

**OECD REVIEWS OF REGULATORY REFORM**  
**REGULATORY REFORM IN POLAND**  
**FROM TRANSITION TO NEW REGULATORY CHALLENGES**

**REGULATORY REFORM IN THE  
TELECOMMUNICATIONS INDUSTRY**



**ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

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## FOREWORD

Regulatory reform has emerged as an important policy area in OECD and non-OECD countries. For regulatory reforms to be beneficial, the regulatory regimes need to be transparent, coherent, and comprehensive, spanning from establishing the appropriate institutional framework to liberalising network industries, advocating and enforcing competition policy and law and opening external and internal markets to trade and investment.

This report on *Regulatory Reform in the Telecommunications Industry* analyses the institutional set-up and use of policy instruments in Poland. It also includes the country-specific policy recommendations developed by the OECD during the review process.

The report was prepared for *The OECD Review of Regulatory Reform in Poland* published in July 2002. The Review is one of a series of country reports carried out under the OECD's Regulatory Reform Programme, in response to the 1997 mandate by OECD Ministers.

Since then, the OECD has assessed regulatory policies in 16 member countries as part of its Regulatory Reform programme. The Programme aims at assisting governments to improve regulatory quality — that is, to reform regulations to foster competition, innovation, economic growth and important social objectives. It assesses country's progresses relative to the principles endorsed by member countries in the 1997 *OECD Report on Regulatory Reform*.

The country reviews follow a multi-disciplinary approach and focus on the government's capacity to manage regulatory reform, on competition policy and enforcement, on market openness, specific sectors such as electricity and telecommunications, and on the domestic macroeconomic context.

This report was principally prepared by Sangjin Lee and Dimitri Ypsilanti of the Directorate on Science, Technology, and Industry in the OECD. It benefited from extensive comments provided by colleagues throughout the OECD Secretariat, as well as close consultations with a wide range of government officials, parliamentarians, business and trade union representatives, consumer groups, and academic experts in Poland. The report was peer-reviewed by the 30 member countries of the OECD. It is published under the authority of the OECD Secretary General.



## TABLE OF CONTENTS

1. THE TELECOMMUNICATIONS SECTOR IN POLAND .....	7
1.1. The national context for telecommunications policies.....	7
1.2. General features of regulatory regime.....	9
1.3. Telecommunications market and participants.....	10
1.3.1. Mobile .....	12
1.3.2. Privatisation of TPSA .....	13
2. REGULATORY STRUCTURES AND THEIR REFORM.....	14
2.1. Regulatory institutions and processes .....	14
2.1.1. The Office of Telecommunications Regulation .....	15
2.1.2. Restructuring of the URT .....	16
2.1.3. The new Telecommunications Law of 2000 .....	17
2.1.4. Clear mechanisms to ensure co-operation between the URT and the Ministry of Infrastructure .....	18
2.1.5. The role of other institutional players .....	19
2.2. Telecommunication regulation and related policy instruments.....	20
2.2.1. Regulation of entry and licensing.....	20
Ownership restrictions .....	20
Licensing.....	20
2.2.2. Interconnection and regulation of interconnection prices .....	22
2.2.3. Regulation of pricing.....	26
2.2.4. Price rebalancing .....	26
2.2.5. Accounting separation.....	28
2.2.6. Alternative infrastructure .....	28
2.2.7. Numbering.....	29
2.2.8. Carrier selection and pre-selection.....	30
2.2.9. Spectrum allocation and the licensing of mobile operators .....	31
2.2.10. UMTS.....	31
2.2.11. Rights of way .....	32
2.2.12. Unbundling.....	33
2.3. Quality of service .....	33
2.4. Universal service obligation.....	34
2.5. Application of competition principles and competition authority.....	35
2.6. Poland and the WTO agreement .....	37
2.7. The impact of convergence on regulation .....	37
3. PERFORMANCE OF THE TELECOMMUNICATIONS INDUSTRY .....	38
3.1. Introduction .....	38
3.2. Market development and fixed-line telecommunications indicators.....	38
3.3. Network development and modernisation.....	39
3.4. Digitalisation .....	41
3.5. Cellular mobile services .....	41
3.6. Development of competition.....	41
3.7. Price performance and rebalancing .....	42

3.8.	International telecommunication prices .....	44
3.8.1.	International prices.....	44
3.8.2.	Leased lines.....	45
3.9.	Quality of service .....	46
3.10.	Employment and productivity.....	46
3.11.	Internet developments and performance .....	47
4.	CONCLUSIONS AND RECOMMENDATIONS.....	48
4.1.	General assessment of current strengths and weaknesses .....	48
4.2.	Policy recommendations .....	51

## Executive Summary

### Background Report on Regulatory Reform in the Telecommunications Industry

The telecommunications sector in OECD countries has seen significant regulatory reform in recent years. The success of the liberalisation process depends on the presence of a transparent and effective regulatory regime that enables the development of full competition, while effectively protecting other public interests. With the explosive growth of Internet usage and intense interest in the development of the digital economy, the stakes concerning telecommunications infrastructure development are even higher. In the beginning of 2001, 27 OECD countries had unrestricted market access to all forms of telecommunications, including voice telephony, infrastructure investment and foreign investment in the telecommunications service industry.

In Poland recent regulatory reform has been driven by *acquis* requirements for EU membership, and thus principles prescribed by EU Directives on telecommunications, as well as the WTO agreement on basic telecommunication services. The Telecommunications Law of 2000 became effective from 2001, replacing the Communications Act of 1990 as regards telecommunications services. The relatively late start in regulatory reform gave Poland a window of opportunity to draw on the experience of other OECD countries to apply best practice regulation, but Poland has not been successful in fully seizing this opportunity.

The new legislative framework is to a large extent a transposition of EU Directives. It lays a legal foundation for fuller liberalisation, including the establishment of an independent regulatory body (the URT). Nevertheless, there are problems with the Telecommunications Law which act against fair competition, and aspects remain which are not in conformity with EU Directives and OECD best practice regulations. First, the State Treasury has tried to maximise the share value of the incumbent monopoly, Telekomunikacja Polska S.A. (TPSA), in the course of privatisation, by extending the firm's monopoly in the international telephone market and by awarding it some other privileges. Second, many drawbacks in the Law resulted from the insufficient understanding of competition principles in the telecommunications industry, from insufficient consultation in the legislative process, and from incomplete implementation, due to the adoption of the Law without its key ordinances. The reform process has lacked a coherent, consistent, and determined approach to regulatory frameworks and full competition.

This report examines Poland's regulatory reform effort to date and its impact on the performance of telecommunications markets. The Law suffers from ambiguities, omissions and exceptions that are harmful to the development of full-fledged competition. Fixed-line voice telephony remains dominated by TPSA, while the mobile cellular telecommunications market is competitive and characterised by explosive growth over the last 5 years. The incumbent fixed-line monopolist is wielding its market power against minor fixed-line operators as well as mobile operators. Telecommunications indicators for network modernisation and price level are not robust and healthy, except for the cellular mobile sector. Precise and quick remedies are needed to remove remaining problems and ambiguities that are preventing the development of full competition. The Polish government should manage the telecommunications industry in a manner to accelerate the advance of information society and full liberalisation.

## 1. THE TELECOMMUNICATIONS SECTOR IN POLAND

### 1.1. *The national context for telecommunications policies*

Currently (March-2002) the Polish local telecommunications market structure for fixed PSTN services is a duopoly, except in the Warsaw area. In the long distance market there had been a monopoly until recently, but from 1 July 2001 a first alternative operator (NOM) started providing services and another two operators (Netia 1 and Energis Polska) entered the market in December 2001. The international telephone service market will remain a monopoly until 2003 under current policy. In the mobile telecommunications sector, three companies have been competing since 1996, and the number of mobile subscribers has increased significantly. Like most of the neighbouring central and eastern European countries, such as the Czech Republic and Hungary, accession to EU membership is a driving force for the government to take a number of liberalising steps in telecommunications markets. Poland adopted the new Telecommunications Law of 2000, which provides the basis for market liberalisation. The

Telecommunication Law simplified somewhat market entry procedures and created a regulatory body independent of the line ministries.

Following the 1990 political changes in Poland, three stages can be identified in policy making for the Polish telecommunications sector. In the *first* phase (1990-1994), the adoption of the Communications Act of 1990 turned the state organisational unit Polish Post, Telegram and Telephone into two public service companies, Telekomunikacja Polska S.A. (hereinafter referred to as “TPSA”) and Poczta Polska. In 1992 the state monopoly in the local telecommunications market was abolished and private operators were allowed to provide local telecommunication. Initially the Ministry of Posts and Telecommunications (currently the Ministry of Infrastructure) granted only one local telecommunications license in each numbering zone, thereby creating a duopoly in the local telecommunications market. This changed when the Ministry awarded local voice telephone licenses for the lucrative Warsaw area to Netia and Telefonía Lokalna, besides El-Net, a subsidiary of Elektrim, which since 1999 had a local access license in the same area. The introduction of competition in the local wireline markets ahead of long-distance or international markets is in contrast to most other OECD countries’ market liberalisation strategies. Despite the fact that over fifty Polish operators are licensed to provide local telecommunications services to date, TPSA has maintained its dominant market share.

The *second* phase (1995-2000) can be characterised as taking a step forward for privatisation and liberalisation. The Communications Act of 1990 was amended significantly in 1995. Among the changes was the implementation of a dual regime of “concessions” and “permits.” Licenses include both permits and concessions. Concessions were required for the provision of telecommunications services, and permits were granted for the installation and operation of telecommunication facilities and systems including telecommunication cable conduits. Since 1995, a tender system has been used for granting licences for the provision of telecommunication services. The Act also provided regulations on interconnection agreements to facilitate both local and mobile telecommunications markets. The control of TPSA equity was handed over to the State Treasury from the Ministry of Posts and Telecommunications in March 1997, before the privatisation of the firm started. This led to attempts by the State Treasury to maximise the sales value of TPSA share capital through maintaining the firm’s existing monopoly intact. The State Treasury offered shares of TPSA to individual investors in 1998 and to a foreign strategic telecommunications partner in 2000 and 2001. As well, three long-distance fixed-line telephone service licences were granted through a tender in 1999.

In the mobile telephone service market, two entrants for GSM network services, Polkomtel S.A. and Polska Telefonía Cyfrowa Sp. z.o.o., launched their services in 1996, competing with PTK Centertel that, since 1992, had been operating an NMT-450 network. This began a process of competition which eventually resulted in a market of about ten million mobile subscribers by the end of 2001 (see Table 10). The tender process for UMTS licenses organised in 2000 by the Ministry of Posts and Telecommunications (currently the Ministry of Infrastructure) fell apart due to the lack of applicants for the tender, and the three incumbent mobile operators were awarded licenses.

The *third* phase in policy change began in 2001 and laid the legal and institutional foundation to complete liberalisation by attempting to comply with EU Directives on telecommunications, adapting the Polish law to European regulations. However, the Law has many incompatibilities with EU Directives. The Polish authorities have recognised this<sup>1</sup> and have indicated that this would be corrected through amendments to the Law. The Telecommunications Law of 2000, which replaced the Communications Act of 1990, introduced a number of changes including:

- Telecommunications licensing has changed so that now there is a system of granting authorisation and registration for telecommunication operators and granting permits for radio operations. A tender process will be employed if frequency or numbering resources are insufficient for telecommunications services.



- Restrictions on foreign ownership in telecommunications operators, except for the provision of international fixed-line telephony until January 2003, have been completely abolished.
- Unrestricted competition in the telecommunications market will begin from January 2003. However, the Council of Ministers can eliminate TPSA's international telecommunications service monopoly at an earlier date through an ordinance.
- An independent regulatory authority, the Office of Telecommunications Regulation (hereinafter referred to as "URT"), was established in January 2001.
- The law provides for the definition of universal service and for defining and designating firms with dominant and significant market power through Ordinances.

## **1.2. General features of regulatory regime**

Following the Communications Act of 1990, responsibility for policies and regulation for telecommunication has been separated from provision of telecommunications services. TPSA became the main entity providing telecommunications services. The Ministry of Posts and Telecommunications was in charge of policies with respect to licensing service providers and permits for the installation and operation of equipment. As well, the responsibilities of the Ministry included planning and monitoring of public telecommunication networks and numbering, defining the general terms and fees for the connection of telecommunication networks by ordinance, issuing specifications for radio equipment, frequency spectrum management policies, and introducing a price ceiling for public telecommunications services if necessary.

The National Radio-Communication Agency (PAR), part of the Ministry of Posts and Telecommunications, was responsible for frequency allocation and management and inspection of the use of frequencies. The National Telecommunications and Posts Inspection, which was also under the jurisdiction of the Minister, inspected telecommunication networks and facilities, determined whether operators met the conditions of their licenses or permits and supervised service quality. To supplement the Act, Government strategies and Ministerial Decrees (Ordinances) were issued as shown in Box 1.

### **Box 1. Developments in the telecommunications regulatory regime of Poland**

1. 1990: Law: Communications Act.

2. 2000: Law: Telecommunications Law.

Government Strategy

a) 1996: Telecommunications Development Strategy.

b) 1998: The Outline of the Strategy of Telecommunications Market Development in the Years 1998-2001.

Ministerial Ordinances

a) 1995: Ordinance OJ No. 127/608: Regulation on Interconnection Conditions.

b) 1995: Ordinance OJ No. 118/571: Exemptions from the Obligation to Obtain Telecommunication Licenses and Permits.

c) 1995: Ordinance OJ No. 118/572: The Level and Manner of Payment for Telecommunication and Postal Service License and for Access to Tender Document.

d) 1996: Ordinance OJ No. 20/93: General Conditions of the Provision of Public Network Service.

e) 1997: Ordinance OJ No. 39/238: Quality of Service.

f) 1999: Ordinance OJ No. 79/897: General Terms of Interconnection and Settlement.

g) 1999: Ordinance OJ No. 53/333: Procedure and Terms of Carrying Out Tender to Select Operators to Whom Licenses Will Be Granted.

h) 2001: Ordinance OJ No. 31/358: Detailed Criteria and Method for Establishing an Operator's Share in the Market for Given Telecommunications Services.

The primary base of the current telecommunication regulatory regime resides in the new Telecommunications Law of 2000, which came into effect in January 2001. Reform of Polish regulatory regimes has been accelerated recently in order to meet EU *acquis* requirements before a likely review of integration into the EU in early 2003. The opening of the telecommunications market is a key requirement for EU membership, entailing market liberalisation and privatisation of existing state-owned monopolies. The Telecommunications Law partly transposes EU Directives on telecommunications. The purpose of the Law is to facilitate market entry of new operators, put in place a policy framework for interconnection, assure universal access to telecommunications services throughout the country, and protect the interest of users. This law created an independent regulatory body separate from the ministry as well as operators. The Law also ends the system of providing tenders or licenses for local, long-distance, and mobile telecommunications services at the end of 2001.

The Law, however, aimed at a gradual transition to liberalisation of telecommunications markets and retained significant exemptions with regard to access to the telecommunications markets and prices for universal service. TPSA retained a monopoly for the international voice service market until January 2003. This gives an opportunity for the operator to raise revenues in an unregulated market with high margins and poses some danger of cross-subsidisation of local services, which in turn could squeeze local call rates by keeping them low enough to stifle cash-strapped fledgling competitors.<sup>2</sup> The other exemption is the deferment of application of cost-based prices for universal service to 1 January 2004 for companies with significant market power. This raises a significant concern with respect to the creation of competition in the market.

### **1.3. *Telecommunications market and participants***

Currently, there are 56 public telephone service providers in Poland and a number of CATV operators, some of which provide Internet access services. Many of the public telephone operators have wireless local loops. There are also independent wireless local loop carriers providing LMDS services, such as Formus, Profucture, Data Star (or Crowdy), and Tele2. Table 1 shows the changing structure of the Polish telecommunication market.

The dominant player in the Polish telecommunications market is Telekomunikacja Polska S.A. (TPSA), which was formed in 1992. It took over the telecommunications assets and services when the state Polish Post, Telegram, and Telephone was split into two public entities, providing postal and telecommunications services. TPSA retains the lion's share of the local telephony market. Its market share at the end of 2000 was above 93% (Table 2). Pursuant to the Telecommunications Law, TPSA's international wireline monopoly will remain until the end of 2002. Thus, the telecommunications market will not be fully liberalised until the start of 2003. However, under the Law, the Council of Ministers may, fully or in part, abolish the restrictions on international telephone services. TPSA underwent a second stage of privatisation that took place in the first half of 2000 and the share of the government was reduced to 35%. Other shareholders were France Telecom (25%), Kulczyk Holdings (10%), individual and international investors (15%) and TPSA and Poczta Polska employees (15%). After the third stage of privatisation in September 2001, the government currently has 22.61% of the share, France Telecom 33.93%, Kulczyk Holdings 13.57%, Bank of New York 9.99%, and others 19.89%.

Table 1. **Structure of the Polish telecommunication market (December 2001)**

	National Providers	Regional Providers	All Providers
Local telephone services	1	52	53
Long distance services	4		4
International services	1 (TPSA monopoly)		
Mobile	3		3
Wireless local loop			40
Paging			3
CATV			569
Data services			404
Internet access			693

Source: The Ministry of Infrastructure and the Office of Telecommunications Regulation (The URT).

Some small operators had been competing with TPSA in small cities since 1992. The Polish government started to award local access licenses for major cities from 1996.<sup>3</sup> This encouraged several large companies to move into the local access markets, and they began to consolidate telecommunications companies. Netia Holdings S.A. commenced its services in 1994 and provided local telecommunications services in 21 numbering zones. Another major local carrier is El-Net, owned by Elektrim. Elektrim Telekomunikacja, Elektrim's fixed and data transmission arm, won a local telecommunications license for the Warsaw region in 1999. Telecommunications and electricity conglomerate Elektrim and Vivendi Universal own 51% and 49% of Elektrim Telekomunikacja, respectively.<sup>4</sup> The total number of local operators was 53 as of December 2001. Yet competition in the domestic local telecommunication market is far from assured, because TPSA dominance is expected to persist for the time being. The URT assessed TPSA as having dominant market power in September 2001 based on the relevant Ordinance on operators' market share determination released in April 2001.

Table 2. **TPSA's local telephony market share**

(Number of subscribers)

1995	1996	1997	1998	1999	2000
100%	100%	97.97%	96.33%	94.72%	93.43%

Source: The Office of Telecommunications Regulation (The URT).

