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

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Foreword

The Poverty Reduction and Economic Management Unit in the World Bank’s Europe and Central Asia Region has been undertaking a series of analytical work on issues pertinent to the economies in the region. These issues include: transition issues; issues of economic integration pertinent for the Central and Eastern Europe countries which are candidates for accession to the European Union; poverty issues; and other economic management issues. The analytical work has been conducted by staff of the unit, other Bank staff as well as specialists outside of the Bank.

This technical paper series was launched to promote wider dissemination of this analytical work, with the objective of generating further discussions of the issues. The studies published in the series should therefore be viewed as work in progress.

The findings, interpretations and conclusions are the authors’ own and should not be attributed to the World Bank, its Executive Board of Directors, or any of its member countries.

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Executive Summary

During the months of May and July 1998, representatives of the World Bank engaged in a round of informal meetings with high-level representatives of government and the telecommunications services industry in Hungary, Estonia, Poland, the Czech Republic, and Slovenia to assess, in cooperation with the European Commission, the status of the liberalization of the telecommunications sector. These countries are expected to be among the first group of countries in Central Europe to accede to the European Union (EU).

Discussions focused, in particular, on pressing issues and potential challenges and obstacles in connection with the five countries' preparations for accession to the EU. The objective of the discussions was not to audit the status of measures being taken to implement the EU telecommunications regulatory framework, a matter more properly the responsibility of the EU. Rather, an effort was made to identify areas that might benefit from special attention, including the assistance of outside experts, to accelerate the transition to a liberalized telecommunications sector.

The EU accession requirements pose uniquely interesting challenges and opportunities for the governments of the Central and East European Countries (CEECs) to overcome institutional and policy inertia and build a political consensus for a substantial program of structural and regulatory reform. To the extent that regulatory harmonization is a prerequisite for accession, these governments could use—and some have already effectively used—the prospect of membership as a means to overcome vested interests opposed to implementing economically painful and politically costly reforms. Moreover, the EU regulatory procedures and directives have provided a policy model, thereby speeding the development and passage of relevant legislation. Indeed, the CEECs have made significant progress towards incorporating key elements of the EU’s legal and regulatory framework into their national legislation.

Therefore, it can be plausibly argued that the prospect of EU accession and the concomitant requirements for regulatory harmonization are likely to accelerate the process of structural and regulatory reform in the CEECs. However, the precise characteristics of such reform obviously depend on the specific circumstances of individual countries—in particular, their political and institutional endowments, fiscal condition, legal and regulatory background, and the economic characteristics of their industries.

Solutions to the regulatory problems that arise in industries undergoing a transition from public monopoly to competition and deregulation generally involve very sophisticated microeconomic instruments and techniques. Difficulties are likely to arise from the inexperience with economic regulation, its pitfalls, and the safeguards that tend to keep its social costs within reasonable bounds. The CEECs' institutional endowments may seriously constrain the successful undertaking of such complex regulatory frameworks.

Set forth below is an overview of some of the common issues and concerns that emerged from the discussions, as well as accounts of key developments and issues in each of the five countries visited. We also examine ways in which the transition process might be facilitated, or even accelerated.

* Ioannis Kesides, Principal Economist, DECVP and ECSPE. Nathalie Moreno, ECSPE. Outside advisors Robert Bruce and Lothar Kneifel of the law firm of Debevoise & Plimpton participated in meetings in each country except Hungary, and took no part in preparing the section of this report relating to Hungary.
I. Overview of the Transition Process

Introductory Perspectives

A transition process leading to full liberalization of national telecom markets is gaining momentum at varying rates of speed in the five Group A countries—Hungary, Estonia, Poland, the Czech Republic, and Slovenia.

With the notable exception of Poland, the largest of the five emerging telecom markets, all of these countries exhibit an unwavering commitment to complete the process of full liberalization within the next two-and-a-half years, by January 1, 2001. Policymakers and industry participants are focusing on the major policy issues involved in the transition. In Poland, by contrast, the forthcoming privatization of Telecom Polska S.A. (TPSA), the Polish national operator, seems to have taken precedence over the early enactment of new telecom legislation. Thus, it appears that international services will not be opened to competition prior to January 1, 2003, two years later than the timetable adopted by the other four Group A countries.

Common Challenges in the Transition Process

Notwithstanding differences in the timetable and approaches to liberalization of national telecom policies, all four countries face a common set of challenges in the transition process that are not likely to be easily overcome. It is not enough simply to establish a liberalization timetable. As a practical matter, a narrow focus on the timetable for opening markets in the four countries overlooks the reality that each country must undertake the difficult tasks of (i) rebalancing its traditional rate structures to prepare for full competition; (ii) establishing an effective interconnect policy to ensure non-discriminatory access of competitors to essential telecommunications facilities; (iii) designing competitively neutral mechanisms to promote universal service; and (iv) adopting measures that harmonize competition with regulation, remove impediments to adequate returns for the operators, and create a level playing field.

Tariff Rebalancing

As in many other countries, rates for basic telecommunications services in the CEECs are unbalanced. For historic and other reasons, rates for local calling and access are too low relative to underlying long-run costs, while long-distance and international rates substantially exceed long-run costs. Distorted telephone rates impose significant costs on these economies by sending the wrong economic signals to the users of the telephone network. Low rates for local calling overstimulate local usage while long-distance calling is inefficiently repressed because of excessive rates. In addition, unbalanced rates create incentives for uneconomic bypass.

Whatever their rationale, such unbalanced tariff structures are not sustainable in a competitive environment. Entrants will be impelled by the profit motive to divert the overpriced business, regardless of these entrants' efficiency. At the same time, entrants are unlikely to relieve the incumbent operators from the financial burden of serving the customers whose prices are not compensatory of the costs required to serve them. The outcome then must be the end of cross-subsidies; the incumbent operators will lose their ability to cross-subsidize.
the underpriced local services, including network access, with revenues from overpriced services (such as international calling). Therefore, either new sources of subsidy must be found, or the rates that were below incremental costs must be raised to compensatory levels.

The incumbent operators claim that the existing rate structures do not allow them to compete fairly with their wireless rivals. The incumbents’ problems will be greatly aggravated after wireline competition is introduced. As the CEECs move towards a fully liberalized telecommunications market, their rate structure must be rationalized. Such rebalancing will surely be necessary—both for the operators and for the public interest—as competition becomes closer with the end of the protected monopoly period, as international call back and other arbitrage mechanisms spread, and as value-added services become ever closer substitutes for basic services.

Policy makers in the CEECs need to plan now for a smooth transition to a competitive pricing. That is the only way to avoid serious dislocations for the industry and its customers. The primary issues are what standards should be applied to rebalancing (for example, revenue neutrality, adjusted revenue neutrality, or profit neutrality), how fast to proceed, and how to continue the promotion of universal service in a competitive environment.

**Interconnection Policy**

The emerging experience from several countries indicates that the removal of legal barriers to competitive entry is not sufficient in itself to install a regime of effectively functioning competition in the telecommunications sector. Competitors must have access to essential network facilities on non-discriminatory terms if they are to have a reasonable opportunity to compete. If competition is to flourish, it may require explicit regulatory intervention to ensure such access, particularly in situations where those essential facilities are themselves owned or controlled by the incumbent operators, who will in many settings have ordinary business incentives to deny rivals fair access to those facilities. Therefore, one of the primary challenges facing the CEECs regulators is to set a level and structure of access prices. Reasonable access prices will promote economical entry and investment decisions, and thus improve dynamic efficiency, while enabling the owners of the networks to obtain a fair return on their invested capital. Access regulation should, therefore, ensure that there is sufficient pressure on the owner of the infrastructure to operate in an efficient manner, but that no unnecessary duplication of network construction takes place.

The definition and implementation of an access regime is not a matter that can be settled permanently; rather, it is an ongoing process. Nor is this a process that can be guided by simple rules—there are inevitably difficult issues of interpretation which must be tackled and resolved. The regulatory authorities of the CEECs will need to articulate a set of fundamental principles to govern regulation of access and interconnection, establish clear guidelines by which the behavior of bottleneck monopolists and their rivals should be judged, and develop a fallback set of standards to apply should private negotiations fail and disputes about predation through competitive access arise.

In today’s fast changing technological and marketing environment, it is difficult to predict what collection of basic network elements will prove to be essential to the efficient provision of some desired service by some supplier. As such, the opportunities for competition to work effectively and to bring innovative offerings to consumers would be enhanced by the
availability on an unbundled and nondiscriminatory basis of any basic network element, or any collection of functions, that are needed by prospective competitors.

**Competitively Neutral Mechanisms for Funding Universal Service**

In the CEECs, like most countries around the world, traditional public policy towards the telecommunications sector has led to prices with systematic elements of cross-subsidization. However, both economic theory and regulatory experience suggest that with open entry and no remedial policies, it is impossible to maintain significant cross-subsidies in the structure of prices for long, whether or not that would seem to policy makers to be desirable. Therefore, with market liberalization, either new sources of subsidy must be found, or rates that were below incremental costs must be raised to compensatory levels.

In the United States, following the deregulation of key sectors of the economy, a substantial amount of effort was put into the design of competitively neutral mechanisms to foster desirable social goals and positive economic externalities. The need to adopt support mechanisms that are explicit and sufficient to advance certain publicly articulated universal service principles, and to assist consumers who would otherwise be disadvantaged, is even more pronounced in the CEECs in view of the socioeconomic characteristics of their telephone users.

The experience of the United States and the EU contains important lessons. However, in the context of a specific country, the requisite policy approach for pursuing universal service goals is likely to be sensitive to the country’s political and institutional endowment, its fiscal condition, and consumer incomes and preferences, as well as the industry’s economic characteristics. Policy makers in each country will need to understand how these factors affect the optimal design of support mechanisms. It must be decided if support for universal service should be funded out of general tax revenues, or perhaps out of a broadly-based tax on revenues derived from the industry’s products and services. The extent and scope of subsidies must also be ascertained, and methods set up for delivering the subsidy without distorting competition.

**Competitive Pricing Flexibility**

For the CEEC economies to receive the benefits of market liberalization that motivate pro-competitive policy in the first instance, the telecommunications operators must be permitted to compete with flexibility of prices and terms. In order to cover their fixed costs, sunk cost, costs of various obligations, and the revenue requirements that are promised by the privatization agreements, the operators’ prices will best serve the total interests of users and the economy if they are permitted by regulation to vary among users and classes of users in accordance with value of service (or elasticity of demand), as well as in response to marginal costs of service. Within the boundaries determined by the avoidance of cross-subsidization, the need to set some prices aggressively low in order to retain the business, means that other prices should be permitted to take up the slack to secure adequate returns.

In particular, each country must adopt policies relating to future price regulation that will enable the traditional dominant telecom operator in each market—MATAV in Hungary, Eesti Telekom in Estonia, TPSA in Poland, SPT in the Czech Republic, and Telekom Slovenije in Slovenia—to function and raise capital in the new competitive environment, where new entrants will include some of the world’s largest and best capitalized telecom operators. With-
out appropriate pricing flexibility, the incumbent operators will find it difficult to raise the
capital needed not only to meet demand for traditional telephone service, but also to pro-
vide an array of new services.

