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GETTING AWAY FROM THE RED PHONE
THE ROLE OF THE STATE
IN THE TELECOMMUNICATION SECTOR
IN HUNGARY AND POLAND

By

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ABSTRACT

GETTING AWAY FROM THE RED PHONE

THE ROLE OF THE STATE

IN THE TELECOMMUNICATION SECTOR

IN HUNGARY AND POLAND

by

Manuel Auguste Metz

This document is a case sutdy trying to compare the role of the state in the development of telecommunication in Hungary and Poland. It deals with the indirect and the direct actions of the state on the telecommunication sector for the 1989-1994 period. It shows that Hungary has a very strict regulative attitude toward telecommunication whereas Poland is more inclined to a "laissez-faire" policy. Some advises, based on the findings, are then given for the other countries in Central and Eastern Europe for them to have better chances to develop quickly and efficiently their telecommunication sector.

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CHAPTER 1: SYNOPSIS

Before any tentative study of the role of Polish and Hungarian States in telecommunication, a historical background will be provided to help the reader understand the problems faced by both countries after the fall of the Communist block. The first section of this chapter is devoted to a brief history of telecommunication and general economy in Hungary and Poland under Communist power. It will show the considerable role of the State in the societies of these countries. Such a big influence is unlikely to disappear quickly even after a radical change in the political structure. The second section is then devoted to the role of the State in the post-Communist economy, particularly telecommunication. It will show why the State is one of the most important actors in telecommunication. Finally, the third section will outline the different steps that the study will follow to ascertain the role that the State had during the five years that followed the fall of the Communist power.

1.1. HISTORICAL BACKGROUND

At the end of World War II, Europe was divided into two blocks depending on who freed the countries from Nazi occupation and the results of "democratic" elections. While Western Europe remained capitalist with the help of the United

States of America (USA), Central and Eastern Europe (CEE)[1] was forced to adopt a Communist system, with the exception of Greece. In Greece, a strong capitalist feeling combined with financial aid from the USA provided enough protection against revolutionary partisans to keep the country inside the "Western World".

Under Communist power, with the exception of some atypical examples in the agricultural field (very small private land, independent farming community), the whole economy has been put under State control. The State was then the only significant actor of the economy, being seller and buyer of every single product of the production chain down to the end consumer. It decided what to produce, how much to produce and where to invest profits. The sectors of the economy were developed depending on their symbolic significance for the Communist propaganda. On the one hand, the coal and steel industries, which represented the power of the Communist production, were, along with the defense industry, the first priority during the allocation of the national budget. On the other hand, the production of consumer goods was under-developed and very unlikely to benefit from investment or research and development.

The situation was similar in the telecommunications field. With its high propaganda value, broadcasting was "pushed into" the household through a broad choice of programs (though always tainted by Communist propaganda) and subsidies on television sets and radios. In contrast, inter-personal communications, difficult to monitor for politically incorrect content, were always considered as not worthy of development or even dangerous for the system. When inter-personal communication technology was developed, it was primarily meant for commercial use or for the members of the intelligentsia[2].

Thus, telecommunication[3] in the CEE countries was far behind the "Western World" level. Cut from the rapid technological changes in western telecommunication by the CoCom's restrictions (Coordinating Committee on Export Controls), obliged through protectionism to buy expensive domestic equipments with very limited funds[4], forced to keep the phone service scarce and primitive to facilitate eavesdropping[5], the civil telecommunication operator did not have much possibility to develop telecommunication. As a result, telephone penetration in the area was averaging around 10% in 1988 with very few differences between the countries[6]. The waiting lists for a basic phone line were dramatic and the waiting was hopeless except for the members of the Communist party's elite. As far as quality of service was concerned, even the use of the word "quality" was an exaggeration to stress the lack of it. Finally, besides phone services, telecommunication was reduced to telex service, mostly developed for strategic Communist firms. Data transmission, satellite communication or mobile networks were exclusively reserved for military use if they were at all developed.

1.2. THE IMPORTANCE OF THE STATE ACTION

However, since 1989, four countries have managed to reach a level of development high enough to be considered for full European Union (EU) membership after the turn of the century[7]. The Czech Republic, Hungary, Poland and the Slovak Republic made considerable effort in order to keep up with EU's expectation. They developed links with western countries to acquire capitalist's "know-how" and raise investment for their development, privatized part of their economy and defined politics to improve the general economic situation.

In countries where the State was all powerful for 45 years and owned the entire economic infrastructure, such changes could not be done without an important role for the State. Owning the entire economy, the State has at least the important role of initiating privatization. Thus, in the consumer goods retail sector, the role of the State is limited to the definition of a broad framework which allows private ownership and operation. For other sectors where technical knowledge or an important amount of investment are needed, opening the sector to domestic private ownership is not enough because of a dramatic lack of domestic capital and domestic expertise.

The telecommunication sector was one of the latter. For the development of telecommunication infrastructure as well as for its improvement, high amounts of investment are needed. Moreover, telecommunication has been defined, since the beginning of the transition, as a strategic sector. As such, the emphasis is on a quick development of the network, allowing other economic sectors to benefit from telecommunication services. It could be possible to open the sector to private interests and allow them to charge monopolistic prices. The funds could be raised through the sector. However, considering the very small existing network, even monopolistic prices would not be enough to raise funds for a quick development.

Investment has to be provided first and reimbursed by the profit it allows. Since capital is very scarce on the private domestic market, it can only come from private foreign sources or from governmental sources (either tax money or money collected from international aid). In a situation as such, the State has a very heavy responsibility. It has to determine the minimum amount of foreign help needed to develop the sector and the maximum amount of foreign help acceptable so that the country is not "sold" to foreign powers. Too little help could lead to a failure of developing the sector according to original plans. Too much help could lead to a loss of trust from the people toward the State and could bring about serious political crises in countries that are already politically shaken by a radical transition from Communism to Capitalism. In Hungary for instance, many people already accuse the State of having sold the country to foreign investors[8].

In any case, economic possible returns are not the only factors influencing the investors' decision. North[9] argues that institutions determine the payoffs. He defines institutions as consisting of " formal rules, informal constraints (norms of behavior, conventions, and self-imposed code of conduct), and the enforcement characteristics of both."[10] Thereby, regulations, that constitute a big part of the formal rules, play an important role in determining the payoffs of an investment and luring the investors.

Moreover, while defining a policy for the telecommunication sector, the State is still the owner and the operator of the telecommunication system. It is then responsible for finding capital (either through taxes or through foreign aid) and "know how", and then using them for the development and the improvement of telecommunication infrastructure.

Thus, the role of the State is very important in the telecommunication sector as compared to some less capital and technical intensive sectors which can be developed quickly by the domestic private sector in cooperation with foreign aid. The state is then a mediator between social interest and new private owners and between the country need in telecommunication and foreign investors. It is certainly not the only actor to be considered when studying telecommunication in the CEE, but it plays a major role.

