### **Article 17 License conditions**

- 17.1 A license issued under this Law may be subject to such conditions as the Minister in the case of Individual Licenses, and the Commission in the case of Class Licenses, considers necessary in light of the objectives specified in Article 4.
- 17.2 Without limiting the power conferred on the Minister and the Commission under Article 17.1, each Individual License, Class License shall contain at a minimum, conditions relating to all or any of the following:
- (i) the Networks and Services which the licensee is and is not entitled to operate and provide and the Networks to which the licensee's Network can and cannot be connected;
  - (ii) duration;
  - (iii) the build out of the licensee's Network and geographical and subscriber targets for the provision of the licensee's Services;
  - (iv) use of frequency;
  - (v) the provision of services to rural or sparsely populated areas or other specified areas in which it would otherwise be uneconomical to provide service;
  - (vi) the provision of services to the blind, deaf, physically and medically handicapped and other disadvantaged individuals;
  - (vii) the contribution towards the provision of universal service;
  - (viii) the payment of license fees (initial and renewal) to the Commission, calculated as a proportion of the annual turnover of the licensee, or otherwise;

- (ix) the interconnection of the licensee's Network with that of other Operators or Service Providers;
- (x) infrastructure sharing obligations;
- (xi) the control of anti-competitive conduct on the part of the licensee;
- (xii) the provision to the Commission of any documents and information required by the Commission in the performance of its functions under this Law;
- (xiii) the publication by the licensee of its charges and other terms and conditions of doing business;
- (xiv) the provision by the licensee of directory information and directory inquiry services;
- (xv) the quality of the services provided by the licensee;
- (xvi) the control of all or some of the licensee's prices;
- (xvii) the technical standards to be met by the licensee's Telecommunications Network or Telecommunications Service;
- (xviii) the allocation to and use by the licensee of numbers;
- (xix) controls on the transfer of licenses or change of controls in the shareholders in the licensee;
- (xx) prescriptions regarding national defense and public security;
- (xxi) restriction on all or certain license conditions being modified for all or part of the license term;
- (xxii) the renewal of the license;
- (xxiii) the transfer of the license.

### **Comments on Article 17**

*Article 17 lists the type of issues which can be included in individual and class licenses. With respect to the exclusivity granted to any operator, the corresponding provision establishing exclusive rights in the law could contain a "use it or lose it" clause which would also be included in the actual terms of the license. This clause would provide that as long as the licensee provided the service in the area and at the quality level provided in the license, it would enjoy the exclusivity. However, where those terms might be breached, the licensee would also lose its exclusive rights. Such provisions exist in the telecommunications law of Mauritania and in the main licenses in Uganda, for example.*

### **Article 18 Modification of licenses**

- 18.1 The Commission shall, at the request of a licensee, if it considers it in the public interest to do so, modify any condition of a license.



- 18.2 Subject to any provisions in licenses preventing modification of all or some license conditions for all or part of the term of the license, the Commission may unilaterally modify the conditions of an Individual License or Class License provided that the Commission shall have:
- (i) obtained the agreement of the Competition Regulator that the proposed modification would be in the public interest;
  - (ii) given the licensees and interested third parties reasonable notice of the proposed modification, detailed reasons as to why the proposed modification would be in the public interest and the opportunity to comment; such notice being given directly to the licensee(s) in question and published in a journal of general circulation and also providing the licensee(s) in question an opportunity to respond to the request for modification within a certain period of time; and
  - (iii) providing the licensee(s) in question the opportunity to appeal the decision of the Commission/Tribunal.

### **Comments on Article 18**

#### Investor sensitivities

*As noted in §II.B above, investors in TDCs are highly sensitive to the regulatory risk of **unilateral** license modification (i.e. where the TRB and the licensee disagree that the license should be modified or how it should be modified). It is also one area where, typically, investors will find least reassurance provided for in TDC telecommunications legislation.*

*In the telecoms legislation of many TDCs, the Minister will have the discretion unilaterally to modify a license if he considers it to be in the "public interest", subject to some minor procedural controls on giving notice and inviting comments from the licensee.*

*And yet, in a sector as dynamic as the telecommunications sector, it is important for the TRB, in certain circumstances, to be able to modify licenses (e.g., the x value in an inflation minus x price control) without the consent of the licensee so as to take account of significant changes in market conditions which may occur during, say, the 20 year term of a license and which may not have been foreseeable at the time the license was granted.*

#### Solutions

*One way for a TDC to allay investor concerns in this respect is to provide the possibility in the telecommunications law for licenses to be issued with certain conditions being protected from unilateral modification (or "frozen") for an initial period of, say, 5 years, of the license.*

*Another solution is to provide in the telecommunications law that, in order for a license to be unilaterally modified on, say, "public interest" grounds, **both** the Commission **and** an independent body such as the Competition Regulator (or a Telecoms Tribunal - see, § II. H, above) must reach the decision that it is in the "public interest" for the license to be modified.*

*For purposes of certainty and transparency, a limitation could be placed in Article 18 on the discretion of the Commission to request modifications. Such a limitation could include events of force majeure (such as war, civil strife, unrest,*

*natural disaster, etc.) or for reasons of public policy. By limiting the occasions in which the Commission could modify a license, Operators will have some more certainty about their rights of appeal in the event they are aggrieved by a license modification decision.*

*Link with the detail in the primary telecommunications legislation*

*In general, the easier unilateral license modification is in a particular TDC, the more investors will push to have detail concerning their rights and obligations built into the primary telecommunications law on the basis that the primary telecommunications law will be more difficult to modify than the license.*

*The FTL has been prepared so as to include robust protection for investors against unilateral license modification and therefore leave much of the detail to be dealt with in the licenses which can then be tailored to the specific circumstances of the licensee in question.*

**Article 19 Duration and renewal**

- 19.1 The duration of each license shall be as stated in the license.
- 19.2 Licenses shall, at the request of the licensee, be automatically renewed on the same terms unless the licensee is in serious breach of one or more license conditions as at the date of expiry of the license.
- 19.3 The Commission shall notify the licensee [x] months prior to expiry of the license whether the Commission regards the licensee as being in breach of license.

**Comments on Article 19**

*Duration*

*Many TDCs stipulate in their telecommunications legislation a specific fixed term for licenses. The approach taken in the FTL, however, is to leave this to be decided on a case by case basis since the duration of each license will depend on the time which the licensee will need to amortize its investment.*

*Renewal*

*The legislation of many TDCs provides for license renewal to be at the discretion of the Minister or TRB, often with no indication of the criteria to be used by the Minister or TRB in reaching a decision as to whether or not to renew. This can cause serious investor concern and a reluctance to invest towards the end of the license term for fear that it will not be renewed.*

*The approach taken in the FTL, therefore, is to provide for renewal to be automatic, at the option of the licensee, provided that the licensee is not in serious breach of a license condition as at the time of renewal.*

*Automatic renewal also provides investors with an incentive to make maximum effort to fulfill its obligations under the license and provides a useful "carrot" to complement the "sticks" set out in Article 12.*

**Article 20 Revocation of licenses**

The Minister may, following a recommendation from the Commission, revoke a license if all of the following conditions are satisfied:

- (i) the licensee has repeatedly or seriously breached one or more of the license conditions;
- (ii) the imposition of fines and/or damages under Article 13 would not be sufficient in the circumstances;
- (iii) the Commission has provided the licensee with a reasonable opportunity to make representations concerning the proposed revocation; and
- (iv) the Commission has provided the licensee with a reasonable opportunity to cure the breach and the licensee has failed to do so.