Thus, the real challenge facing the five Group A countries is not merely their ability to
adopt liberalization timetables and establish independent regulatory institutions. The real
challenge, rather, centers around their ability to put in place effective price rebalancing and
price regulation for the future. The fastest and most effective way of doing so will be to
introduce not only timetables and regulatory institutions, but also effective consultative pro-
ces involving regulatory officials and industry participants that will facilitate rebalancing
and future price regulation.

Regulatory Commitment

In the telecommunications sector, the establishment of transportation and distribution net-
works requires very large investments that are mostly sunk. Private operators that are vulner-
able to administrative intervention can be expected to invest less than the optimal amount,
and to make disproportionately low investments in activities characterized by large sunk costs.
Without government commitment to regulatory stability, frequent changes in the regulatory
regime can have the same effect as outright expropriation of sunk investments. This problem
is especially vexing in the CEECs due to their legacy of extensive government intervention.

Therefore, a necessary condition for effective private participation and investment in the
technology sector is the creation of mechanisms that enforce substantive and procedural restraints on regulatory discretion and limit regulatory opportunism. Regulatory flexibility is especially imperative in the telecommunications sector, which is experienc-
ing rapid technological and market changes. Too much regulatory flexibility, on the other
hand, leaves inordinate scope for administrative expropriation. Therefore, striking a proper
balance between regulatory flexibility and commitment is an indispensable precondition for
the success of regulatory reform.

Political Obstacles to Rate Rebalancing and Accelerating Reform

Governments initiating a program of telecom liberalization have accorded little prominence
to adjustments in the pricing of telecom services—local services, in particular—that are inev-
itably set in motion by full liberalization. For much of the telecom sector, old-style central-
ized price setting continues to be conducted by ministries with a mandate to establish price
controls on a macroeconomic basis. In none of the four countries we visited does a telecom
ministry or regulatory agency have full oversight of telecom sector pricing. Consequently,
incumbent telecom operators currently lack the autonomy to set prices (and pricing struc-
tures) necessary to compete effectively in an open market. (By contrast, there are virtually no
price controls on mobile telephony services, which consequently are growing at an extraor-
dinary rate, with prices comparable to EU and world benchmarks.)

The real difficulty facing telecom sector authorities and traditional dominant national
telecom operators is how to put the issues of price reform and rebalancing on the larger
political agenda in the face of legislative elections, political insensitivity, or overall concern
about macroeconomic conditions. In almost all countries, the commitment is present within
the telecom sector, but the issue may not be visible at higher levels of government. After all,
to put it simply, no one wants to be an advocate of price increases.

This is an area in which outside political assistance could be enormously beneficial. Given
the political sensitivities, the core problem of price rebalancing has not been the most visible
part of the EU's overall regulatory framework. Though the EU's policy statements emphasize
in large type the timetables for liberalization, the importance of completing the rebalancing
process on the same timetable appears almost in fine print. Even today, within many EU
Member States, the process of price rebalancing, though well advanced, is not yet complete.
The somewhat muted articulation of this issue in the overall EU policy framework makes it
more difficult for Group A governments to make the political case for the changes that are
essential to the transition process.

Success in implementing the telecom liberalization measures required as part of the EU
accession process can be gauged by whether price reform issues are being accorded the
importance they clearly deserve at the national level. The disappointment with the transition
process in Poland, for example, is less that deadlines for market liberalization have not been
accepted than that price reform is not seen as a central issue in the accession process. The
misplaced focus on the short-term profitability of TPSA will be at the expense of the long-
term viability of the company and the telecom sector as a whole.

In the other countries, where the need for price rebalancing is perhaps more widely ap-
preciated among government and market participants, the question is how the political ob-
stacles might best be overcome.

Linkages of Price Reform and Potential Acceleration of Timetable for
Liberalization

Price reform is the key to any potential acceleration of the timetable for liberalization. This
nexus is most apparent in the Czech Republic, where there has been growing political pres-
sure for an accelerated timetable for opening competition in international services. This
political pressure has created fissures within the telecom sector that reach even into the
national regulatory agency. It has placed intense pressure on the national operator, SPT, and
the strategic investors who became shareholders during the first phase of the privatization
process (and who based their investment commitments on an agreed timetable for liberaliza-
tion). We found broad agreement among all the players that accelerating the opening of the
market will require rebalancing SPT's rates and abandoning traditional price controls (and
also reducing SPT's remaining investment obligations).

In Poland, by contrast, the fissure lines between TPSA and other industry players are less
visible, and the potential for a new approach combining accelerated price rebalancing and
accelerated market opening is less clear. Nevertheless, there appear to be some common
concerns shared by TPSA and new local entrants. Certainly, with huge unmet demand in the
Polish market, policies that accelerate overall sectoral investment are likely to benefit all the
players in the market. However, the Polish telecom sector is still operating with brakes firmly
on pricing, as well as on other investment-generating initiatives, such as turnkey or lease-
back financing.
In Estonia and Slovenia, the transitional problems facing Eesti Telekom and Telekom Slovenije—small operators in small countries—are similar, but seem more manageable with the right outside impetus. The sector is seen as strategically important in each country. A new information economy is growing, with increased dependence on Internet-related capabilities; and there is general agreement on the need to put effective pricing signals and autonomous corporate governance principles into operation. However, there is no assurance that this process will happen as smoothly and efficiently as it should, without some external assistance to reinforce domestic reform initiatives.

**External Assistance in the Transition Process**

External assistance to advance the liberalization of the telecom sector in these countries should take two forms. First, external political support for price reform would help the governments make the difficult case for local price increases. Second, regulators would benefit from access to information on liberalization in other countries and assistance in developing administrative processes to facilitate efficient operation of the market.

1. **Political Support for the Process of Price Reform Linked with Liberalization Timetables**

As far as outside political support is concerned, it would be useful for the EU, with the support and collaboration of the World Bank, to acknowledge publicly, in the context of accession, discussions of the importance of price reform. As suggested above, price reform and rebalancing have been a white area in the *acquis communitaire* to be adopted by the Group A countries. However, no step is more important for creating the conditions for full liberalization. The World Bank has an important part to play in making the case for giving priority to price rebalancing and future pricing policies in a sector so critical to economic growth.

2. **Practical Steps to Develop New Consultative Mechanisms**

Consultative support should be focused on practical steps to address the issues of price reform and accelerate market-opening initiatives. While the emphasis in accession talks has properly been on establishing new independent regulatory institutions, more attention should be placed on developing effective consultative processes that will engage regulatory officials and industry players in a dialogue on price rebalancing and other conditions for open markets. Initiatives for new market arrangements should not merely be developed top-down; they should draw on the knowledge and expertise of market participants, including new entrants and strategic partners in established operators. The emphasis should be less on statist or institutional regulatory mechanisms than on developing effective consultative mechanisms involving market participants as well as regulators.

   a. **Focus on Process-oriented rather than Institution-oriented Approach to Future Regulatory Arrangements.** Experience in other countries has shown that the independence of the regulator is enhanced by the implementation of processes to arbitrate and resolve commercial controversies arising in the marketplace. Ideally, it is the market and not the regulator that is the impetus for change. Such processes will become increasingly essential as a means of dealing with industry developments that are
truly cross-border in scope and beyond the effective influence of national regulators. Regulatory entities must adapt to market developments. Effective regulatory institutions will take a leading role in promoting horizontal, industry-oriented consultative processes to deal with emerging telecom sector issues. They will rely less on outmoded utility sector regulation, price controls and heavy-handed oversight of industry practices.

b. **Empowering Regulatory Entities with Databases of Decisions of EU National Regulatory Agencies.** External resources can be effectively applied to afford emerging regulatory entities access to the best international experience and expertise available. Regulatory entities in all five countries face constraints in resources, information, and personnel. A common thread in our discussions was that rather than reinventing the wheel in each country, these regulatory bodies would benefit greatly by being able to draw on the knowledge and experience of regulators elsewhere.

These regulatory bodies should, therefore, be provided practical access to the work product, decisions, studies, and accumulated experience of national regulatory agencies within the EU. Already, national regulatory bodies are developing websites reflecting their various regulatory determinations relating to pricing policies, licensing, and interconnection issues; this information could be assembled, organized and formatted in a more structured way. Other national regulators should be encouraged to make their decisions and work products more generally available, especially to regulators in other EU countries and in countries seeking accession to the EU. Special attention should be given to national experience with the price rebalancing process and with pricing benchmarks for local exchange services. Benchmarks relating to interconnection pricing are already being published by the EU and are proving highly useful; the scope of this initiative might be expanded beyond interconnection.

A recent report of an Informal Expert Group of the ITU recommended that a similar initiative be undertaken by the ITU to assist countries facing dislocations as a result of changes in the international accounting rate system. This recommendation has not been given significant attention in subsequent follow-up meetings of the ITU. The EU, with support from the World Bank and national regulatory agencies, should try to energize this process on a Europe-wide level.

c. **Focusing EU-wide Database on Pricing Issues and Policies.** The thrust of an effort to support emerging regulatory entities should be to encourage more flexible and differentiated approaches to pricing local exchange telephone services. Mobile telephony services are growing at a rapid rate under virtually deregulated conditions. The increasing fungibility of mobile and fixed services is establishing a predicate for significantly reduced regulation, or complete deregulation, of local exchange services. With more pricing autonomy, telecom operators can be expected to set prices rationally, by devising differentiated pricing schemes to permit both business and residential users to obtain access not only to a basic telephone, but also to higher capacity connections required to develop Internet-related services.
Encouraging New Consultative Mechanisms in the Group A Countries

A worthwhile initiative by the World Bank and the EU may be to encourage the development of targeted consultative mechanisms, especially in markets such as the Czech Republic, where there appears to be real interest in accelerating a dialogue about price rebalancing as well as the conditions for future competition. Where key participants are hoping to set the conditions for a new framework, the EU and the World Bank should be open to the idea that such processes can be mediated with the assistance of international advisors and resource persons. Such a mediation process should be the responsibility of national officials and industry players, but outside advisors could play a catalyzing role in the initial phases.

A practical and useful way to explore the feasibility of the proposed approach would be to distribute a draft of this discussion paper to participants in each of the five countries and elicit their comments and additional input. In this way, the country-specific aspects of this discussion paper could be refined and focused. Perhaps in some cases, as might be the situation in Poland, the basic perspective might be modified to reflect additional information, views, and insights. In other situations, the scope of the paper might be expanded to report on additional issues or evolving discussions. The benefit of developing a discussion paper relating to the transition processes in the various Group A countries might prove to be significant, as participants in one country learn more about how the transition process is being approached in other countries.

II. Overview of Telecommunications Developments in Estonia

The Estonian telecom sector is now undergoing an important new phase of the transformation and restructuring process. This phase was initiated in 1991 by two strategic investors, Telia and Telecom Finland (now known as Sonera), when they obtained through a jointly owned holding company a 49 percent strategic equity stake in both Estonian Telephone Company, Ltd. (ETC), the fixed line telecom operator in Estonia, and in the Estonian Mobile Telephone Company (EMTC).