1.3. OUTLINE

The thesis will then concentrate on the comparative role of the State in the telecommunication sector in two countries: Hungary and Poland. A theoretical framework of study based on a review of the literature about the role of the State in telecommunication will be defined in chapter 2. In chapter 3, the situation of the two countries will then be compared in particular for the telecommunication sector, just after the fall of the Communist power at first and then five years afterward, to assess the differences in development. Chapter 4 will then deal with the indirect influence the State has had on the telecommunication sector, and chapter 5 will deal with the direct influence. Chapter 6 will outline some lessons that could be learnt through the experience of the two countries and chapter 7 will conclude the study by outlining weaknesses in the study and proposing possible research.

1. Central and Eastern Europe comprises the former Warsaw Pact countries excluding the former Soviet republics, the former Yugoslavia, and Albania.

2. Jürgen Müller and Nyevrikel, "Closing the Capacity and Technology Gaps in Central and Eastern European Telecommunications", in Björn Wellenius and Peter Stern (eds.), Implementing Reforms in Telecommunications Sector. Lessons from Experience, The World Bank, Washington D.C., 1994, pp. 353-373.

3. Telecommunication is used here in a narrow sense excluding television and broadcasting since the development of the two sectors are totally different.

4. Jürgen Müller and Emilia Nyevrikel, 1994.

5. Anthony Ramirez, "Cellular Phones fill Gap in Hungary", The New York Times, Jul. 6 1992, p. D2.

6. Clare Lees, "Telecommunications in Central and Eastern Europe", Datapro Reports on International Telecommunications, 1994, pp. 121-131.

7. "Europe Membership Talks Start Today", The New York Times, Oct. 31 1994, p. A5.

8. Jane Perlez, "Hungarians Cooling to Foreign Investment", The New York Times, May 3 1994, p. A12.

9. North D., "Institutional Change: A Framework of Analysis", in Sjostand S., Institutional Change: Theory and Empirical Findings, Armok, M.E. Sharpe, New York N.Y., 1993.

10. North, 1993.

CHAPTER 2: THEORETICAL FRAMEWORK

This chapter will outline the theoretical framework used for the study. The first section is devoted to a literature review on the role of the State in the telecommunication sector. The second section presents the method that has been used for this study.

2.1. LITERATURE REVIEW

Since the fall of Communism, there has been a lot of literature about the CEE countries and the problems they face in their difficult path toward capitalism. However, this literature is not oriented to specifically ascertain the impact of the State actions on telecommunication. It is either very general and deals with the impact of the State actions on the macro-economic scale, generally only for one country but sometimes comparing several (e.g. "A Comparative Review of Privatisation Strategies in Four Former Socialist Countries" by Marko Simoneti[1]), or very narrow and deals with one aspect of the telecommunication sector in one country (e.g. "The evolution of the Hungarian telecommunications policy" by Erik Whitlock and Emilia Nyevrikel[2]).

The existing literature about telecommunication provides good insight on the role of the State in the development of telecommunication. Even though several ways of looking at telecommunication are presented in the literature, each method includes the state as a factor influencing telecommunication.

For instance, while using a contextual analysis to study the telecommunication sector as a whole in a country, Bella Mody[3] includes the State in the political contextual factors. It is then acknowledged that the state has an influence on the telecommunication sector. The role of the State is not only acknowledged in the study of the telecommunication sector as a whole. Authors stressing a particular aspect of the sector do also recognize the State as an influence. William Dutton[4], for instance, studies telecommunication policy through "the ecology of games". In each game considered, the State is a player. The State then has a significant influence on the ecology of the telecommunication games. Some authors even consider that the State has a very important role if not the most important role in the development of telecommunication, especially in the developing countries. Katz, for instance, maintains that the growth of "telecommunications technology is strongly determined by government policy."[5] Jonscher states that development in the telecommunication sector is only possible with an active intervention of the State.[6]

Most of the literature on the impact of the State actions on the telecommunication sector follows four main directions.[7] Even though the situation is different for each country, the role of the State can generally be divided in four categories:

commercializing operation, increasing private sector participation, developing competition and developing regulation.

During the last forty years, the general wisdom about the privatization of telecommunication has changed from a pro-State owned telecommunication infrastructure position to a strong belief in privatization. After the decolonization, as domestic capital was a scarce resource, most of the scholars and the international organizations, such as the World Bank, favored a State owned and operated telecommunication structure for the developing countries[8]. The situation now in the CEE countries is similar to what the situation was like in the decolonized countries. The State is responsible for most of the economy and does benefit from important revenues. Domestic capital is almost non-existent. However, even if some authors advocate that State owned and operated firms allow a better control on the economy[9], the trend is to advise privatization of telecommunication especially using domestic capital. Most of the literature about the role of the State in telecommunication deals with the role of the State in the privatization of telecommunication. It is recognized that the State, along with foreign and domestic capital, plays an important role in the ownership of telecommunication[10]. However, some opposition to privatization inside the State is also recorded. Fearing staff reduction, new work conditions and "creamskimming", part of the State tries as much as possible to avoid privatization or to slow it down[11]. Teske advocates against this reasoning as there are opportunities for laid off staff through their experience in the sector and as there is still a lot of monitoring to do in the sector for the State.[12] However, this fear of loosing one's job is a reaction that has become typical in CEE countries where hopes in capitalism fade slowly under the attack of unemployment.

The regulatory issue is sometimes given less attention in the countries but is an important part of the literature about the role of the State in the telecommunication sector. In a country where the telecommunication sector is not private, the State has a tendency to stress operation compared to regulation[13]. The first step taken toward letting private interests in the sector is to separate the regulatory body from the operation. However, in many cases, when the State looses the operation of telecommunication, it tends to "forget" the sector.

"The State is offering what could be its most profitable sector to private capital often with little attention to regulatory mechanisms or requirements to service the total population."[14]

However, the regulatory function of the State is a very important role. According to Nulty and Schneidewind, a

"telecommunications system that relies solely on private, competitive firms will tend to be both inadequate overall and too unevenly distributed to meet the needs of society as a whole".[15]

Finally, the structure of the State is likely to influence the process of telecommunication reforms and determine their success.[16] For instance, a strong executive body might be effective in initiating the reforms, but might also vitiate the objectives of reform by diluting the power and effectiveness of the regulatory process.[17] The structure of the State departments influencing directly the telecommunication sector should then be given some attention.

The literature dealing with the state's action in the telecommunication sector stresses the privatization issues and the regulatory issues, either in general or for particular countries. This document is trying to compare the role of the State in telecommunication for two typical examples in CEE.