### **Comments on Article 20**

#### Investor concerns

*As with unilateral modification<sup>38</sup>), license revocation is an area of great sensitivity for investors. It is also one area where, typically, investors will find very little reassurance in TDC telecommunications legislation which, for example, may provide for revocation:*

- *on the basis of very vague events (e.g., “disturbance to the telecommunications sector”)*
- *for any breach of license conditions irrespective of whether or not the breach is serious*
- *for breach not just of license conditions but also of provisions in decrees or other secondary legislation issued by the Minister from time to time*
- *without providing any, or any reasonable, cure period*
- *as a “nuclear” sanction without taking into account the appropriateness of using other enforcement mechanisms (e.g., fines, injunctions).*

*Article 20 is designed to address these concerns.*

#### Partial revocation mechanisms

*A trend among TDCs is to incorporate what might be called “partial revocation” mechanisms in their telecommunications legislation. These “partial revocation” mechanisms can take a number of forms including:*

- *“suspension”, whereby a license is suspended for a certain period of time during which the licensee is not entitled to operate the network or provide the services*
- *“use it or lose it”, whereby the scope of the licensee’s authority is reduced whether in terms of duration, geographical scope or services which the licensee is entitled to provide.*

*The telecommunications legislation of a number of TDCs provides for both “suspension” and “revocation” as sanctions, but without indicating in what circumstances each will be used (e.g., whether suspension is an intermediate sanction which will be imposed prior to revocation). It is also generally not clear what the practical effects of “suspension” will be. In practice, if a major license has its license “suspended” for even a comparatively short time so that it is unable to provide service, it may well be put it out of business.*

*The “use it or lose it” mechanism is used in some TDCs, in parallel with full revocation, to target breaches of particular license conditions (e.g., failure to provide service in particular geographic areas). It can be a useful means of*

<sup>38</sup> See, Article 19 and related commentary above, and see footnote 17, *supra*, and accompanying commentary.

*ensuring universal service and speeding up liberalization. For example, if the incumbent operator fails to provide service in a particular region, it may lose the exclusive right to provide service in that region opening up the possibility of another operator being licensed to serve that region.*

## **PART V – UNIVERSAL SERVICE**

### **Article 21 Universal service**

- 21.1 Telecommunications Services shall be provided to any person so requesting at a reasonable price and at a good quality including emergency numbers and directory information. This universal service will be provided by operator (s) in accordance with the terms of its license.
- 21.2 The cost attributable to the provision of universal service shall be paid from a universal service fund (“Fund”).
- 21.3 The Commission shall be responsible for administering the Fund.
- 21.4 All Operators and Service Providers who hold either an Individual License or a Class License, shall contribute to the Fund in accordance with the conditions of their license.
- 21.5 The Commission shall ensure both the obligation to provide universal service as reflected in the license of the operator so charged to provide such service as well as the collection of such sums from Operators and Service Providers who, according to the terms of their licenses, are required to contribute to the Fund.
- 21.6 The Fund shall be operated out of a separate account from the operational accounts of the Commission. The accounts for the Fund shall be subject to an annual audit.

### **Comment to Article 21**

#### Policy Considerations

*The definition of universal service will vary from country to country. It does not necessarily mean that every person, regardless of their location will have a telephone. Rather, it means that everyone will have reasonable access to telephony service. This may mean that the provision of telephony service in areas which would in other circumstances be uneconomical. While the general theory behind the FTL is to avoid cross-subsidies, in the case of universal service there is an overriding state concern that every person have some reasonable access to telephony services and, in a sense, every operator of a public voice telephony service is “subsidizing” the realization of the universal access policy objective of the TDC.*

#### Institutional Options

*Some countries choose to obligate each license holder with a portion of the universal service build-out obligation. While other countries prefer to have one operator with the obligation and require other licensed operators to contribute to*

*a fund in order to offset the cost of providing or rolling out the universal service.*

**Enforcement**

*Success of the universal service model described in Article 21 depends also on the rigorous enforcement of:*

- (i) the license roll-out obligation of the Operator which has the USO to ensure that payments from the Fund to that Operator are made in respect of actual accomplishments, and*
- (ii) the obligation of other operators to contribute to the Fund. It is very important that those other operators realize that failure to contribute to the Fund could result in license revocation*

*Whichever model is adopted, the rules of the game should be clearly stated. The FTL has been drafted contemplating a scenario where one operator has the USO and the other licensed operators contribute to a fund managed by the TRB.*

**Accounting Separation**

*It is essential that the Fund be segregated from other monies and accounts of the Commission. This construction also requires from the Commission a certain level of accounting capacity and expertise.*

**Audit**

*Finally, the audit of the Fund is essential to ensure the transparent application of the Funds to the USO.*

**PART VI – FREQUENCY**

**Article 22 Special rules regarding frequency**

- 22.1 The Commission shall plan, monitor, manage and allocate the use of the radio frequency spectrum in the telecommunication sector. In particular, the Commission shall devise and maintain a plan for frequency use in the telecommunication sector, in coordination with other branches of government.
- 22.2 The Commission shall ensure that frequency allocated to the telecommunication sector is fairly assigned among Operators and Service Providers holding licenses for frequency-based Telecommunications Services.
- 22.3 The Commission shall ensure the use of frequency consistent with the terms and conditions of licenses.
- 22.4 The Commission shall ensure that only approved equipment, including Terminal Equipment, is used in connection with frequency-based services.

**Comment on Article 22**

*The responsibilities of the Commission in the area of frequency management are many. Telecommunications Services will use only a portion of the available frequency spectrum, leaving other spectrum for the use by the military, civil aviation, and other branches of government or governmental organizations. Coordination of frequency use in the telecommunications sector is required with*

other branches of government (see, § I.D, above). The FTL has been prepared on the basis that an interministerial committee for the allocation of frequency to telecommunications, military, and other users exists in the TDC and that regulation of frequency within the telecommunication sector will be the domain of the TRB.

Also, two fundamental operational notions are assumed in the management of the telecommunication frequency spectrum. First, that frequency assigned to a type of service will be fairly assigned to operators of the same service. That means that each operator of a same-service will receive the same **quantity** and **quality** of bandwidth, enshrining the notion of non-discrimination in frequency assignment. The second notion (also as described in § I.D, above) is that an operator licensed to provide a frequency-based service will receive its authorization to use the frequency together with a license to provide the service – i.e., “one-stop-shopping”. This mechanism is essential to provide investors with some certainty in frequency-based services.

The TRB must have broad authority to ensure that licensees are properly using the frequency licensed to them. The Commission will also have to have technically trained staff that will be able to discern, in cases of alleged interference, whether it is harmful or not. In this sense, the Commission’s authority to license frequency must be stated very clearly in the telecommunications law. Otherwise confusion could proliferate where there is ambiguity between the authority of the Ministry and the Commission in respect of licensing frequency-based services. This does not mean, however, that the Ministry has no role in the assignment of frequency or in the choice of services to which frequency could be assigned. On the contrary, the choice of services to be licensed and the number of licensed operators of a given service is a fundamental policy of the Ministry provided for in Article 5 of the FTL.

## **PART VII – MISCELLANEOUS REGULATION**

### **Article 23 Equipment type approval**

23.1 The Commission shall

- (i) approve equipment; or
- (ii) promulgate criteria for certification and establish standards for approval in its regulations of equipment and Terminal Equipment for use in connection with Telecommunications Services or Telecommunications Networks and shall maintain a register of approved equipment,, Terminal Equipment, certification criteria and standards.

23.2 Use of any equipment or Terminal Equipment except as authorized in this Article may be subject to the penalties provided in Article 31.