The fixed-line telephone penetration rate in Poland was only 29.5% in 2001 (see Table 6). This is much lower than in other central European countries. There has been a long unmet waiting list for fixed-line voice telephone services. This situation is not likely to improve significantly, because of TPSA's market dominance. The competing local telecommunication carriers, hampered by operating losses and negative cash flow, did not meet their build-out requirements in their licenses. Netia's licence called for it to construct 846 000 lines by the end of 1999, but it managed only half that number, 429 595.<sup>5</sup> Netia had an accumulated deficit of PLN 418 million and 362 million by the end of 1999 and 2000 respectively.

In October 1999 the Polish government had a tender for three long-distance voice service licenses. In May 2000, the communications minister granted fixed-line long-distance licenses to two consortia. The two consortia were Netial and Niezalezny Operator Miedzystrefowy. Netia Holdings SA holds 38% of Netial, and the rest of the shares are controlled by Swedish telecommunications firm Telia and Polish institutional investors. PSE, a Polish power grid company, PSE's telecommunication subsidiary Tel-Energo, and an oil company, PKN, formed Niezalezny Operator Miedzystrefowy. In January 2001 the Polish government gave the last license to NG Koleje Telekomunikacja (Energis), which is owned by the National Grid Group, a British power grid company, and the Polish national railways, PKP. Initially, the government expected the licensees to commence service from July 2000, but none of the operators had started operations by June 2001. All three alternative long-distance operators were providing services by December 2001. In March 2002, the URT awarded three authorisations to SM Media, Tele 2 Polska and Telefonía Dialog.

Without an adequate regulatory framework to allow for fair competition and cost-based interconnection as well as adequate price regulation, the new licence holders in the local and long distance markets will not be able to compete sufficiently with the incumbent to create an open competitive market. In addition, the monopoly for international services provides the incumbent with a lucrative revenue stream to support other activities. To enhance competition it is important for the Polish government to take a more proactive approach to end TPSA's monopoly in the international telecommunications market prior to the prescribed timetable.

### 1.3.1. Mobile

Mobile telephony is growing faster than any other telecommunications sector in Poland and is helping to rapidly bridge the gap between the demand and supply for fixed-line telecommunications, although at prices which are much higher than would be available if there was universal access for fixed telephony. The number of wireless mobile network subscribers in Poland reached 6.7 million in 2000, or a penetration rate of nearly 18%, compared to 1.93 million in 1998. According to the Ministry of Infrastructure, the number of mobile telephone subscribers was above 10 million in December 2001, with about 26% penetration rate (Table 10).

There are three operators in the mobile telephone markets: PTK Centertel (hereinafter referred to as "Centertel"), Polska Telefonii Cyfrowa Sp. z.o.o. (hereinafter referred to as "PTC") and Polkomtel S.A. (hereinafter referred to as "Polkomtel"). TPSA is the majority shareholder of Centertel. TPSA owns 66% of the company's shares and France Telecom holds the remainder. Since June 1992 Centertel has provided analogue NMT 450 services, which cover 90% of Poland territory and 97% of population. Centertel has also provided DCS 1800 digital mobile services since March 1998 after acquiring the concession in 1997. Centertel obtained a concession to provide 900 MHz band services in July 1999.

The cellular telephone market has gradually opened to competition. In 1996 GSM 900 licences were granted to Polkomtel and PTC. Subsequently, all three operators obtained GSM900 and DCS1800 licences. As of December 2000, PTC covered 93.6% of the country and 98.6% of the population. PTC is currently owned by Elektrim, Deutsche Telekom and others (Table 3).

The Polish government opened a tender for five UMTS licenses in 2000 but failed to draw more than five bidders, which resulted in cancelling the tender and awarding three UMTS licenses to the existing mobile operators. The fourth operator will be awarded a UMTS license in 2002.

**Table 3. Mobile operators and their current ownership status**

<b>Operator and market share</b>	<b>Ownership status (as in December 2001)</b>
PTK Centertel (27%)	Telekomunikacja Polska SA (66%), France Telecom (34%)
Polkomtel S.A. (34%)	Polski Koncern Naftowy ORLEN SA (19.61%), KGMH Polska Miedz SA (19.61%), Vodafone Americas Asia Inc. (19.61%), Tele Danmark A/S (19.61%), Polish state power grid PSE (16.05%), Weglokoks SA (4%), Tel-Energo SA (1.01%), TelBank SA (0.50%)
Polska Telefonii Cyfrowa (39%)	Elektrim Telekomunikacja sp. z.o.o. (47.9998%), Deutsche Telekom (22.5%), Media One International (22.5%), Polpager sp. z.o.o. (4%), Carcom sp. z.o.o. (1.9%), Elektrim Autoinvest SA (1.1%), Elektrim SA (0.0002%)

Source: The Ministry of Infrastructure (2002).

### 1.3.2. *Privatisation of TPSA*

The first phase in the privatisation of the state-owned monopolist TPSA occurred in November 1998 when 15% of the shares were floated on the Warsaw Stock Exchange and on the London Stock Exchange in the form of GDRs (Global Depository Receipts) for public trading. Initially in 1998, the government intended to sell as much as 25% of the company shares and the value of the shares were expected to be USD 2 billion. The proceeds were to be used for social welfare reform and restructuring of the mining industry. 140 million shares or 10% of the total 1 400 million shares were headed for the international public offering, and 70 million or 5% of the stakes were offered to the public in the Polish stock market in November 1998. The shares were sold at PLN 15.2 per share, about USD 4 at that time. The total realised, USD 840 million was the largest amount yielded from the sale of a state-owned enterprise at that time in Eastern Europe. In the same year, the Polish government gave another 15% of the firm to its employees, as stipulated in Article 82 of the Communications Act of 1990.

The second stage of privatisation of TPSA was the sale of share capital to a strategic partner to help cut costs and provide know-how in the area of services and marketing. In April 1999 the Polish Parliament amended the Communications Act of 1990 to remove the requirement that the government retain a majority (51%) ownership of TPSA and the government invited a bid for between 25 and 35 percent of TPSA equity. The State Treasury estimated the value of TPSA at USD 4-5 billion for a 25-35% of TPSA equity stake. In the course of bidding, SBC Communications pulled out of the bid and France Telecom remained the sole bidder. In December 1999 the State Treasury rejected the proposal submitted by France Telecom as unsatisfactory on the ground that the bid price was too low and the rigorous management condition attached to it was unacceptable.

The government reopened the tender for the sale of TPSA shares in January 2000 and gave approval to France Telecom to buy 35% of the company's total stocks. There were four bids in the second round. The government made an exception by removing the foreign ownership restriction of up to 49% of TPSA in the Communications Act and permitted a foreign firm to hold majority shares of TPSA. The government also made it clear that the winner of the tender could opt for buying a further 10% stake and that, in the case of a second floating of shares on the Polish bourse, the government would set aside a 6% stake for the bidder to buy. Moreover, the government promised to give to the winner one of the UMTS service licenses to Centertel, the TPSA's mobile subsidiary. France Telecom and Telecom Italia were shortlisted for the second tender and France Telecom, teamed up with Kulczyk Holdings, placed a better bid. France Telecom was believed to pay USD 4.3 billion for the stake in TPSA at a price of 38 zlotys per share.

The rejection of the first offer and subsequent changes in the terms for the second round indicated that revenue maximisation was the top priority, rather than development of infrastructure, the achievement of universal service, and the creation of a competitive market. This was reflected in maintaining TPSA's international telephone market monopoly intact until January 2003.

Privatising of a state-owned enterprise before creating the appropriate conditions for competition is not advised, unless conditions are imposed on the private monopoly and a regulatory framework is in place to enforce these conditions. State monopolies can usually be controlled by the shareholder but such control is inevitably more difficult when a state monopoly is exchanged for a private monopoly. Privatisation during a process of liberalisation may have the effect of reducing the sales value of the enterprise, but it will generate greater welfare for society by forcing tariffs to go down and enhancing the efficiency of the enterprise. In exchange for USD 4.3 billion, Poland has delayed full liberalisation and foregone gains in consumer welfare through improved price performance and in the positive welfare effects that lower prices would have on the business sector in terms of cost savings for Polish firms. Poland's large unmet demand provides room for the incumbent and new entrants to grow together. Thus,

opening the market earlier in the regulatory reform should pay off. And opening the market fully before or at the same time of privatisation can prevent the incumbent from strengthening its entrenched dominance in the marketplace.<sup>6</sup>

Discussions and amendments which took place during the process of adopting the new Telecommunications Law clearly showed the preference for short-run revenue maximisation from privatisation over long-run gains from competition. It delayed long-distance market competition from the date initially planned in 1999 to 2001, and international market competition from 2002 to 2003. The Polish government dragged its feet to sell off TPSA equity in the tender and missed its target date. The government's additional sweeteners, the pledge to allow a foreign firm to hold a majority and reserving an UMTS license to the winner, although less directly related to long-run competition, disclose the revenue-maximising goal. The substance of the TPSA privatisation contract between the State Treasury and France Telecom was not made public, and this secrecy posed a problem for further reform in regulatory regimes.<sup>7</sup> The fact that the government agreement with France Telecom was not made public also introduced much uncertainty in the market and prevented the regulator from carrying out its mandate in an open and effective way.

Further privatisation of TPSA should have proceeded with care. Instead of concentrating on the short-term budget gains pushed by the State Treasury, the Polish government could have struck a balance between the short-term revenues from selling off its stake and the economic gains to be expected from competition. The government needs to make a clear statement concerning its strategy to sell any outstanding shares in the incumbent. But this was not realised at the third stage of privatisation of TPSA.

A France Telecom-led consortium had an option to buy a further 10 percent stake in TPSA at around 40 zlotys per share by the end of July 2000. However, it negotiated with the State Treasury just before the Polish Parliamentary election on 23 September 2001. The value of a TPSA share in July 2001 had fallen to half of its December 2000 value and was priced at 14-16 zlotys per share. The Polish government at the time was eager to complete the sell-off of TPSA to secure a major part of the planned 18 billion zlotys (USD 4.23 billion) worth of privatisation revenues in 2001 to finance a growing fiscal deficit. In early September 2001, the France Telecom consortium agreed to pay 20 zlotys per share for an additional 12.5% stake of TPSA with an option to buy another 2.5% plus one share in 2002 that would give it an absolute majority shareholding in the firm. In October 2001, the new government increased the consortium's payment from 3.5 billion to 3.66 billion zlotys, in exchange for a reduction of a demand for a 450 million to a 160 million zloty dividend to all shareholders.

## **2. REGULATORY STRUCTURES AND THEIR REFORM**

### **2.1. *Regulatory institutions and processes***

The Ministry of Infrastructure, the Minister competent for posts and telecommunications as provided in the Telecommunications Law, will by ordinance determine the legislative policy of the State in the telecommunications sector. The Ministry of Infrastructure was established on 23 October 2001, replacing the former Ministry of Posts and Telecommunications (from 24 July to 23 October 2001, the Ministry of Economy was temporarily responsible for communication policies). The status of the Ministry of Posts and Telecommunications changed following the establishment of the URT. The Ministry had only 6 staff dealing with telecommunications policies. The staffing level was of crucial concern, considering that the Ministry of Posts and Telecommunications had been given the responsibility for drafting a large number of Ordinances. The transfer of staff to the URT before these Ordinances were complete was a mistake.

The government needs to ensure that all the relevant Ordinances specified in the Law are in place. Thus, it needs to provide the Ministry of Infrastructure with adequate skilled resources to undertake this task. The number of qualified personnel dealing with the telecommunications sector has been increased with the establishment of the Ministry of Infrastructure. Within the Ministry of Infrastructure, four departments are dedicated to communication policies presently with a total of 49 people: Department of Telecommunications Development (16 officials), Department of Telecommunication Technology (10 officials), Department of Information Society (9 officials) and Department of Post Market Regulation (14 officials).<sup>8</sup>

The minister competent for telecommunications is responsible for:

- Laying down the detailed principles and procedures for authorisation and permits and the principles for lifting certain restrictions contained in authorisation in line with the market liberalisation.
- Determining the amount and payment schedule for fees for permits, numbering resources, and frequencies under an authorisation.
- Specifying the detailed requirements applicable to service quality, availability and number of public payphones with respect to universal service provisions.
- Developing detailed criteria applicable in assessing operator's market share and minimum sets of leased lines offered to users by a company possessing significant market power.
- Designing standards for the fulfilment of interconnection obligations concerning universal services, interconnection charges in the case of dominant operators and compensation rules for deficits incurred from deployment of universal service networks for the purpose of interconnection.
- Deciding requirements for telecommunication networks and apparatus relating to telecommunications secrecy and prevention of an unauthorised access, and to conditions for the construction of infrastructure, co-location and rights of way.
- Elaborating requirements relative to the management and plan of numbering resources and conditions for delivery of certain radio-communication services within the frequency ranges allocated to such services.

#### *2.1.1. The Office of Telecommunications Regulation*

The Telecommunications Law of 2000 established an independent telecommunications regulatory organisation to harmonise with EU Directives. The president of the Office of Telecommunications Regulation (URT) takes over market regulatory functions and is in charge of telecommunications licensing, frequency spectrum management and the monitoring of compliance with the electromagnetic compatibility requirements. The President of the URT is responsible to the President of the Council of Ministers. The URT President is appointed for a five-year term and cannot be dismissed except under exceptional circumstances as described in Article 109 of the Law. The effectiveness of the URT in implementing the Law is supported by its ability to impose penal provisions and financial penalties. The URT can impose fines up to 3% of company revenues in the event of infringement of regulations stipulated in Article 124 of the Law. On 1 April 2002 the Office of Telecommunications and Posts Regulation (URTiP) took over all the duties of the URT in the field of telecommunications. The President of the URTiP is appointed by the President of the Council of Ministers following a recommendation by the minister competent for posts and telecommunications.

The URT (currently URTiP) is in charge of issuing and revoking authorisations and permits for telecommunication services and equipment and is notified of the registration of telecommunication activities that do not require authorisations. The URT is, *inter alia*, responsible for:

- Award of frequencies.
- Being notified of tariffs for telecommunications services and annual reports of certain operators.
- In co-operation with the Office for Competition and Consumer Protection, it designates operators as having a dominant position or significant market power.
- It issues criteria with regard to universal services, interconnection and leased-line services.
- Reviews the basis for universal service prices by a significant market power operator taking costs into account.
- Intervenes in disputes on prices for leased line services offered by operators with significant market power. These prices should take into account the costs of provision.
- Arbitrates in interconnection agreements at the request of one of the parties or *ex officio* if required; reviews the justifications of costs for interconnection charges by authorised operators and of costs incurred in the exchange of telecommunications services by dominant operators, except network access services, i.e. content providing services.
- Assignment and withdrawal of numbering for telecommunication services and drafting frequency management plans.
- Authority to check compliance with the regulations, decisions and provisions relating to telecommunications, frequency spectrum management or satisfaction of the electromagnetic compatibility requirements.

### 2.1.2. *Restructuring of the URT*

The URT needs to organise its work so as to meet the challenges of creating a competitive environment. This may not be an easy task for the agency. The former National Radio Communication Agency (PAR) and the National Posts and Telecommunications Inspection were consolidated into the URT. Approximately 750 staff work for the URT. This includes staff in the 16 regional branches of the URT. The former officials of the PAR are employed by the URT. Also, a number of the Ministry of Posts and Telecommunications (currently the Ministry of Infrastructure) staff moved to the URT. The employees transferred from the Ministry and PAR to the URT were previously dealing with permits and licences, numbering and frequency spectrum management. For a telecommunication regulatory body the URT is unwieldy in terms of size. Its large size could easily distract management from its key function, which is to create the conditions for a competitive telecommunications market in Poland. A solution would be to transfer staff dealing with spectrum planning, monitoring and compliance out of the URT, while maintaining spectrum licensing within the URT.



The URT needs to concentrate on building up staff expertise in the area of regulation. This requires a mixture of skills and training in best-practice regulation. Emphasis needs to be given to building up a staff profile which meets the immediate needs of regulating interconnection, prices and cost accounting, as well as economic analysis.

### 2.1.3. *The new Telecommunications Law of 2000*

The first law concerning telecommunication regulation in the context of Poland's restructuring toward a market economy was adopted on 23 November 1990. It ended the TPSA monopoly in the local access market. The Communications Act of 1990 was amended significantly in 1995 and introduced "concessions" for the provision of the telecommunication services and "permits" for the installation of telecommunications equipment and the operation of telecommunication networks. TPSA has maintained the status of the sole operator authorised to provide international telecommunications. Moreover, foreign capital shares in telecommunication companies were restricted under the Act. In companies providing long-distance services, the share of foreign ownership could not be greater than 49%, and in companies using radio-communications equipment for radio and TV broadcasting not greater than 33%. The members of the management and supervisory board should consist in majority of Poland citizens domiciled in Poland. Numerous companies were licensed for provision of local services, but they have failed to launch telecommunication operations by their promised dates because of the lack of an adequate supporting regulatory framework.

The Polish Parliament adopted the Telecommunications Law in July 2000, which took effect in January 2001. The need for adjustment of the Polish law to conform to EU Directives, along with the requirements arising out of Poland WTO commitments, have been the principal forces driving regulatory reform in the telecommunications markets. Poland applied for accession to EU membership in 1994, and negotiation on the admission to the EU has been under way since March 1998. The final review on the integration of Poland into the EU is likely to be at the earliest in 2003. EU Directives on telecommunications, including "Open Network Provision" requirements for the basis for the creation of competitive telecommunication markets, require access to basic telecommunications services at affordable rates and an independent regulatory body. ONP also requires that new entrants can gain access to dominant operators networks at every technically feasible point and at cost-based prices.

The Telecommunications Law removed many of the restrictions and regulations that obstructed fuller competition and laid a legal basis to create a competitive environment. However, because of some key exemptions the Law inhibits full liberalisation. While the Law eliminated TPSA's exemption from the need to obtain licenses and permits like other operators, TPSA retained its international voice telephony monopoly until January 2003. In order to strengthen the economic position of existing local operators, the regulations relating to authorisations in local markets did not come into force until 1 January 2002, which was bad for furthering competition in the markets.

A principal change is the abolition of telecommunications licensing and the introduction of telecommunication authorisation and radio-communication permits. No authorisation is required for the following: the operation of a public telephone network of which telecommunications infrastructure and all terminals are located within the area of one *gmina* (a local call zone); a fixed telephone network using the numbering resources made available by a public operator based on an agreement with the co-operating operator; and a public network limited to one residential building to provide voice communications or broadcasting of radio and TV programmes.