Since 1991, the Estonian telecom sector has experienced significant growth, with fixed line penetration increasing from 22.9 subscribers per 100 population to 32.0 subscribers per 100. By the end of the year 2000 when ETC’s exclusive rights terminate, ETC’s penetration levels are expected to be in the range of 43-44 percent. During the same time period, the ETC’s network digitalization rate has grown from zero to 38 percent at the end of 1997 and is expected to approach 65 percent by the end of the year 2000.

ETC currently operates approximately 465,000 fixed lines, with installed capacity equal to 531,000 lines at the end of 1997. However, mobile telephony services have grown at an extraordinary rate. There are now 170,000 subscribers, three GSM operators (and 1 NMT analogue service provider) and a 12.3 percent penetration rate country-wide that continues to increase in spite of the fact that mobile telephony rates are set at the same level as in Finland.

Against this backdrop of rapid sectoral development, the Government of Estonia has decided to open the Estonian telecom market to full competition as of January 1, 2001, and has drafted a new law now under consideration by the Estonian Parliament as a basis for the future regulatory framework for the Estonian telecom sector. The Government has further
decided to make an international offering of a 49 percent equity stake in Eesti Telekom, the now entirely state-owned holding company, which owns a 51 percent stake in both the ETC and EMTC. It has also concluded that it should establish an independent, sector-specific regulatory body to oversee the future development of the Estonian telecom sector.

The Estonian Ministry of Transport and Communications is responsible for overseeing the implementation of the sectoral restructuring initiatives and development of future telecom policies for Estonia. The Ministry is now formulating a comprehensive set of policy initiatives to address the transition to a fully liberalized telecom market in Estonia. The following issues are among those being considered by the Ministry.

**Legislative Review and Approval of Draft Telecom Law**

The draft telecom law has been through an initial reading in the Parliament, and various amendments to the law have been suggested by the Government’s advisors with respect to the privatization of Eesti Telekom.

One central aspect of the draft law closely scrutinized within the Government and in Parliament has been the proposed arrangements for an independent regulatory body. Section 11 of the draft law provides the legal framework for the independence of the Director General of the proposed Communications Board and provides, in particular, that “[n]o one may require that the Director General make decisions which are contrary to the provisions of this Act or other legislation. The Minister of Transport and Communications may propose that the Director General cancel, suspend, or amend a decision, but only if the Minister finds that the proposed decision is contrary to a provision of the proposed law or other legislation; otherwise there is no basis for the decision. If the Director General fails to follow the proposal of the Minister, the decision may be appealed under the Code of Administrative Court Procedure.”

The proposed arrangements for an independent regulatory body have apparently been criticized within the Government as an unconventional approach to dealing with ministerial discretion, and as being inconsistent with arrangements for sectoral supervision in other utility sectors where ministers retain direct supervisory control. However, the draft law takes an important step toward implementing an effective independent regulatory process along the lines recommended by the EU. For example, the Director General is to be appointed for a five-year term by the entire Council of Ministers rather than by the Minister of Transport and Communications. In addition, the Communications Board is to be funded from receipts from licenses, thereby ensuring a significant degree of budgetary and financial independence. The draft law warrants strong commendation for its well-focused commitment to ensuring an independent regulatory process in Estonia.

The Estonian Parliament has been concurrently considering a draft law establishing a legal regime for cable television, which has generated a certain amount of serious controversy. Cable television operators in Estonia have heretofore been unregulated, resulting in a mixed bag of many small operators with outdated systems as well as three larger operators in Tallinn with about 20,000 subscribers each. Some of the larger systems have begun installing fiber optic cable. All cable operators will be permitted from the beginning of next year to provide telephony services on their infrastructure. ETC has been concerned about whether and how the company might be able to engage in the provision of cable television services.
The company is concerned that it will be limited in its ability to provide cable services just at the point that new multimedia services are beginning to gain a market foothold. Given the trend toward convergence in the EU telecom market, a balanced, progressive approach to the regulation of cable services will be important in creating a level competitive playing field for the future.

The schedule for final enactment of the draft telecom and cable laws has not yet been finalized. Given the fact that the Government is planning on a public offering of Eesti Telekom's shares this fall, it is important to achieve a consensus on the major provisions of the draft law or, better, to enact the law prior to the public offering. Potential investors will be interested in knowing the details of the future legislative framework.

**Structuring the New Estonian Regulatory Body**

Planning for the establishment of the new Estonian regulatory body is already well underway. It is expected that the new Communications Board will be created from the current Inspectorate within the Ministry, which traditionally has had responsibility for frequency coordinating and licensing. Although the first head of the Communications Board has not yet been formally appointed, the current head of the Inspectorate of Telecommunications has been developing an organizational structure and budget for the new body. The core of the regulatory functions of the Communications Board would be exercised by a Department of Economic Analysis and a Licensing Department.

The preparatory effort for the new regulatory board has just begun to focus on how it would deal with issues relating to price regulation and rebalancing, as well as interconnection pricing. It is apparent that the previous experience and expertise of the Inspectorate of Telecommunications have been with respect to technical and engineering issues rather than pricing of telecom services. The current regulatory staff has not yet decided how they should approach the establishment of accounting system requirements applicable to ETC.

The Ministry staff is well aware of the EU's efforts to establish benchmarks for interconnection tariffs, as well as of steps being taken in other Member States of the EU. However, it might be very useful to intensify the flow of information concerning pricing policies and other regulatory issues from other national regulatory bodies. For example, the EU, together with the World Bank, might work with national regulatory bodies to establish a mechanism for publishing national regulatory initiatives on the Internet. A common website for the various EU Member State regulatory bodies might be established for the benefit of newly emerging regulatory bodies; there might also be a coordinated effort to identify common sets of regulatory issues and pricing matters with respect to which information might be made available on an international basis. Such an information resource would be of invaluable assistance especially to smaller regulatory bodies with limited staff and financial resources, as will be the case in Estonia where the expected annual budget for 1999 will be 50 million Estonian Krona (about $3.4 million).

The future Estonian regulators indicated a particular interest in developing expertise and experience in dealing with issues of price regulation of local exchange services and interconnection pricing. A large database of pricing outcomes from different EU members states would offer a practicable set of benchmarks for reviewing pricing arrangements in Estonia.
There has also been significant discussion of the process for developing the future regulatory framework. With the opening of competition in the sector, an increasing number of entrants and service providers will have a stake in the future regulatory scheme. Estonian regulators and operators alike expect that the liberalization of the market will result in the entry of a number of large and experienced international operators. It will become more difficult to continue the informal nature of the current consultative process between the Ministry, on the one hand, and ETC and EMTC. Moreover, new entrants will certainly want to be heard concerning future competitive arrangements and will expect that the future framework for competition will be put in place on a timely and efficient basis.

Even from the standpoint of ETC, there may be significant advantages in a more formal consultative process, especially in dealing with issues of price rebalancing and reform. One interesting proposal that emerged from discussions in Estonia concerned the possibility of creating a consultative mechanism that would provide a forum for discussion among the key industry players, government regulators, and policy makers, and international experts and advisors who could act as a resource during the current transition process in Estonia. ETC, for example, expressed a particularly strong interest in such a process to deal with price rebalancing as well as setting a framework for future competition.

What emerged from discussions was a consensus view that some type of mediation process involving key players as well as outside experts might significantly accelerate the future development of the Estonian telecom sector.

Dealing with Rate Rebalancing in the Estonian Telecom Sector and Interconnection Pricing Issues

One of the critical issues to be addressed during the current transition to the full liberalization of the Estonian telecom market is the completion of the rate rebalancing process.

Currently, monthly charges as well as local usage charges are quite low compared with EU averages and will have to be increased significantly. Monthly charges for business users, which have not been subject to direct price control under ETC's concession agreement, are currently five times the level of residential charges. The Ministry expects that the ratio in the future will range between 1.5 and 2.0 and will be achieved both through increases in residential charges and some reductions in business charges. Usage charges are now set at the level of 36 Estonian cents or $.025 per minute, with no minimum usage being included with monthly subscription charges.

ETC has been able to revise its local rates once a year for the past five years to align its charges more closely with its costs and to adjust for inflation, which has been at the level of 10 percent over the past year. Over the past five years, analogue residential lines have increased from 15 to 38 krona per month, while digital residential lines have increased from 35 to 57 krona per month. Analogue business lines have increased from 50 to 118 krona per month, while digital business lines have increased from 160 to 220 krona per month.

Interestingly, EMC's mobile telephony charges are set at the same level as Finland's which, though low by comparison with many EU Member States, are generating satisfactory levels of return in a country with a GDP per capita approximately 5 to 6 times that of Estonia. Nevertheless, mobile penetration rates, as noted above, have grown at an extraordinary rate, to 170,000 subscribers compared to 460,000 fixed line subscribers. Given the increasing fungi-
bility of fixed and cellular services, the pricing of mobile services is evidence of significant price differentiation in the current Estonian telecom market. (It should be noted as well that the current structure of monthly charges has permitted ETC to set higher charges for digital as opposed to analogue lines; monthly charges for residential digital lines are set at 57 krona versus 38 krona for analogue lines; for business residential lines the rates are 220 krona (digital) versus 118 krona (analogue). However, as the digitalization of ETC's network proceeds, it is likely to be increasingly difficult to maintain such rate differentiation based on network technology.)

Current tariff structures in Estonia do not appear to provide much flexibility to ETC to provide different options to its customers. The overall regulation of tariff levels seems to be geared to buffering the impact of across-the-board price adjustments on Estonia’s most disadvantaged telephone subscribers. The Ministry of Social Affairs now provides a small level of subsidy funds directly to pensioners and other disadvantaged subscribers. However, ETC has not yet introduced any low usage or lifeline tariff schemes that might permit different tariffs applicable to users with differing usage patterns and requirements.

Such tariff differentiation is likely to become increasingly important as a result of the rapid growth of Internet-related services in Estonia. For example, Estonia ranked 14th on a list of countries showing the number of Internet hosts per 10,000 population, just behind Germany, the Netherlands, and Switzerland and ahead of a significant number of EU Member States including Ireland, Luxembourg, France, Spain, Italy, Portugal, and Greece. The pace of Internet developments appears to be following developments in Finland, which has the highest level of Internet utilization in the world. As demand for Internet services grows, ETC will be under increased pressure to differentiate its rate structures to provide calling packages better suited for high levels of Internet usage.

ETC is currently planning to introduce modifications to its local tariffs this fall and expects to be able to make three tariff adjustments over the next two years. It is likely that it will propose to make adjustments in its local rate structure which will concurrently increase per-minute charges and monthly residential charges in order to raise the overall level of revenues generated by local exchange services. This increase would be offset by reductions in international calling charges that are expected to result with the introduction of competition after the end of ETC’s exclusivity period.

Estonian policy makers and ETC remain concerned over the relatively high waiting list of 70,000, which has remained rather stable over the last several years. This waiting list is being progressively reduced but continues to be substantial because low local tariffs have created artificial demand for telephone service. Overall, however, substantial progress is being made to meet the real level of demand for telephone service.