23.3 Marketing or selling equipment or Terminal Equipment is not subject to authorization except as provided in this Article.

#### **Comment to Article 23**

*The purpose of Article 23 is to ensure that equipment used in the telecommunications market in the TDC is safe for use; and with respect to radio*

*equipment, conforms with terminal equipment specifications and does not cause harmful interference to other frequency-based services.*

*Because of standardization of many types of telecommunications services and equipment globally, it may be that the equipment used in connection with services deployed in the TDC is already subject to some sort of recognized standard. If that is the case, then the TRB need only adopt the already existing standards and apply it for use in the use TDC.*

*Because there is a state interest in the safe use of equipment, the Article is guarantee by time and breach of the obligations provided to Article 23 to the penalties provided in Article 31.*

*The TRB would be free to adopt its own certification processes in connection with equipment-type approval. Because of the wide variety of options in this regard, the certification process has not been dealt with in the FTL.*

## **Article 24 Tariffs**

24.1 The Commission shall publish the principles governing the regulation of tariffs charged by Operators and Service Providers and shall ensure that the tariffs charged by, or the modality of determination thereof, are set forth in the Licenses of such Operators or Service Providers.

24.2 Operators and Service Providers shall publish their tariffs.

### **Comment to Article 24**

*The degree to which matters regarding the regulation of tariffs are expressed in the FTL will depend greatly on the corresponding degree of liberalization contemplated in the TDC. In the traditional scenario, a gradual or phased-in tariff rebalancing for the formally state-owned incumbent will probably be necessary. In this situation, the TRB will play an important role in ensuring that appropriate tariff conditions are reflected in the license of the incumbent and that the incumbent is in conformity with its license conditions.*

*In later stages of liberalization, tariffs can be regulated through the application of a cost-based system or rate of return system, depending on the objectives of the government of the TDC. In a fully liberalized, highly competitive environment, the market mechanism would ultimately take over the role of the regulator in ensuring fair tariffs.*

*One difficulty in jumping directly to a cost-based tariff regime in a transitional economy is that it is likely that incumbent operator does not have adequate records to determine the cost basis on which to charge tariffs. Recognizing that it may take some time for the incumbent to reach this position, a phased-in approach is recommended.*

*A matter closely related to the tariff regime is the provision against cross subsidies. The closer that the tariff structure is to a cost basis, the more difficult will be for operators of diverse services to cross-subsidize their operations. In that respect, the regulator has an important role in ensuring that the tariff structure in the sector is functioning and enforced.*

*Because the tariff structure in the TDCs is by definition in transition, while the structure itself could be included in the body of the FTL, it is preferable to express the general principles in the law and have the actual tariff requirements*

*be expressed in the licenses of operators; and it is on this basis that the FTL has been prepared.*

## **Article 25 Interconnection**

- 25.1 All Operators of Telecommunications Service or Telecommunications Network are required to provide interconnection of their Telecommunications Network with the Telecommunications Network of any other Operator, on the terms and conditions set forth in this Article.
- 25.2 Interconnection shall be allowed at any technical physical point.
- 25.3 Interconnection agreement must be in writing and notify to the Commission who will maintain a register of such interconnection agreements which is open to inspection.
- 25.4 Request for interconnection must be made in writing and responded to in writing within [certain minimum time]. Request for interconnection may be refused only on reasonable grounds and must be justified in writing.
- 25.5 Interconnection terms offered to third parties must be no less favorable than terms offered to affiliates.
- 25.6 The cost of any interconnection shall be borne by the party requesting it.
- 25.7 The Commission shall decide on any interconnection dispute referred to it by Operators within [certain minimum time].

### **Comment to Article 25**

*Article 25 sets forth the elements of a fair interconnection regime. The TDC will need to decide as a threshold matter the level of involvement the TRB will have in the interconnection process. For example, the TRB can promulgate interconnection regulations and guidelines along the lines of the provisions of Article 25 which all Operators will need to abide by, or based on the framework of interconnection elements provided above, the TRB can review interconnection agreements between operators, exercising a great deal of discretion over the eventual bilateral agreement between the operators. Where the exercise of the discretion of the TRB falls along such a continuum when a large part dictates the responsibilities of the TRB to be reflected in the telecommunications legislation of the TDC*

*Consistent with the principles of the FTL of transparency, openness and non-discrimination, the interconnection agreement (including the financial component thereof) should be, if not published, publicly available, which will include the interconnection charges. Operators will find these requirements controversial. On the one hand, publication of charges means that no preferential deals can be made between operators (consistent with the*



competition law concerns of the FTL), however, it also means that should two operators, because of superior bargaining skills or other circumstances be able to strike a better deal with other operators, there will be no incentive to do so, because MFN provisions will apply – whatever is the best deal offered will have to be made available to all applicants. An alternative option could provide for the publication of the interconnection agreement without the actual charges being disclosed. This will address, for example, the manner of physical interconnection and points of interconnection. As the sector becomes fully liberalized and cost-based, market-oriented charges are capable of being determined, MFN treatment should no longer be an issue.

The principle of non-discrimination also goes to the quality of the interconnection package offered. Terms of interconnection offered to affiliates should also be made available to all operators. These processes ensure transparency. Where facilities may not be available, "virtual" interconnection should be offered.

As a policy decision, the Ministry will need to determine what type of services should be required to interconnect with others. The FTL has been prepared based on the assumption that all voice telephony services would be interconnected.

The Ministry will also need to decide what, if any, exclusivity the incumbent will have in carrying traffic of other operators, or whether all operators can directly interconnect with all other operators.

## **Article 26    Directory and emergency services information**

- 26.1 Each Operator or Service Provider of a [subscriber-based] Public Voice Telephony Service is required, subject to the confidentiality provisions of Article 29 and other requirements of law, to make available a list of subscribers [to the entity charged with the publication of annual directories] in such manner consistent with the provisions of this law and as the Commission may from time to time provide in regulations.
- 26.2 Each Operator or Service Provider of Public Voice Telephony Service shall make available to its subscribers and users emergency number information.
- 26.3 Each Operator of a [subscriber-based] Public Voice Telephony Service shall make available a directory assistance service.

### **Comment to Article 26**

*A threshold policy consideration must be taken in respect of whether the right and obligation to publish the annual directory will be open to competition or be the exclusive right of one of the operators. One response is to leave this responsibility with the incumbent, at least during an initial phase, and has been construed in some TDCs as part of the USO. Similarly, emergency information access numbers have been considered as part of the USO. The publication of the annual directory can be a licensed service.*

*The key concern for publication of the annual directory, including making available subscriber information, is that rights to individual privacy are respected and that if subscribers, for example, do not wish for their numbers to be disclosed, adequate provision will need to be made for that.*

*The FTL has been prepared on the basis that one operator has been chosen to publish the annual directory but that all subscriber-based services provide emergency information. The requirement has been restricted to subscriber-based services because, for example, pay phones will not be required to submit subscriber lists but would be required to provide emergency information services. Also, in a fully liberalized environment, where subscribers would not have to have their calls carried over the PSTN, they should be able to contact their own service providers for emergency information numbers.*

*Number portability, discussed in greater detail in Article 27, following, is important in connection with the publication of subscriber information.*

## **Article 27    Numbering plan**

- 27.1    The Commission shall establish and manage a plan for the allocation of numbers among Operators and Service Providers in a fair, objective and transparent manner.
- 27.2    In preparing the national numbering plan, the Commission shall pay due regard to existing allocation of numbers.