2.2. METHOD

Since 1989, the telecommunication situation in the CEE evolved gradually. Some countries were able to quickly develop their telecommunication whereas others were stuck, unable to efficiently move forward. Among the four most developed countries, there are also differences. These differences are differences in approach. Hungary chose a quick but rigid approach to telecommunication improvement defining every single step and enforcing social goals through regulation. The Czech republic and the Slovak republic were less quick in defining regulation and they have been less rigid trying to lure investments through less restriction. Poland, on the other hand, chose a "laissez-faire" approach for almost the whole telecommunication sector. Thus, the four countries are now scattered on the telecommunication reforms and policy spectrum. In order to see the difference between the approaches chosen, the study will focus on the two ends of the spectrum, Hungary and Poland.

As noted earlier, after the fall of Communism, the State stayed in charge of many sectors including the telecommunication sector, at least to help the transition. For instance, during the period 1989-1994, the Hungarian and Polish States kept the responsibility of running most of the telecommunication operations. Moreover, any movement toward privatization or any regulations were initiated by the State. The study concentrates then on the role of the State in the development of telecommunication in Hungary and Poland.

According to the literature, the State plays an important direct role in the development of telecommunication through its policies on privatization of the telecommunication sector and its telecommunication regulations. However, the State's actions do not stop there. Diplomacy toward international organizations and toward sovereign countries in order to raise aid (either in currency or in "know-how") is a very important direct influence on the telecommunication sector.

Moreover, through its different actions on the economy of the country, the State might indirectly influence the development of the telecommunication sector. For instance, actions aimed at reassuring investors touch telecommunication investors as well as others and are likely to help the development of the sector to some extent.

The study will then take the form of a case study using press articles and books on both countries. The State's actions (direct or indirect) on telecommunication will be noted in each article and then interpreted for its significance in telecommunication development.

The documents used for that study can be divided into two categories. Some documents are directly related to telecommunication and can be used for determining the direct influence of the State's actions on telecommunication. It is anything done by the government or by any State agency in the field of telecommunication. It can be related to legislative power, to executive power, to juridic power, to diplomatic actions, or to decisions taken in the management of State-owned firms.

On the other hand, indirect influences are more difficult to determine. Any actions undertaken by the State could have an indirect influence on the telecommunication sector. An action with an indirect influence on the telecommunication sector is an action that is not specifically aimed at the telecommunication sector but still affects it. It is rather difficult to recognize an indirect influence, but in general, any action taken by the State to affect the whole economy of the country is an indirect influence whether its effects are important or not. For the purpose of the study, only the main indirect influences such as macro economic policy or general diplomacy aimed at investors will be used.

1. Marko Simoneti, "A Comparative Review of Privatization Strategies in Four Former Socialist Countries", Europe-Asia Studies, Jan. 1993, pp. 79-102.

2. Erik Whitlock and Emilia Nyevrikel, "The evolution of Hungarian telecommunications policy", Telecommunications Policy, Apr. 1992, pp. 249-258.

3. Bella Mody, "First World Technologies in Third World Contexts", in E.M. Rogers and F. Balle (ed.) The Communication Revolution in North America and Western Europe, Ablex, New Jersey, 1985.

4. William Dutton, "The Ecology of Games Shaping Telecommunications Policy", Communication Theory, Nov. 1992, pp. 303-328.

5. R. Katz, The Information Society: AN International Perspective, Praeger, New York, 1988.

6. C. Jonscher, "Information Resources and Economic Productivity", Information Economics and Policy, 1983, pp. 13-35.

7. Bjôrn Wellenius and Peter Stern, "Implementing Reforms in the Telecommunciations Sector: Background, Overview, and Lessons", in Bjôrn Wellenius and Peter Stern (eds.), Implementing Reforms in the Telecommunications Sector: Lessons from Experience, The World Bank, Washington D.C., 1994, pp. 1-64.

8. Bella Mody and Lai Tsui, "The changing role of the State.", in Bella Mody, Johannes Bauer, and Joseph Straubhaar, Telecommunications Politics: Who Will Own the Information Highway in Developing Countries, Lawrence Erlbaum, Hilldale N.J., 1995.

9. R. Noll, " The Political and Institutional Context of Communications Policy", in M. Snow (ed.), Marketplace for Telecommunications: Regulation and Deregulation in Developing Countries, Longmans, White Plains N.Y., 1986.
P. Evans, "After Dependence: Recent Study of Class, State and Industrialization", Latin American Research Review, 1985, pp. 149-160.

10. Bella Mody and Lai Si Tsui, 1995.

11. Bella Mody and Lai Si Tsui, 1995.
Paul Teske, After Divestiture: The political economy of state telecommunications regulation, State University of New York Press, New York N.Y., 1990.

12. Paul Teske, 1990.

13. Bella Mody and Lai Si Tsui, 1995.

14. Bella Mody and Lai Si Tsui, 1995.

15. T. Nulty and E. Schneidewind, "Regulatory Policy for Telecommunications", in B. Wellenius, P. Stern, T. Nulty and R. Stern (eds.), Restructuring and Managing the Telecommunications Sector, The World Bank, Washington D.C., 1989.

16. B. Petrazzini, " The Politics of Telecommunications Reform in Developing Countries", Pacific Telecommunications Review, 1993.
A. Galal, Regulation, Commitment and Development of Telecommunications in Chile, The World Bank, Washington D.C., 1993.

17. B. Petrazzini, 1993.

CHAPTER 3: TELECOMMUNICATION DEVELOPMENT

This chapter consists of a comparative description of the situation of Hungary and Poland right after the fall of the iron curtain in 1989 and five years afterward. The first section is devoted to general economy while sections two and three are dealing with telecommunication. To facilitate the comparison between the two countries, four tables are provided. Tables 3.1 and 3.2 include general economic data. Tables 3.3 and 3.4 summarize the Hungarian and Polish telecommunication situations in 1989 and 1994. The following chapters will then concentrate on the direct and indirect actions of the States on the telecommunication sector.

3.1. THE GENERAL ECONOMIC SITUATION

Poland and Hungary do not share the exact same characteristics. Demographically, the two countries are really different. With a population of 38 million[1], Poland is the biggest CEE country beside Russia. Hungary, on the other hand, is one of the smallest with 10 million inhabitants[2]. The difference of size is of course also geographical: Hungary represents 93,032 square kilometers[3], whereas Poland represents XXXXX square kilometers. Although they have similar proportion of urban population (60% in 1989 for Poland[4] and 62% in 1990 for Hungary[5]), the population of Poland is more concentrated. In 1989, the Polish urban population lives only on 6% of the Polish territory and there were 24 cities of more than 100,000 inhabitants[6]. In Hungary, on the other hand, there are only eight cities of more than 100,000 inhabitants[7]. Poland having bigger urban market than Hungary but they are further apart. Operation of rural communications is then less profitable in Poland as villages are more likely to be far away from cities. Similarly, long distance operation is more costly in Poland than in Hungary as the urban centers are relatively evenly distributed on the Polish territory.[8]

Historically, they dealt with Communism differently. Poland had a tradition of dissidence that made people aware of political debate and made them capable of political actions[9]. Hungary had a tradition of private ownership for small businesses, and in 1989 the private sector already accounted for 2% of the economy.[10]

After the fall of Communism, the two countries followed sensibly different ways of development. Hungary became a parliamentary democracy and chose a slow transition from Communism to Capitalism. It protected the people as much as possible until the economy could not support it any more:

"The ruling coalition in Hungary protected the population from welfare costs of transition to a much greater extent than those ruling in other countries."[11]

Nowadays, the average wage in Hungary is still the highest in CEE at $300/month.[12] Poland became a republic and opted for a "shock therapy". Consequently, the economic indicators have been lower than in Hungary. For instance, the buying power of wages has fallen 28% since 1989 in Poland and only 16% in Hungary. However, Poland achieved positive growth before Hungary. Tables 3.1 and 3.2 summarize the principal economic indicators for the period 1990-1994 for the two countries.