This process of tariff adjustment is expected to be politically sensitive. Eesti Telekom’s international public offering is expected this fall, prior to Parliamentary elections in which ETC price increases could loom as a matter of political concern. The introduction of an orderly process to conduct the necessary rebalancing is viewed as a matter of high priority by ETC as well as the Ministry. In this regard, the type of consultative process referred to above, in which the various participants could draw on relevant data and information relating to price rebalancing initiatives taken in other countries within the EU, could prove to be of considerable benefit in Estonia. In addition, it could strengthen steps toward providing telecom
operators and ETC with greater autonomy in setting the level and structure of their pricing. The process would not only provide useful international benchmarks and perspectives on tariff rebalancing, but also offer an independent rationale for difficult adjustments in telecom sector pricing policies.

It also appears that further attention will have to be directed to the development of interconnection arrangements. Currently, the only significant interconnection agreements between ETC and unaffiliated third parties involve the two independent GSM operators, Eesti Radiolinja and Ritabell. ETC also has an interconnection agreement with EMTC. Apparently, these agreements differ in important respects, with Ritabell enjoying more favorable terms than either Radiolinja or EMTC. It is likely that future agreements negotiated as part of the process of opening the Estonian telecom sector will have to take fuller account of the need for consistent, nondiscriminatory business terms.

**Further Perspectives on the Future Estonian Regulatory Process**

The Government of Estonia has successfully overseen the development of its telecom sector over the last six years. Strategic investors were successfully introduced into ETC and EMTC in 1993. Both the mobile and fixed line infrastructure has developed to a significant degree. In particular, cellular and Internet utilization is beginning to follow market trends in Finland. ETC, which has benefited from exclusive operating rights over the past six years, appears ready to embrace full liberalization of the Estonian market and is focusing its energies on being fully prepared to meet competition with a rebalanced pricing structure. For its part, the Government is moving ahead with legislation that will create an independent sector-specific regulatory body. In almost every respect, the Estonian Government appears to have taken progressive steps, and seems headed in the right direction as far as future policy initiatives are concerned.

The Estonian situation illustrates well the role that sector-specific regulatory arrangements have played in the past and should have in the future. The telecom sector has been ahead of other public utility sectors in the progress of sectoral reform. The initial regulatory framework was centered around ETC's concession agreement as a regulatory mechanism and did not place heavy emphasis on a centralized regulatory process or body. Had regulatory responsibility been concentrated instead in a single entity with multi-sectoral responsibilities, the pace of sectoral reform would have slowed considerably and kept ETC locked in a regime of traditional public utility regulation.

As competition is introduced into the telecom sector, the core regulatory framework will necessarily have to shift to a horizontal focus, with greater emphasis placed on evolving interconnection pricing, and on sectoral pricing arrangements from industry-driven initiatives, negotiation or consultative processes. Increasingly, the knowledge and expertise of key industry players will have to lead the regulatory process rather than sectoral reform being led by regulatory initiatives. The role of regulators will be to arbitrate business disputes among emerging industry players. The regulatory process will augment and supplement contractual dealings in the marketplace and simply determine the limits of autonomous business initiatives by regulated telecom operators. Agencies making competition policy will have an increasingly important role in any such new environment and will need to develop fully effective and cooperative relationships with the new telecom regulatory body. Such cooperative
ties are apparently now developing in Estonia, following the experience in Finland where the roles of the telecom regulatory entity and the competition policy agency seem to have been meshed effectively.

Therefore, future regulatory mechanisms will need to become increasingly consultative and process-oriented, and should not depend on the establishment of new super-agencies. Regulation will become increasingly "privatized" as regulatory norm-setting and contractual dealings in the market become more closely intertwined. A transition toward a more process-oriented approach to regulation—with significant access to international experience and resources—should be strongly supported.

**III. Overview of Telecommunications Developments in Poland**

The transition process in the Polish telecom sector seems to be moving at a deliberate pace. A number of major transition issues are potentially being deferred pending the privatization of Telecom Polska S.A. (TSPA). Enactment of a new legislative framework is expected sometime in 1999, following TPSA's privatization.

It is obvious that the Polish government will need to clarify the future regulatory framework for potential investors in TPSA. To the extent any attempts are being made at policy clarification, however, they are not apparent to other participants in the Polish telecom sector. The process does not seem to be led by the new regulatory body now being established in Poland.

For this reason, many policy issues relating to the pace and scope of liberalization in the Polish telecom sector, issues that will be critical to the EU accession process, are apparently being accorded secondary importance. The primary focus is on the desire of the Polish Government and TPSA in a successful outcome to the privatization process. Outlined below are a number of issues relating to the current transition process in Poland that emerged during consultations with Polish government officials, and other observers of the Polish telecommunications sector.

**Current State of Deliberations on Draft Legislation and Polish Telecom Policy**

New legislation setting the future regulatory framework has been pending in the Polish Parliament since the end of last year, and is apparently not expected to be enacted until next year, after the TPSA privatization. Such an outcome is somewhat unexpected, since normally investors would expect to have full information about future legislative arrangements prior to investing. However, there may be an expectation that the major outlines of proposed legislation will remain unchanged. It may be the view of some within the government that the Parliament can be convinced later that new legislation cannot fundamentally modify representations about the future regulatory framework made to international investors in TPSA without risking potential liability to such investors. In that event, the importance of policy setting in the privatization process would be enhanced.

Among the most difficult issues before the Parliament have been arrangements for a future new regulatory agency, that is, to what extent it should be an independent entity or should be under the direct oversight of the Polish Ministry of Post and Telecommunications. In addition, the current proposal is for two separate regulatory bodies, one to deal with
spectrum allocation and licensing and the other more conventional telecom regulatory responsibilities. Another significant element in the proposed regulatory framework involves the mandate of the Polish Competition and Consumer Protection Office in the price setting process. In recent years, the Polish competition authorities have actively intervened to influence pricing and other policies of TPSA. Therefore, there may be some pressures to limit or define the role of competition authorities on future sectoral arrangements.

Another major issue concerns the timetable for competition in the Polish sector—the subject of considerable controversy. Although competition in the provision of local services has been permitted for a number of years, the results of such competition have been somewhat disappointing because negotiations between TPSA and local operators have not always been easy, and local operators cannot offer either long distance or international services.

The Polish government has decided to permit competition in long distance services as of January 1, 1999. In spite of this announced intention, effective long distance competition is unlikely to commence until at least a year following the nominal market opening. International services, which have traditionally sustained TPSA's profitability and would offer a market foothold to new entrants, will not be opened until January 1, 2003, a date two years later than the date for market opening in Estonia, the Czech Republic, and Hungary. Though this date for market opening may be under discussion with the EU, government officials were reluctant to discuss any aspect of the current talks with the EU and may hope to maintain this date as a means of maximizing the value of TPSA.

An obvious concern to TPSA with respect to an earlier date for market opening would be the current state of the tariff rebalancing process, which has not received high priority. Though in the long run TPSA will require significant realignment of its local prices, it may not have perceived that there was significant short-term advantage to accelerating the rebalancing process. TPSA is currently one of the most profitable Polish enterprises, and early rebalancing would benefit local entrants who are now attempting to gain a foothold in local markets. It would also bring forward the entry of major international operators in the very large Polish market. Such operators are also hampered in their potential participation in the market by foreign ownership restrictions on providers of international services.

Nevertheless, the basis for any adjustment to the current extended timetable for full liberalization of the Polish market is likely to be a concerted effort to give priority to politically sensitive process of price rebalancing.

Current Status of the New Regulatory Entity

The Polish Ministry has established a new regulatory body in separate offices and has appointed a new head of this agency from outside the Ministry. The new agency is now beginning to take shape, but it continues to be very dependent on officials within the Ministry with longstanding ties to TPSA and the Polish telecom sector.

In addition, the mandate of the new agency remains uncertain until the passage of the new telecom law, which is intended to provide for the independence of the new body through the appointment by the Polish Council of Ministers to a five-year term. Until the law is enacted, the new agency and its head have necessarily only an interim status. An early enactment of a new law would provide an important impetus to the transition process now underway in Poland. Delay, on the other hand, will only perpetuate the status quo.
Proposals for Licensing New Long Distance Service Providers

Even though decisions have already been taken to open the Polish long distance market by the beginning of next year, no urgent steps are being taken to prepare for the licensing of new entrants. Moreover, the current intention of the Polish Ministry is not to create an open licensing system for providers of long distance services, but to create instead a potentially time consuming tender process that would result in only two or three service providers. This determination will significantly delay the effective opening of the Polish market because there is no sign the tender process will be initiated in time to license new entrants when the market nominally opens. The apparent effort to limit the number of entrants, moreover, is likely to create artificial scarcity value in the long distance license and thwart the potential benefits of competition.

For example, potential entrants in the market would include the providers of GSM services which include two consortiums, Polkomtel (AirTouch, TeleDanmark, and KGHM) and Polksa Telefonica Cyfrowa (PTC), as well as Tele-Energo, which has recently constructed a fiber optic network along the right of way of the national electric grid company, PSE. Other potential entrants include competitive local telephone operators such as Netia Telekom, which is owned by Telia (26 percent) and Netia Holdings (with 74 percent and consisting of various investors such as Shamrock Holdings, Danker Investors, Trefoil Capital Investments, and Goldman Sachs Capital Partners). Netia Telekom holds licenses covering almost a third of the Polish population and five of the biggest cities—Lublin, Krakow, Gdansk, Poznan, and Katowice. In addition, another local operator, TPZ, which is owned by U.S. cable operator Bresnan International Partners, has licenses to build fixed line services in the northwest of Poland, an area with a population of 1.5 million.

Collectively, potential new entrants have access to long distance infrastructure, international expertise, as well as a growing base of subscribers. The national cellular market is growing at an extraordinary pace and passed 1,000,000 subscribers this spring. Centertel, a joint venture between TPSA and France Telecom’s mobile subsidiary, has 260,000 NMT-450 subscribers. The GSM operator, PTC, has 500,000 subscribers; Polkomtel, 400,000.

As evidenced by the dynamics of the emerging pan-European market for long distance services, there is a range of different roles for providers of infrastructure and services on a wholesale or retail basis. Current Polish licensing practices impose significant barriers to entry by requiring that providers of infrastructure for lease obtain prior authorization, even though they do not intend to provide service to users on a wholesale or retail basis. In effect, important options for turnkey financing are curtailed in a market in which the high cost of debt severely limits infrastructure investment.

Limits on new entry in the provision of long distance service are, moreover, without significant precedent in the EU and are not consistent with the overall thrust of the EU’s policies favoring full market liberalization. They would in all likelihood preclude providers of local services from diversifying into long distance services, which would be a natural extension of their role as local service providers and would facilitate investment in new local infrastructure. In addition, since local licenses are issued on a regional basis, any service provided across regional boundaries is in effect a long distance service. The result is a likely constraint on the potential for consolidation of local operating companies to gain increased scale and efficiencies.
Though the competition authorities are aware of these restrictive policies, their ability to intervene with respect to a matter of policy prior its promulgation would appear to be rather limited. The Competition Office has limited time and resources and is not able to act as a general overseer of policy developments in the telecom sector.

Potential for Local Infrastructure Development and Competition

Although local competition is now permitted, local operators are effectively constrained by the pricing policies of TPSA for local services. Those prices are now heavily subsidized by the revenues from long distance and international services, to which TPSA currently has exclusive rights. Until local prices are increased, local operating companies will struggle to finance their operations. Alternative local operators have been able to install fewer lines than expected.