### **Comment to Article 27**

*Numbers, like frequency, are a resource that need to be allocated fairly among operators. New entrants should be able to obtain number blocs for subscribers which are rational. Indeed, in some markets, operators use their numbers as a marketing tool.*

*More importantly, in a truly liberalized telecommunications market number portability will be provided. This means, in over-simplified terms, that once a number is assigned to a subscriber, regardless which operator that subscriber subscribes to, the subscriber has the option to "carry" its number with him/her regardless of the operator to which is a subscriber.*

*As with other regulatory matters, the key to success of the national numbering plan maintained by the TRB is its publication. The numbering plan will also provide for allocation of numbers for emergency services, and for the dissemination of information to the general public concerning access to emergency numbers.*

*This is also an area where regional initiatives are already a reality.<sup>39</sup>*

<sup>39</sup> The North American numbering plan is a long standing fixture. The East-African numbering plan comprising Kenya, Tanzania and Uganda is another initiative, as is numbering reform in the EU.

## Article 28 Property Rights

### 28.1 Infrastructure sharing

- (i) All Operators and Service Providers of a Telecommunications Service or Telecommunications Network are required to share their Telecommunications Network infrastructure with the Telecommunications Network of any other Operator, on the terms and conditions set forth in this Article.
- (ii) Infrastructure shall be shared at any technical physical point.
- (iii) Infrastructure sharing agreements must be in writing and be notified to the Commission, which will maintain a register of such infrastructure sharing agreements which is open to inspection.
- (iv) Request for sharing infrastructure must be made in writing and responded to in writing within [certain minimum time]. Request for sharing infrastructure may be refused only on reasonable grounds and must be justified in writing.
- (v) The cost of any infrastructure sharing shall be borne by the party requesting it.
- (vi) The Commission shall decide on any infrastructure sharing disputes referred to it by Operators within [certain minimum time].

### 28.2 Rights of way

- (i) Operators and Service Providers so authorized in their licenses shall have right of way on public road and ways on the surface, in the air and underground for the installation of necessary infrastructure.
- (ii) The Commission shall ensure that use of right of way is not incompatible with the underlying real property and that the installation of such right of way does not cause harmful interference to other operator's infrastructure.
- (iii) Notification shall be given in writing by any such Operator and Service Provider to the owner of the property before entering on such property by such Operator or Service Provider within [certain time] and the owner of such real property shall respond to such request for entry within [certain time].
- (iv) The Commission shall hear disputes and make decisions regarding the entry on to property and compensation therefor.

#### **Comment to Article 28**

*Section I.G, contains discussion of the importance in a telecommunications legislation of real property rights. Primarily, these rights refer to ownership of land on which telecommunications installations will be made. Equally important, especially from a competition law stand-point, in order to "level the playing field"*

*between the incumbent and new operators providing competitive services, those new operators should be provided with the ability either to share existing infrastructure of the incumbent or to condemn property in order to make their installations. The preference will obviously be for infrastructure sharing to the extent possible.*

*In that regard, the elements of infrastructure sharing are nearly identical to the elements of interconnection.*

*As a policy threshold, the government of the TDC will need to make some determination about which type of operators will have property condemnation rights.*

*The Ministry will need to make a threshold policy decision on the number of entitled operators who will have right to enter property as well as the rights of the property owners for compensation in case of modification or destruction of property as well for determining a mechanism for the resolution of dispute regarding entering on private property for purposes of installing telecommunications infrastructure*

*Also, the degree to which environmental protection matters are built in to the telecommunications legislation will vary from country to country.<sup>40</sup> The use of real property will also need to be coordinated with other services and facilities, for example, civil aviation, which may have high restriction on towers for radio communications facilities. While it is not necessarily to recite these provisions in the FTL, drafters of telecommunications legislation should bear in mind the requirements of other legislation.*

## **Article 29 Confidentiality**

- 29.1 Accepted as otherwise provided by law, all transmissions over a Telecommunications Network or Telecommunications Service shall be confidential and shall not be disclosed by the Operator and Service Provider of such service or network.
- 29.2 All personal information relating to subscribers shall be confidential and shall not be disclosed by Operators and Service Providers of Telecommunications Services to which such persons subscribe, except as provided under this law or otherwise by law.
- 29.3 Breach of any of the foregoing obligations may be subject to penalties as provided in Article 31.

### **Comment to Article 29**

*Maintaining the confidentiality of telecommunications transmissions and official information related to subscribers using telecommunications services is key to the increased use of telecommunications services in a liberalized environment. This, however, needs to be balanced against the legitimate interest of the state in pursuing its police powers and the interest of subscribers and operators in providing "personal" information in the context of annual directories. With respect*

<sup>40</sup> The SA Law has quite detailed provisions, for example, regarding the use and removal of underground pipes, fences and provisions regarding "interference" caused by trees (see, SA Law, Articles 71-75, for example), as does the Uganda Communications Act, 1997 (see, e.g., articles 44-48).

*to police powers, the government of each TDC will need to determine the level of interception of transmissions that it will require; and that level of interception should be clearly stated or referred to in the telecommunications legislation. The rights and obligations of operators to cooperate with state authorities in intercepting calls should be clearly set forth in the license of the operator, as should the terms and conditions under which a subscriber can request that his/her personal information not be disclosed for purposes of publication in the annual directory or otherwise.*

*The question of interception by the state on telecommunications transmissions over networks operated by private parties using digital technology is increasingly a sensitive one. Where formerly state-owned enterprises are using such encryption technology, they should already have access to the encryption algorithm to enable them to intercept calls. In transitional markets, as the state reduces its direct interest in operating telecommunications services, it may not have not access to such algorithms and may require such access in order to intercept calls.*

## **PART VIII – INVESTIGATION AND OFFENCES**

### **Article 30 Investigation of complaints & dispute resolution**

- 30.1 The Commission shall have the authority to:
- (i) investigate at its own initiative any matter arising under its competence as provided for in this law; and
  - (ii) investigate complaints brought to its attention.
- 30.2 The Commission may appoint inspectors to carry out any of the investigations referred to in Article 30.1, above, and shall promulgate procedures required for the certification of such inspectors and the investigative powers of any such inspectors.
- 30.3 Any report of any investigation carried out under this Article shall be made in writing.
- 30.4 The Commission shall establish a tribunal (“Tribunal”) for purposes of adjudicating disputes arising under this law.
- 30.5 The Commission shall establish a separate account for the funds required by the Tribunal, if any, for the carrying out of its business.
- 30.6 The Commission shall issue regulations provided for the process and procedures of the Tribunal.
- 30.7 The decision of the Tribunal may be appealed to the court of competent jurisdiction.