To support competition in the markets dominated by TPSA, the Law empowers the President of the URT, along with the President of the Office for Competition and Consumer Protection, to determine that an operator has a dominant or significant market position. Such operators then must satisfy certain

requirements, related to interconnection of networks, co-operation between operators, prices, terms and conditions as well as offers regarding universal services and leased lines, which serves to limit monopolistic practices and protect consumer interests.

The Telecommunications Law gives the Ministry of Infrastructure (formerly the Ministry of Posts and Telecommunications) the responsibility for putting in place through Ordinances (secondary legislation) the detailed provisions and processes concerning interconnection, licensing, numbering, universal service, etc., that are central to effective regulation. The URT only has the responsibility to apply these rules for specific cases. In other words, the independent regulator cannot formulate general regulatory provisions, that is, cannot develop and promulgate implementing regulations. The limited powers of the URT call into question its ability to become an effective regulator and create conditions of competition in the market. In most OECD countries the ministry sets out general principles and the regulator prepares the detailed regulations which spell out how the ministry's general policy principles will be implemented.

Although the Telecommunications Law was adopted in July 2000 and took effect in January 2001, necessary ordinances for regulation have been extremely slow in being put into place. This absence of appropriate ordinances has considerably slowed down the creation of effective competitive conditions in the telecommunications market and undermined the credibility of regulatory authorities. In particular, up to April 2001 no ordinance for the designation of organisations with significant market power (SMP) had been issued. On 4 April 2001, the Ministry of Posts and Telecommunications issued an Ordinance regarding detailed criteria and methods for determining an operator's share for given telecommunications service markets. A number of key regulations could not be implemented until there was a formal designation that TPSA has dominant market power in September 2001 by the URT, pursuant to the Ordinance. Operators with dominant market power are subject to special restrictions. They have to render universal service at cost-oriented prices and to notify the URT of universal service price lists and any planned price changes 30 days prior to the intended date of such changes. Lack of critical ordinances means that the incumbent monopoly remains substantially unregulated.

#### *2.1.4. Clear mechanisms to ensure co-operation between the URT and the Ministry of Infrastructure*

The URT is dependent on the Ministry of Infrastructure concerning the implementation of market entry and interconnection policies. If the URT is simply an administrative tool carrying out what is determined by the Ministry and has no proper discretion for making regulation, then it cannot be viewed as an independent regulator as the term is normally used among most OECD countries. The difficulty in providing the URT more power is a constitutional issue. The constitutional system in Poland requires that regulations be issued by the ministries, the Council of Ministers, or organs specified in the Constitution. Delegation of competency cannot be delegated to another organisation.<sup>9</sup> Vesting the President of the URT with power to issue ordinances would require an amendment to the Constitution currently in force, since only bodies strictly enumerated in the Constitution may use this power and the President of the URT is not among them.

According to the Telecommunications Law of 21 July 2000, the President of the URT is required to collaborate with the minister competent for telecommunications in drafting legal acts, to the extent of his/her competence. The URT also needs to submit an annual report on its operations to the Council of Ministers and provide information on its activities to the minister. The URT's discretionary power, and therefore its role and responsibility crucially depends on ministerial ordinances. A number of key critical judgements about telecommunication regulatory issues such as interconnection and universal services are left to the Ministry. Rules for regulating telecommunications sectors are set by ministerial decrees, and the URT lacks the authority to initiate regulatory action on a flexible basis in response to market requirements

and realities. Although the URT is structurally separated from and independent of the line ministries, it is critical for the URT to co-operate closely with the Ministry of Infrastructure in order to ensure that the Ordinances being drafted reflect best practice regulation and provide the URT with the competencies it needs to ensure that effective competition is created. Indeed, a means should be found to allow the URT to initiate general regulations and not only take action on specific disputes and complaints.

The appropriate balance in responsibility between the Ministry of Infrastructure and the URT should be reflected in the Law. If the independent regulator, the URT, is not equipped with appropriate authority in making regulation for creating conditions for competition as well as enforcement, monitoring and supervising the development of competition in the provision of telecommunications service provision will be hampered. It may be necessary to envisage setting up more formal mechanisms for close collaboration between the two organisations. (From April 2002, the President of the URTiP (formerly URT) can draft ordinances, which come within his area of competence, assigned by the minister competent for posts and telecommunications. This has been allowed because of the lack of staff at the Ministry preparing necessary ordinances. There is no clear guideline as to which ordinances are to be given to the URTiP in preparing drafts, and drafted ordinances are subject to change and approval by the minister).

#### *2.1.5. The role of other institutional players*

The Council of Ministers issues major legal acts on telecommunications and determines the policies in the telecommunications sector. In 1996 the Council of Ministers approved the Telecommunications Development Policies. Between 1997 and 2000 the Government took a crucial role in determining the pace of privatisation and the structure of TPSA. The President of the Council of Ministers determines by order the National Frequency Allocation Table and appoints or dismisses the President of the URT. The existing monopoly for international telecommunication services reserved until 2003 can be lifted at an earlier date by the Council.

A Telecommunications Council also exists and acts as a consultative and advisory body to the President of the URT on matters with respect to universal service, network interconnection, frequency management and compliance with electromagnetic compatibility requirements.

The National Council of Radio Broadcasting and Television, in consultation with the URT, reserves the frequencies necessary for broadcasting companies. The National Broadcasting Council, again in consultation with the URT, publishes the availability of licences for radio and TV broadcasting and sets the deadline for the submission of licence applications. The Council issues radio and TV broadcasting licences in consulting with the URT. The Ministry of Infrastructure supervises the subscription fees of registered receivers for radio and TV broadcasting.

The Competition Authority, the Office for Competition and Consumer Protection (hereinafter referred to as “UOKiK”; the English acronym is OCCP), takes an advocacy role in the promotion of competition and enforces the general law prohibiting the abuse of dominance or monopoly power and anti-competitive business activities. In the absence of a dedicated telecommunications regulatory body before 2001, the UOKiK played an important role in the telecommunication sector conducting many investigations on monopolistic practices. The telecommunication sector is not subject to any exemptions, although the Telecommunications Law grants a monopoly for international telecommunication services to TPSA until 2003.

## 2.2. *Telecommunication regulation and related policy instruments*

### 2.2.1. *Regulation of entry and licensing*

#### Ownership restrictions

The Communications Act of 1990 imposed restrictions on foreign ownership of telecommunications service providers. The limitations on foreign ownership ceased with the new Telecommunications Law. These provisions under the Communications Act of 1990 did not apply for telecommunications services provided within one numbering zone. The restrictions were:

- Foreign entities could not own more than 49% of a long-distance, international, or cellular mobile telephone company. The voting power of the foreign entity or foreign controlled company could not exceed 49% of total votes in the ordinary shareholders meeting. The majority of the board or management members should consist of Polish citizens domiciled in Poland.
- The foreign entities' participation in the share capital must not exceed 33% of radio or TV broadcasting companies. The restrictions on voting power and the board in the telecommunication sector also applied to broadcasting services.

Individual ownership was limited under the Communications Act of 1990. The acquisition of shares was subject to approval by the Minister of Posts and Telecommunications if those shares together with shares already possessed passed thresholds of 10%, 25%, 33%, and 50% of votes during a general shareholder's meeting. The Minister had to be informed if any shareholder could exercise more than 10% of the votes during a general shareholder's meeting. This power of approval enabled the Ministry to effectively curb cross-ownership between competing telecommunication companies.

The Telecommunications Law of 2000 lifted the restrictions and the approval requirement about individual ownership and thus could lead to cross-ownership between competing telecommunication companies. Under Article 13 of the Law, the URT may demand an authorised entity to report a single shareholder's acquisition of 10%, 30% and 50% of the votes at a general shareholder's meeting to the agency. At the same time, according to the Act on Competition and Consumer Protection, in case of an intention to concentrate enterprises, after exceeding 25% of votes at a general shareholder's meeting, and if the joint turnover of entities taking part in the concentration exceeds 50 million Euro, an approval of the President of the UOKiK is required. Approval is not needed if the turnover of the enterprise being taken over does not exceed EUR 10 million in neither of the two turnover years preceding notification or if the joint market share of enterprises intending to concentrate does not exceed 20%.

#### Licensing

When the Communications Act came into force in early nineties, TPSA was established as a separate entity from the Ministry of Posts and Telecommunications (currently the Ministry of Infrastructure) in 1992 for the provision of wireline and wireless telecommunication services. During the period between 1992 and 1995, a duopoly market structure was developed for local telephony, but its application was limited to rural areas and small cities. The amendments to the Communications Act overhauled the licensing and market entry system. The Polish government instituted a dual regime of "concessions" and "permits." The license covered both concessions and related permits. Concessions were available through tenders. Each concession and permit contained a set of specific conditions and

obligations such as a network coverage obligation. A set of restrictions was determined on a case-by-case basis. TPSA was exempted from the requirement to obtain a license and authorised to offer telecommunication services on the basis of confidential management contracts with the Ministry.

The Polish government did not give local telephone licenses for major cities until 1996. Although duopolies in all regions for local call markets have been established since 1996, the dominant presence of TPSA in the market persists. The Ministry of Posts and Telecommunications changed its position on maintaining a duopoly in the local call markets in 1998, and opened the Warsaw market for more than one alternative local telephone operator. In December 1998, EL-Net S.A. won a tender to provide local telephone services for the lucrative Warsaw region paying a EUR 245 million licensing fee. The Warsaw region has traditionally generated about 40% of TPSA's local telephone revenues. Subsequently, however, the Ministry awarded a further local telephone license for Warsaw region to Netia S.A., the largest private operator in Poland at that time, and one for the Warsaw suburbs to Telefonía Lokalna. This decision was challenged by El-Net and the company filed a suit to the Supreme Administrative Court on the ground that it was assured a duopoly market in Warsaw. The Ministry settled the dispute over the additional licenses for local telephony by reducing El-Net's license fee to 140 million Euro, instead of the original 245 million Euro. Each local operator was required to offer public payphone services under the licensing regime and had network build-out requirements.<sup>10</sup>

Bidding for three long-distance telephone licenses was opened in 1999. In January 2000, all three applicants for the long-distance tender were accepted and supposed to provide wireline long-distance services from July 2000. Lengthy negotiations with TPSA on several issues including interconnection charges delayed the launch of the three alternative operators' long-distance services. On 1 July 2001 NOM started to operate, and by December 2001 Netia 1 and Energis followed it.

The Telecommunications Law of 2000 replaced the licensing system with authorisation and registration procedures. Public telephone services requiring the use of numbering resources spanning an area greater than one *gmina* require an authorisation (essentially a licence). Other telecommunication activities require registration. A tender is used by the URT to licence activities using frequency resources. Entities which have individual licences may also be subject to obligations, including the provision of universal service, terms and conditions for the use of numbering resources, use of frequency spectrum or stationary orbit positions, ensuring network security, integration and interoperability, maintenance of telecommunications secrecy and responsibilities relating to national defence, state security and public safety, etc.

The Telecommunications Law also simplified the licensing regime for entities using spectrum into a system of authorisation and permits for the use of radiocommunication equipment. Authorisation does not require prior approval for entry as long as the application for an authorisation meets the requirements in Article 8 of the Law. The Article authorises the URT to issue authorisation if their application will not cause problems concerning frequency interference, national defence, international agreements and the operation of other telecommunications equipment or telecommunications networks.

The current authorisation fee schedule eliminates high tender and licensing fees for telecommunication services, except for activities requiring frequency resources. The one-off authorisation fees are intended to pay the cost of market regulation and cannot be greater than the costs involved in the issuance of authorisation. Limiting these fees will support the financial health of new entrants to the telecommunications markets, in particular those in fixed-line telephone markets, which in the past had to bear high licensing fees and the required roll-out investment in networks (e.g. for Elektrim and Netia). The authorisation includes the relevant frequencies, numbering and other subscriber identification signs or signals that were formerly subject to separate decisions. This is a major simplification of the previous complex licensing procedure. Permits are required only for the installation and the use of radiocommunications equipment.

But problems remain with respect to licensing (authorisation) under the Telecommunications Law. The Law changed terminology from “license” to “authorisation” (and exempted data service provision from authorisation), but the authorisation system is tantamount to an individual licensing system. The President of the URT can attach conditions to an “authorisation” for the conduct of telecommunications activities. It is unclear whether the conditions will be minimal, transparent, and non-discriminatory. If these conditions are vague or non-existent, the URT will have much discretion concerning the award of authorisation. The authorisation scheme should be streamlined in line with OECD best practice regulation. Criteria for “authorisation” should be explicitly put forward in the Telecommunications Law and authorisation should not require an approval by the regulator as long as the criteria are met. Such a class licensing system or general authorisation would facilitate market entry.

Under Article 11 of the Law, the minister competent for telecommunications may be able to determine detailed principles for adjusting the rights and conditions contained in authorisations. This provision could hamper URT’s ability to change conditions for authorisations of telecommunications services which may be required as competitive conditions change in the market. Moreover, it could undermine URT’s independence of action, injecting the ministry into determining conditions in particular situations. The agency responsible for the award of authorisation should have the power to determine whether any change in conditions is necessary, and to do so independently of political influence.

#### 2.2.2. *Interconnection and regulation of interconnection prices*

Successful competition in a telecommunications market hinges on efficient interconnection arrangements. TPSA had been until July 2001 the only operator providing domestic long-distance services and is the only operator providing international telephone services. This market power means that, without adequate regulation, TPSA could charge competitors excessive interconnection charges as well as provide unfavourable interconnection agreements. Since 1992 there have been gradual developments in the interconnection framework to align TPSA’s interconnection charges with the cost-based principle.

All operators of public telephone networks were obligated by the Communications Act of 1990 to provide interconnection to competing carriers. Firms running public telecommunication networks entered into interconnection agreements with TPSA. In the early nineties, development of local network competition was slowed by the absence of specific interconnection regulations. Local interconnection agreements were subject to a bill-and-keep principle in terms of interconnection charges, where each operator billed calls. Other interconnection agreements were subject to a principle of revenue sharing, whereby operators kept 60-80% of revenues from outgoing long-distance calls and 30% from international calls. This revenue sharing system was definitely unprofitable for new local operators and mobile operators since they did not receive charges for incoming calls and moreover account settlements were based on TPSA tariffs, not on actual costs related to interconnection. The revenue sharing system that assumed a balance between incoming and outgoing traffic remained in place until the new Ordinance of 9 September 1999 on general conditions for interconnection of networks and principles of settlement.

In the mean time, the Minister of Posts and Telecommunications issued two decisions concerning the procedure for handling requests for determining terms of interconnection and account settlements by way of administrative authority and principles of account settlements (April 1996) in which he recommended application of cost orientation principles in account settlements. The principles of account settlements with mobile network operators were laid down in individual administrative decisions by the Minister of Posts and Telecommunications issued in May 1997.

The GSM operators, PTC and Polkomtel, were required to use TPSA’s transmission lines and trunks when they first began operations. The mobile operators challenged this at the Administrative Court. The Polish Supreme Administrative Court repealed the prohibition imposed on the new entrant GSM

operators. However, the mobile operators were not allowed to interconnect with other mobile companies. Interconnection was allowed only using TPSA's network. PTC subsequently obtained from the Ministry of Posts and Telecommunications permission to interconnect with other mobile carriers in May 2000.

Initially, the bill-and-keep principle remained also in use with regard to TPSA's interconnection settlements with the mobile operators, as the parties were unable to agree with interconnection rates. This was changed in May 1997, when the Ministry of Posts and Telecommunications issued an order for interconnection payments whereby the mobile operators pay for calls terminating in TPSA's network and TPSA pays the mobile operators for calls terminating in mobile networks. In April 2001, the mobile service providers paid for mobile-to-fixed interconnection charges of 0.20 – 0.15 – 0.10 zloty per minute depending on the time. TPSA had to pay 0.80 – 0.60 – 0.40 zloty per minute for fixed-to-mobile calls. TPSA charged customers 1.4 zloty per minute and earns 0.60 zloty per regular fixed-to-mobile call. This rate was fairly high given that the 0.44 zloty long-distance rates were thought to be subsidising local telephone rates.

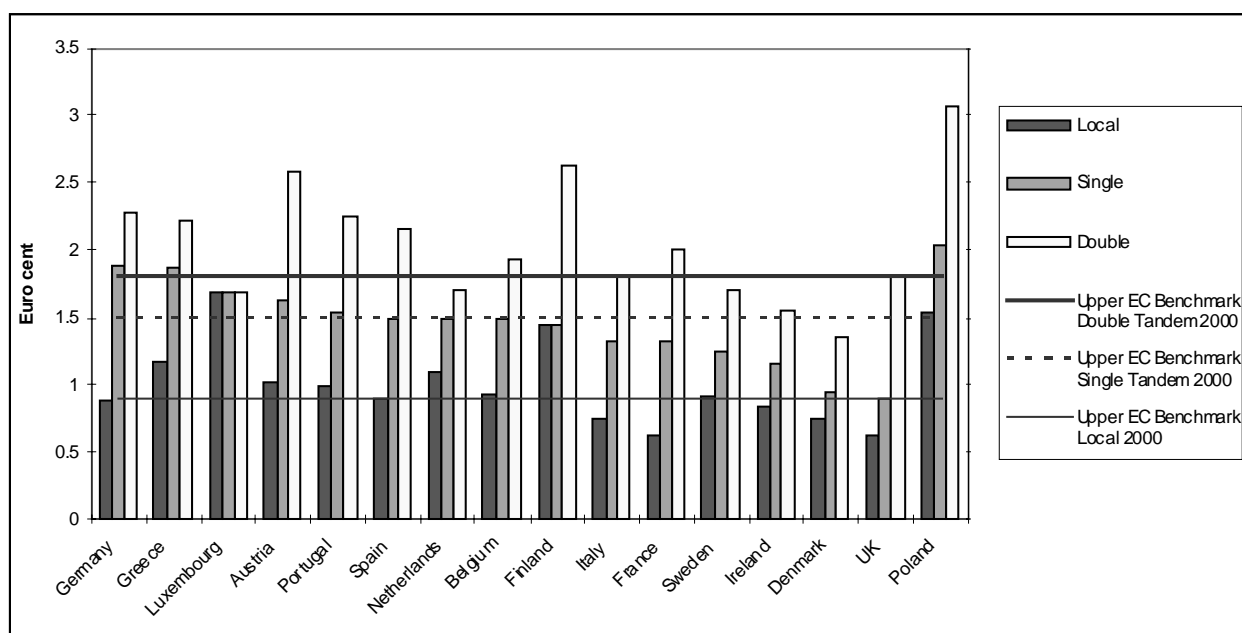
Mobile operators were also at a significant disadvantage because they did not receive an interconnection charge for terminating international calls on mobile networks until June 2001. Not paying the mobile operators for terminating international calls was a clear abuse of market power by TPSA with respect to interconnection. In May and June 2001, the URT issued decisions that interconnection charges for terminating international calls to mobile networks should be the same as those for terminating national calls to the networks. In the case of originating international calls from mobile networks, mobile operators receive 33% of TPSA's international service rates.