The local companies, therefore, have a clear interest in a more transparent and accelerated approach to the process of price rebalancing in Poland. With penetration of basic telephone services still at a very low level—19 percent—as opposed to a hoped for target of 32 percent in three years, significant local investment is required country-wide. TPSA hopes to install three million lines in the next three years at an expected investment cost of $1 billion annually. With eight million lines currently, the potential demand for local access lines is expected to be 6-8 million more lines. In Warsaw, the current waiting list for telephone lines is approximately 200-300,000; in Poland, another 2,000,000 subscribers may be on the waiting list. In the view of some observers, there is substantial available capacity in current exchanges in the Polish network but there is limited incentive for the installation of additional local access lines, given the current levels of profitability of TPSA.

The scarcity of fixed line telephone service is one of the main factors fueling the rapid growth of GSM cellular services.

Constraints on the number of local access lines limit the potential of TPSA to generate increased calling revenues from long distance and international services, as well as from usage charges for local services. Limitations on local infrastructure also operate as a brake on the potential development of Internet-related services.

In addition, local entrants face other constraints on their ability to rapidly construct local infrastructure. Currently, local authorities exercise substantial control over access to rights of way. There are significant local paperwork hurdles to be overcome before new infrastructure can be installed. Both TPSA and local entrants have a common interest in reducing the delays and bureaucratic costs involved in installing new local access lines.

The current situation, as described above, reveals that price rebalancing is imperative to accelerate investment in local infrastructure in Poland.

Rebalancing Telecom Polska S.A.'s Local Tariffs

TPSA's tariff structure is significantly in need of rebalancing. The price of one pulse in Poland is now approximately one half the level of local tariffs in Germany, which have not yet been fully re-balanced. TPSA plans to increase the price per pulse 10 percent as of this July but significant additional steps need to be taken. It is expected that TPSA will propose an
overall rebalancing plan that will be part of the disclosure included in the international prospectus in connection with its privatization. When and how these rebalancing plans will be formulated, and whether affected third parties will have any role in the process, is not yet clear. Indeed, it may be difficult to initiate the rebalancing process until the new law is enacted.

TPSA is now subject to control over the maximum level of its prices. The Competition Authority can intervene with respect to particular price offerings that might be deemed to be anticompetitive or predatory. Under the new law, the new regulatory body will be given increased authority to oversee and approve TPSA's pricing, which may possibly insulate such prices from post hoc review by Polish competition authorities. Though competition authorities will be involved in the price review process through an advisory council, as well as other informal consultative mechanisms, the full working of the future process of price rebalancing is unclear and will probably remain so until after the new legislative framework is enacted. Of particular concern is the potential openness of the price setting process to input from affected third parties, such as the local telephone operating companies.

Given the importance of the rebalancing process to the full liberalization of the Polish telecom sector, it might be beneficial to encourage a more open consultative process to the process of price rebalancing. The consultative mechanisms discussed in the overview section were raised as a possibility with Ministry and other sector participants, and would certainly be supported by new local entrants. They might even generate support from TPSA to the extent that price rebalancing is recognized as fundamental to its future profitability in a liberalized market. In this respect, TPSA might benefit from the experience of other operators in the Group A countries, especially SPT in the Czech Republic, which are facing similar difficulties in the transition process.

Therefore, it might be useful to focus both on the price rebalancing process as well as the linkage to issues of market liberalization and opening. The focus of the consultative effort might be to achieve an overall approach to price rebalancing that was linked to commitments to accelerate the opening of long distance and international services. It remains to be seen whether such a recommendation would gain serious support within the Ministry and TPSA. Polish Ministry officials with responsibility for the EU accession process did not appear as ready to recognize a nexus between price rebalancing and full liberalization, as did officials in other countries involved in the accession process. Rather, the focus in Poland was on the timing of adherence to the recognized benchmarks of the EU regulatory framework. Nevertheless, when these issues were addressed at a meeting in the Ministry, both representatives of TPSA and of new local entrants did seem to have a common view that there might be benefit in accelerating the process and raising the level of discussion on the issue of price rebalancing.

In Poland as in other countries, the impetus for hard initiatives involving price regulation and rebalancing will have to be rooted in the convictions of key industry participants about concrete steps that need to be taken. Part of the benefit of a consultative process with international involvement may be to depoliticize sensitive issues of pricing policy and make it easier for basic operational and long-term strategic interests to be factored into the policymaking process.
IV. Overview of Telecommunications Developments in Slovenia

Impact of the Accession Process

The telecommunications sector is considered to be a key focus of the EU accession process in Slovenia. One of our interlocutors expressed optimism concerning the outlook for the accession negotiations, suggesting that it would be relatively easy to achieve a consensus on necessary changes in legislation in Slovenia, a small country with a well-educated population. Others observed, in addition, that the desire to accede to the EU would make legislators and policy makers more receptive to implementing necessary changes in the current telecom regulatory framework.

The Telecommunications Act (1997) is currently being analyzed to determine what changes need to be made to conform to the European telecommunications regulatory framework. In particular, the current licensing scheme in the 1997 Act is seen as overly rigid and imposing unnecessarily formal procedures for the granting of licenses in a competitive regime. There are also several outstanding issues, including universal mechanisms for service funding and the establishment of an independent regulator. It is recognized that a new law is needed after 2000, when Telekom Slovenije relinquishes its exclusive rights.

Slovenian policy makers are especially sensitive to the need to remove Telekom Slovenije’s status as a public enterprise and to establish the basis for its eventual privatization. The Company’s investment program is subject to approval by the Council of Ministers, and its overall operations need to be more autonomous and commercially oriented to ensure the company’s ability to compete in a liberalized market. For example, Telekom Slovenije has been advised to reorganize itself along more commercial lines; however, political approval for this process has not yet been granted. As described below, the company is not heavily dependent on debt financing and needs increasing financing flexibility to invest in the new infrastructure required to support Internet-based services which are beginning to develop rapidly in Slovenia. Given the amount of time that the 1997 Act was under consideration before its approval, key Slovenian policy makers are concerned that only two-and-one-half years remain before the full liberalization of the market as of January 1, 2001.

Political Interference

There is a record of substantial political interference in the telecommunications sector because of its profitability. Until the end of 1999, Telekom Slovenije is required to turn over a substantial part of its profits to the loss-making Post. Last year, the transfer to the Post amounted to some 3.5 billion Tolar (approximately 35 million DM).

It was suggested that legislators have a proclivity to view license fees as an attractive source of government revenues. High license fees, however, substantially impede the rapid deployment of telecommunications services which are vital to the economic development of the nation, and should be discouraged. Moreover, the government imposes a 20 percent tax on telecommunications pulses, in contrast with a general tax rate on other services of 6.5 percent.

The government is divided over how proceeds from the privatization of Telekom Slovenije should be used. The Ministry of Finance hopes to obtain the proceeds, while the Ministry of Transport and Communications would prefer to use the proceeds to further develop the telecommunications infrastructure.
Tariff Rebalancing

There is widespread agreement that substantial rebalancing of Telekom Slovenije's tariffs is absolutely necessary to prepare for the impending liberalization of the telecommunications sector. However, government authorities have been slow to act to permit rebalancing, in part because of a tradition of price controls and a concern about inflation. Government authorities responsible for keeping inflation in check also have failed so far to appreciate that rebalancing a basket of prices can effectively net out to zero inflation.

It was suggested that the prospect of accession to the European Union might be used to overcome some domestic political obstacles to rate rebalancing. On the other hand, it was recognized that the EU regulatory framework, while recognizing the need for rate rebalancing, left the process of achieving the rebalancing to the member

Tariff rebalancing, considered essential, is the joint responsibility of the Ministry of Transport and Communications and the Ministry of Economic Affairs. Additionally, the Statistical Bureau is responsible for calculating the inflation rate, which remains an important concern. Although tariff rebalancing would be possible under a price cap system with only minimal effect, if any, on the calculated rate of inflation, it has proved difficult for the various government agencies to agree on rebalancing. This is so even though it is not expected that social problems would flow from, for example, a doubling of local rates offset by lower installation charges and international rates, given that local rates are currently extremely low. A Dutch consulting firm is currently calculating re-balanced rates that would be implemented over the next several years.

Connection fees are now very high, almost five times the EU average. Moreover, usage-related pulses are below the EU average but are subject to a 20 percent tax. Low local access charges present the company with a substantial dilemma concerning how to finance new infrastructure investment. The company might need, for example, increased flexibility to establish tariffs that allow the recovery of the connection fee through higher monthly charges and usage charges. Currently, in Slovenia, as in other countries in Central Europe, there is a traditional approach to price discrimination, which severely limits Telekom Slovenije's ability to engage in pricing differentiation. The company needs more flexibility to establish different pricing schemes for different users—low-user schemes could be offered for pensioners and the elderly; schemes with higher monthly and usage charges might be available for subscribers who need a second line for Internet use, and so on.

Law and Regulation

The Telecommunications Act, adopted in May 1997 after three years of consideration by the legislature, establishes a framework for a competitive telecommunications market. Voice telephony and the associated infrastructure remains the exclusive province of Telekom Slovenije until January 1, 2001.

There remain several uncertainties about the application of the law, including in particular the scope of exclusive rights accorded Telekom Slovenije. Under the current law, prices are strictly controlled, and Telekom Slovenije is under substantial obligations to build out the fixed public network infrastructure. It is expected that by 2000, Telekom Slovenije will have satisfied all demand, and that there will no longer be a waiting list for fixed public telephone connections.
An interconnection policy is in place and in general follows EU directives. However, given the difficulty of determining elements of cost, the policy is not yet based on long-run incremental costs (LRIC). Both mobile operators will pay the same interconnection rates. The Ministry of Transport and Communications has not had to step in to mediate on interconnection rates.

Unlike many other countries, telecommunications operators lack authority to install networks on private property and are forced to go through costly and time-consuming processes to obtain the necessary permits from local governments. In some localities, permits are issued only once per year. Thus, if an operator fails to apply for a permit in time, it is effectively precluded from building out its network until the following year.

**Regulatory Process**

One of the undercurrents of concern on the part of Slovenian policy makers and industry participants alike was how to establish an effective regulatory process in a small country with limited resources.

A recurrent theme was that the pace of the regulatory machinery has been far too slow to keep up with changes in the business environment. For example, the National Assembly took more than three years to pass the Telecom Act. Similarly, the issuance of a concession agreement to SiMobil by the Council of Ministers was delayed considerably.

During the transition period prior to January 1, 2001, a number of important issues will have to be addressed, including the issues relating to the privatization of Telekom Slovenije, the enactment of new legislation, the rebalancing of local rates, and the establishment of a framework for a fully liberalized market. The question is how these issues can be addressed effectively and how the expertise of other national regulatory bodies and industry participants can be fully used.

The idea of establishing direct connections with national regulators in the EU through an Internet-based web site of decisions of EU regulators was well received by Slovenian officials. Moreover, it was recognized that future regulatory arrangements would have to be leveraged on the expertise of industry officials and outside regulatory officials. The idea of consultative mechanisms to deal with price rebalancing, as well as related issues involved in the opening of the Slovenia market, was also discussed and received a favorable initial reaction.