**Comment to Article 30**

*Article 30 provides two important powers for the TRB. First, is the power and authority to make investigations – both on its own initiative and in response to complaints submitted to it. The second is for the provision to the dispute resolution mechanism. Here, a threshold policy issue must be decided by the government of TDC in respect of establishing an tribunal within the TRB or to make the TRB the investigator and dispute resolving entity itself. Finally, the policy could be not to confer any dispute resolution powers in the TRB, but to leave such to the ordinary courts.*

*Because certain of the disputes will inevitably be of a highly technical nature, such as interconnection and frequency use, there is an argument that they should be resolved by persons technically competent to understand the issues, rather than going directly to courts which either will not have the technical expertise to adequately decide the issues or which for other reasons the parties do not have confidence in to render a fair judgment. In any event, as a way to provide a check and balance on the decision-making authority of the TRB, any decision rendered by it should be appealable to the ordinary courts. The appeal to the court, like other appellate procedures, should be limited to an examination by the court of the procedural merits of the decision, rather than the underlying substantive matters.*

*If a dispute resolution mechanism is built into telecommunications legislation, there should be clear procedures for submitting complaints and certain time periods both for the submission by the parties and for rendering a decision by the TRB or its tribunal. These time periods should be commercially reasonable, and should not be able to be used by the parties to thwart the purpose and objectives of the telecommunications legislation. For example, without clear time requirements, an interconnection dispute submitted to the TRB could be dragged on for a period of time rendering the competitive advantage to be provided by fair interconnection moot.*

*As noted in § II.H, above, the exact form of the tribunal will depend in great part on the legal system of the TDC*

*The right of appeal is an essential component of the dispute resolution process and authority given to the TRB. It is important, however, to identify with as much specificity as possible, which is the court having jurisdiction over matters appealed from the TRB because it is conceivable that in some legal systems, more than one court may have jurisdiction over the matter. Because the purpose and intention of the dispute resolution process is to provide speed and certainty for the resolution of disputes, it would defeat the purpose if the matter is delayed due to a procedural/jurisdictional dispute on appeal.*

**Article 31 Offenses**

The following shall be considered offenses of this law and shall be punishable by fine, imprisonment, or both, as indicated.

- (i) Failure to comply with telecommunications law [level of fine/imprisonment]
- (ii) Breach of license [level of fine/imprisonment]

- (iii) Unauthorized provision of Telecommunications Service [level of fine/imprisonment]
- (iv) Knowing use of an unauthorized Telecommunications Service
- (v) Unauthorized use of spectrum [level of fine/imprisonment]
- (vi) Improper use telecommunications system [level of fine/imprisonment]
- (vii) Intentionally causing [harmful] interference with a Telecommunications Service or Telecommunications Network [level of fine/imprisonment]
- (viii) Connecting unapproved Terminal Equipment to a Telecommunications Network or using unapproved equipment in connection with a Telecommunications Services [level of fine/imprisonment]
- (ix) Unauthorized interception of a communication over a Telecommunications Network [level of fine/imprisonment]
- (x) Unauthorized disclosure of personal information of or relating to subscribers of a Telecommunications Service [level of fine/imprisonment]
- (xi) Failure to comply with any order of the Commission or Tribunal [level of fine/imprisonment]

**Comment to Article 31**

*Article 31 gives real teeth to many of the provisions of the FTL.*

*The level and amount of any penalties (civil or criminal) should be in line with penalties generally applicable in the TDC.*

*While the focus is generally on the behavior of operators and service providers in the sector also targets offences by users, for example making illegal the **knowing** use of an unauthorized service. Making such user behavior illegal takes away the incentive to offer an unauthorized telecommunications service.*

**PART IX FINAL AND TRANSITIONAL PROVISIONS**

**Article 32 Entry into force, consequential repeal and amendments and transitional measures**

- 32.1 This law shall come into force on [date].
- 32.2 The following TDC legislation shall be repealed or amended as at the date of entry into force of this law.
- 32.3 The Minister shall, within one year of the date of entry into force of this Law, issue new licenses consistent with this Law to Operators and Service Providers who, as at the date of entry into force of this Law, already hold licenses or other forms of authorizations.

**Comments on Article 32**

Article 32.3 requires the Commission to provide replacement licenses to holders of pre-existing licenses or other authorizations as at the date of entry into force of the FTL.

In this context, many TDCs draw a distinction between:

- Fixed term pre-existing licenses which continue under the same terms until they expire
- Indefinite term licenses which have to be replaced within a certain time (e.g., one year) of entry into force of the telecommunications law.

To permit pre-existing fixed term licenses to continue until they expire may not be advisable, however, where the incumbent operator enjoys a long fixed term authorization since the terms of its pre-existing license may not be appropriate for a liberalized environment and may not be attractive to potential strategic investors.



# Distributors of World Bank Group Publications

Prices and credit terms vary from country to country. Consult your local distributor before placing an order.

**ARGENTINA**  
World Publications SA  
Av. Córdoba 1877  
1120 Ciudad de Buenos Aires  
Tel: (54 11) 4815-8156  
Fax: (54 11) 4815-8156  
E-mail: [wpbooks@infovia.com.ar](mailto:wpbooks@infovia.com.ar)

**AUSTRALIA, FIJI, PAPUA NEW GUINEA, SOLOMON ISLANDS, VANUATU, AND SAMOA**  
D.A. Information Services  
648 Whitehorse Road  
Mitcham 3132, Victoria  
Tel: (61 3) 9210 7777  
Fax: (61 3) 9210 7788  
E-mail: [service@dadirect.com.au](mailto:service@dadirect.com.au)  
URL: <http://www.dadirect.com.au>

**AUSTRIA**  
Gerold and Co.  
Weihburggasse 26  
A-1011 Wien  
Tel: (43 1) 512 47 31-0  
Fax: (43 1) 512 47 31-29  
URL: <http://www.gerold.co.at/online>

**BANGLADESH**  
Micro Industries Development Assistance Society (MIDAS)  
House 5, Road 16  
Dharmondi R/Area  
Dhaka 1209  
Tel: (880 2) 326427  
Fax: (880 2) 811188

**BELGIUM**  
Jean De Lanroy  
Av. du Roi 202  
1060 Brussels  
Tel: (32 2) 538-5169  
Fax: (32 2) 538-0841

**BRAZIL**  
Publicações Técnicas Internacionais Ltda.  
Rua Peixoto Gomide, 209  
01409 Sao Paulo, SP  
Tel: (55 11) 259-6644  
Fax: (55 11) 258-6990  
E-mail: [postmaster@pti.uol.br](mailto:postmaster@pti.uol.br)  
URL: <http://www.uol.br>

**CANADA**  
Renouf Publishing Co. Ltd.  
3569 Canotek Road  
Ottawa, Ontario K1J 9J3  
Tel: (613) 745-2665  
Fax: (613) 745-7660  
E-mail: [order.dept@renoufbooks.com](mailto:order.dept@renoufbooks.com)  
URL: <http://www.renoufbooks.com>

**CHINA**  
China Financial & Economic Publishing House  
8, Da Fo Si Dong Jie  
Beijing  
Tel: (86 10) 6401-7365  
Fax: (86 10) 6401-7365

**China Book Import Centre**  
P.O. Box 2825  
Beijing  
Chinese Corporation for Promotion of Humanities  
52, You Fang Hu Tong,  
Xuan Nei Da Jie  
Beijing  
Tel: (86 10) 660 72 494  
Fax: (86 10) 660 72 494

**COLOMBIA**  
Infoenlace Ltda.  
Carrera 6 No. 51-21  
Apartado Aereo 34270  
Santafe de Bogota, D.C.  
Tel: (57 1) 285-2798  
Fax: (57 1) 285-2798

**COTE D'IVOIRE**  
Centre d'Édition et de Diffusion Africaines (CEDA)  
04 B.P. 541  
Abidjan 04  
Tel: (225) 24 6510; 24 6511  
Fax: (225) 25 0567

**CYPRUS**  
Center for Applied Research  
Cyprus College  
6, Drogenes Street, Engomi  
P.O. Box 2006  
Nicosia  
Tel: (357 2) 59-0730  
Fax: (357 2) 66-2051

**CZECH REPUBLIC**  
USIS, NIS Prodejna  
Havellkova 22  
130 00 Prague 3  
Tel: (420 2) 2423 1486  
Fax: (420 2) 2423 1114  
URL: <http://www.nis.cz/>