The Interconnection Ordinance on the General Interconnection Terms and Conditions for Telecommunication Networks and Settlement Principles issued in 1999 would have provided for equal treatment of operators and cost based prices if it had been implemented. Under the Ordinance, the dominant operator is obliged to set cost-based interconnection rates and is not allowed to apply subscriber tariffs to settlements between operators. The principles adopted in the Ordinance included equal treatment of operators, settlement calculated on the basis of traffic, and the principle that the operator of a destination network could recoup actual costs for interconnection. TPSA also had to consult with the Ministry of Posts and Telecommunications in respect of the amount of surcharge for the local access deficit. The Interconnection Ordinance of 1999 also provided for an arbitration mechanism, applicable to disputes between operators. Specific rates and terms of network interconnection were subject to bilateral negotiations and were not publicly available. Moreover, the Ordinance regulated network interconnection points.

In June 2000, the Minister of Posts and Telecommunications recommended interconnection rates for the first time. The Ministry must determine the new interconnection settlement rates by June 2002. These recommended rates, which were not binding, exceeded EU benchmarks for local, single transit and double transit interconnection (Figure 1). The rates are as follows:

- Local call: PLN 0.06 per minute.
- Call termination, single transit: PLN 0.08 per minute.
- Call termination, double transit: PLN 0.12 per minute.
- Local deficit surcharge: PLN 0.05 per minute.

Figure 1. Comparison of EU peak interconnection rates with Poland's



Note: The figures are compiled from the EC's "Sixth Report on the Implementation of the Telecommunications Regulatory Packages," December 2000 and the data on interconnection charges by the Ministry of Posts and Telecommunications (currently the Ministry of Infrastructure) of Poland (2001).

Historically the local competitors experienced delays and difficulties in reaching terms and settlements for interconnection with TPSA, and often ended by filing complaints with the competition authority, the UOKiK. The main problem was not so much a refusal to connect as the determination of the rules on the mutual settlement of accounts between operators. TPSA resorted to a variety of means to delay the conclusion of agreements or offers for the settlement of accounts. For example, in 1999 Netia filed a complaint against TPSA to the UOKiK alleging that TPSA's interconnection charges were excessive and that it did not undertake appropriate measures to alleviate cross-subsidisation. In addition to these charges, Netia complained that TPSA did not negotiate interconnection in good faith and abused its market power.

The Telecommunications Law of 2000 provides for a level playing field for both the independent fixed-line operators and cellular mobile operators. The law requires interconnection of telecommunications networks of authorised operators at any technically suitable point, located in the service area. The Law stipulates that interconnection charges should be fixed in a transparent and objective manner and should be cost-oriented in the case of operators with dominant market power (Article 80 Paragraph 1 of the Law). In the case of dominant operators, the URT may request a justification of costs incurred for the interconnection. Operators with significant market power require approval by the URT of their interconnection offers with respect to universal service and leased-line services (Article 79 Paragraph 1 and 2 of the Law).

If an interconnection agreement between authorised operators cannot be reached, the Law provides for arbitration by the URT acting on its own authority or at the request of one of the parties. The basic rules of arbitration proceedings before the President of the URT are that:

- Operators have 90 days to set forth terms and conditions for the interconnection of telecommunications networks.



- If operators fail to agree or reasonably expect not to reach agreement, the URT can intervene with respect to the terms and conditions of interconnection either upon the request of one operator or *ex officio* if one of the operators is an entity having significant market power. The URT must complete arbitration proceedings within 60 days. A decision of the URT President may require an immediate execution clause.
- The operators may appeal against the decision of the URT President.

The Ministry of Infrastructure is required to set out requirements for interconnection and co-operation between operators. The requirements include:

- Fulfilment of interconnection obligations, in particular related to the satisfaction of the universal service requirements.
- Interconnection charges, including the calculation of interconnection costs for dominant operators.
- Extent and principles for compensating for the deficits of fixed-line operators incurred as result of the build-up and operation of interconnection networks.
- Scope of the draft offers for general interconnection terms and conditions by dominant firms in offering universal services or leased line services.

Giving this role to the Ministry of Infrastructure may significantly reduce the effective enforcement of the regulatory power given to the URT. The Ministry of Infrastructure should establish principles for interconnection charges and compensation schemes, and other detailed requirements for interconnection should be determined by the URT.

The other major concern with the current interconnection framework has to do with the calculation methodology used to determine cost-based interconnection rates. A methodology based on long run average incremental cost (LRAIC) should be put in place to determine interconnection fees to help ensure effective competition and to be in line with EU Directives. Though the Telecommunications Law explicitly mandates the use of the cost-based interconnection charges, it is questionable whether operators are ready to set their interconnection prices reflecting actual costs incurred and whether the URT has the expertise to verify the interconnection costs presented to it by carriers. The most rapid way to move interconnection charges toward cost is to use best practice EU benchmarks, as an interim measure until an adequate cost methodology is in place.

According to the Polish government, where it is not possible to assure cost-oriented interconnection rates, the President of the URT is authorised to publish and enforce benchmarks relating to such rates. The President of the URT regulates interconnection markets through its decisions and statements/recommendations. In September 2001, the President issued its position paper on Interconnection Model and Interconnection Rates that recommended interconnection rules. Since TPSA was designated as having dominant market power in the universal service market in September by the URT, new interconnection obligations have been imposed on TPSA. The recommended interconnection rates are much lower than those recommended by the Ministry of Posts and Telecommunications in 2000 but include call origination charges. The rates are as follows:

- Local call (termination/origination): PLN 0.032 (8:00-18:00 working days), PLN 0.024 (8:00-18:00 weekends and holidays), PLN 0.016 (18:00-08:00 everyday) per minute.

- Single transit (termination/origination): PLN 0.050 (8:00-18:00 working days), PLN 0.038 (8:00-18:00 weekends and holidays), PLN 0.025 (18:00-08:00 everyday) per minute.
- Double transit (termination/origination): PLN 0.068 (8:00-18:00 working days), PLN 0.051 (8:00-18:00 weekends and holidays), PLN 0.034 (18:00-08:00 everyday) per minute.

The ministry competent for public finance is required by the Law to specify the methodology of accounting separation to be used for dominant carriers. It would facilitate the setting of interconnection rates and the development of a cost allocation model if this were done rapidly. In the longer term this responsibility should be given to the URT, which will have more detailed knowledge of the telecommunication sector.

### 2.2.3. Regulation of pricing

Under the Communications Act of 1990, the Ministry of Posts and Telecommunications was able to set maximum service rates for basic telephone network services; however, the Ministry of Posts and Telecommunications never imposed pricing ceilings on any operator over the 1990-2000 period. TPSA's international telephone service rates were determined in consultation with the Ministry, and they have not been reduced for several years despite the significant changes which have taken place internationally due to competition and changing cost structures.<sup>11</sup> Table 4 shows the current international telephone service rates for TPSA.

Table 4. **International telephone service rates of TPSA as of April 2001**

Zone	I	II	III	IV	V	VI	VII
Price (PLN/min)	1.39	1.55	1.69	1.87	2.1	3.46	6.25

Source: The Ministry of Infrastructure.

Under the Telecommunications Law of 2000, the URT is not involved in pricing regulation. The only instrument available to the regulator in this respect is the right to object against universal service and leased line service prices of operators with significant market power and against interconnection charges of dominant carriers if it is believed that they are not cost based. The Ministry of Infrastructure will provide detailed regulations on price level of universal services in the executive ordinances. With regard to price regulation, Article 35 of the Telecommunications Law states that prices for telecommunication services shall be set based on transparent and objective criteria, ensuring an equal treatment of the users. If an operator wishes to change prices of telecommunication services, it should notify in writing the subscriber at least one billing period in advance, and furnish up-to-date tariff pages to the URT upon request.

### 2.2.4. Price rebalancing

The aim of tariff rebalancing is to bring retail prices closer to the service provision costs. Tariff rebalancing has usually required the elimination of subsidies of local calls and monthly subscriber charges from long-distance and international call revenues. TPSA began to balance its tariffs, mainly for basic voice telephone services, from 1998. The primary obstacle to rebalancing was a lack of understanding of the costs for individual service provision. In 1999, TPSA started working on a cost allocation system. In 2000 TPSA submitted a cost-based model for interconnection charges to the Ministry of Posts and Telecommunications at the time. The Ministry's auditing of the TPSA model proved it was based on historical cost allocation methods and failed to accommodate incremental cost approaches. The Ministry of

Posts and Telecommunications also decided that the TPSA model resulted in other operators paying high interconnection charges and created distortions in the interconnection regime. The Ministry rejected the TPSA model. But TPSA evidently disregarded the Ministry's opinion, because under the Communications Act of 1990, still in effect at the time, the Ministry could not impose any sanction on TPSA.

Over the last 10 years telephone tariffs have changed substantially. While in 1998 the ratio of prices for a 3-minute local to 3-minute long-distance call was 1:12, the same ratio in 2000 was 1:4.6. Table 5 provides information on domestic local and long-distance call rates. TPSA reduced its long-distance service rates from PLN 0.64 to PLN 0.56 in July 2000, from PLN 0.56 to PLN 0.48 in January 2001 and from PLN 0.48 to PLN 0.44 in May 2001. In January 2001 Tariff Zone II (up to 100 km) and III (over 100 km) was unified. In the meantime, TPSA raised its local call rates by 10.5% in January 1999, 14.0% in July 1999, 12.5% (from PLN 0.24 to PLN 0.27) in February 2000 and 7.4% in July 2000 (from PLN 0.27 to PLN 0.29). Monthly subscription fees increased significantly by 25% (PLN 20 to PLN 25) in July 2000 and 40% (PLN 25 to PLN 35) in May 2001. Netia and other local telephone competitors pegged their prices to those of TPSA and increased their local telephone service tariffs in response to corresponding increases by TPSA.

**Table 5. Domestic local and long-distance rates of TPSA until September 2001**

Service type	Price	1993	1994	1995	1996	1997	1998	1999	2000	May 2001
Monthly subscription fee	PLN	9	10	10	10	10	11	15	25	35
Local calls and the calls within one numbering zone	PLN / 3 minutes	0.08	0.12	0.14	0.16	0.18	0.19	0.24	0.29	0.29
Long-distance calls	PLN / minute	0.96	0.72	0.84	0.80	0.90	0.76	0.64	0.56	0.44

Note: VAT is excluded from the tariffs. Long-distance call rates for over-100Km are provided here.

Source: The Ministry of Infrastructure and TPSA.

Responding to growing competitive pressure in the long-distance market, in September 2001, TPSA changed its tariffs substantially by introducing new service packages which are shown in Table 5-1. The long-distance service rates were further reduced from PLN 0.44 to 0.37-0.40 per minute.

**Table 6. Domestic local and long-distance rates of TPSA as of December 2001**

Service type	Price	Standard	Economy	Inexpensive	Active
Monthly subscription fee	PLN	35	23	30	55
Local calls & calls within one numbering zone	PLN / 3 minutes	0.29	0.58	0.34	0.27
Long-distance calls	PLN / minute	0.40	0.40	0.40	0.37
Inclusive minutes		0	15	10	35

In 1998, the UOKiK requested TPSA to balance its telecommunication tariffs by 1 January 2003 on its own initiative. In January 2001 the UOKiK fined TPSA PLN 54 million because the firm had charged excessively high prices for long-distance services (over 100km) and thereby failing to abandon monopolistic practices. Under the Telecommunications Law, a dominant operator must structure service prices on the basis of cost-of-service, and any hidden subsidies to telecommunication services which are priced below cost are not allowed. However, the competition authority did not indicate the process for price rebalancing or set annual targets or limits.<sup>12</sup> TPSA might therefore choose to raise local prices without a compensating decrease in other prices (domestic and international long-distance). This gave TPSA a lot of leeway in rebalancing and allowed it to benefit from monopoly rents.

The current tariff structure is one of the factors impeding competition. The majority of competing local operators complain of the low local rates.<sup>13</sup> With a monopoly in the international service market and long-distance since 1992, until recently, TPSA has not had much of an incentive to rebalance tariffs. In addition, because of the duopoly in local markets there was an incentive to keep local tariffs as low as possible in order to squeeze the profits of new entrants. Although local tariffs have increased they would have done so at a much higher rate if there had been more competition in the other market segments. In this respect, one important element was taken out of the Draft of the 2000 Telecommunications Law. This was the authority given to the Ministry of Infrastructure to set maximum prices to universal services.<sup>14</sup>

#### 2.2.5. *Accounting separation*

The Minister competent for public finance is obliged to set up a cost accounting system to allocate costs in connection with the provision of each service by an operator in a dominant position. The dominant operator in the provision of universal services or leased line services is required to keep separate accounts for each dominant service and its interconnection rates, pursuant to Article 59 of the Law. This mandate calls for a specific framework for accounting separation. Because accounting separation is one way to prevent TPSA from subsidising local call services with revenues from long-distance and international telephone services, the framework for separation of accounts needs to be established as soon as possible. Accounting separation has some pitfalls, such as information asymmetry as well as ingenuity and creative accounting.<sup>15</sup> But data provided for the separation of accounts is a useful source of information in restraining an incumbent's incentives to cross-subsidise.

In particular, the imposition of accounting separation on TPSA is crucial to check whether local service rates are aligned with costs incurred and to what extent price rebalancing is allowed. The Polish government must ensure that these separated accounts come under close scrutiny by an independent accounting firm. If this accounting separation is not readily attainable, the government can take advantage of already developed best practice methodologies for EU countries in conjunction with the provision of costs-based telecommunication services.

#### 2.2.6. *Alternative infrastructure*

In principle, entry into the CATV market is subject to authorisation and permits. A telecommunication operator building a CATV network must obtain a permit from the local government. The URT is responsible for regulatory decisions on telecommunications issues involved with CATV operators. Though the Polish government took no specific measures for the development of the cable television market, there are a number of CATV companies. In 1999 the Netherlands-based United Pan-Europe Communications acquired the largest CATV operator, @Entertainment, inc., and established UPC Polska to provide telecommunications services in conjunction with Internet and CATV services. Currently UPC Polska is delivering CATV programmes to eight of the ten largest cities in Poland and launched CHELLO broadband Internet service in 2000.<sup>16</sup> Elektrim owns the second largest CATV operator Bresnan Poland and offers integrated services in Warsaw using the Aster City Cable Network.

Existing CATV networks can further the development of competition in telecommunications industry and information society. In most countries in Europe, CATV is used as a vehicle to carry Internet traffic and support e-commerce as an alternative to the public switched telephone networks (PSTN). However, two problems have to be resolved. First, most CATV operators including UPC Polska use TPSA trenches and underground conduits. TPSA allows the sharing of the ducts only for the use of cable television. The usage of the conduits for services such as data transmission and Internet access by CATV companies can be terminated by TPSA. This works against the full utilisation of CATV networks for further competition in the telecommunications industry. Second, the CATV operators are still subject to authorisation and permission if providing services to more than one building for broadcasting services (Article 5 Paragraph 3 of the Law). Where a CATV operator intends to deliver Internet access to customers in more than a single residential building, the firm has to register with the URT.

Minimal regulation on IP (Internet protocol) telephony can give the latitude to innovate and boost competition in the market. PTC began offering international IP telephony through Internet from December 1999 and circumvented TPSA's international telephone network. However, influenced by its attempt to maximise revenues in the sale of a share of TPSA to a foreign strategic partner, and thus maintain a monopoly for international voice services, the Ministry determined in January 2000 that VoIP was illegal. The Ministry postponed its decision and allowed PTC to carry international voice services over Internet until May 2000. In December 2000, the Ministry determined that VoIP would be considered as data services because of its inferior quality. But in April 2001, the Ministry of Posts and Telecommunications and the URT began again to consider how to deal with IP telephony, given the international voice monopoly reserved for TPSA.

#### 2.2.7. *Numbering*

The current numbering plan and management is in need of substantial reform. The Polish numbering system operates on national numbering as well as geographic numbering. A fixed voice telephony service provider could not carry fixed-to-mobile services due to the numbering plan. This is an important limitation. For mobile operators the exhaustion of assigned numbers has become a major obstacle to expanding their services. Currently PTC and Polkomtel are using the "60" prefix and Centertel the "50" prefix. PTC applied for the use of "69" prefix but the Ministry of Posts and Telecommunications reserved this prefix for the next mobile operator. PTC applied for free phone and premium numbers to the URT, but did not obtain numbers because a new ordinance for numbering was not prepared by the Ministry of Posts and telecommunications. The Ministry of Infrastructure also did not issue an ordinance for numbering until the end of 2001, but the firm needed numbers immediately. The URT said that the numbers are reserved for the fixed operator and intelligent networks are required. It is thus clear that a new numbering plan is needed.<sup>17</sup> In this respect, Article 101 and Article 104 of the Telecommunications Law gives operators authority to manage assigned numbers in place of the national regulatory authority. This raises concerns in relation to numbering because Article 101 Paragraph 3 permits the operators to refuse to enter into agreements on the provision of numbering.

In Poland the Minister of Infrastructure determines by order the national numbering plan for public telephone networks as well as the detailed numbering management requirements. The Ministry of Infrastructure is developing a new Ordinance for numbering. According to the Ministry, the existing numbering plan will be reformed through two steps. At first, temporary area codes will be eliminated. Then, number portability will be implemented. The URT President assigns numbers in accordance with the national numbering plan. The fact that the URT only allocates numbers differs significantly from the roles of other independent regulatory bodies in Europe, who have the authority for numbering and managing numbering blocks. EU Directives call for the control of numbering by the independent regulator in a transparent and non-discriminatory manner. In the context of improving the management of the numbering plan the URT should be given the right to develop the national numbering management plan.