Table 3.1: Principal economic indicators for Hungary for the period 1990-1994

	1990	1991	1992	1993	1994
Growth	-4[1]	-7 to -9%[2]	-4.5%[3]	0.5 to 2%[3]	5%[1]
Inflation	28.9%[4]	35%[2]	25%[5]	23%[3]	20%[6]
Unemployment	N/A[7]	8.5%[2]	8.9%[8]	14%[3]	12.6%[6]

sources:
1. Craig Whitney, "East Europe's Hard Path to New Day", The New York Times, Sep. 30 1994, pp. A1 and A4-A5.
2. Michael Marrese, "Hungary Emphasizes Foreign Partners", RFE/RL Research Report, , Apr. 24 1992, pp. 25-33.
3. Jan Winiecki, "East-Central Europe: A Regional Survey. The Czech Republic, Hungary, Poland and Slovakia in 1993", Europe-Asia Studies, 1994, pp. 709-734.
4. Karoly Okolicsanyi, "Macroeconomic Changes in Hungary, 1990-1994", RFE/RL Research Report, Jun. 17 1994, pp.21-26.
5. Anthony Ramirez, "Cellular Phones Fill Gap in Hungary", The New York Times, Jul. 6 1992, p. D2.
6. Jane Perlez, "Hungarians Cooling to foreign Investment", The New York Times, May 3 1994, p. A12.
7. N/A means "not available".
8. Attila Becskehàzi and Jason McDonald, Business information Hungary,CERA, Budapest, 1992.

Table 3.2: Principal economic indicators for Poland for the period 1990-1994

	1990	1991	1992	1993	1994
Growth	-12%[1]	-8 to -10%[2]	4%[3]	4 to 5%[4]	6%[1]
Inflation	N/A[5]	60.4%[2]	40%[6]	N/A	N/A
Unemployment	N/A	11.4%[2]	14%[6]	N/A	16%[7]

source:
1. Craig Whitney, "East Europe's Hard Path to New Day", The New York Times, Sep. 30 1994, pp. A1 and A4-A5.
2. Ben Slay, "Poland: an overview", RFE/RL Research Report, Apr.24 1992, pp. 15-21.
3. "Country Profile: Poland", US Department of State Dispatch, Jan. 3 1994, p. 10.
4. Jan Winiecki, "East-Central Europe: A Regional Survey. The Czech Republic, Hungary, Poland and Slovakia in 1993", Europe-Asia Studies, 1994, pp. 709-734.
5. N/A means "not available".
6. "Fact Sheet: Poland", US Department of State Dispatch, May 3 1993, pp. 317-318.
7. Jane Perlez, "Fast and Slow lanes on the Capitalist road", The New York Times, Oct. 7 1994, pp. A1 and A6.

3.2. THE COMMUNIST HERITAGE IN TELECOMMUNICATION

As explained in chapter 1, telephony did not enjoy a high priority under Communist regime. Thus, in 1989, the telecommunication infrastructure in CEE was totally underdeveloped compared to its Western counterpart. For instance, the phone penetration was on average four times lower in Eastern Europe than in Western Europe. Even in underdevelopment, there were some differences between the countries. Bulgaria for instance enjoyed a fairly high telephone penetration compared to the rest of the area with an average of 17 main telephone lines per 100 population[13]. Hungary and Poland, on the other hand, were considered the least developed of the CEE with respectively 8.7% and 7.9% penetration (representing 0.9 and 3.0 million main lines), while the rest of the area had at least 10% penetration[14]. Even though the number of public phones was far better than anywhere else in CEE (24400 for Hungary and 25600 for Poland, to be compared with less than 10000 in the other countries[15]), it was difficult to find a phone, especially for businesses deprived from a main line. Budapest was the European capital city with the lowest number of phones and in Hungary as well as in Poland, many villages did not even have a telephone line at all[16]. The following example shows very well how difficult the situation was for former Communist non-strategic businesses:

"The orchard [a large fruit orchard located about 40 km south of Warsaw] serves both national and export markets. In order to do business it must have access via telecommunications to its suppliers and customers at home and abroad. Yet it cannot get a telephone line. Therefore it has made an 'arrangement' with a pensioner in Warsaw who happens to have a telephone line in his apartment. Every day a car and driver make two round trips to the pensioner's apartment to send and receive messages."[17]

The waiting lists were the highest in the CEE with 5.2% of the population on waiting list for both countries[18] and are likely to be largely underestimated as many were discouraged by the waiting and didn't even submit an application. The waiting time was so bad (12 years in average for Hungary[19] and Poland[20], although some applications are 25 years old) that a joke advises people to file an application for a phone line at the birth of their children in order for them to get it as a wedding present.

Quality in phone connection was not better. In Hungary, there was only a 40% chance for a call to be completed[21]. In Poland, call completion was 35% for local calls and 40% for long-distance. Beside very low call completion rates, random malfunctioning was not unusual. For instance, during the winter 1990, the subscribers in Warsaw whose telephone number started with 3 could not call the subscribers whose telephone number started with 4[22]. This is due to outdated technologies still used under Communism. Many switches are still antique mechanical switches when they are not manual. In Hungary, 14.4% of the switches were manual and only in operation from 8 a.m. to 2 p.m.. In Poland, the situation was a little better on that point with only 8.5% manual switches. Even the receiving devices were the cause of some quality problems. In Hungary, for instance, many phones are still hand-crank models from the 20's[23]. The only phone system with acceptable quality was reserved to members of the ruling party and benefitted only a small population of elites. In Hungary for instance, the "K" line (line for the communist elites) was only open to 2% of the population[24].

Other means of personal communication were almost unavailable with the exception of telex. Being the only legal proof beside written agreement in Communist commercial law, the telex has benefitted from a good development. There was approximately one telex connection for 1,000 inhabitants in Poland and one for 800 inhabitants in Hungary[25]. But telex was very rarely used for personal communication, and only linked Communist means of production together. The only mobile communication system was reserved for the army and no civil usage was allowed. Finally, although data communication was not available in Poland, Hungary introduced data communication in 1968 and developed it throughout the twenty following years. In 1989, there were 7,653 data stations in Hungary able to transmit data at a speed of 2,400 bits per second.