**DENMARK**  
Samfundslitteratur  
Rosenoerms Alle 11  
DK-1970 Frederiksberg C  
Tel: (45 35) 351942  
Fax: (45 35) 357822  
URL: <http://www.sl.cbs.dk>

**ECUADOR**  
Libri Mundi  
Libreria Internacional  
P.O. Box 17-01-3029  
Juan Leon Mera 851  
Quito  
Tel: (593 2) 521-606; (593 2) 544-185  
Fax: (593 2) 504-209  
E-mail: [librimundi@librimundi.com.ec](mailto:librimundi@librimundi.com.ec)  
E-mail: [librimuz@librimundi.com.ec](mailto:librimuz@librimundi.com.ec)

**CODEU**  
Ruiz de Castilla 763, Edif. Expocolor  
Primer piso, Of. #2  
Quito  
Tel/Fax: (593 2) 507-383; 253-091  
E-mail: [codeu@impsat.net.ec](mailto:codeu@impsat.net.ec)

**EGYPT, ARAB REPUBLIC OF**  
Al Ahram Distribution Agency  
Al Galaa Street  
Cairo  
Tel: (20 2) 578-6083  
Fax: (20 2) 578-6833

**The Middle East Observer**  
41, Sherif Suiet  
Cairo  
Tel: (20 2) 393-9732  
Fax: (20 2) 393-9732

**FINLAND**  
Akateeminen Kirjakauppa  
P.O. Box 128  
FIN-00101 Helsinki  
Tel: (358 0) 121 4418  
Fax: (358 0) 121-4435  
E-mail: [akaliuas@stockmann.fi](mailto:akaliuas@stockmann.fi)  
URL: <http://www.akateeminen.com>

**FRANCE**  
Editions Eska: DBJ  
48, rue Gay Lussac  
75005 Paris  
Tel: (33-1) 55-42-73-08  
Fax: (33-1) 43-29-91-67

**GERMANY**  
UNO Verlag  
Poppelsdorfer Allee 55  
53115 Bonn  
Tel: (49 228) 949020  
Fax: (49 228) 217492  
URL: <http://www.uno-verlag.de>  
E-mail: [uno.verlag@aol.com](mailto:uno.verlag@aol.com)

**Ghana**  
Epp Books Services  
P.O. Box 44  
TUC  
Accra  
Tel: 223 21 778843  
Fax: 223 21 779099

**GREECE**  
Papasoloniou S.A.  
35, Sotiriara Str.  
106 82 Athens  
Tel: (30 1) 364-1826  
Fax: (30 1) 364-8254

**HAITI**  
Culture Diffusion  
5, Rue Capois  
C.P. 257  
Port-au-Prince  
Tel: (509) 23 9260  
Fax: (509) 23 4858

**HONG KONG, CHINA; MACAO**  
Asia 2000 Ltd.  
Sales & Circulation Department  
302 Seabird House  
22-28 Wyndham Street, Central  
Hong Kong, China  
Tel: (852) 2530-1409  
Fax: (852) 2526-1107  
E-mail: [sales@asia2000.com.hk](mailto:sales@asia2000.com.hk)  
URL: <http://www.asia2000.com.hk>

**HUNGARY**  
Euro Info Service  
Margitszigeti Europa Haz  
H-1138 Budapest  
Tel: (36 1) 350 80 24, 350 80 25  
Fax: (36 1) 350 90 32  
E-mail: [eurinfo@mail.matav.hu](mailto:eurinfo@mail.matav.hu)

**INDIA**  
Allied Publishers Ltd.  
751 Mount Road  
Madras - 600 002  
Tel: (91 44) 852-3938  
Fax: (91 44) 852-0649

**INDONESIA**  
Pt. Indira Limited  
Jalan Borobudur 20  
P.O. Box 181  
Jakarta 10320  
Tel: (62 21) 390-4290  
Fax: (62 21) 390-4289

**IRAN**  
Ketab Sara Co. Publishers  
Khaled Estamboli Ave., 6th Street  
Dezfulrooz Alley No. 8  
P.O. Box 15745-733  
Tehran 15117  
Tel: (98 21) 8717819; 8716104  
Fax: (98 21) 8712479  
E-mail: [ketab-sara@meda.net.ir](mailto:ketab-sara@meda.net.ir)

**Kowkab Publishers**  
P.O. Box 19575-511  
Tehran  
Tel: (98 21) 258-3723  
Fax: (98 21) 258-3723

**IRELAND**  
Government Supplies Agency  
Oifig an Solathair  
4-5 Harcourt Road  
Dublin 2  
Tel: (353 1) 661-3111  
Fax: (353 1) 475-2670

**ISRAEL**  
Yozmot Literature Ltd.  
P.O. Box 56055  
3 Yohanan Hasandiar Street  
Tel Aviv 61560  
Tel: (972 3) 5285-397  
Fax: (972 3) 5285-397

**R.O.Y. International**  
PO Box 13056  
Tel Aviv 61130  
Tel: (972 3) 649 9469  
Fax: (972 3) 649 6039  
E-mail: [royil@netvision.net.il](mailto:royil@netvision.net.il)  
URL: <http://www.royint.co.il>

**Palestinian Authority/Middle East Index Information Services**  
P.O. Box 19502 Jerusalem  
Tel: (972 2) 6271219  
Fax: (972 2) 6271634

**ITALY, LIBERIA**  
Licosa Commissionaria Sansoni SPA  
Via Duca Di Calabria, 1/1  
Casella Postale 552  
50125 Firenze  
Tel: (39 55) 645-415  
Fax: (39 55) 641-257  
E-mail: [licosa@fbcc.it](mailto:licosa@fbcc.it)  
URL: <http://www.fbcc.it/licosa>

**JAMAICA**  
Ian Randle Publishers Ltd.  
206 Old Hope Road, Kingston 6  
Tel: 876-927-2085  
Fax: 876-977-0243  
E-mail: [irpl@colis.com](mailto:irpl@colis.com)

**JAPAN**  
Eastern Book Service  
3-13 Hongo 3-chome, Bunkyo-ku  
Tokyo 113  
Tel: (81 3) 3818-0861  
Fax: (81 3) 3818-0864  
E-mail: [orders@svt-eps.co.jp](mailto:orders@svt-eps.co.jp)  
URL: <http://www.bekkoame.or.jp/~svt-eps>

**KENYA**  
Africa Book Service (E.A.) Ltd.  
Quaran House, Mirangano Street  
P.O. Box 45245  
Nairobi  
Tel: (254 2) 223 641  
Fax: (254 2) 330 272

**Legacy Books**  
Lofia House  
Mezzanine 1  
P.O. Box 68077  
Nairobi  
Tel: (254) 2-330853, 221426  
Fax: (254) 2-330854, 561654  
E-mail: [Legacy@form-net.com](mailto:Legacy@form-net.com)

**KOREA, REPUBLIC OF**  
Dayang Books Trading Co.  
International Division  
783-20, Pangba Bon-Dong,  
Socho-ku  
Seoul  
Tel: (82 2) 536-9555  
Fax: (82 2) 536-0025  
E-mail: [seamp@chollian.net](mailto:seamp@chollian.net)

**Eulwoo Publishing Co., Ltd.**  
46-1, Susong-Dong  
Jongro-Gu  
Seoul  
Tel: (82 2) 734-3515  
Fax: (82 2) 732-9154

**LEBANON**  
Librairie du Liban  
P.O. Box 11-9232  
Beirut  
Tel: (961 9) 217 944  
Fax: (961 9) 217 434  
E-mail: [hsayegh@librairie-du-liban.com.lb](mailto:hsayegh@librairie-du-liban.com.lb)  
URL: <http://www.librairie-du-liban.com.lb>