**Development of Internet-related and Broadband Services**

Internet services are beginning to develop at a rapid pace in Slovenia. The penetration of personal computers is now about 15 percent of the population. There are currently 25 Internet service providers (ISPs) with the largest being centered around a university-based Internet site. Telekom Slovenia has deployed a nationwide 880 number that provides access to Internet services around the country on the basis of a uniform per minute charge. In response to pressure from unaffiliated ISPs, this number has been made available to all Internet service providers.

There are more than 100 cable TV networks in Slovenia of varying levels of technological development. Most are obsolete coaxial systems; however, a number have installed high-capacity fiber optic links. Indeed, a cable operator in Ljubljana has installed a 10 Mbytes local access system and is testing the feasibility of Internet telephony.
Telekom Slovenije is assessing how to attract the investment necessary to meet this emerging demand. Currently, it is installing ISDN lines tariffed with connection fees amounting to 150 percent of analogue lines. However, it has indicated interest in exploring the strategy of the Finnish local telephone company, Helsinki Telephone Company, which has priced ISDN and analogue lines on the same basis to attract higher levels of utilization of its network.

Claims of Municipalities on Telekom Slovenije Infrastructure

Several municipalities are asserting claims of ownership of assets of Telekom Slovenije. These municipalities invested in the development of the network and are demanding shares or monetary compensation to relinquish their claims. Unless the claims of the municipalities are resolved, Telekom Slovenije may have trouble convincing investors that its assets are unencumbered.

It was noted, however, that the municipalities, because of their investments, have for years enjoyed lower rates than other customers of Telekom Slovenije and, therefore, have arguably already been compensated for their investments. It is possible that national legislation could effectively resolve this issue.

Assessment of the Views of Market Participants

Fixed Network Operators

a. Telekom Slovenije. Telekom Slovenije is the sole provider of voice telephony and associated infrastructure until January 2001. At the same time, Telekom Slovenije is subject to ambitious build-out and universal service obligations.

Telekom Slovenije currently boasts a penetration rate of approximately 37 percent, which includes a substantial but dwindling number of party lines, all of which are expected to be fully upgraded by the end of 1999. Penetration is expected to reach more than 40 percent by 2000. Digitalization of the network is already 70 percent and expected to reach 90 percent by the end of 1999.

Domestic tariffs, both fixed business and residential, are low, while installation charges are high. International PSTN tariffs are also high. It is widely recognized that tariff rebalancing is required, and that such price rebalancing will be necessary to prepare the company for obtaining financing in the capital markets.

There is a clear intention by the Ministry of Transport and Communications to privatize Telekom Slovenije within three years. In July 1998, Telekom Slovenije was restructured so that private ownership of its shares is now possible; however, its status as a public enterprise must be modified as a matter of urgency.

The Ministry of Transport and Communications envisions an increase in the capital of Telekom Slovenije, with the use of some proceeds to compensate municipalities for relinquishing claims on Telekom Slovenije’s infrastructure (these claims are described below). A strategic partner is likely, while the state share in the company is expected to be reduced to 51 percent. No final decisions have been taken concerning how the company might be privatized. An international public offering is certainly still under consideration combined with smaller equity investment by a strategic partner or partners who might assist the company develop business areas and activities of strategic importance.
Telekom Slovenije would like to be released from its public obligations, especially price controls, and is therefore on record as favoring an acceleration of competition. The Ministry of Transport and Communications also would like the company to have more autonomy so it is better prepared to improve services and meet market demands. Expectations are, however, that given the slow pace of the legislature in enacting the 1997 Telecommunications Act, an acceleration of competition cannot realistically be anticipated before 2001, as provided in the 1997 Act.

b. Railroad, Highway and Electric Company Networks. The railroad, highway and power companies all have high-quality telecommunications infrastructure in place but are precluded by the Telecommunications Act from providing services to third parties. These facilities present the potential for vigorous competition to Telekom Slovenije. The Ministry of Transport and Communications is currently considering how these networks might be regulated effectively to prepare for liberalization of the sector. Foreign entities have expressed interest in acquiring interests in these companies. Telekom Slovenije has also had exploratory discussions concerning how it might be able to utilize some of this new infrastructure.

2. Mobile Operators

Penetration in the mobile market (where there is only a single operator at present) is approximately 7 percent and growing rapidly (although some of the growth might be explained by pent-up demand resulting from the fact that GSM service has been available only since 1996). A penetration rate of 15 percent is considered possible by 2000.

Provision of mobile services in Slovenia requires a relatively larger investment than some neighboring countries because Slovenia is mountainous and its population widely dispersed. Prices for mobile services in Slovenia are among the lowest in Europe. With competition from a new GSM operator imminent, prices are expected to drop lower still.

a. Mobitel. The current sole provider of mobile telephone services is Mobitel, a 100 percent subsidiary of Telekom Slovenije. Mobitel operates both an analogue (since 1991) and digital mobile network. Mobitel received its GSM license only in 1995 and launched services in August 1996.

A 150 million DM financing package for Mobitel was successfully placed by a Sumitomo-led consortium, reflecting the attractiveness of the Slovenian telecommunications market to foreign investors.

Mobitel has full flexibility to lower, but not raise, its prices. Mobitel receives no subsidy and is fully responsible for its business. Its commercial operation is independent of its parent, Telekom Slovenije.

Mobitel has direct connections with 70 foreign mobile operators. Other international connections are through Telekom Slovenije.

Mobitel's relations with its parent sometimes reflect the conflicting interests between a mobile and a fixed operator in other environments. For example, Mobitel has found it difficult to reach a satisfactory compromise on the sharing of revenues for international traffic.
b. SiMobil. SiMobil, a company owned by an international consortium that includes Telia of Sweden, was awarded the country's second GSM license last month. SiMobil is currently awaiting the issuance of the final concession agreement by the Council of Ministers and the Prime Minister. Although in theory the concession agreement could be completed immediately, the government has 120 days from grant of the license, that is, until October 11, 1998, to issue the concession agreement. [NOTE: Update discussion of concession agreement.] SiMobil has expressed concern about the apparent slow pace of the concession granting process. Until it has entered into the concession agreement, SiMobil will be unable to obtain financing or hire employees.

Under the terms of its concession, SiMobil is permitted to build its own microwave links if Telekom Slovenije cannot provide the required leased lines within three months. An open question is whether SiMobil can lease lines from alternative providers such as the railways, power companies or highway companies, which would likely be priced substantially lower than Telekom Slovenije's facilities.

V. Overview of Telecommunications Developments in the Czech Republic

Legislation

The existing Telecommunications Act (1992), although progressive, needs to be revised to conform to the EU telecom regulatory framework. The Ministry of Transport and Communications is working on a draft of a new Telecommunications Act. A draft of a new law, presented to the Czech parliament in January 1998, was rejected after complaints that the incumbent operator, SPT Telecom, had not been consulted. It was asserted that the draft law had been based on proposals advanced by a group of potential entrants, known as S-98, who were keen to advance the date for liberalizing the Czech telecom market, according to an accelerated schedule.

A special expert committee consisting of representatives across the full spectrum of the Czech telecom sector has been appointed to work on a new draft. However, the status of the new version is unclear. The draft law appears to be entangled in a very active debate within the Czech Republic concerning whether to move forward the date for liberalization. This initiative is being vigorously opposed by SPT and the strategic investor consortium, Telsource, which acquired a 27 percent equity stake in SPT in 1994. They argue that accelerating liberalization would unfairly impinge SPT's legal rights, particularly if undertaken without a loosening of SPT's remaining investment obligations.

Regulation

Within the Ministry of Transport and Communications the responsibilities for telecommunications are divided between the Department of Telecommunication Policy and the Czech Telecommunications Office (CTO). The CTO is the primary regulator.

In addition, the Ministry of Finance regulates tariffs for domestic services and is ultimately in charge of tariff negotiations (although the CTO participates). The Ministry of Finance has
been reluctant to allow substantial increases in domestic telephone rates (although it has approved substantial rate increases for other services, such as apartment rentals).

The Department of Telecommunication Policy is responsible for exercising the shareholder rights of the National Property Fund for SPT Telecom and České Radiokommunikace. The department appreciates the conflict of interest and expects to address it in the new legislation.

It is hoped that this unwieldy structure may be changed in the upcoming revision of the Telecommunications Act. As a practical matter, the CTO is probably better equipped to oversee tariffs. The Ministry of Finance currently has only two persons who are involved with telecom sector pricing policies; and it has an overall mandate to engage in price control from a macroeconomic standpoint. The EU has strongly expressed the view that the CTO should be independent of the Ministry.

Interconnection is the responsibility of the Ministry of Finance. The Ministry of Finance has just received its first application to resolve an interconnection dispute between SPT Telecom and a paging operator. (The CTO will weigh in on the dispute.) Interconnection arrangements between SPT Telecom and the mobile operators have been negotiated without regulatory intervention.

Fixed Network Operators

SPT Telecom

SPT Telecom's 20-year license as of July 1995 gives it exclusive rights over long-distance and international telephone services until January 1, 2001. Its license includes universal service obligations and sets specific operational targets for line installation, pay phone installation, waiting list reduction, and network performance.

SPT Telecom is a joint stock company majority-owned by the National Property Fund (51 percent), with 27 percent held by Telsource (a consortium of PTT Netherlands and Swisscom). SPT Telecom's holdings include a mobile joint venture, EuroTel, in which SPT Telecom holds 51 percent and a consortium of Bell Atlantic and US West 49 percent.

The fixed telephone penetration rate almost doubled between 1994 and 1997, from approximately 18 percent to 35 percent. Approximately 65 percent of the network is digital.

Domestic tariffs, both business and residential, are low, as are monthly line rentals (100 crowns ($3) per month; real costs are probably around 260 crowns). Installation charges, by contrast, are relatively high (3,500 crowns). International PSTN tariffs are high and subsidize the low monthly rental fee.

It is widely recognized that tariff rebalancing is required, and that such price rebalancing will be necessary to prepare the company for obtaining financing in the capital markets. Although SPT Telecom negotiates new tariffs each November, the company has been hampered in its ability to increase the monthly line rentals and local rates primarily by the reluctance of the Ministry of Finance to permit large increases. SPT Telecom's annual report for 1997 states that while the company welcomes the possibility of a fully liberalized environment in 2001, it needs to rebalance domestic tariffs quickly because after liberalization, competing operators targeting the international market will depress margins and undermine
SPT Telecom’s total margins. SPT Telecom would favor an acceleration of competition if it were released from some build-out obligations and afforded more pricing flexibility.

SPT is now confronting significant pressure to accelerate the timetable for liberalization. The S-98 lobby is well connected and influential. The GSM cellular operator, Radiomobil, in which Deutsche Telekom is an investor, has begun to provide international services over the Internet in connection with its GSM service. Thus it is challenging SPT’s exclusive right to provide international voice telephone service, which represents the very core of SPT’s exclusive rights under its concession.

Aliatel
Aliatel is an alliance of regional power companies with modern fiber optic networks, formed in 1996 with the aim of becoming the second national operator when SPT Telecom’s exclusive rights expire at the end of 2000. RWE, a German utility, owns 40 percent of Aliatel and is the sole foreign investor.