Finally, the manufacturing sub-sector of the telecommunication sector was old and inefficient as was most of the consumer goods manufacturing sector in the former Communist countries. Even though the work force could be considered well trained and disciplined, it lacked efficiency and "know-how" in new telecommunication techniques such as fiber optics. In both countries, the only work force almost up to date for telecommunication technologies was from military contractors and did not serve the civil market.

Except for data communication, the telecommunication in Hungary and in Poland could be considered as fairly similar. Telephone penetration was in the same range, quality was dramatically missing and the equipment was equally antique. However, since the fall of the Communist system, Hungary and Poland have fought their way through the chaos of transition to improve their telecommunication. Both countries obtained results worth mentioning, and from a very similar situation arrived to somewhat different positions.

3.3. EVOLUTION OF TELECOMMUNICATION SINCE 1989

From 1989 to 1994, Hungary and Poland have given development of telecommunication a very high priority. For the sake of clearness, the main telecommunication indicators are shown in the tables 3.3 and 3.4. The results show improvements that surprisingly enough sometimes exceed the national estimate. Hungary for instance went from a 8.7% average phone penetration in 1989 to 10.92% in 1991 and 14.57% in 1994 exceeding the 1993 installation estimate by 30,000 lines[26].

Table 3.3: The Hungarian and the Polish telecommunication in 1989

	HUNGARY	POLAND
Telephone penetration	8.7%	7.9%
Main lines (in million)	0.9	3.0
Public phones	24,400	25,600
Waiting list (in % of population)	5.2%	5.2%
Call completion	40%	35%-40%
Manuel switching equipment	14.4%	8.5%

source: Datapro Reports on International Telecommunications

Table 3.4: The Hungarian and the Polish telecommunication in 1994

	HUNGARY	POLAND
Telephone penetration	14.5%	11.5%
Main lines (in million)	1.5	4.4
Public phones	27,300	28,600
Waiting list (in % of population)	6.5%	5.8%
Call completion	>50%	>50%
Manual switching equipment	6%	8%
Cellular telephone subscribers	75,000	6,200

source: Datapro Reports on International Telecommunications

Poland increased its main lines by 46% (compare to 67% for Hungary) going from 7.9% penetration in 1989 to 8.6% in 1991 and 11.5% in 1994[27]. In the same time, the number of public phones increased by 2,900 in Hungary for a total of 27,300 and by 3,000 in Poland for a total of 28,600[28]. Hungary has also introduced card phones in 1991 with a total number of 300 phones that has grown to 8,500 in 1993.

The quality and the speed of service have also improved. The connection is automatic in 92% of the cases in Poland and in 94% of the cases in Hungary. 10% of all switches are digital in Hungary and 20% in Poland[29]. The waiting time is down to 5 years and the call completion rate is now over 50% for both countries[30]. In 1990 for instance, only 20% of international calls made from Warsaw were completed and the waiting for a connection could take hours if not days. Now, there is instant and reliable international connection from the capital city[31]. And with 22,000 digital lines, Budapest has by far the most digital lines of any Eastern European city[32]. However, the development is not homogenous especially in Poland. The urban areas have benefitted far more than the rural areas from the effort to develop telecommunication. In Poland for instance, telephone penetration in urban areas is 16% whereas it is 4% in rural areas[33]. And there are still more than a thousand villages in each country that have no phone.

Mobile phone service was introduced in both countries after 1989, but the development of the mobile phone system has been quite different in the two countries. Hungary was the first country in the area to develop a mobile phone infrastructure in 1991[34]. It used frequencies of 450 MHz not compatible with Western European or American systems because the military occupied the 900 MHz range. By the end of 1992, the system run by Westel had a coverage of 70% of the country and in May 93 Westel had 30,000 subscribers[35]. Now that the military has freed the 900 MHz range, Hungary has three systems of mobile telephone: An analog system with more than 50,000 subscribers and two GSM systems with an aggregate number of subscribers between 25,000 and 30,000[36]. Poland, on the other hand, did not start its mobile network until March 1993 and now, its analog system run by Centrel only has 6,200 subscribers. Moreover, the military in Poland has not freed the 900 MHz band yet and there is no possibility for a GSM system compatible with the Western European and the American system.

Data communication has also improved since 1989, but very little information is available on the subject. In Hungary, where data communication was introduced 20 years ago, the development has been rather quick and there were already 123,223 data stations in 1990 up from 7,653 in 1989. Unfortunately, the figures for later years are not available. But the comparison with Poland can be done through two factors. The speed of transmission supported by the network is the same in both countries, varying from 2,400 bps to 9.6 Kbps depending on the lines. However, the quality of the lines sometime forces the speed down to 300 bps or 1,200 bps in Poland. The second factor is the number of white collar workers per computer. This figure is a small 4 in Hungary compared to Poland's 14[37].

Finally, both countries have invested in satellite communication in order to communicate with North and South Americas, Far and Near East and Australia. Hungary has developed two satellite earth stations in the mid 1993. Those two station use Intelsat and provide the overseas links Hungary uses to communicate with the world. Poland on the other hand has only one earth station, but it uses Inmarsat, Intelsat, Intersputnik and should soon be able to use Eutelsat.

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CHAPTER 4: STATE'S ACTION AFFECTING TELECOMMUNICATION INDIRECTLY

Both countries lack dramatically domestic capital and technological "know-how". Direct foreign investment is then very interesting "both because it is equity and also because it may bring foreign management expertise."[1] As for any investment, several economic variables (not specific to telecommunication) are to be considered before any investment in the telecommunication field is planned.

Several authors consider telecommunication development linked with general economic situation. For instance, Karoly Okolicsanyi believes that:

"Such a development is only possible if East Central European governments create an atmosphere friendly to business, where the involvement of foreign capital would make it possible to skip several generations of communications technology..."[2]

The States are then to play an important role in the development of telecommunication even if the policies used are not directly directed toward the sector but affect the general economic situation of the countries. François Grossas is even more specific in his evaluation of the general economic situation needed for luring investors in telecommunication:

"However viable and promising the investment may look, successful privatization of telecommunications enterprise will also depend on features of the country as a whole. Local capital markets are expected to play important roles. Investors, especially market investors, are sensitive to how their money will be treated, especially regarding taxation of profits and dividends, and repatriation of capital. General political conditions also have an impact on investors' decisions."[3]

Even though this is intended for the privatization of telecommunication enterprises, it can be applied for any kind of investment in telecommunication. Investors are very likely to consider all those factors before engaging in any capital move. Possibilities to further raise capital on the domestic money market are really important as it is always easier than moving capital cross-border. Prospects for return are always affected by taxation and the general goal of any investment in a foreign country is to ultimately repatriate the profits where the investors are. Finally, general political conditions are influencing investing decisions as there are one of the main component of the risk to invest in a foreign country.