**MALAYSIA**  
University of Malaya Cooperative Bookshop, Limited  
P.O. Box 1127  
Jalan Pantai Baru  
59700 Kuala Lumpur  
Tel: (60 3) 756-5000  
Fax: (60 3) 755-4424  
E-mail: [urmkooop@tm.net.my](mailto:urmkooop@tm.net.my)

**MEXICO**  
INFOTEC  
Av. San Fernando No. 37  
Col. Toriello Guerra  
14050 Mexico, D.F.  
Tel: (52 5) 624-2890  
Fax: (52 5) 624-2822  
E-mail: [infotec@rtm.net.mx](mailto:infotec@rtm.net.mx)  
URL: <http://rtm.net.mx>

**Mundi-Prensa Mexico S.A. de C.V.**  
c/Rio Panuco, 141-Colonia Cuauhtemoc  
06500 Mexico, D.F.  
Tel: (52 5) 533-5658  
Fax: (52 5) 514-6799

**NEPAL**  
Everest Media International Services (P) Ltd.  
GPO Box 5443  
Kathmandu  
Tel: (977 1) 416 026  
Fax: (977 1) 224 431

**NETHERLANDS**  
De Lindeboon/Internationale Publicaties b.v.  
P.O. Box 202, 7480 AE Haaksbergen  
Tel: (31 53) 574-0004  
Fax: (31 53) 572-9296  
E-mail: [lindeboo@worldonline.nl](mailto:lindeboo@worldonline.nl)  
URL: <http://www.worldonline.nl/~lindeboo>

**NEW ZEALAND**  
EBSCO NZ Ltd.  
Private Mail Bag 99914  
New Market  
Auckland  
Tel: (64 9) 524-8119  
Fax: (64 9) 524-8067

**Oasis Official**  
P.O. Box 3627  
Wellington  
Tel: (64 4) 499 1551  
Fax: (64 4) 499 1972  
E-mail: [oasis@oasistek.gen.nz](mailto:oasis@oasistek.gen.nz)  
URL: <http://www.oasisbooks.co.nz/>

**NIGERIA**  
University Press Limited  
Three Crowns Building Jericho  
Private Mail Bag 5095  
Ibadan  
Tel: (234 22) 41-1356  
Fax: (234 22) 41-2056

**PAKISTAN**  
Mirza Book Agency  
65, Shahrah-e-Quaid-e-Azam  
Lahore 54000  
Tel: (92 42) 735 3601  
Fax: (92 42) 576 3714

**Oxford University Press**  
5 Bangalore Town  
Sharaf Faisal  
PO Box 13033  
Karachi-75350  
Tel: (92 21) 446307  
Fax: (92 21) 4547640  
E-mail: [ouppak@TheOffice.net](mailto:ouppak@TheOffice.net)

**Pak Book Corporation**  
Aziz Chambers 21, Queen's Road  
Lahore  
Tel: (92 42) 636 3222; 636 0885  
Fax: (92 42) 636 2328  
E-mail: [pbc@brain.net.pk](mailto:pbc@brain.net.pk)

**PERU**  
Editorial Desarrollo SA  
Apartado 3824, Ica 242 Of. 106  
Lima 1  
Tel: (51 14) 285380  
Fax: (51 14) 286628

**PHILIPPINES**  
International Bookstore Center Inc.  
1127-A Antipolo St. Barangay, Venezuela  
Makati City  
Tel: (63 2) 896 6501; 6505; 6507  
Fax: (63 2) 896 1741

**POLAND**  
International Publishing Service  
Ul. Piekna 31/37  
00-677 Warszawa  
Tel: (48 22) 528-6089  
Fax: (48 22) 621-7255  
E-mail: [books@ips@ikp.atm.com.pl](mailto:books@ips@ikp.atm.com.pl)  
URL: <http://www.ipscg.waw.pl/ips/expo>

**PORTUGAL**  
Livraria Portugal  
Apartado 2681, Rua Do Carmo 70-74  
1200 Lisbon  
Tel: (1) 347-4982  
Fax: (1) 347-0264

**ROMANIA**  
Compania De Librarii Bucuresti S.A.  
Str. Lipsicani no. 26, sector 3  
Bucharest  
Tel: (40 1) 313 9645  
Fax: (40 1) 312 4000

**RUSSIAN FEDERATION**  
Isdatelstvo 'Vest Mir'  
9a, Kolpachnyi Pereulok  
Moscow 101831  
Tel: (7 095) 917 87 49  
Fax: (7 095) 917 92 59  
[ozimarin@gasnet.ru](mailto:ozimarin@gasnet.ru)

**SINGAPORE; TAIWAN, CHINA**  
**MYANMAR; BRUNEI**  
Hemisphere Publication Services  
41 Kallang Pudding Road #04-03  
Golden Wheel Building  
Singapore 349316  
Tel: (65) 741-5166  
Fax: (65) 742-9356  
E-mail: [ashgale@asianconnect.com](mailto:ashgale@asianconnect.com)

**SLOVENIA**  
Gospodarski vestnik Publishing Group  
Dunajska cesta 5  
1000 Ljubljana  
Tel: (386 61) 133 83 47; 132 12 30  
Fax: (386 61) 133 30 30  
E-mail: [reparnski@vestnik.si](mailto:reparnski@vestnik.si)

**SOUTH AFRICA, BOTSWANA**  
For single titles:  
Oxford University Press Southern Africa  
Vasco Boulevard, Goodwood  
P.O. Box 12119, N1 City 7463  
Cape Town  
Tel: (27 21) 595 4400  
Fax: (27 21) 595 4430  
E-mail: [oxford@oup.co.za](mailto:oxford@oup.co.za)

For subscription orders:  
International Subscription Service  
P.O. Box 41095  
Craighall  
Johannesburg 2024  
Tel: (27 11) 880-1448  
Fax: (27 11) 880-6248  
E-mail: [iss@is.co.za](mailto:iss@is.co.za)

**Mundi-Prensa Libros, S.A.**  
Castello 37  
28001 Madrid  
Tel: (34 91) 4 363700  
Fax: (34 91) 5 753998  
E-mail: [libreria@mundiprensa.es](mailto:libreria@mundiprensa.es)  
URL: <http://www.mundiprensa.com/>

**Mundi-Prensa Barcelona**  
Consell de Cent, 391  
08009 Barcelona  
Tel: (34 3) 488-3492  
Fax: (34 3) 487-7659  
E-mail: [barcelona@mundiprensa.es](mailto:barcelona@mundiprensa.es)

**SRI LANKA, THE MALDIVES**  
Lake House Bookshop  
100, Sri Chittampalam Gardiner  
Mawatha  
Colombo 2  
Tel: (94 1) 32105  
Fax: (94 1) 432104  
E-mail: [LHL@sri.lanka.net](mailto:LHL@sri.lanka.net)

**SWEDEN**  
Wennergrön-Williams AB  
P. O. Box 1305  
S-171 25 Solna  
Tel: (46 8) 705-97-50  
Fax: (46 8) 27-00-71  
E-mail: [mail@wwi.se](mailto:mail@wwi.se)

**SWITZERLAND**  
Librairie Payot Service Institutionnel  
C(ITES)-de-Montbenon 30  
1002 Lausanne  
Tel: (41 21) 341-3229  
Fax: (41 21) 341-3235

**ADECO Van Diermen**  
EditionsTechniques  
Ch. de Lacuz 41  
CH1807 Blonay  
Tel: (41 21) 943 2673  
Fax: (41 21) 943 3605