Number portability is another issue that needs to be regulated in a transparent and objective manner to provide a level playing field for all service providers. When a customer switches to a new supplier and is not allowed to keep his previous numbers for telecommunications services, the costs incurred to change numbers can be substantial. No specific regulation on number portability is contained in the Telecommunications Law except for the possibility of including number portability in interconnection agreements in Article 78 Paragraph 3 of the Telecommunications Law. Article 43 Paragraph 2 of the Law misunderstands the concept of number portability. This Article refers to number mobility, that is, the ability of customers to retain the same phone number from the same operator when changing address. Real number portability allows a user to keep the telecommunications number given by the former operator after switching to the new operator. Number portability is independent of operators providing telecommunications services and encourages customers to switch from the incumbent to a new entrant by reducing transaction costs from such switching.

According to the Ministry of Infrastructure, number portability may be implemented in 2003 or earlier in large cities after complete network digitisation is achieved. There is no reason to wait for complete digitisation to introduce portability. TPSA should be required to make portability available as it becomes technically feasible. The URT should be given the authority to supervise and implement the process for number portability. TPSA should be given a clear schedule for investment in an intelligent network to enable portability to emerge as rapidly as possible.

No plans are underway for mobile service number portability. A subscriber willing to switch to another GSM operator surrenders their current number and is assigned a new number by the new operator.

#### 2.2.8. *Carrier selection and pre-selection*

As long-distance markets in Poland open for competition, carrier pre-selection increases in importance. At present in Poland for long-distance calls, carrier selection is used by a customer by dialling a specific prefix for a long distance carrier. If the customer has to dial some more digits in using the new entrant's long-distance service, she will tend to favour staying with the incumbent rather than using a new entrant. Call-by-call over-ride selection enables the customer to choose any individual operator for long-distance services, for example, to take advantage of special discount offers. EU Directives required member states to adopt carrier pre-selection for telecommunication services by January 2000. The deadline applies to all services, including local, long-distance, international and calls to mobile networks.<sup>18</sup> As of January 2001, all EU member states except Greece had implemented carrier pre-selection for long-distance and international telecommunications services.

Carrier pre-selection in the local telecommunication market should be made available in the near future. In Poland, because access numbers for local traffic have not been made available, customers did not have local carrier selection. In Poland long-distance telecommunication users can in principle use call-by-call carrier selection since the new long distance carriers began to provide service. According to the URT carrier pre-selection for long distance services will be only possible after all TPSA switches are completely digitalised and the software for carrier pre-selection installed.<sup>19</sup> TPSA introduced an option of carrier pre-selection only with regard to its own long-distance service. If users subscribe to 'TPSA carrier pre-selection scheme,' they can make long-distance calls through the TPSA network without using a TPSA's carrier prefix. Users choosing other competing long-distance service operators have to dial the prefix on a call-by-call basis. Users for Netia 1 and Energis have to sign contracts with the two long-distance service operators and dial relevant carrier prefixes for the two firms. Users can use the long-distance telephone services of NOM on a call-by-call basis without signing additional contracts with NOM. This is fairly anti-competitive and burdensome to users willing to choose alternative providers for long-distance services.

### 2.2.9. *Spectrum allocation and the licensing of mobile operators*

Before the Telecommunications Law entered into force in January 2001, spectrum planning and allocation was undertaken by the PAR, a body responsible to the Minister of Posts and Telecommunications. The PAR prepared the National Frequency Allocation Table. The Table is the basis for spectrum allocation for all radio-communication services in civil and government sectors. The Council of Ministers determined the content of the Table, which is updated at least every two years. Spectrum usage was to be allocated by the PAR for commercial purposes, with the exception of the frequencies for the mobile operators that were allocated by the Ministry of Posts and Telecommunications on the basis of tenders. The new Law integrated the PAR into the URT.

Under the Communications Act of 1990, a telecommunication operator required a licence which was issued following a tender. This applied to fixed and mobile telephony services. Centertel's analogue NMT 450 service was launched in 1992, and Centertel began offering DCS (GSM) 1800 digital cellular service in 1998 after winning the license in 1997. PTC and Polkomtel began GSM services in 1996, using the 900MHz bandwidth. In 1999 PTC and Polkomtel acquired DCS (GSM) 1800 licenses. Tender procedures were not used for the second generation cellular mobile phone services.

Since 2001 the URT has taken responsibility to allocate frequencies to operators. Operators may apply for frequency reservation and if frequency resources are insufficient, the URT President will award frequencies through a competitive tender. The process of allocating authorisation for mobile cellular wireless local loop activities needs to be clarified. The existing process seems to be based on a "first come, first served" principle.

The Telecommunications Law differentiates between individual frequency assignment and frequency reservation that entails frequency range assignment. This frequency reservation is indispensable for the provision of telecommunications services and is granted in conjunction with authorisation. In the case of terrestrial or satellite radio-diffusion, the URT must consult with the National Council for Radio Broadcasting and Television. The National Broadcasting Council is in charge of frequency reservation for broadcasting, in communication with the URT. The URT must draft the Frequency Management Plans, and the Council of Ministers decides the National Frequency Allocation Table. The Ministry of Infrastructure may provide the detailed conditions for the operation of the respective radiocommunications services within their allocated frequency bands.

### 2.2.10. *UMTS*

In the second half of 2000, the Ministry of Posts and Telecommunications (currently the Ministry of Infrastructure) invited a tender for UMTS licences for network construction and operation of services and allocation of frequencies in the 1900 - 1980 MHz, 2100 - 2250 MHz and 2110 - 2170 MHz frequency bands. The UMTS tender was launched in order to select five UMTS operators. Each licence was supposed to allocate 20 MHz of paired spectrum (10 MHz in each of the following bands: 1920-1980 MHz, 2110-2170 MHz) and 5 MHz of unpaired spectrum (1900-1920 MHz and 2100-2250 MHz). The Ministry Ordinance specified that a "beauty contest" would be used to select the licensees. The Ministry expected to obtain a minimum of EUR 3.25 billion for 5 UMTS licenses; this sum was earmarked for the government's Year 2001 Budget.

In the course of the tender for the 3G licenses, the incumbent mobile phone operators protested on the conditions of tender and the number of licenses to be granted. They threatened to pull out of the tender, resulting in many new potential bidders deciding not to participate in the tender. Apart from demanding a lowering of the licence price, the incumbent operators also asked to reduce the number of

UMTS licences from 5 to 4. Other bidders, including Hutchinson Whampoa and Telefonica, also were in favour of four UMTS licences. The decrease in the number of licenses could also allow an increase in spectrum to 30MHz instead of 20MHz. The other controversial issue in the tender was the national roaming requirement for new entrants over the incumbents' GSM networks. The roaming requirement, it was argued unjustifiably undermined the rights of incumbents as set down in their mobile cellular concession.<sup>20</sup>

The tender for 5 licenses attracted only three bids from incumbent mobile carriers in December 2000, and the Ministry cancelled it. Because the Telecommunications Law which came into force in January 2001 did not allow any communication licences to be awarded during 2001 the Ministry of Posts and Telecommunications at the time was compelled to rapidly give in to the boycott pressure from the incumbents and award the incumbent mobile companies UMTS licenses. Each licensee owed EUR 650 million to the Polish government, but payment is to be made in instalments spreading out until 2022. This licensing fiasco was complicated by the discriminatory agreement the government had made with the strategic investor (France Telecom) in the privatisation process which guaranteed PTK Centertel a licence.<sup>21</sup> Adequate consultation with industry in the early stages of developing the licence process would have helped in ensuring a clearer and fairer process.

#### *2.2.11. Rights of way*

Telecommunication operators can obtain access to private and public properties or lands for the installation and operation of telecommunications equipment. The Telecommunications Law assures operators rights of way (in Articles 41, 89 and 97). According to the Law, the owner or perpetual user of the real estate, within such real estate, should not impede the installation of telecommunications equipment and overhead or underground cables. Fees may be charged for the use of real estate. Terms and conditions of such use by the operator should be specified in the agreement, and executed within 30 days following the relevant request of such operator. If the parties fail to execute the agreement within the period prescribed, provisions in the Land Property Management Act will be applied. In the case of a dispute between the real estate owner and the operator, the court will determine the terms and conditions of the agreement. The head of the local administration may order a property owner to provide access to the real estate.

Despite the existence of the provision for rights of way in the Law, service providers have to go through individual negotiations with municipalities and private property owners. The URT has not the power to obtain rights of way, and mediation for rights of way will be subject to the Land Property Management Act. Then, provisions for rights of way in the Telecommunications Law are not very effective. The provisions in the Telecommunications Law on rights of way are insufficient without a detailed Ordinance which puts in place a procedure for dispute resolution.

Facility sharing is also important in the context of rights of way. The Telecommunications Law refers to co-location but not to facility sharing. In accordance with the Law, authorised operators are required to provide co-location for other operators' networks including their buildings, lines, conduits, etc. However, the Law does not allow co-location for the purposes of providing voice telephony (Article 96 of the Law). This exclusion will slow entry and investment in the local exchange market and should be repealed, in particular in view of the urgent need to stimulate infrastructure investment in Poland.



### 2.2.12. *Unbundling*

The Telecommunications Law does not have any provisions directly related to local loop unbundling. Article 96 of the Law refers to co-location and the government seems to interpret this article as allowing for some form of unbundling (other than voice). These provisions are however vague and insufficient. The success for Internet high-speed broadband telecommunications services depends on unbundled access to the local loop and given that TPSA is already providing DSL services, it is urgent that new entrants are not placed at a disadvantage to the incumbent. Amendments to the Law are required to impose explicit and full unbundling obligations, including for voice services, on operators with significant market position. The new draft Interconnection Ordinance could also be used as a means to ensure unbundled access to the local loop.

### 2.3. *Quality of service*

Quality of telecommunication services is stipulated under the Communications Act of November 1990. Article 29 of the Communications Act requires that the Ministry of Posts and Telecommunications monitor the quality of telecommunication facilities and network operation. Article 36 of the Act delegated to the Minister of Communications the power to determine, by order, the general terms and conditions for the provision of telecommunication services within the public telecommunications network, notably service quality levels.

The Ordinance of February 1996, amended in April 1997, on the General Terms and Conditions of Telecommunications Service Provision with Public Telecommunication Networks Operators listed six parameters for service quality ratios which had to be measured, published and provided to an auditor. These parameters were: repair effectiveness of faults; the call drop rate; fault repair type; the number of faults; public pay-phone penetration, and the average access time to the telecommunications network. However, these performance data were not published or made public. The Ordinance will remain in force until a new ordinance in pursuance of the Telecommunications Law is issued.

Under the Telecommunications Law of 2000, the Ministry of Infrastructure (formerly the Ministry of Posts and Telecommunications) by order determines the detailed requirements for universal service provision, including the service availability and quality parameters along with the number of public pay phones (Article 49), and for leased lines assuring appropriate quality of service (Article 61). The Ministry may lay down detailed conditions for the provision of specific services including quality indicators (Article 34 of the Law). In Article 114 of the Law the URT is required to seek the opinion of the Telecommunications Council on the quality of universal services. The URT Bulletin must publish an annual report on quality of universal service provision. Operators' liability for the provision of universal service is laid down in the Telecommunications Law (Chapter 6, Section III of the Telecommunications Law). Provisions of the Civil Code apply to the operators if they default on or delay unduly in the delivery of telecommunications services other than universal service. Complaints from consumers are filed with and reviewed by the relevant operator. In the case of non-satisfaction in a claims procedure a subscriber may seek satisfaction through litigation.

The URT should have a mechanism to assess the performance of fixed-line as well as mobile telecommunications operators with respect to quality of service. If operators do not fulfil their service quality requirements, consideration should be given to imposing penalties. Information on service quality and data provided from the operators should be made public to allow for more informed consumer choice as well as act as an incentive to operators to improve their service quality. For the quality of service matter, the URT should pay particular attention to monitoring the quality of service of significant or dominant operators. Control of the quality of telecommunications services along with cost-based pricing regulation is an integral part of implementation and enforcement.

There is no procedure to handle consumer complaints. A mechanism needs to be put into place allowing consumers to contact the URT on complaints where they have not been able to get satisfaction from operators. Such procedures need to be simple and avoid long litigation. Resolving disputes on billing is particularly important.<sup>22</sup>

#### **2.4. *Universal service obligation***

The Telecommunications Law contains a number of provisions on universal service. Universal service defined in the Telecommunications Law includes telephony, facsimile and data transmission in the voice waveband, provided by public operators within the fixed public telephone networks. The following additional services are considered as universal service: directory information, facilities for the disabled and itemised billing upon request of subscriber.

Following are the key features of the universal service requirements:

- The services should be available to every user at the required quality level.
- The services should be available countrywide.
- An operator may not stop the provision of the universal services until such provision is taken over by other operator.
- Interconnection agreements should include the principle of continuous provision of universal services within the interconnected networks, irrespective if the interconnection agreement is terminated.
- Universal services should include facilities for the disabled, e.g., relating to availability of the public payphones.
- The refusal of the universal service provision may entail the withdrawal of an authorisation.

Operators holding a significant market position are subject to special restrictions. They are required to provide universal services at cost-oriented prices and have to submit to the URT a universal service price list or any changes at least 30 days prior to the planned introduction or coming into force of such a price list. However, the requirement for cost-orientation will only come into force in January 2004 (Article 59 Paragraph 1 and Article 151 of the Telecommunications Law). This exemption will delay the development of effective competition and is indicative of a number of provisions which have avoided placing asymmetric regulation on the incumbent. Operators with significant market power must also submit to the URT President samples of agreements or draft rules and regulations on universal service provision (Article 58 of the Law), which became effective in January 2001. Apart from the above, dominant operators providing universal service or leased line services should conduct cost calculations separately for each service they provide where they hold dominant power and for settlements arising from interconnection agreements concluded with other operators.

The absence of terms and conditions for universal service provision allows for intervention by the UOKiK and sanctions. The operator providing universal services is required to include in the Universal Service Rules and Regulations a description of the appeal procedure. If the operator providing universal services stop, or materially limit or change the terms and conditions of the service provision, the subscribers of such an operator may complain to the URT President, who must review such complaints within 1 week following submission. The Minister of Infrastructure may by order determine the detailed requirements for provision of the universal services.

The definition of universal service in the Law seems to assume that universal service is already available in Poland. No single entity is responsible for universal service. All fixed-line operators must provide nation-wide connection at the request of prospective subscribers. This concept of universal service is only suitable to a country with high telephone penetration rate which does not require high investment in telecommunications infrastructure for rural areas. Given the low level of telephone penetration in Poland, such a universal service obligation for all fixed network operators inhibits effective entry of competing firms into the market.

Secondly, although Article 51 of the Law demands that operators providing universal service make contracts with prospective subscribers within 30 days, there is no specific time limit for the beginning of universal service. The operators can negotiate with prospective users as much as time it needs to make the connection to its network. Accordingly, the effectiveness of the universal service obligation is questionable.

It is sometimes argued that giving a temporary monopoly to foreign investors is justified because the privatised firm will pursue a universal service objective and commit to major investment program to upgrade its services. Experience has not borne this out. The incumbent becomes unwilling to invest in infrastructure when state subsidy for low-income customers is gone and high monopoly price reduces the demand for the fixed services.<sup>23</sup> TPSA could follow this pattern. Universal service coverage without any specific installation time attached will not systematically induce further investment by fixed-line operators. The infrastructure deployment in rural areas with just 14.98 telephone density<sup>24</sup> is not easily expanded under the current regulatory environment.

Thirdly, the linkage between the access deficit charge, which was first recommended as part of the interconnection fee structure in 2000 (Article 81 of the Law), and the funding mechanism for universal service is neither evident nor effective. Universal service is required from all operators of public networks and voice telephony providers, and the deficit incurred from the investment in the provision of universal service is recovered through access deficit charge, one component of the interconnection fee arrangement. There is no guarantee that the access deficit charges will be reinvested to expand networks in rural areas or in areas of low income.

A universal service framework which is directly focused on network investment and is technologically neutral, is required. Such a framework could be based on a fund or could be the sole responsibility of the incumbent. A universal service fund allows for a transparent cross-subsidy to unprofitable services from the more profitable ones. But the universal service fund adopted in the draft law was eliminated from the final version of the Telecommunications Law.

The Ministry of Infrastructure should pursue a useful regulatory framework to induce further investment in rural areas. For this purpose the Ministry can waive or lessen the incumbent fixed-line operators' remaining licensing fees after the respective market is subject to full competition. This is not only because stiff roll-out obligations and huge license fees make their investment in networks exceed commercially viable levels and drive them bankrupt, but because it is fair for the incumbent without significant market power not to bear any more burdens in the competitive marketplace. One caveat for this is to link the amount waived to a new investment, and the Ministry of Infrastructure should have an effective monitoring and enforcement tool for their performance.

## **2.5. *Application of competition principles and competition authority***

Before the creation of the independent regulator, the Office for Competition and Consumer Protection ("UOKiK"; in English, OCCP) played an important role in safeguarding competition in the telecommunication sector. A number of UOKiK decisions dealt with issues usually within the competence

of a regulatory body including prices, tariff structures, and interconnection settlements. In pursuance of the Communications Act of 1990, the UOKiK was consulted in 3 cases relating to co-operation of operators and interconnection, which were under consideration by the Minister of Posts and Telecommunications (currently the Minister of Infrastructure). Over 70 cases relating to monopolistic practices in the telecommunications sector were reviewed over the 10-year period of existence of the Competition Authority since March 1990. The number of cases has been decreasing, from approximately 15 in 1996 to 5 in 2000.

The telecommunications industry falls within the competence of Communications and Media Unit in UOKiK's Infrastructure Department, which is also concerned with the postal sector, media, publishing, music industry, etc. There are 6 staff in the Department and in practice three of these are involved in telecommunication areas.

The Polish competition laws – both the Law of April 1993 on Counteracting Unfair Competition and the new Law of December 2000 on Competition and Consumer Protection – apply to the telecommunications sector and do not provide for any sector specific exemptions or exceptions. The Polish antimonopoly law also does not treat firms differently depending on the form of ownership. Hence, the UOKiK treats public owned firms in exactly the same manner as private firms. Public firms are subject to all regulatory regimes laid down by the Competition Act.

In relation to all enterprises the antimonopoly authority can take advantage of its statutory powers to institute antimonopoly proceedings *ex officio*. Thus, proceedings against these entities are conducted not only on a motion filed by an authorised party, but also on its own initiative. The decisions of the UOKiK are valid until a court terminates them. The agency imposes fines on entities in breach of the Competition and Consumer Protection Law.