Aliatel currently holds authorizations to provide non-interconnected leased lines, public data networks, and voice services for closed user groups. It has recently submitted a license application to provide public telephone service, effective 2001. It is unknown whether SPT Telecom will negotiate interconnection rates for public voice services before 2001. However, Aliatel is keen to advance the timetable for obtaining interconnection arrangements in order to facilitate the financing of its build-out plans.

Aliatel is one of the founding members of “Group 98,” a coalition of competitive telecommunications companies seeking to accelerate the opening of the Czech telecommunications market. The coalition presented its views on a proposal for a draft law that was presented to the parliament in January 1998. The proposal received insufficient support, reportedly because the draft had not previously received input from SPT Telecom.

Aliatel is considering entering the local market through wireless local loops. It has requested the necessary frequencies and expects to receive them, but not before 2000.

Alternative Local Operators
Two operators of alternative local telecommunication services are operational (consisting of a small network in Prague and a larger one covering some 10,000 subscribers in Liberec). Kabel Plus, a cable television operator with more than 400,000 cable television subscribers, including two-thirds of subscribers in major markets, is the larger of these operations.

Interconnection rates are higher than for GSM services. If interconnection rates for fixed network competitors are not reduced, competition may be impeded. SPT has resisted the idea of interconnection based on long-run incremental cost principles, on the ground that its cost structure reflects its license requirement to build out the Czech telecom infrastructure on an accelerated time schedule.

Because the local licensees must compete with subsidized SPT rates until tariff rebalancing is complete in the year 2000, they remain small and uncompetitive. For the same reason, they are unable to obtain financing. The failure to deal with the issue of rate rebalancing has, therefore, had an adverse impact on the development of local competition in the Czech Republic.
Mobile Network Operators

There are currently two GSM operators, with plans for a tender for a third operator (using DCS 1800 spectrum) in 1999. Penetration in the GSM market is 6 percent of the population, and growing quickly.

České Radiokommunikace (CR) provides transmission for television and radio broadcasting. CR is 70 percent government-owned; Tele Danmark holds 20 percent. The government’s stake will be reduced to 51 percent by the end of the year, although the details of the tender process are not yet known. CR also offers data transmission and client network services. CR has a 51 percent stake in Radiomobil, with the remaining 49 percent held by a consortium, T-Mobil, which consists of DeTeMobil (85 percent), STET (12 percent) and others.

Radiomobil

In 1996, Radiomobil began providing GSM service under the Paegas trade name. As of June 1998, Radiomobil has 250,000 subscribers.

In July 1998, Radiomobil instituted the provision of international GSM voice services over the Internet at rates approximately half of the usual international rates. Whether this service violates SPT Telecom’s exclusive rights over international voice telephony has not been settled. To date, SPT Telecom has not filed a complaint with the CTO, which will take no action in the absence of a complaint.

Although the service offered by Radiomobil is a functional alternative to fixed-line infrastructure (it is cheaper than the fixed network for customers who merely want to be reachable), most people who take the GSM service are already fixed-line customers. Were SPT Telecom to increase its monthly fixed-line rental rate, Radiomobil would benefit.

Radiomobil has broad pricing flexibility, although the level of GSM prices is limited by the shareholder agreement, on the basis of which strategic investors obtained the right to participate as a partner of CR in providing GSM services. If the regulator deems the weighted average price too high, the foreign shareholder loses the right to purchase more of the company in 2000. As a consequence, the overall level of GSM pricing in the Czech Republic is among the lowest in the world.

Radiomobil is satisfied with its interconnection rate (1.76 crowns per minute). Its main problems are with obtaining sites for antennas. Radiomobil is currently fighting EuroTel before the antimonopoly commission for its failure to subcontract its sites. The new construction law fails to address the problem.

EuroTel Praha

EuroTel Praha is 51 percent owned by SPT Telecom and 49 percent by a U.S. consortium comprised of U.S. West Media Group and Bell Atlantic International. It holds a nationwide NMT-450 license for 20 years (1991-2011), and one of two GSM licenses.

EuroTel Praha, with a minority shareholder different from that of SPT’s strategic partner, has adopted a rather independent stance toward its majority shareholder. Its approach to interconnection and other regulatory issues is generally consistent with the position of Radiomobil.
Rate Rebalancing

There is widespread agreement that rapid rebalancing of SPT Telecom’s tariffs is essential to prepare for the impending liberalization of the telecom sector. The EU regulatory framework, while recognizing the need for rate rebalancing, leaves the process of achieving the rebalancing to the member states.

As in many countries, price setting policy in the Czech Republic is a political process because of the traditional role of the Ministry of Finance as a price control agency, and it will not be easy to increase tariffs for local services. Therefore, although there is political pressure from all quarters of the market, including the incumbent operator, to accelerate the timetable for liberalization, it is not clear that the Czech government has accepted the importance of accelerated pricing solutions to enable the market to become truly competitive.

Similarly, it is unclear how a new Telecommunications Act will deal with the question of universal service funding. Such a mechanism has been unnecessary in the noncompetitive environment, but will become necessary in the future if one operator is to be tasked with providing universal service.

Improved Regulatory Processes

Market participants cited the lack of apportionment of sectoral responsibilities within the government as a primary impediment to reform. Because different bodies are responsible for regulating the sector and setting rates, the inauguration of accelerated liberalization is hampered even though industry participants agree on the need and the general outlines of what needs to be accomplished. The resources of the regulatory authority are limited, and decisions of the regulator are perceived to take too long to issue. It would be useful to augment such resources through horizontal industry discussion groups to remove deadlocks concerning draft legislation.

Moreover, there may be a real opportunity to encourage dialogue among industry participants that might result in an agreement to rebalance pricing on a more aggressive basis, as well as make SPT’s build-out commitments more realistic, in return for an accelerated liberalization schedule. Any such agreement would have to be reached relatively soon to have a realistic chance of success.

Broader Access to Information

Our interlocutors cited the need to keep abreast of market and regulatory developments in countries of the European Union. Facilitating the dissemination of information and examples of other countries would make it easier to adapt foreign policies to conditions in the Czech Republic. In particular, understanding how rate rebalancing has been achieved in other markets would be most helpful.

For example, it would be useful to be able to show that international comparisons regarding pricing and service quality do not offer a perfect model. Another Central European country’s penetration rate, touted to be 35 percent, may include many party lines and low-quality service. Similarly, tariff rates offer imperfect comparisons because incomes in other markets may be substantially lower.
Accordingly, international benchmarks might be useful not only to supply an economic rationale for rate rebalancing, but also a political one. When all the players are convinced that there is a deal to be struck and that everybody would be better off with more rational prices, the pricing issue might be moved forward with an appeal to the self-interest of all the parties.

Guidance in this regard is exactly what is needed. The players are just now trying to understand what mechanisms might be implemented for, say, universal service funding. Some mechanism is needed to integrate views of incumbent and competitors. Among the issues to be discussed in the Czech Republic would be rebalancing, interconnection, universal service funding, and the timetable for market opening. A consultative structure with access to international experience and expertise, with reference points reflecting foreign viewpoints, would go far toward moving the process forward.

VI. Overview of Telecommunications Developments in Hungary

Improvements in Service

The Hungarian telecommunications sector has advanced rapidly since 1989. The conversion from a slow responding, state-owned system with outdated technology and long waiting lists to a more modern system with relatively rapid service intervals has been accomplished with regulatory benchmarks, privatization and an influx of foreign capital.

The quality and availability of telephone service in Hungary has improved dramatically, both in absolute terms and relative to the rest of Europe. In 1988, telephone penetration was only 8.1 percent; it had increased to more than 26 percent in 1996. This resulted from the increase in the number of connected main lines from 996,000 in 1990 to 2.66 million in 1996.

Part of the increase in connections is due to provisions in the concession agreements that require local providers to achieve line growth of at least 15.5 percent per year, and to meet 90 percent of customer demand for telephone service within 6 months and 98 percent within 12 months. In addition, the increase in penetration may also be partly due to increased quality and variety of services offered. In 1996, 60 percent of the switches were digital, meaning that a wide variety of previously unavailable features are now available. In addition, advanced services such as ISDN are growing rapidly. The Ministry set goals of increasing quantity and quality and reducing waiting times; the telecommunications system has clearly met those goals. Much of this progress has been due to extensive investment by foreign companies, especially their purchase of and investment in local and long distance telephone companies.

Concessions and Privatization

In 1994, the government issued a tender for local telephone service. The country was divided into 54 separate local regions. In this round, 25 of the areas were offered to prospective companies wishing to provide local wireline telephone service. Previously, MATÁV had provided telephone service throughout the country. MATÁV won the tender for 5 of the areas and in two areas, MATÁV was awarded the franchise because there was no other bidder. As a
result, MATÁV provides service in 36 of the 54 areas. The other 18 areas, awarded to companies other than MATÁV, represent about 12 percent of the population.

These concessions award the provision of local telephone service for 25 years beginning in 1995. They also include an exclusivity provision through 2002. In addition to the award of the right to provide service, the concessions also give local providers the exclusive right to negotiate with MATÁV for the embedded equipment used to serve the local area. These negotiations with MATÁV took place subsequent to the award of the franchise.

In addition to local franchises, the government also awarded a nationwide concession for the provision of long distance and international voice telephony for 25 years with exclusive rights until the end of 2002. MATÁV holds these rights.

The government transformed MATÁV into a joint-stock company at the end of 1991. By the end of 1993, MagyarCom, owned by Deutsche Telekom and Ameritech, had acquired 30.2 percent ownership of MATÁV. In 1995, MagyarCom bought another 37 percent of the company. In November 1997, there was an initial public offering of shares of the company that reduced MagyarCom’s ownership to 59.6 percent and the Hungarian State’s ownership to 6.6 percent.

All of the other local telephone concession companies were privately owned from the beginning of their license. They are owned by a variety of foreign investors such as Citizens Utilities (listed as HTTC on the AMEX), United Telecom, Alcatel (UTI), GE Capital, and CG Sat. The local telephone operators (LTOs) themselves are relatively small in comparison to MATÁV and its owners, but in general, they and their parent companies do not appear to be small or unsophisticated.

**Regulatory Structure**

There are a variety of bodies with some degree of regulatory authority over telecommunications; some implement and others write the laws. The interaction and complementary initiatives from the different regulatory bodies play a large part in the governance of the telecommunications system.

**Ministry**

The Telecommunications Act passed in 1992 set forth responsibilities for the state to be carried out by the Ministry of Transport, Communications and Water (KHVM). The role of the KHVM is to develop a national telecommunications policy and the conditions necessary for its implementation. The KHVM also wields regulatory control over the market, including harmonization of the concession agreements, assurance of nondiscrimination for new entrants, and regulation of the incumbents. To do this, KHVM has oversight of the Communications Authority (HIF) and the authority to write laws.

By authority given in the 1992 Telecommunications Act, the Ministry defined the monopoly terms of the concessions for local, long distance and international telephone service.

**Communications Authority (HIF)**

The Communications Authority has the responsibility for licensing, supervising, regulation, and administration of telecommunications, frequency management, and postal services. While KHVM is responsible for policymaking, writing laws, and granting concessions, the HIF pro-
vides input for these decisions. HIF personnel described its role as implementing laws, not making them. In addition, HIF is responsible for oversight of concessionaires. It monitors their performance and assesses fines if HIF standards are not met.