**THAILAND**  
Central Books Distribution  
305 Silom Road  
Bangkok 10500  
Tel: (66 2) 2336930-9  
Fax: (66 2) 237-8321

**TRINIDAD & TOBAGO AND THE CARIBBEAN**  
Systematics Studies Ltd.  
St. Augustine Shopping Center  
Eastern Main Road, St. Augustine  
Trinidad & Tobago, West Indies  
Tel: (868) 645-8466  
Fax: (868) 645-8467  
E-mail: [tobes@trinidat.net](mailto:tobes@trinidat.net)

**UGANDA**  
Gustro Ltd.  
PO Box 9997, Madhvani Building  
Plot 16/4 Jinja Rd.  
Kampala  
Tel: (256 41) 251 467  
Fax: (256 41) 251 468  
E-mail: [gus@swiftuganda.com](mailto:gus@swiftuganda.com)

**UNITED KINGDOM**  
MicroInfo Ltd.  
P.O. Box 3, Omega Park, Alton,  
Hampshire GU34 2PG  
England  
Tel: (44 1420) 86848  
Fax: (44 1420) 89889  
E-mail: [wbank@microinfo.co.uk](mailto:wbank@microinfo.co.uk)  
URL: <http://www.microinfo.co.uk>

**The Stationery Office**  
51 Nine Elms Lane  
London SW8 5DR  
Tel: (44 171) 873-8400  
Fax: (44 171) 873-8242  
URL: <http://www.the-stationery-office.co.uk/>

**VENEZUELA**  
Tecniciencia Libros, S.A.  
Centro Ciudad Comercial Tamanco  
Nivel C2, Caracas  
Tel: (58 2) 959 5547; 5035; 0016  
Fax: (58 2) 959 5636

**ZAMBIA**  
University Bookshop, University of Zambia  
Great East Road Campus  
P.O. Box 32379  
Lusaka  
Tel: (260 1) 252 576  
Fax: (260 1) 253 952

**ZIMBABWE**  
Academic and Baobab Books (Pvt) Ltd.  
4 Conard Road, Graniteside  
P.O. Box 567  
Harare  
Tel: 263 4 755035  
Fax: 263 4 781913



## Recent World Bank Technical Papers (*continued*)

- No. 442 Bartłomiej Kaminski, *The Role of Foreign Direct Investment and Trade Policy in Poland's Accession to the European Union*
- No. 443 Luc Lecuit, John Elder, Christian Hurtado, François Rantrua, Kamal Sibli, and Maurizia Tovo, *DeMISTifying MIS: Guidelines for Management Information Systems in Social Funds*
- No. 444 Robert F. Townsend, *Agricultural Incentives in Sub-Saharan Africa: Policy Challenges*
- No. 445 Ian Hill, *Forest Management in Nepal: Economics of Ecology*
- No. 446 Gordon Hughes and Magda Lovei, *Economic Reform and Environmental Performance in Transition Economies*
- No. 447 R. Maria Saleth and Ariel Dinar, *Evaluating Water Institutions and Water Sector Performance*
- No. 449 Keith Oblitas and J. Raymond Peter in association with Gautam Pingle, Halla M. Qaddumi, and Jayantha Perera, *Transferring Irrigation Management to Farmers in Andhra Pradesh, India*
- No. 450 Andrés Rigo Sureda and Waleed Haider Malik, eds., *Judicial Challenges in the New Millennium: Proceedings of the Second Summit of the Ibero-American Supreme Courts*
- No. 451 World Bank, *Privatization of the Power and Natural Gas Industries in Hungary and Kazakhstan*
- No. 452 Lev Freinkman, Daniel Treisman, and Stephen Titov, *Subnational Budgeting in Russia: Preempting a Potential Crisis*
- No. 453 Bartłomiej Kaminski and Michelle Riboud, *Foreign Investment and Restructuring: The Evidence from Hungary*
- No. 454 Gordon Hughes and Julia Bucknall, *Poland: Complying with EU Environmental Legislation*
- No. 455 Dale F. Gray, *Assessment of Corporate Sector Value and Vulnerability: Links to Exchange Rate and Financial Crises*
- No. 456 Salman M.A. Salman, ed., *Groundwater: Legal and Policy Perspectives: Proceedings of a World Bank Seminar*
- No. 457 Mary Canning, Peter Moock, and Timothy Heleniak, *Reforming Education in the Regions of Russia*
- No. 458 John Gray, *Kazakhstan: A Review of Farm Restructuring*
- No. 459 Zvi Lerman and Csaba Csaki, *Ukraine: Review of Farm Restructuring Experiences*
- No. 460 Gloria La Cava and Rafaella Y. Nanetti, *Albania: Filling the Vulnerability Gap*
- No. 461 Ayse Kudat, Stan Peabody, and Caglar Keyder, eds., *Social Assessment and Agricultural Reform in Central Asia and Turkey*
- No. 462 T. Rand, J. Haukoht, and U. Marxen, *Municipal Solid Waste Incineration: Requirements for a Successful Project*
- No. 463 Stephen Foster, John Chilton, Marcus Moench, Franklin Cardy, and Manuel Schiffler, *Groundwater in Rural Development: Facing the Challenges of Supply and Resource Sustainability*
- No. 465 Csaba Csaki and Zvi Lerman, eds., *Structural Change in the Farming Sectors in Central and Eastern Europe: Lessons for EU Accession—Second World Bank/FAO Workshop, June 27–29, 1999*
- No. 466 Barbara Nunberg, *Ready for Europe: Public Administration Reform and European Union Accession in Central and Eastern Europe*
- No. 467 Quentin T. Wodon with contributions from Robert Ayres, Matias Barenstein, Norman Hicks, Kihoon Lee, William Maloney, Pia Peeters, Corinne Siaens, and Shlomo Yitzhaki, *Poverty and Policy in Latin America and the Caribbean*
- No. 469 Laurian Unnevehr and Nancy Hirschhorn, *Food Safety Issues in the Developing World*
- No. 470 Alberto Valdés, ed., *Agricultural Support Policies in Transition Economies*
- No. 471 Brian Pinto, Vladimir Drebensov, and Alexander Morozov, *Dismantling Russia's Nonpayments System: Creating Conditions for Growth*
- No. 472 Jit B. S. Gill, *A Diagnostic Framework for Revenue Administration*
- No. 473 Esen Ulgenerk and Leila Zlaoui, *From Transition to Accession: Developing Stable and Competitive Financial Markets in Bulgaria*
- No. 474 Ioannis N. Kessides, ed., *Hungary: A Regulatory and Structural Review of Selected Infrastructure Sectors*
- No. 475 Csaba Csaki, Zvi Lerman, and Sergey Sotnikov, *Farm Sector Restructuring in Belarus: Progress and Constraints*
- No. 481 Csaba Csaki, John Nash, Achim Fock, and Holger Kray, *Food and Agriculture in Bulgaria: The Challenge of Preparing for EU Accession*
- No. 484 Csaba Csaki and Laura Tuck, *Rural Development Strategy: Eastern Europe and Central Asia*
- No. 488 Nina Bubnova, *Governance Impact on Private Investment*



**THE WORLD BANK**

1818 H Street, N.W.

Washington, D.C. 20433 U.S.A.

Telephone: 202-477-1234

Facsimile: 202-477-6391

Telex: MCI 64145 WORLDBANK  
MCI 248423 WORLDBANK

Internet: [www.worldbank.org](http://www.worldbank.org)

E-mail: [books@worldbank.org](mailto:books@worldbank.org)



**ISBN 0-8213-4823-X**