In the opinion of the Competition Authority, the overall market behaviour of TPSA has been unsatisfactory. In most cases against TPSA, it was fined for pursuing prohibited practices. Initially, because TPSA was a monopoly, these cases related solely to the onerous terms and conditions of agreements, service refusal and preferential treatment of certain subscribers. As the market opened to competition, proceedings of the Competition Authority related to TPSA co-operation with other local operators, mobile operators and ISPs – primarily in respect of settlement and network connection terms and conditions. In recent years, the UOKiK ordered TPSA to abandon practices such as:

- Delaying the conclusion of contracts for interconnected billing and co-operation with other operators (2000).
- Charging excessive fees for leased lines (1997).
- Obstructing the connection of another operator to its network. On several occasions, TPSA, was cited as abusing its dominant position e.g. by disconnecting an operator from the network in order to force it to accept agreements on terms favourable to TPSA. Another example of trying to eliminate a competitor was action taken against a local operator, where TPSA offered much more attractive connection conditions to the network to subscribers living in the area in which a local operator had just been licensed to provide services (1997).
- Charging fees for specific services (e.g. call restriction) or making the provision of a service conditional on performance of other commitments (e.g. conclusion of an agreement with a new tenant only when he has paid the previous tenant's debt).

- Maintenance of an anti-competitive tariff structure providing for the cross-subsidisation of services: provision of services below cost where TPSA is exposed to competition and charging excessive fees for monopolistic services (1997).

The UOKiK fined TPSA 54 million zloty after assessing its implementation of the agency's order made in 1997. The UOKiK initiated in 1997 a proceeding against TPSA on (1) the abuse of dominant market position by maintaining the firm's tariff structure which was not aligned with costs of services and on (2) collection of excessively high rates for long-distance calls in the over-100 km zone. A few days after the decision of the UOKiK, TPSA lowered its long-distance rates.

Following implementation of the Telecommunications Law there still may be a need for the clarification of responsibilities between the URT and the UOKiK.<sup>25</sup> The Telecommunications Law of 2000 sets down specific regulatory requirements applicable to operators with "Significant Market Power" and "Dominant Market Power" in the telecommunications area. In determining the criteria which would allow for a firm to be designated as having significant market power, the UOKiK has been consulted by the Ministry of Posts and Telecommunications. Because the URT's power to safeguard competition and act against anti-competitive behaviour is very constrained due to its lack of power to issue general regulations and take necessary measures *ex officio*, the UOKiK should continue to play an active role in the telecommunications sector. It may also be useful for the two agencies to enter into a formal agreement, as has been done in other OECD countries, to ensure that the terminology used by the agencies is the same, and above all to clarify areas of competency and co-operation more clearly.

## **2.6. Poland and the WTO agreement**

Poland became a member of the World Trade Organisation in July 1995 and ratified the WTO Accord on Basic Telecommunications in July 1998. Poland agreed to open up international telephone markets to facilities and on a resale basis and mobile satellite service markets by 2003 to service providers of any member country. Further to this, Poland committed to adopt the WTO's regulatory principles on competitive safeguards to deter anti-competitive and discriminatory measures by incumbents and other operators. However, Poland did not eliminate the foreign ownership limit, of 49%, in public telephone companies.

## **2.7. The impact of convergence on regulation**

The technological, infrastructure and service convergence of telecommunications, broadcasting, information technology and content sectors poses a policy concern that the existing service classification system and regulation may prohibit the full utilisation of potential benefits of convergence and the new services possible in a new environment. The Ministry of Infrastructure or the URT have not taken any initiatives or action to accommodate convergence between the telecommunications and broadcasting sector. The National Broadcasting Council which regulates the broadcasting industry, also considers the two sectors as separate entities. The National Broadcasting Council believes that the current regulatory regime is coherent and will remain so in the future. For example, when a CATV operator is delivering broadcasting services over Internet, the National Broadcasting Council would be concerned only with the content of the broadcasting services of the firm, leaving technology issues to the hands of the URT. The Polish government should consider whether the unification of these regulatory bodies would facilitate more coherent and streamlined regulation for market participants and how to achieve regulatory consolidation in response to convergence of broadcasting and telecommunications. If the URT can become an organisation named in the Constitution, like the National Broadcasting Council, it will have power to take general regulatory measures.

### **3. PERFORMANCE OF THE TELECOMMUNICATIONS INDUSTRY**

#### **3.1. Introduction**

The rationale for regulatory reform is the desired beneficial effects to be delivered to users and consumers. These beneficial effects include better services at inexpensive rates through increased efficiency of production of telecommunications services and the rapid deployment of telecommunications and IT infrastructure that enables users to keep pace with modern technologies. This section assesses the performance of the Polish telecommunications industry using indicators related to:

- Network development and modernisation.
- Services based on leading edge technology and infrastructure.
- Lower prices.
- Improved quality of service.
- Enhanced productivity.
- Net benefits to users and access to Internet.

Telecommunication market choice is still limited in Poland because of the existing international service monopoly and the slow start of competition in national long distance services. In turn, this has reduced potential growth in the telecommunications industry as well as the whole economy. In contrast to fixed services, the mobile sector has grown relatively rapidly providing user choice. There has been insufficient understanding of the economy wide effects of a dynamic and growing telecommunication sector and, as a result, insufficient emphasis on ensuring the growth of the telecommunication sector.

Throughout this section, comparisons of data from the Czech Republic, Greece, Hungary, Poland, and Portugal are offered to illustrate the performance of the Polish telecommunications industry. These countries in comparison with Poland are selected on the ground that they are all European OECD members and have a per capita GDP closer to that of Poland in 1999 than other European member countries.<sup>26</sup>

#### **3.2. Market development and fixed-line telecommunications indicators**

The overall telephony market has, since the second half of 1990s, grown at an average of 15% growth per annum<sup>27</sup> in terms of revenues and the mobile telephone market has been almost doubled as measured by the number of subscribers. The PSTN market and mobile service market had attained a market size of EUR 3 500 million and EUR 2 200 million at the end of 2000 from EUR 1 990 million and EUR 180 million at the end of 1996 respectively.<sup>28</sup> If this trend persists, the mobile telephone market will surpass the fixed-line telephone market at the end of 2002 in terms of subscriber numbers and in the first half of 2002 in terms of revenues. The telecommunication market accounted for 4.4% of GDP at the end of 2000, rising from 2.5% at the end of 1996.<sup>29</sup>

Polish fixed-line telephone penetration was 28 per 100 inhabitants in 2000 and was increased to 29.5 per 100 inhabitants in 2001. Table 6 shows that the Polish telecommunications sector has been far behind most other OECD countries in providing fixed-line network connections. Although the rationale in

creating duopolies in the local telecommunications market since 1992 was to stimulate network investment, this goal was not highly successful. As of December 2000 the country had a long waiting line for telephone connections. Whereas Poland had 1.8 million people waiting for network connection in 1998, the waiting list in the Czech Republic was 141 000, 31 300 for Greece, 80 300 for Hungary, and 10 000 for Portugal.<sup>30</sup> This poses a policy problem of how to effectively encourage the local operators to move forward with respect to network connectivity.

Table 7. **Fixed-line telecommunications indicator**

	1996	1997	1998	1999	2000	2001
<b>Total access lines</b> (thousand)	6 611	7 620	8 816	10 176	11 200	
<b>Telephone subscribers</b> (thousand)	6 532	7 619	8 808	10 175	10 840	11 400
<b>Residential</b> (thousand)	5 424	6 351	7 387	8 300	8 958	
<b>Business</b> (thousand)	1 109	1 268	1 421	1 776	1 882	
<b>Telephone penetration rate</b> (%)	17.1	19.7	22.8	26.1	28	29.5
<b>OECD average for telephone penetration rate</b> (%)	47	49	51	53	-	
<b>Number of payphone installed</b> (thousand)	67	61	70	89	98	
<b>Number of customers waiting for connection</b> (thousand)	2 327	2 200	1 801	-	926	

Note: The number of telephone subscribers in 2001 is estimated by the URT.

Source: The Ministry of Infrastructure and the Office of Telecommunications Regulation (the URT).

Over the last four years TPSA has had strong growth in revenue, at a compound annual growth rate (CAGR) of 10.5% as shown in Table 7. Revenues from interconnection charges and from installation and monthly recurrent charges comprised 9% and 15% of the total revenue respectively in the third quarter of 1999. The traffic revenue as a percentage of total revenue was 58% in the same period. The fixed to mobile call revenue accounted for 24% of traffic revenue in the same period.<sup>31</sup>

Table 8. **TPSA's profit statement**

	1997	1998	1999	2000	CAGR (%)
<b>Revenues</b> (PLN million)	8 924	10 887	13 160	14 685	10.5
<b>Operating expenses</b> (PLN million)	6 460	8 603	10 320	11 528	12.3
<i>Total investment</i> (PLN million)	4 251	4 071	5 709	6 225	7.9
<b>Operating profit</b> (PLN million)	2 484	2 284	2 840	3 157	4.9
<b>Net Profit</b> (PLN million)	N.A.	774	1 029	2 178	
<b>Number of lines in service</b> (PLN thousand)	7 465*	8 514	9 643	10 233	

\* Total fixed access lines in Poland times TPSA's market share from Table 2.

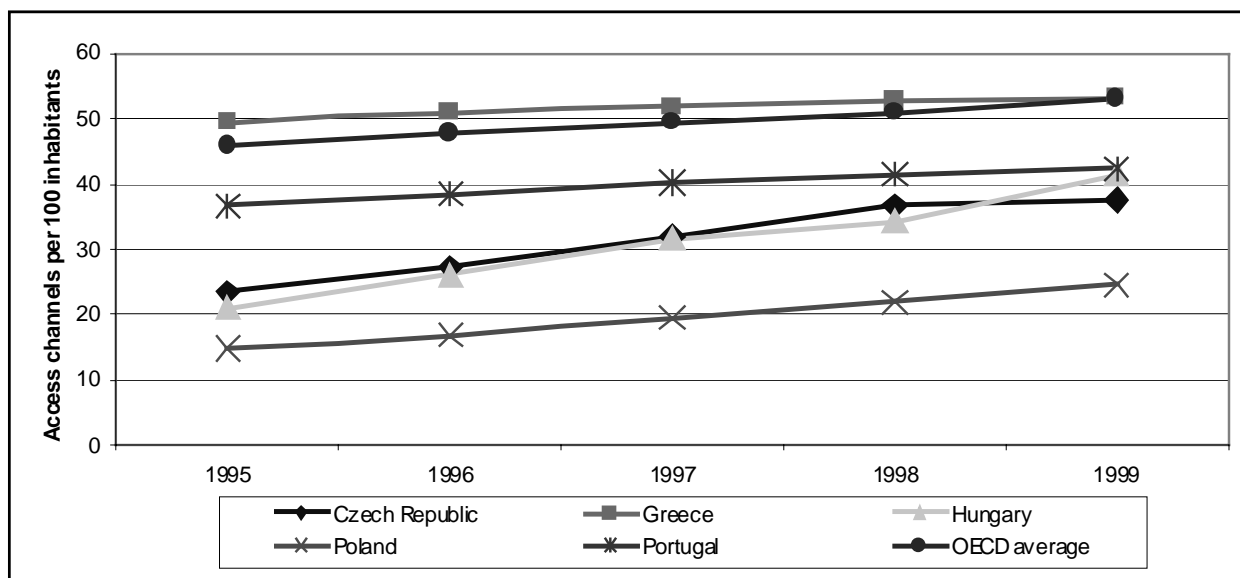
Source: TPSA Annual Report 1999 and Unconsolidated Quarterly Report SA-Q IV/2000 Form, January 2001.

### 3.3. *Network development and modernisation*

After privatisation of the incumbent monopolist, Central Eastern European economies such as Hungary and the Czech Republic boosted fixed-line telephone penetration rates to attain bench marks set by each country's regulatory bodies. However, this has not yet happened in Poland. The compound annual growth rates from 1995 to 1999 in the growth of network penetration for Poland, the Czech Republic, and Hungary are 10.7%, 10%, and 14.4%. Although Poland's rate of growth here is similar to the others, in view of its low number of access lines per 100 inhabitants, Poland requires faster expansion in network

development to catch up with neighbouring countries (Figure 2). Unfortunately, there does not appear to be any momentum in network expansion and, in the absence of mandatory targets imposed on the dominant player, as well as a regulatory framework which provides the appropriate incentives to invest to new entrants, expansion is unlikely.

Figure 2. Access lines per 100 inhabitants



Note: Access lines and ISDN lines are included in Access channels.

Source: OECD, Communications Outlook 2001, Paris.

Table 8 shows that Poland's public telecommunications investment as a percentage of revenue remained fairly stable since the early 1990s. Mobile investment played an important part in maintaining growth in public telecommunication investment. As shown in Table 7 the growth in TPSA's total investment expenditure (7.9%) has been much lower than that of the TPSA's revenue (10.5%).

Table 9. Public telecommunication investment as a percentage of revenue

	1986-88	1989-91	1992-94	1995	1996	1997	1998	1999
<b>Czech Republic</b>	N.A.	21.8	61.3	79.6	97.8	71.0	68.4	38.7
<b>Greece</b>	20.5	33.4	45.6	24.1	23.6	25.6	27.9	28.1
<b>Hungary</b>	66.5	70.8	61.3	45.2	61.6	51.7	31.4	26.7
<b>Poland</b>	N.A.	25.6	40.8	41.2	46.0	38.8	37.7	40.5
<b>Portugal</b>	31.8	53.7	30.5	33.6	24.7	31.0	34.8	35.2
<b>OECD average</b>	25.8	27.5	25.0	24.0	25.4	24.4	25.1	26.6

Source: OECD, Communications Outlook 2001, Paris.



### 3.4. Digitalisation

The rate of digitalisation in Poland increased in 2000 to 87% from 68% in 1999. Until the end of 1999, network digitalisation in Poland was sluggish compared with the other four countries (Table 9). This is partly due to the emergence of ISDN services and ADSL services. TPSA launched its Home Internet Service (HIS) for 115 kbps services in 2000. ISDN subscribers increased from 20 000 in 1998 to 200 000 in 2000. Some CATV companies began to offer commercial ADSL services for broadband access, and TPSA began a pilot ADSL service in some major cities in 2001.

Table 10. Digitalisation in the OECD area

	1993	1995	1997	1998	1999	2000
<b>Czech Republic</b>	10	17	55	64	74	81
<b>Greece</b>	22	37	47	75	91	
<b>Hungary</b>	27	53	70	75	78	
<b>Poland</b>	10	48	58	62	68	87
<b>Portugal</b>	59	70	88	98	100	
<b>OECD average</b>	59	75	88	92	94	

Source: OECD, Communications Outlook 2001, Paris.

### 3.5. Cellular mobile services

Poland has witnessed a significant growth in mobile penetration. Customers who have had difficulty in obtaining a fixed line have benefited from this rapid growth. Cellular mobile phone density rose from 0.6 lines to 26.1 lines per 100 inhabitants (Table 10). Prepaid subscribers contributed to this growth in the mobile market, consisting of 22 - 24% of total subscribers for the three mobile incumbents.

Table 11. Cellular mobile subscribers

		1996	1997	1998	1999	2000	2001
<b>PTK Centertel</b>	<b>NMT</b>	127	206	198	150	105	
	<b>DCS</b>	0	0	179	533	1 385	2 700
<b>PTC</b>	<b>ERA GSM</b>	62	306	801	1 751	2 800	3 900
<b>Polkomtel</b>	<b>Plus GSM</b>	61	300	750	1 523	2 458	3 450
<b>Total</b>		230	812	1 928	3 957	6 748	10 050
<b>Mobile penetration rate (%)</b>		0.6	2.1	5.0	10.2	17.5	26.1

Note: The number of subscribers is in thousand. Figures for 2001 are estimated by the URT.

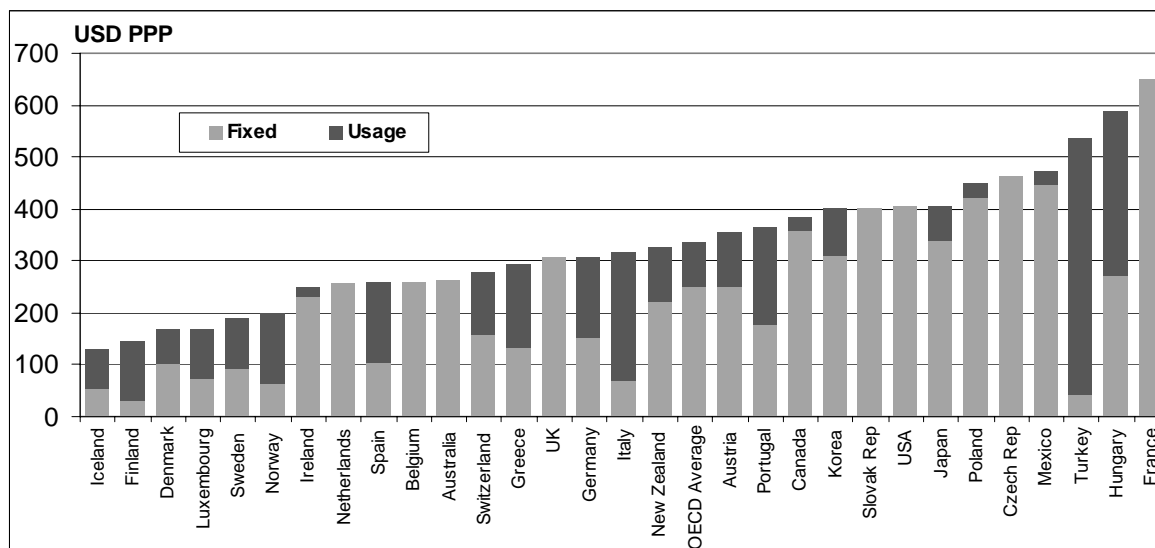
Source: OECD, Communications Outlook 2001, Paris.

### 3.6. Development of competition

At the end of 2000, competitors to TPSA had 6% of the local telecommunications service market. This lack of competition resulted from the duopoly regime and the fact that new local operators provided lines at the beginning in some rural communities. The lack of an adequate interconnection framework and high licensing charges created difficulties for new entrants to build up a larger market share.<sup>32</sup>

In the mobile sector the customers have more choice compared to fixed services including access to GPRS networks. As in many OECD countries, customers can be tied to an operator for a period of up to 2 years. This tie-in period is linked to handset subsidies. Although there is choice in terms of operators, there has been insufficient price competition in the mobile sector perhaps reflecting the high unmet demand for network access creating a sellers market. Figure 3 indicates Poland's relative position in terms of mobile service prices.