As for the specific telecommunication influences, those factors are linked to State's actions. In a country where the State is the only big actor, even if it transfers its dominant position very slowly to the market mechanisms it creates, its policies and laws are molding the economy and are likely to keep a major influence for a long time. In order to study the effect of State's action on foreign investment in general (which will encompass telecommunication investment), this chapter will focus on the different points stressed by François Grossas. The first section will deal with general privatization laws and how easy (or hard) it is for a foreign investor to participate in the privatization of State-owned enterprises. The second section examines then how capital is treated in Hungary and Poland. Finally, the third section looks into the general political and diplomatic situation of the countries to determine how national risk is perceived.

4.1. PRIVATIZATION POLICIES

Privatization of State-owned enterprises has been one of the first objectives of the States in Hungary and Poland since Communism has been replaced by capitalism. In order to emphasized the difference of approach of the two countries toward privatization of national assets, this section is divided in two parts each dealing with the privatization policy of a country.

4.1.1. Privatization in Hungary

Privatization is an integral part of the four year economic program (1991-1994) that is suppose to help Hungary with the transition from centrally planned economy to market economy. The goal set for 1994 is a state ownership reduced to less than 50% of the economy.[4] But this process is not to be rushed without paying attention to the quality of privatization. In Hungary, more than the figures, the emphasis is put on the fact that privatized companies should come into the hands of highly motivated and responsible investors, able to manage the assets they bought. This is why the Hungarian state does not intend to speed up the privatization process through mass free distribution of State assets, as it is believed this would not contribute to finding responsible owners. Furthermore, restitution (giving the enterprise back to the former owner or its legal heir) is quite limited and will be carried out through issue of special compensation vouchers that the owners can trade for shares in privatized State companies or sell on the Budapest stock market. Thus, the restitutees that are not highly motivated by managing a firm can get the capital they are entitle to without hindering the economic development of the companies.[5]

Initially privatization was spontaneous, a company feeling ready to be privatized could look for investors and privatize itself. However, this led to losses to State property. In many cases, the management staff of a company, willing to be privatized as soon as possible, divided that company in several parts and privatized the profitable parts, leaving unprofitable activities to the State. Those abuses led to a moratorium on any company transformation and the establishment of the State Property Agency (SPA) in the beginning of 1991. Nevertheless, even though spontaneous privatization was a failure, the State did not want to deprive companies from initiative in privatization believing that insiders know better than anyone else when privatization seems like a good option.

There are then two kinds of privatization in Hungary. The first is a self-privatization initiated by the company and approved by the SPA. This is generally done through the raising of new equity rather than the sale of existing assets. Thus, the company can keep the capital invested to purchase new equipment or to repay its debt.[6] Most of the time, this process is used by small or medium enterprises that are easier to evaluate as they have less activities and cannot camouflage a loss making department in their balance sheet.

For large enterprises, the process is longer. It generally has five basic steps leading a company from entirely State owned and operated to privately operated and at least partly privately owned. Privatization begins with the transfer of property from the State to the SPA. This stage is initiated under different conditions. It can be requested by the State, by the enterprise or by investor interested in the company. However, the SPA always has the last word. The second step consists in the corporatization of the enterprise. This not only changes the legal status of the firm, but also allows it to begin reorienting its production and employment structures. When the corporation looks viable enough to attract investors' interest, the SPA initiates a search for strategically placed partners. Most of the time, such partners are found outside the domestic capital market, but domestic investors are not automatically rejected if they show any interest in the corporation. If several possible partners have been found, the winning proposal is generally selected through a competitive bidding. Participation in the assets of the corporation is then sold to the partner. Generally, the State retains part ownership of the newly privatized corporation. The fourth step consists in the transition between State operation and partner operation. The investor takes charge of the corporation's day-to-day operation and carries on with restructuring. Finally, after the corporation's position has been solidified, the State may decide to sell its remaining ownership share via public sale of stock.[7]

The Hungarian State has a very important role on privatization through the SPA. It keeps an eye on all the firms that are privatized and is very careful to select investors motivated and competent. In fact, the State would rather delay its privatization program than give away the domestic assets. Although the objective of the four year plan was to reach 50% of private ownership of the economy, barely 20% of the whole economy was in private hand in 1993.[8] However, the State did not speed up in any way the pace of privatization to keep up with the objectives. Such concern is likely to inspire confidence to investor in the private sector. Private clients and suppliers are likely to be motivated and efficient, insuring good business prospects. This is particularly true for the telecommunication sector which is a supplier for the whole economy and therefore benefits from such privatization efforts in every sector of the economy.

4.1.2. Privatization in Poland

As in Hungary, the main objective for privatization in Poland at the beginning of the new capitalist era was a quick system transformation. It was aimed at transferring the ownership of the economy from the State to private hands. To achieve so huge a goal, the Polish State granted from the very start unlimited freedom of entry into almost any economic activity. Consequently, the growth of the generic private sector (the one starting from scratch) was very quick, but privatization lagged behind.[9] Moreover, the rush toward private capital and especially foreign capital did encourage a large amount of abuses and fraud in the same way as in Hungary. The Polish State was than obliged to react and, after several months of parliamentary discussion, the Law on Privatization was passed. According to the law, there are two main ways of privatization:

"1. Transformation of enterprises into corporation through sale of shares, using different techniques, like public offering, direct sale to strategic investors (private placement), management buy-outs and the like;
2. Liquidation of companies and sale of their assets to private natural or legal entities."[10]

Moreover, various methods of mass privatization, including free distribution of shares, are mentioned as possibilities in the law even though they are not described in details.

To implement the law, a State agency was intended to be created as it was the case in Hungary. However, for political reasons a special ministry was created establishing a close relationship between privatisation and the executive part of the State.[11] This close relationship, beside giving the State an even more important role in privatization, leaves the privatization process to be heavily influenced by any change in political landscape. Indeed, the objectives of an agency are set at its creation and are rarely totally remodeled with a change in the State. In contrast, a ministry is more likely to change hands every time the political landscape changes and with a new minister comes a new view about the way privatization should be achieved. Such sensitivity to political environment actually hinders the privatization process, even if the Law on Privatization outlines what is to be done. As a consequence, confusion is one of the characteristic of Polish privatization. As Marek Krawczyk and Jose Lopez-Lopez state:

"The three most recent administration have been unable to formulate general policies or to set goals on the privatization front. No answer has been provided to the question of what assets should be privatized, in what way, to whom and how."[12]

Several ways of privatization have then been used in Poland. After privatization through public offering of shares, direct sale of enterprises to strategic investors, and sectoral approach to privatization, the results in 1992 were not as high as expected especially for large enterprises. The ministry then launched a program of mass privatization[13] which was to be achieved through free distribution of shares to the population. The main purpose of this scheme was to ensure speedy and fair privatization process.