**Competition Enforcement**

In addition to the KHVM, the Office of Economic Competition is charged with reviewing issues related to competition. However, the Office of Economic Competition feels that it does not have authority to challenge regulatory actions that may be anticompetitive. As a result, its scope of jurisdiction may be somewhat limited. It also appears that, in general, the Office of Economic Competition is more reactive to parties complaining than proactively seeking to enhance competition.

**Courts**

Parties that are dissatisfied with the decisions of the regulatory authorities have recourse to the court system. However, if the Ministry issues rules that are within its mandate, the court system may not overturn these decisions even if they are anticompetitive.

**Future of the Exclusivity Provisions**

Clearly, the exclusivity provisions of the concession agreements have impeded competition in various services. However, while there would be some benefits to the abolition of the exclusivity provisions, the deleterious effects discussed below might outweigh the benefits.

**Credibility**

Credibility is very important for the government. First, attracting foreign investment requires a reasonable expectation that the investors will have favorable return on their investment. Hungary has been extremely successful in attracting foreign investment, not only in telecommunications, but also in all sectors of the economy. The Ministry of Industry, Trade and Tourism reports that foreign direct investment totaled $18 billion at the end of 1997.

Investors have a worldwide market for their capital, and will put their money into other countries' infrastructure if they do not have confidence in a particular government. The risk that the government will change its policies also leads investors to demand a risk premium. That risk premium may be sufficient to discourage future growth. In addition, as discussed above, foreign investment has been very important in the increasing quality and ubiquity of the telecommunications network. Future advances and upgrades to the network will require additional capital, the injection of which might be jeopardized by adverse unilateral government action.

**Legal Issues**

If the government decided to terminate the exclusivity provisions, the licensees would likely make a strong case against such action in court. They would argue that they paid the government for the exclusivity provisions, invested significant amounts of money, and satisfied their obligations under the concession agreements. These arguments may be sufficient to convince the government that even if it felt that abrogating the exclusivity provisions were the best course of action, the probability of success in court might be low.
The Effects of Technology

If the government continues to uphold the exclusivity provisions, it is not clear what will and will not be acceptable for competitors. Technology is allowing competitors to make increasing inroads on the profitability of exclusive licensees. For example, Pannon, one of two GSM 900 providers, has apparently been offering wireless customers the ability to directly connect with the company's PBX, in a way that the wireless phone acts as another station on the PBX. MATÁV has challenged this arrangement, claiming that interconnection between a public network and a private network is only allowed if the interconnection is done through MATÁV. The government has yet to rule on this case.

Potential Competition

For certain nonconcession services, there is the beginning of competition. However, even for these services, competition is not robust. MATÁV reports that it has 95 percent of the market for private line services in its service areas.

New Entrants

Several companies have expressed an interest in providing telecommunications services. These companies understand well the prohibitions of the exclusivity provisions, and are pursuing two compensatory strategies. First, they are targeting large businesses for private line service to satisfy internal communications needs and data services. The second strategy is to influence the government to interpret narrowly the exclusivity provisions so that they can provide other services (such as IP voice service) to these same large business customers.

1. PanTel. PanTel is a company run by a former head of MATÁV. Dutch Telecom KPN (49 percent), MAV, the national railway (25.1 percent), MOL, the oil and gas company (20.9 percent) and KFKI Computer Systems RS (5 percent) own PanTel. These parties hope to use the railway right-of-way and additional capacity on the railway internal network to provide telecommunications services. PanTel has yet to receive a license to begin service.

Few of PanTel's customers will be adjacent to the railway network backbone. As a result, in order to reach many customers, PanTel will either have to connect through MATÁV or construct its own wired or wireless connections.

2. Electric Utilities. Budapest Power, the local electric utility owned by a German company, RWE, is also seeking to leverage its existing network to provide telecommunications services. RWE has developed technology similar to NorTel's that allows it to transmit voice and data through the electrical supply wires. The company has received a theoretical license, but it has not been permitted to begin service.

3. Cable Operators. In some areas, cable television providers have apparently begun to provide high speed internet access. The prospects for competition from cable companies is unclear, but they do have high capacity wire that accesses a large number of households. Apparently there is a licensing requirement for cable television opera-
tors, but there are no exclusive franchises. There are also very few, if any, directly competing cable television operations. As a result, in any given area, there may be only a single cable television provider that can provide other telecommunications services.

4. Wireless. The three wireless providers may have very different incentives for future competition. Two of the three, Westel 450 and Westel 900, are primarily owned by MATÁV, with a significant minority interest held by US West. MATÁV is less likely to benefit from wireless competition to the local and long distance network since it has the franchise for 80 percent of the local areas and 100 percent of the long distance voice traffic. However, both Westel and Pannon have begun to offer packages that compete with wireline services to some degree. These include increasingly attractive prices for service as the systems try to attract subscribers and to increase usage on their networks.

Rate Rebalancing

Both MATÁV and the government have expressed a desire to rebalance rates. Rebalancing serves two separate goals—efficiency in consumer choice and protection against possibly inefficient competition. If prices are not aligned with costs, then consumers will receive the wrong signals for their consumption of access and calling, causing inefficiency. Exacerbating this problem is that the elasticity of demand for connection is probably lower than the elasticity of demand for calling. It is therefore very inefficient to have installation fees and monthly service costs subsidized by high per call usage fees. If there are fixed joint and common costs, efficient Ramsey pricing would have common costs borne more by the relatively inelastic demand for connection.

In order to understand the shortfall in local rates, it is important to know the capital cost of installing a line, the maintenance cost of a line, the cost for monthly billing and the cost for local switching. If capital costs for consumers were equal to capital costs for the local operator and the loop were not able to be redeployed to serve any other customer, then the up-front connection charge should be equal to the cost of installing the loop. The monthly charge should be equal to the cost of maintaining the loop and sending a bill. The cost per call should cover the switching cost and transport costs. If, as is likely, the provider has a lower cost of capital, then it makes sense to reduce the up-front payment and to have the company finance the capital costs and charge a higher monthly price. If the loop can be redeployed to serve other customers if the subscriber drops service, then the company does not bear as much risk of losing its asset and can also better finance common assets.

It is important to understand the costs of the various components in order to measure the magnitude of rebalancing required. In the future, when competition arrives, it will be important to have prices more closely aligned with costs. If prices are not aligned with costs, entrants will target those customers where prices are above costs and avoid those where the reverse is true. They may be able to enter profitably even if they are less efficient than the incumbent solely because of the artificial split between costs and rates. Once in, new providers will become an additional party with an interest in maintaining these price distortions.
Universal Service

There are no explicit provisions for the funding of universal service. The government has simply mandated that concession firms meet the benchmarks for service provision and charge prices that are limited by price caps. In this way, a company may be forced to provide service to very high cost customers at low rates. With exclusive territories, if there are both high cost and low cost customers, it may be possible to sustain this system on average in each territory. However, when competition is allowed, entrants are likely to target the low-cost, high-volume customers. This will force the overall price down to the cost of serving these customers (if competition is viable). Because of price caps, and the lack of portable universal service support, high cost customers are less likely to receive the benefits of competition. Finally, the companies required by their concession agreements to serve these customers are likely to lose money if competition comes to the areas that had been the source of internal cross-subsidy.

Some argue that many of the LTO areas are not viable even without competition. They point to the financial statements of the LTOs who do not appear to be making money. This means that if the government is to maintain price caps and obligations to serve, then it is absolutely necessary to find a minimally distorting way to subsidize these unprofitable operators.

Interconnection Rules

Currently, there are interconnection arrangements between MATÁV and the LTOs, and MATÁV and the wireless operators. The LTOs are not allowed to connect directly with each other so that there is no need for them to negotiate. The same is true for the wireless carriers and for connections between the wireless carriers and the LTOs. As a result, if carriers who want their subscribers to be able to communicate with subscribers to other networks must negotiate an agreement with MATÁV. Given the bilateral monopolies and the unique position occupied by MATÁV, the government did not leave interconnection arrangements solely to the marketplace. Instead, the parties are allowed to negotiate with the government as a backstop to the negotiations with MATÁV. As a result, current interconnection pricing has been set by ministerial decree and amounts to a revenue sharing agreement.

For long distance calls, the KHVM calculates pricing as follows: the originating LTO (including MATÁV when it is the local operator), the terminating LTO, and MATÁV (the long distance carrier) each receive one-third of the revenue. However, it appears that interconnection fees are paid at a fixed rate of HUF 8.14/min regardless of the time of day. Since long distance rates are time dependent, this means that MATÁV’s residual compensation varies from HUF 16.72 per minute during the daytime to negative HUF 6.68 at night. This is a surprising result, and one that MATÁV should be eager to change.

It should be noted that both MATÁV and the LTOs are unhappy with the current compensation arrangements. MATÁV notes the problem with the negative revenue during certain periods of the day, as well as the increase in average interconnection prices scheduled to be implemented over the next four years. The LTOs argue that the interconnection payments should be based on revenue divisions similar to the splits in EU countries. They claim that in the EU, the inter-exchange carrier gets significantly less (10-20 percent) of the revenue than MATÁV’s 33 percent.
Competition Policy

The Competition Office’s mandate is to promote competition and to prevent the abuse of monopoly position. To do this, they review all mergers above certain thresholds and also have the ability to examine practices by firms to determine whether they are harming competition. The Competition Office also has the mandate to give suggestions to the regulatory authorities when the KHVM is making decisions. However, the Competition Office does not have the authority to challenge regulatory decisions, even if it finds that these decisions are anticompetitive. Also, the Competition Office does not have the authority to break up a firm if it finds that divestiture would promote competition.

Despite these constraints, there are a number of areas where the Competition Office has jurisdiction and can play a very important role in promoting competition in both the short and long run in telecommunications. To do so, they need to examine proactively mergers and practices to ensure that mergers are not creating excessive horizontal concentration or removing a potential competitor, and that practices are not impairing the ability of competitors to compete or to position themselves to compete.

Potential competition has not been viewed favorably in the U.S courts because most potential competition cases failed to adequately explain why a potential competitor was so important, but not in the market. With the exclusivity provisions, the presence of precluded competitors who are not in the market, but might have a significant impact on competition is easily and logically explained; they are barred by law from entering until 2002. As a result, some mergers that may be viewed as vertical mergers, or even mergers with companies in unrelated markets, might merit additional scrutiny. The Competition Office should examine all mergers with the understanding that firms may not be competitors today, but could be vigorous competitors when the exclusivity provisions change.

EU Accession and the New Telecommunications Act

One of the goals of the Hungarian telecommunications policy is to meet the standards for accession into the European Union. It appears that Hungary will meet most of the requirements for accession by the year 2002.

The exclusivity provisions are not consistent with the EU rules. However, since the expected expiration dates nearly coincide with the expected date of accession to the EU, the exclusivity provisions should not be a binding constraint. The major task facing the government is to pass as scheduled a new telecommunications act in 2000. This act must address interconnection rules and pricing. It will need to set up clear guidelines, promulgate efficient standards, and establish the dispute resolution process, so that new entrants have a framework under which they can undertake investments.
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