Figure 3. **OECD basket of consumer mobile charge, Nov. 2001 (in USD PPP)**



Note: The basket includes 50 minutes per month and excludes international calls. VAT is included.  
Source: OECD and Teligen.

### 3.7. *Price performance and rebalancing*

TPSA has been rebalancing prices from 1998. Table 11 and Table 12 show that TPSA and other local telephone companies raised local prices before beginning to reduce other charges, namely long distance, in 1998. Since 1998, TPSA began to rebalance by decreasing long-distance service rates and increasing local telephone charges. The monthly subscription fee increased considerably in 1999 and 2000. In May 2001, this charge increased further from PLN 25 to PLN 35 per month. To ensure appropriate rebalancing, Article 151 of the Telecommunications Law must be repealed as soon as possible. This article prevents the regulatory authority from verifying before 2004, whether the prices of universal service provided by operators with significant market power are cost based.

Table 12. Local telephony charge

Service type		1996	1997	1998	1999	2000	2001*
Installation fee	PLN	400	400	400	460	460	300
Monthly subscription fee	PLN	10	10	11	15	25	35
Local calls for peak (regular) time	PLN /3 minutes	0.16	0.17	0.19	0.24	0.29	0.29
Local calls for off-peak time	PLN /6 minutes				0.24	0.29	0.29

Note: VAT is excluded from the tariffs. \* applies to Standard package introduced in September 2001.

Source: The Ministry of Infrastructure and TPSA.

Table 13. Long distance service charge (PLN per minute)

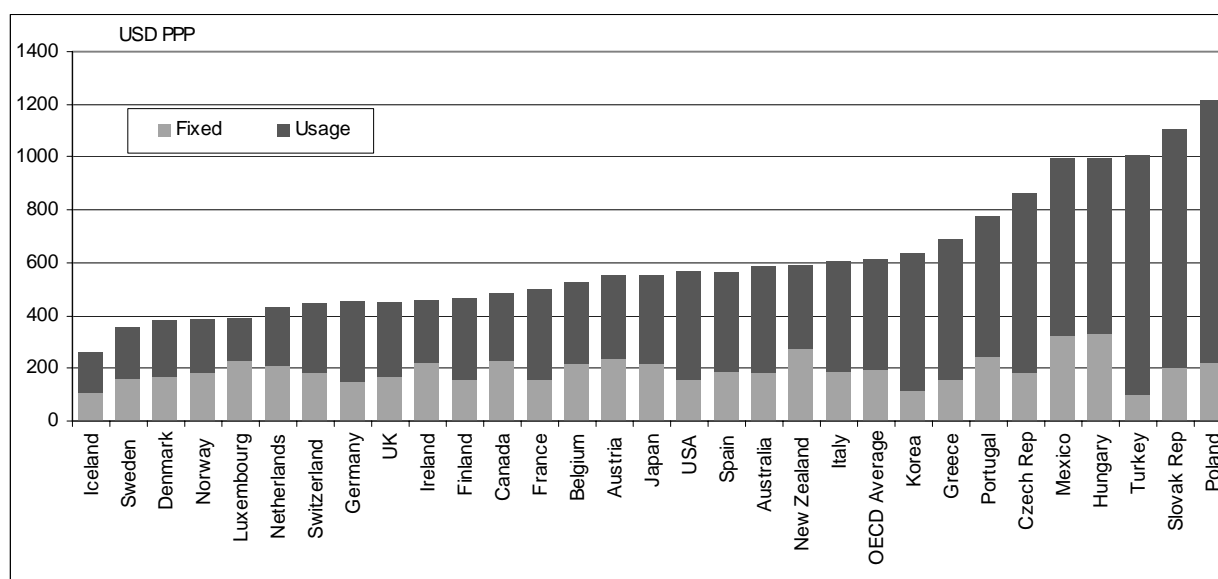
Service type				1996	1997	1998	1999	2000	2001*
Up to 100 Km (Zone II)	Mon. – Fri.	Peak	08:00 – 18:00	0.64	0.72	0.57	0.48	0.48	0.40
		Off-peak	18:00 – 22:00	0.48	0.54	0.43	0.36		
			22:00 – 08:00	0.32	0.36	0.29	0.24		
			18:00 – 08:00					0.24	0.20
	All other Time	Peak	08:00 – 18:00	0.48	0.54	0.43	0.36	0.36	0.30
		Off-peak	18:00 – 08:00	0.32	0.36	0.29	0.24	0.24	0.20
Over 100 Km (Zone III)	Mon. – Fri.	Peak	08:00 – 18:00	0.80	0.90	0.76	0.64	0.56	0.40
		Off-peak	18:00 – 22:00	0.60	0.68	0.57	0.48		
			22:00 – 08:00	0.40	0.45	0.38	0.32		
			18:00 – 08:00					0.28	0.20
	All other Time	Peak	08:00 – 18:00	0.60	0.68	0.57	0.48	0.42	0.30
		Off-peak	18:00 – 08:00	0.40	0.45	0.38	0.32	0.28	0.20

Note: VAT is excluded from the tariffs. \* applies to Standard, Economy, and Inexpensive package respectively.

Source: The Ministry of Infrastructure.

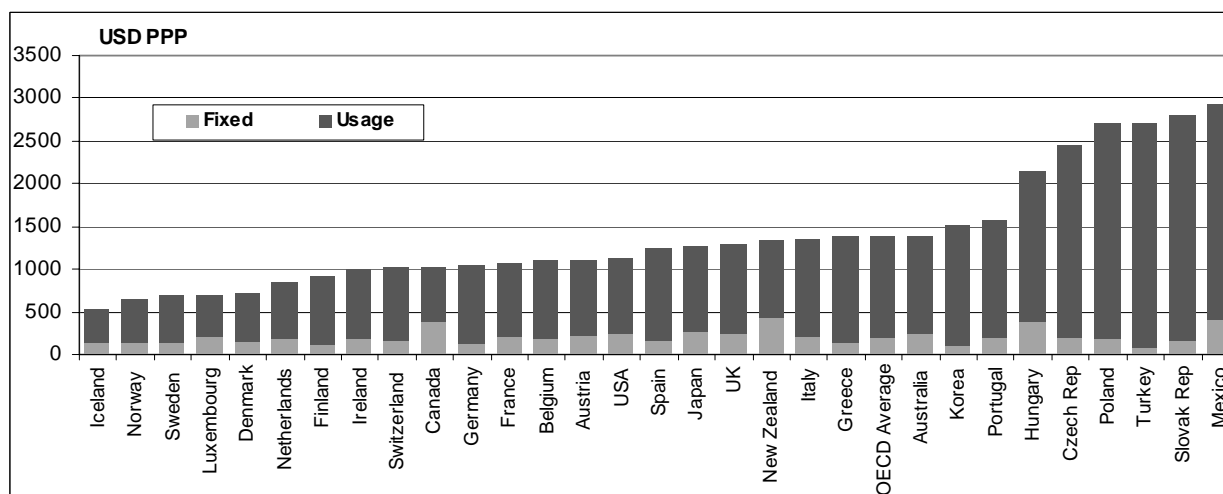
Price levels in other countries can be used as benchmarks to assess the extent of market competition and relative performance of the telecommunications market. For these purposes the OECD surveyed the prices of a basket of telecommunications for residential and business customers in each of OECD countries.<sup>33</sup> These price comparisons showed that Poland's relative PSTN price is the most expensive of OECD countries for residential prices (Figure 4). Performance for a business basket of calls excluding mobile services was slightly better, placing Poland in the fourth most expensive position among OECD countries (Figure 5). The lack of any direct price regulation or competition is largely responsible for the high price level.

Figure 4. OECD Composite Residential basket, Nov 2001, VAT included, USD PPP



Note: Excludes calls to mobiles.

Figure 5. OECD Composite Business basket, Nov 2001, VAT excluded, UDS PPP.



Note: Excludes calls to mobiles.

### 3.8. International telecommunication prices

#### 3.8.1. International prices

There has not been a downward adjustment of nominal international telephone rates since 1996. Like other countries, Poland reduced its international accounting rates with the US from USD 0.55 in 1998 to USD 0.38 in 1999 per minute (The accounting rates for 2000 is the same),<sup>34</sup> while the telephone service charge for the US was PLN 3.46 (USD 0.79) as of December 2000. Compared to other OECD countries Poland's international telephone charges (Table 13)<sup>35</sup> is the third most expensive.

Table 14. **OECD basket of international telephone charges, November 2001**

	Business Excluding tax		Residential Including tax	
	USD	USD PPP	USD Based	USD PPP
Australia	0.75	1.00	1.03	1.37
Austria	0.77	0.83	1.06	1.15
Belgium	0.49	0.56	0.57	0.66
Canada	0.66	0.83	0.90	1.14
<b>Czech Republic</b>	<b>0.78</b>	<b>1.90</b>	<b>1.02</b>	<b>2.48</b>
Denmark	0.50	0.46	0.80	0.73
Finland	0.78	0.74	1.00	0.95
France	0.34	0.37	0.66	0.73
Germany	0.42	0.45	0.62	0.67
<b>Greece</b>	<b>0.77</b>	<b>1.12</b>	<b>1.17</b>	<b>1.69</b>
<b>Hungary</b>	<b>0.92</b>	<b>2.10</b>	<b>1.48</b>	<b>3.36</b>
Iceland	0.58	0.55	0.92	0.88
Ireland	0.51	0.55	0.70	0.76
Italy	0.90	1.16	1.32	1.69
Japan	2.78	2.01	2.80	2.03
Korea	2.16	3.86	2.57	4.59
Luxembourg	0.37	0.41	0.49	0.55
Mexico	3.28	4.05	3.98	4.91
Netherlands	0.30	0.35	0.46	0.53
New Zealand	0.75	1.12	1.00	1.49
Norway	0.31	0.26	0.47	0.40
<b>Poland</b>	<b>1.58</b>	<b>2.99</b>	<b>2.48</b>	<b>4.69</b>
<b>Portugal</b>	<b>0.71</b>	<b>1.08</b>	<b>0.96</b>	<b>1.46</b>
Slovak Republic	0.69	2.15	1.07	3.35
Spain	0.78	1.01	1.12	1.46
Sweden	0.34	0.34	0.53	0.54
Switzerland	0.30	0.25	0.37	0.31
Turkey	1.51	3.98	1.89	4.98
United Kingdom	1.18	1.16	1.61	1.58
USA	0.52	0.52	1.48	1.48
<b>OECD average</b>	<b>0.89</b>	<b>1.27</b>	<b>1.22</b>	<b>1.75</b>

Source: OECD and Teligen

### 3.8.2. *Leased lines*

The use of leased lines is indispensable for new entrants to develop their own services. Hence, full liberalisation hinges on the availability and cost based prices. Leased circuits are also important for ISPs to deliver broadband access for Internet. Table 14 summarises the availability and prices for leased circuits in February 2001. Prices for leased lines in Poland are slightly above the OECD average for slow speed M1020 circuits, but expensive for higher speed circuits such as 64kbit and 2.0Mbits (Table 14).

Table 15. **National and international leased lines basket, November 2001, USD PPP**

	M1020	64kbit	2 M
<b>Czech Republic</b>	810 446	1 155 288	7 558 233
<b>Greece</b>	336 479	554 486	3 515 503
<b>Hungary</b>	405 166	846 910	4 822 774
<b>Poland</b>	433 212	656 884	4 766 546
<b>Portugal</b>	583 703	462 205	3 429 475
<b>OECD average</b>	396 627	517 284	3 037 479

Source: OECD, *Communications Outlook 2001*, Paris.

### 3.9. *Quality of service*

In terms of the common quality indicators, such as faults per 100 lines per year and the percentage of faults repaired within 24 hours, TPSA has improved its service quality since 1997 (Table 15). However, the level of service quality in comparison with the OECD average leaves some room for further progress in enhancing quality of service. Average network access time improved markedly after 1997. The two indicators, the faults per 100 lines and the average access time to network, are closely linked to the level of digitalisation and improvements in telecommunications technology.

Table 16. **TPSA's quality of service**

	1997	1998	1999	2000
<b>Faults per 100 lines per year</b>	29.65	25.72	20.64	18.32
(OECD average)	(16.6)	(14.6)	(13.2)	
<b>Percentage of faults repaired within 24 hours</b>		70.1%	76.7%	80.23
(OECD average)		(85.8%)	(87.2%)	
<b>Average network access time (monthly)</b>	43.1	36.2	27.42	17.35

Source: The URT and OECD, *Communications Outlook 2001*, Paris.

### 3.10. *Employment and productivity*

Since total factor productivity data are not available for Poland, the number of access lines per employee is used as a proxy. Poland has had, historically, a low rate of access lines per employee indicative of low labour productivity. For example, in 1999 TPSA ranked the lowest among major incumbents in the OECD area in relation to the number of lines per employee.<sup>36</sup> Though TPSA made some progress in reducing its labour force, this reduction has been insufficient to keep pace with the trend observed in the OECD area (Table 16). The number of access line per employee for TPSA increased by 23% from 1997 to 1999 whereas the figure for the other major incumbents in OECD countries showed a 79% increase in the same period. Several factors account for this difference. One is the requirement to continue network expansion. The second results from a lack of competition and any incentives to improve efficiency. A third is the presence of a strong union. The privatisation contract between the Government and France Telecom also requires that the strategic partner not impose significant labour layoffs in TPSA for a specified time period.

Table 17. **Employment and labour productivity**

	1997	1998	1999	2000
<b>TPSA Employees</b>	73 100	73 954	73 309	69 200
<b>TPSA Lines per employee</b>	102	117	134	148
<b>OECD average for major incumbents</b>	189	-	338	-

Source: The Office of Telecommunications Regulation (URT), the Ministry of Infrastructure, TPSA Annual Report 1999, and OECD, *Communications Outlook 2001*, Paris.

### 3.11. *Internet developments and performance*

Over the past ten years the situation has changed dramatically with respect to Internet. The Polish Internet dates back to 1991, when Poland accessed the international network through the NASK, an academic centre. The launch of TPSA access number (0-20 21 22) was a pivotal point for Polish Internet providing dial-up access. The prices charged for switched access to Internet are based on local call charges, with the exception of weekends and national holidays and the off-peak period (18:00-8:00). In September 2001, TPSA offered an option for 30 hours a month at PLN 60 when using the TPSA access number. TPSA also offers a 115 kbps DSL-type Internet access service at PLN 130 per month and ADSL services ranging from 256 kbps to 2 Mbps starting at PLN 250 per month, which are limited to areas where service networks are sufficiently modernised. The Ministry of Infrastructure predicts that TPSA will dominate the Internet access market and lead in ADSL network access, if the appropriate regulations are not in place. Approximately 700 Internet Service Providers operate in the market and their number has been growing rapidly, as their licences have been replaced with a requirement to notify the URT.

Internet penetration rate is linked with, among other things, PC penetration and the access price to Internet. According to the EU Information Society on Internet users and the total number of home and business PCs in Poland,<sup>37</sup> the PC penetration rate was 15.5 per 100 inhabitants at the end of 2000, and the Internet user penetration rate in the same period was 13%. This means Internet usage in Poland is relatively low given the PC penetration rate. This low usage may originate from costly dial-up access. The Ministry of Infrastructure has assessed that Poland is one year behind the least developed EU countries in this respect, two years behind the European average and four years behind the USA.

According to the Ministry of Infrastructure, major obstacles for the network development for Internet in Poland are as follows:

- A high access cost (the cost of local calls used for Internet access is one of the highest in OECD).
- Poor telecommunications and IT infrastructure (29.5 access lines per 100 population in 2001).
- Continued monopoly of TPSA.

The lack of a flat rate interconnection framework between ISPs and TPSA constitutes a significant barrier to the development of Internet and the information society. TPSA does not have a clear interconnection arrangement for ISPs. TPSA does not consider these as operators and charges them like customers with some discounts on tariffs. ISPs are using call back to provide services, *i.e.* calling back the customers.

The other indicator for the robustness of Internet development is Internet hosts per 1 000 inhabitants (Table 17). Poland is still far behind the OECD average.

Table 18. **Internet hosts per 1000 inhabitants in the OECD area**

	July 1997	July 1998	July 1999	July 2000	October 2000	April 2001
<b>Czech Republic</b>	4.4	7.0	9.7	12.9	12.9	16.6
<b>Greece</b>	2.8	3.6	6.8	10.8	13.0	17.3
<b>Hungary</b>	3.2	8.0	10.9	15.0	15.4	19.3
<b>Poland</b>	2.0	2.6	4.1	6.9	8.2	11.9
<b>Portugal</b>	3.1	5.1	6.3	10.5	13.4	15.7
<b>OECD average</b>	20.3	31.4	49.0	74.2	81.5	N.A.

Source: Netsizer (<http://www.netsizer.com>).

## 4. CONCLUSIONS AND RECOMMENDATIONS

### 4.1. *General assessment of current strengths and weaknesses*

The regulatory regime in Poland has some strengths (Box 2) and weaknesses (Box 3). The strengths come basically from the new Telecommunications Law that is designed to promote competition and to some extent adopt international standards. The Law includes many of the necessary provisions to create a competitive telecommunication market. This is a concrete step forward toward creating an efficient and competitive telecommunications marketplace. The licensing system has undergone some streamlining, having been replaced with an authorisation system resulting in a significant reduction of the licensing fee, and some of the telecommunications services such as data transmission are subject to registration instead of licensing. Cost-based pricing for interconnection charges and leased-line services will be required and the Law calls for the creation of interconnection rules and an arbitration process. The Telecommunications Law also provides for the designation of operators with a dominant or significant market power and in principle allows for the use of asymmetric regulation where there is market dominance.

#### Box 2. **Strengths**

- New legal framework integrating many of the basic concepts necessary to create conditions of competition
- Clear dates to fully liberalise the market.
- The establishment of an independent regulatory body.
- Competitive mobile sector.

The Telecommunications Law sets out a timetable for full competition and has created a regulatory body legally and structurally distinct from the ministries and independent of firms providing telecommunication services. In the past no clear signals for opening the marketplace to competition was given and this tended to distort the process of tenders and award of licenses. Above all this created uncertainty and slowed investment in the telecommunications infrastructure by new entrants.



The lack of structural separation between the ownership of the incumbent and regulation of the sector often led to conflicts of interest and to policy or regulatory solutions which were not pro-competitive. Up to December 2000, regulatory decision making was not consistent or coherent in the telecommunications field because of the lack of an independent regulatory body. On a number of occasions in the past, political considerations or discriminatory treatment biased telecommunication regulation and distorted regulatory processes and decision-making. In addition, since TPSA was subject to the Communications Act of 1990 and not liable to effective penalties, restraining its monopoly power was difficult. The establishment of a regulatory body should improve this, but as noted further there is still considerable scope for improvement in terms of the power of the regulator.