In Poland, the transition from State economy to market economy is considered very important and privatization is therefore a priority. Privatization is then emphasized, and if no serious investors are found for large enterprises, free distribution of shares will be used. If this process is quick and seems to be fair, it does not insure motivated investors at all. Moreover, most of the Poles who benefit from the free distribution of shares are unlikely to have a strong interest or experience in managing an enterprise. Thus, restructuring the privatized enterprise might not be a given in this situation and it might still operate inefficiently after the privatization, burdening part of the economy of the country. Such inefficient private enterprises do not represent efficient clients for telecommunication. Returns of investment in telecommunication for the business' sector may be hurt if the amount of inefficient private enterprises is important enough.

When the methods of privatization are considered, Hungary is providing investors with more security than Poland when the quality of the private economic actors is considered. Thus, the market is more promising for enterprises that are likely to serve all the economic actors in their geographic area as are telecommunication firms. In Poland, on the other hand, the "economic fitness" of the other firms is not "secure" through the privatization process. However, the Polish privatization process is designed to be quicker and should soon create an important private sector more interested in economic efficiency than the state-owned firms.

4.2. FINANCE ENVIRONMENT

Beside the prospect for clients and consequently for profit, another important point that investors consider before taking any decision to engage capital in a country is the general finance environment offered by that country. In order to develop a business, and this is all the more true in hardware intensive business such as telecommunication, capital is needed at different stage of the development. Most of the time, the capital initially invested in the operation is not enough (especially if the initial investment was to buy participation in a privatized company in which case the investment does not benefit the company) and operation requires more investment. Moreover, the objective of any investment is to eventually turn the risk taken into profit. In the eventuality of profits, foreign investors are interested in repatriating them in hard currency. An important point to consider then before investing is the capital market. Is the currency convertible? Is it easy to import capital? Is it possible to raise capital in the country? Can profit be repatriated without any problem?

Furthermore, the amount of net profit is not only a function of the clientele, the State influences the level of profit a great deal through fiscal policy. Depending on taxes and other fiscal tools, a firm can be better off in a country where the prospective market is less promising but where the State provides investors with tax breaks.

This section will quickly ascertain the initiatives of the State in matters of finance and the financial appeal of the two countries. Firstly the State's actions for the development of a capital market will be described. Then, the fiscal system of the two countries will be examined to find out which country is the more likely to attract investment according to its tax system.

4.2.1. Capital Market

The approach taken toward capital has been totally different since 1989 in Hungary and in Poland. For that matter, Hungary has been far more daring than Poland and took the risk to loose capital to foreign countries at the beginning.

Indeed, early privatization laws in 1989 and 1990 allowed total repatriation of profits from Hungary.[14] Moreover, any kind of control on flow of capital had been totally lifted by 1992.[15] The "de facto" convertibility of the Forint for foreign and domestic business and for foreign investors allows imports to be freely purchased and the profits to be freely transferred abroad in hard currency.[16]

On the other hand since 1989 Poland has been really concerned about its balance of currency. In 1991, foreign companies were only allowed to repatriate 15% of their profits.[17] Full repatriation of profits has only been granted in 1993 and as the flow of capital is still monitored because the Zloty is not totally convertible yet, the Polish State can still fix a maximum amount allowed for repatriation.[18]

Domestic capital in both country is still rather difficult to obtain. The stock exchanges in Budapest and Warsaw have been open since 1990, but they are only beginning to take off and beside State securities it is rather difficult to trade any title or to raise capital through emission of new stocks or bonds. In spring 1994 for instance, there were only 28 stocks traded in the Budapest stock exchange.[19] Those titles were basic pieces of ownership and the viability of any more elaborate financial instrument was very unlikely. But beside having established the exchange and trading securities, the States do not have a strong influence on that capital market.

The best way to obtain domestic capital is still to ask for a loan at a domestic bank. For that point, the situation is the same in both countries where the State retains part ownership in important banks and uses its influence to starve capital markets. In Poland for instance, the interest rates are outrageous between 30% and 50% per month (to be compared with an inflation rate below 5% per month) with a maximum pay back period of 6 months.[20] The situation in Hungary is very similar, and Terry Buss and Roger Vaughan summarize very well the situation:

"The national government retains a 40% stake in the 'big four' banks whose portfolio are choked with bad loans to failing state owned firms, leaving little credit for smaller businesses. [...] National government is starving capital markets by accumulating hard currency to reduce inflation, stabilize the forint, and pay off its enormous foreign debt."[21]

4.2.2. Fiscal System

At first, the fiscal system in Hungary and Poland appears to be the same and is fairly reasonable for investors. The corporate tax at 40% in both countries is a little high, but they are planning to reduce their tax rate significantly.[22] Moreover, the accounting system has change in 1992 to conform with western accounting standards in order for the evaluation of a firm to be easier for foreign investors.[23] A trusting investor could be led to believe that the fiscal system in both countries is totally similar and should not influence its choice.

However, a careful investor would notice differences in fiscal setting and should consider the implications of such differences before any decision. Hungary has a very low amortization rate.[24] Investments are then amortized on a longer period and provide less interesting current tax shield than in Poland. Due to this stiff hidden tax on current profits, the actual corporate tax is higher in Hungary than in Poland. Moreover, even though it reduced relative and absolute debt indicators and in general purged the economy from inefficient firms, the tough bankruptcy law introduced in Hungary in 1992 is enforcing taxes and contribution payment.[25] In Poland on the other hand:

"There was little pressure in the form of enforced bankruptcies resulting from non-payment of taxes and social security contributions."[26]

Although it is not an official tax credit, investors are likely to take advantage of this lack of State pressure and consider it as a good point for Poland when making an investment decision. Unfortunately, this "de facto" tax break is also likely to leave some inefficient firms on the market.

Since 1989, Hungary has been traditionally more attractive than Poland for foreign investors because of a free flow of capital and the "de facto" convertibility of the Forint. However, with the repatriation of full profits in 1993 and a soon to come "de facto" convertibility of the Zloty, Poland becomes more and more interesting. In the near future, foreign investors are likely to consider Poland as a better bet than Hungary because of its more lenient fiscal system.

4.3. COUNTRY RISK

The last factor likely to influence investor decision and on which the State has some influence is the perceived political risk of investment. If the prospect of economic returns are really good but the political situation can cast doubt on the security of the assets, very few investors will be ready to engage a large amount. The shadow of the French

Russian railroad bonds is still hanging over any kind of investment into a potentially nationalizing country and the threat is real or at least really felt by westerners. In March 1993, in a special survey about Eastern Europe, The Economist stated that:

"Risk in Eastern Europe for Communism to come back surveys in nearly all countries show a swing back towards socialist values, with 70% of the population saying the state should provide a place of work, as well as a national health service, housing, education, and other services."[27]

The State has then the difficult task to reassure investors about political risk. The definition of political risk is very vague and varies from one individual to another. It is therefore difficult to define the influence the State has on effective political risk. However, some State actions give clues about the safety of investment in the countries.

The willingness to integrate the global capitalist community and the visible diplomatic efforts done in that way are surely a good indication that the State is not considering going back to Communism immediately. The diligence of the State to pass and implement reforms in the country and the domestic political situation is an other indication of the commitment of the State to favor investment. This section examines the State initiatives taken along those lines by Hungary and Poland.