In contrast to the voice telephone markets, competition in mobile telephony has progressed and benefits are beginning to appear. The monopoly of the incumbent, PTK Centertel, in mobile markets was not deeply rooted and competitive forces played an important role in developing this market. The government should use the lesson learned from this market for the fixed telecommunication market.

Although some progress in regulatory reform is under way, there are some serious weaknesses that need to be rectified rapidly, especially if Poland wishes to meet EU requirements. Many of the weaknesses arise from deficiencies in the Telecommunications Law of 2000. The granting of an exclusive service provision period to the incumbent (the monopoly for international voice services), undertaken in the context of privatisation in an attempt to raise the value of the incumbent, has prevented the real benefits of competition from emerging.

#### Box 3. Weaknesses

- Contradictory policy objectives, between revenue maximisation in privatising the incumbent and competition.
- Key provisions missing from the legal framework: number portability, carrier selection/pre-selection and unbundling for voice services.
- Insufficient regulatory powers available to the URT to take general regulatory measures to enhance competition in the market.
- No wider public consultation process by Government or the regulator outside the formal Economic Chamber (legal industry association).
- New law adopted without the key Ordinances (secondary legislation) necessary for the implementation of the provisions of the law.
- No clear statement by the Ministry of Infrastructure of strategic policy objectives over the next year and the priorities being given in terms of the drafting of ordinances.
- Unbalanced resource allocation between the URT and the Ministry of Infrastructure.
- No asymmetric regulation on incumbent, despite its obvious market power.
- No price regulation on incumbent, despite its obvious market power.
- Inadequate universal service framework, with no incentives to develop network.
- Lack of transparency in agreement between government and strategic investor in TPSA.

At present Polish telecommunication policy is characterised by, on the one hand, the objective of privatisation and revenue maximisation from the sale of state assets and, on the other hand the objective of creating a competitive telecommunication market regulated on the basis of transparent and fair regulations ensuring new entrants an equal opportunity. The objective by the State Treasury of persuading the existing strategic investor to take up a further share option in TPSA is likely to continue to result in the international voice market remaining a monopoly. It should not. Privatisation of the incumbent should not conflict with the creation of competition and good regulatory practice. The goal of revenue maximisation is having a 'domino effect' by preventing a number of necessary regulations such as price regulation and asymmetric regulation being imposed on the incumbent. The present impasse is a significant factor in reducing the benefits of liberalisation to consumers and users in Poland. This is because the necessary price rebalancing of fixed subscriber charges and local call charges is not being sufficiently compensated, as in other OECD countries, by reductions in the price of national long distance charges and international calling prices. At the same time there is no competitive or regulatory pressure to increase efficiency of the incumbent. This conflict has delayed the implementation of interconnection impeding the initial three long distance entrants from providing service. The government should review the benefits and costs of sacrificing longer term gains for the economy at large from an open competitive telecommunications market for short term budgetary goals, which have not materialised in several rounds of privatisation of TPSA.

Poland is a candidate country to become a European Union member. Its new Telecommunications Law has thus transposed a number of EU Directives on telecommunications. Nevertheless, this process is incomplete. Poland has also, unfortunately, not used the delay in market liberalisation to implement best practice regulation. Examples of issues that are not yet adequately addressed include policies and regulations for universal service, the lack of local loop unbundling, and number portability and carrier selection and pre-selection. A provision for number portability is missing from the Law and the provision for carrier pre-selection in Article 43 Paragraph 3 of the Law is insufficient to support competition in the market.

Perhaps the most serious problem in Poland is that the regulator, the URT, cannot initiate regulations of a general nature. The organisation is not empowered to implement regulations because the Constitution demands executive ordinances or general regulations be issued only by ministries. The Minister is responsible for all legislation, primary and secondary. The President of the URT is to be consulted on regulations, but it is not mandatory that the Ministry of Infrastructure reflects the views of the regulator. The regulator can take action in specific cases but cannot take action on its own to ameliorate anomalies of a general nature which may be necessary to improve conditions of competition.

In Poland there is a legal requirement to consult with the industry associations (economic chambers) when enacting Laws or Ordinances. This is an important process in consultation. However, there should be wider consultation outside of economic chambers. Individual entities should be allowed to comment on legislation.

Many of the provisions in the Telecommunications Law depend on the details of Ordinances drafted by the ministry responsible for communications policy. Many of these do not yet exist. Thus there is still considerable uncertainty in the market, since much of the Law cannot be implemented until these provisions come into effect. For example, the Ordinance on detailed criteria for determining an operator's share in the telecommunications service market and ways to determine that share, which is necessary to designate the incumbent as having a dominant position, was not in place until April 2002 by the Ministry of Posts and Telecommunications and not enforced for six more months by the URT even though the Law had been passed in mid-2000 and was in effect since January 2001. Furthermore, this is the only Ordinance released by the end of 2001. In turn this had ramifications on a number of other regulatory issues. The law permits previous regulations to stay in effect for 2 years or until the creation of a new ordinance. This holdover removes the incentive to move quickly to implement pro-competitive provisions.

This legal hiatus has been due largely to insufficient staff and resources in the Ministry of Infrastructure with expertise in telecommunications policies from January 2001. The transfer of staff from the Ministry of Posts and Telecommunications to the regulator occurred too rapidly and was not sufficiently well managed to take into account the fact that the regulator could not take action before Ordinances were in place. Although there have been improvements in terms of the number of staff dealing with telecommunications service policies, the Ministry of Infrastructure also requires an increase in resources in order to complete the adoption of all necessary Ordinances in the Law. In view of the application for EU membership the Ministry of Infrastructure also needs to be able to provide for appropriate amendments in the Law necessary to meet *acquis* requirements.

Although the Law recognises that regulation will be asymmetric according to whether there is market dominance in particular markets for interconnection and leased line service, there remain inconsistencies in terms of how operators are treated in the Law. For example, all fixed public operators must provide connections to all customers on request (Article 49 of the Law). This requirement is valid in a situation when an operator has universal coverage, but for new entrants it may distort investment decisions. Implicit accounting separation is required for all operators according to Article 78 of the Law which requires that all operators should offer interconnection for other parties on terms not worse than those used with their subsidiaries and affiliates. This regulation also is not necessary for operators without significant market power.

Price regulation has not been applied to the incumbent operator even though such regulation could have been imposed since 1990. The Telecommunications Law of 2000 allows the URT to contest the tariffs for services designated as universal services of companies which have significant market power. But this power is not meaningful, for under Article 151 of the Law the URT is prohibited until 2004 from reviewing whether the universal service tariffs of SMP companies are aligned with costs.

There is a mismatch between EU Directives and the Telecommunications Law in the provision of universal service. Poland's telephone penetration ratio is lower than other OECD countries, yet universal service is defined as providing national coverage upon customer demand, as it typically is in countries with high teledensity. Using this inappropriate definition makes it difficult for operators to plan an efficient investment schedule in networks. Specific fixed-line operators are not selected as the providers of universal services. The URT or the Ministry of Infrastructure cannot impose requirements for investment in infrastructure on TPSA, and as a result there is no procedure to ensure that there will be network expansion in rural areas.

The process of privatisation of the incumbent, TPSA, through a strategic investor led to an agreement between the government and the strategic investor. This agreement has not been made public. It should be made public to provide the market with more certainty about government policy and about the rights and obligations of the incumbent.

#### **4.2. *Policy recommendations***

The following recommendations are based on the above analysis, taking into account the "Policy Recommendations for Regulatory Reform" set out in the OECD *Report on Regulatory Reform* (OECD, June 1997).

##### **1. *Ensure that regulations and regulatory processes are transparent and non-discriminatory and applied effectively***

- Introduce full competition in the telecommunication market

The Council of Ministers can introduce competition in the international telephony market immediately by lifting the exclusive right of the incumbent to provide international telecommunication services. This should be done. This action is specifically contemplated under the Telecommunications Law. Although it may break the agreement with the strategic partner, it does not appear that there is a financial penalty involved in changing the agreement. The benefits of competition far outweigh any costs. Continuing the monopoly in international services will have ramifications throughout the market and slow the development of competition.

- Remove exemptions that impede effective price regulation on services where there is a dominant position or significant market power and adopt a clear, fair and cost-based interconnection charging scheme.

In the absence of price regulation, firms that are dominant or have market power can extract monopoly rent from customers as well as engage in anti-competitive practices over rivals in the telecommunications markets. The government should eliminate the provision in Article 151 that restricts the application of cost based universal service charges by operators retaining significant market power until 2004. An interconnection framework based on forward looking LRAIC should be implemented as soon as possible and best practice benchmarks should be used in the interim. In addition the regulator should have the power to devise *ex ante* regulation to protect new entrants against a price squeeze and price discrimination. Interconnection should be based on call termination, irrespective of the type of networks, and should replace the current complex interconnection arrangement.

## ***2. Reform regulations to stimulate competition and eliminate them except where clear evidence demonstrates that they are the best way to serve the broad public interest***

- Implement number portability.
- Introduce a best practice universal service framework.

The Law requires amendment to introduce number portability so that a subscriber can retain the same telecommunications number within one numbering zone when switching to a new operator. Universal service is generally defined as providing basic telephone services at affordable rates to residential customers without geographic discrimination. The Telecommunications Law identifies universal services as synonymous with public fixed telephony services. To ensure provision of fixed telecommunications services to rural residents, either there should be a designation of a universal service provider (the incumbent), or a universal service fund should be developed.

- Implement on a consistent basis asymmetric regulations.

New entrants and operators without significant market power should not have universal coverage obligations other than paying into a fund (if one is set up). The government should review whether the interconnection charges of the incumbent mobile operators meet cost-based requirements. New entrants and smaller operators should be entitled to determine their tariffs flexibly without being subject to the use of strictly transparent and objective criteria as stipulated in Article 35 Paragraph 2 of the Law.

- The individual authorisation (licensing) scheme should be replaced by general authorisation.

Though the former licensing system has been replaced with an authorisation regime, and the financial burden reduced, authorisation for public telephone service and broadcasting services still retains the characteristics of an individual licensing scheme. A general class licensing (authorisation) framework will promote competition in telecommunications market.

- Local loop unbundling for voice and data services should be implemented.

There is no evidence to show that implementation of unbundling would slow down infrastructure investment. On the contrary, unbundling would allow new entrants to obtain rapidly a revenue stream which should aid in their deployment and investment in networks. Furthermore, unbundling will assist in rapidly upgrading the network either through new entrant investment or by the incumbent that has an incentive to maintain its customer base. Unbundling will also assist in rapidly providing broadband to Polish users.

- The incumbent should be subject to clear investment targets.

As long as the incumbent has a privileged monopoly position it should be subject to clearly established targets for network roll-out in rural areas. When the incumbent is subject to full competition, such targets should be integrated into a universal service framework based either on a fund or as a responsibility of the incumbent.

### 3. Review, and strengthen where necessary, the scope, effectiveness and enforcement of competition

- The URT needs to be given powers to implement general regulations as well as apply these regulations.

An effective regulator should be able to draft and implement regulations, within the general policy framework set by the government, that are needed to create an efficient and competitive market. The URT can only take decisions on individual cases. Its role is limited to enforcing regulations which are determined by the Ministry of Infrastructure (although in consultation with the URT). From April 2002 the URT (currently URTiP) can help draft ordinances assigned by the minister competent for posts and telecommunications, but this is still insufficient for the URT to initiate and implement the general principles set down by the Law. The present structure limits the independence of the regulator and does not give it sufficient scope to take flexible regulatory action to meet changing market and competition conditions. The functions of the URT need to include supervising the authorisation process, establishing *ex ante* conditions for interconnection agreements, establishing the national numbering plan as well as allocating numbers, setting up accounting separation criteria and the cost accounting system, and devising quality of service standards and determining a framework for universal service, including its financing. Devising a legal basis to allow the URT to undertake these tasks should be a priority.

- The Ministry of Infrastructure should be provided with skilled staff to rapidly put in place the Ordinances detailed in the Telecommunications Law.
- Enhance the consultation process to include all interested parties, not only the economic chambers.

## NOTES

1. Deputy President of the Office of Telecommunications Regulation acknowledged the Telecommunications Law of 2000 has to be amended after reviewing the European Commissions' comment on the Law. Poland A.M., Telecommunications law to meet EU standards, 20 April 2001.
2. A group of Polish Parliament members proposed the break-up of TPSA into local, long-distance and international operators on the ground that this break-up prevents TPSA from cross-subsidising less profitable local call services by transferring revenues on lucrative long-distance and international telephone services. Pawel Kozolowski, "Polish MPs propose TPSA break-up," *Reuters*, 24 July 2001.
3. Tenders for major cities in the local telecommunication markets began in 1997.
4. Elektrim Telekomunikacja has 47% stake in the largest Polish mobile telecommunication company Polska Telefonia Cyfrowa Sp. z.o.o.
5. Netia Holdings S.A., Annual Report Pursuant to Section 13 or 15(d) of the Security Exchange Act of 1934 For the fiscal year ended December 31, 1999, Washington D.C., SEC 0-30910, 2000. P33-34.
6. Peter Smith and Björn Wellenius, "Mitigating Regulatory Risk in Telecommunications," *Public Policy for the Private Sector*, Note 189, World Bank (1999), pp. 3-4.
7. The contract is believed to have provisions on the schedule for future sale of a further stake, an assurance for award of one UMTS license to PTK Centertel and the postponement of international telephone monopoly. On top of these, there are investment requirement and a restriction on massive layoff of employees for certain duration and the cancellation of employers benefit packages upon the breach of the agreed terms and conditions.
8. Telecommunications service policies and ordinances for the Telecommunications Law are concerned with the two departments of the Ministry of Infrastructure. The Department of Telecommunications Strategy and Development is in charge of telecommunications policies and drafting legal acts and amendments regarding, in particular, issuance of authorisations, the right to use numbering resources, frequency reservation and co-operation and inter-operator settlements. In contrast, the Department of Telecommunication technology is responsible for standardisation and technical issues, general conditions for the provision of telecommunications services, the management of frequency resources and the supervision of handling of consumer complaints.
9. See Article 92 in the Constitution of the Republic of Poland.
10. Netia has joined TPSA and Elektrim in offering local telecommunications services in Warsaw from March 2001. Netia received its local telephone license for the capital city in June 2000. The company has 15 000 lines in Warsaw. See *Warsaw Business Journal*, March 26-April 1, 2001, p. 6.
11. According to Article 38 of The Communications Act of 1990, the Minister of Posts and Telecommunications may introduce maximum prices for public telecommunications services. The international charges are fixed in consultation with the minister.
12. The UOKiK is nervous about being a position that looks like price control.
13. The Ministry of Posts and Telecommunications (currently the Ministry of Infrastructure) provided this answer for the OECD questionnaire of December 2000.

14. The Parliament had taken the price regulation out of the Draft in that it was not used by the Ministry for a long period.
15. For more information, OECD (2000), *Regulatory Reform in Hungary*, Paris, p. 333.
16. UPC Polska, Annual Report Pursuant to Section 13 Or 15(D) of the Securities Exchange Act of 1934, Form 10-k., p. 14.
17. The “69” prefix was allocated to PTC and Polkomtel without adopting a new ordinance for numbering.
18. Directive 98/61/EC introduced carrier pre-selection with one single deadline, namely 1.1.2000. The EU has launched infringement proceedings in 2000 for lack of carrier pre-selection for local calls and calls to mobile networks.
19. It could be argued that to create a level playing field all customers, including the incumbents’, should be required to dial the long-distance prefix “0” and the prefix for carrier identification “1XX”. This would also have the advantage of giving the incumbent an incentive to expand network digitalisation much faster. However, this is inconvenient for customers. Pre-selection is therefore important.
20. The three mobile incumbents argued that new entrants could operate in major cities without investing in the infrastructure as they had. The incumbents also argued that the mobile telephone market reached maturity and 5 UMTS operators would result in financial losses.
21. Wanda Jelonkiewicz, “Tender Fallout,” *Warsaw Voice*, No 51, 17 December 2000.
22. The Consumer Ombudsmen, as provided in the Competition and Consumer Protection Law of 2000, in each town (there are about 200 of them) are dealing with hundreds of consumer complaints about billing already. It is important that the URT has close co-operation with these Ombudsmen.
23. Roger Noll (2001), “Notes of Privatising Infrastructure Industries,” Summer Workshop – World Development Report 2001/2002, p. 4 - 5.
24. The Ministry of Posts and Telecommunications of Poland (2000), Strategy for Activities of Governmental Plenipotentiary for Rural Telecommunications for Years 2000-2004, p. 2.
25. In 1999 and 2000, a representative of the Competition Authority participated in the Parliamentary Committee in the course of drafting the new Telecommunications Law.
26. The per capita Gross Domestic Product (GDP) in 1999 for each country was USD 5 164 for the Czech Republic, USD 11 848 for Greece, USD 4 790 for Hungary, USD 4 024 for Poland, and USD 11 245 for Portugal (OECD Main Economic Indicators).
27. See Report on the Telecom Sector in Poland at <http://www.polishmarket.com/Telecom.html>.
28. See <http://www.eu-esis.org/esis2basic/Plbasic7.htm>.
29. The figures are produced by using the GDP data from EIU Country Report, January 2001 by the Economist Intelligence Unit and the data from <http://www.eu-esis.org/esis2basic/Plbasic7.htm>.
30. The data are drawn from 2000 World Development Indicators.
31. TPSA Luncheon Presentation, Monday 10 January 2000, London, England.

32. See Andrew McMillan (2000), "Central and Eastern Europe: A Regulatory Tale," Telecommunications Online at <http://www.telecommagazine.com/isses/200004/tci/tale.html>.
33. The basket includes a number of calls distributed at different times of the day, different days of the week and over different distances. The statistics are prepared in USD using both purchasing power parity (PPP) and current exchange rates. In general, it is considered that the PPP figures provide a more reliable comparison.
34. Historical international accounting rate data are available from the International Bureau of the Federal Communications Commission of the United States.
35. OECD countries are grouped into three regions (Europe, North America, Asia-Pacific) and international telecommunications traffics are assumed to be distributed equally to each area.
36. OECD (1999), *Communications Outlook 2001*, Figure 9.8.
37. See DG Information Society (2001), *Information Society Indicators in the Countries of Central and Eastern Europe*, An ESIS report.