4.3.1. Diplomatic Initiative

Since 1989, Hungary and Poland have multiplied the initiatives to be part of the international community. They quickly applied to several international organizations such as NATO or the EU, and in order to help each other out before being accepted for full membership, they formed the Visegrad Group in February 1991.[28] Consequently, both countries are now considered very seriously for European integration before the end of the century. They have also been offered a part membership in the NATO institution that should later lead to a full membership.

However, while the two countries have followed the same path, Hungary has adopted an easier position on compromise and present an apparent stable political situation reassuring the international community. It was the first to accept the U.S. compromise on NATO as a transition status whereas Poland rejected it as an agreement to lock the Eastern European countries in a half-membership position.[29] Hungary also strives to reimburse its debt on time and in contrast with Poland never asked for a rescheduling of its interest payments:

"This enormous sum for a country such as Hungary might otherwise have been invested in the economy and used for urgently needed structural changes. Debt repayment, though, was considered more important than any other economic factor and Hungary takes some pride in comparing itself with other countries in this respect. Poland, for example, was granted sizable reduction in its Paris Club debt in 1991 and for all practical purposes did not service its London Club debt at all between 1990 and 1993. [...] Private foreign investors have been impressed with Hungary's regular debt payment record in contrast to those of some other countries such as Poland and Bulgaria."[30]

Such goodwill in trying to integrate the international economic community has been noticed by all, and in 1992, Hungary was the first country to be dropped from the CoCom's list of countries subject to strict export control.[31] It also helps investors to believe into the Hungarian capitalist credo even if reforms are slow. In comparison, Poland seems more conservative in its diplomatic relations and along with some political instability this factor may deter some extra conservative investors from investing in the country.

4.3.2. Political Situation

Although the domestic political situation of a country is not totally determine by the State, some State's actions are affecting the perception of investors. As for the diplomatic situation, actions showing a strong involvement in reforms and democracy are particularly well perceived by investors.

Here Poland's uncertainties play against it for a good place in the investors' hearts. While the State is active, the matters it examines may not always be relevant for investors who consider most of parliamentary time as wasted:

"Parliament discusses superficial matters, such as color of the talons of the eagle on the Polish emblem, while important legislation is postponed for months."[32]

Moreover, although former Communist parties have regained an important influence in all the CEE countries, Poland was the first country in October 1993 where former Communists were elected to rule the country.[33] Even though they are claiming to be pro-capitalism, pro-democracy and pro-reform, their renewed political power along with the slow pace of parliamentary reforms is enough to worry the more pessimistic.

The political and diplomatic situation for a country is not the first thing considered by investors (in telecommunication or in any other sector) when selecting countries to invest in. However, lack of protection for investments and risk of nationalization are likely to deter investors. In the case of Hungary and Poland where the two countries present rather similar situations, the risks are reduced, but the strong commitment to reforms and market development of the Hungarian State inspires more confidence than the Polish attitude.

As telecommunication development plans in Hungary and Poland are relying heavily on investment and especially on foreign investment, the State's influence on general investment conditions plays an important indirect role in telecommunication development. As for the direct influence of the State's on telecommunication, when actions on investment conditions are considered, Hungary presents a slightly better general situation than Poland. The clear Hungarian legislation and the quick reforms implemented by the State define an environment better suited for inspiring confidence to investors than the uncertain situation in Poland where legislation are very slow to be passed and generally unclear in their application. However, the differences are not as much structural than arising from a delay in the Polish case or an early lead in the Hungarian case. Once the Polish privatization process will have shown some results and the Polish State will have improve the financial situation through full convertibility of the money and the development of a strong capital market, the two countries will present the same kind of general situation for investment. Poland may even be more interesting for foreign investors because of its size.

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CHAPTER 5: STATE'S ACTIONS IN THE TELECOMMUNICATION FIELD

After the fall of Communism and the advent of capitalism, the CEE countries realized very quickly that they would be unable to develop all the economic sectors at the same pace. Some had to be given a very high priority, other had to be sacrificed. Based on a UN study, stating that "a 1% increase in the number of telephone, for instance, results in the economic growth of 3%"[1], and on the fact that direct foreign investment is unlikely to take place unless the telecommunication infrastructure is satisfactory[2], the telecommunication sector has been given a very high priority.

The telecommunication goals set by the State in Hungary and Poland are very ambitious. Poland targets a 30% telephone main lines penetration by the year 2000, while Hungary has set its target at 28.5%[3]. Moreover, quality telephone service is the basic minimum service a firm needs to operate. Most firms require more advanced technologies such as satellite communication or fiber optic to satisfy their need in data communication. So both countries strive to improve quality and performance by modernizing the existing network and opening new services and to increase the number of connections. However, neither the capital nor the technical know-how required to achieve the targeted development were present in the countries in 1989. They then had to make a decision to raise capital and improve technology. This chapter examines how the State (the only important economic actor then) dealt with those problems. The first section describes the efforts done outside the countries on the international stage, the second section the efforts to develop the existing network through the national operator and the third section, the efforts to get direct foreign investment in the country's telecommunication.

5.1. ROLE OF THE STATE IN THE INTERNATIONAL TELECOMMUNICATION STAGE

In 1989, the State was the only big economic actor in the former Communist countries. Five years later, it is still a very important actor and the biggest domestic actor by far. So, beside its international diplomatic role as a State, it is the only one to be able to defend its country's economic interest with some result on the international stage. This section examines how successful the Hungarian and the Polish States were in defending their country's interest by attracting international aid, integrating the countries in the international telecommunication community and positioning them strategically in this community.

5.1.1. International Aid

When a country tries to develop its telecommunication sector, there are several international institutions to which it can apply for help. The World Bank and the International Monetary Fund (IMF) are two world-wide organizations whose purpose is to examine development projects and to grant financial aid for worthwhile projects. The European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD) and the EU's PHARE program have exactly the same role but are only run by Europeans.

For the European institutions, the process is quite simple and could be followed by any private interest. One only has to defend the project and if project proves its worth, a loan will be approved and/or technical aid will be provided. However, only important projects are likely to be accepted, and in Poland and Hungary, only the State is able to sustain important projects. Moreover, during the period 1989-1994 (the EBRD is currently looking for new possibilities for the future), every project had to involve the State as the EBRD (and probably other institution) was requiring a State-backed guarantee on its loan[4].

Hungarian and Polish States were really good diplomats on that point and took advantage of the readiness shown by the institutions to invest in CEE. They were "the first two former Communist nations to be provided with monetary and technical assistance by the Commission of the European Community as early as December 1989"[5]. They were also the first two countries to be integrated in the PHARE project in January 1990[6]. Finally, out of $340 million available for global telecommunications projects in 1991, $270 million were devoted to improve the Hungarian and the Polish telephone systems. Tables 4.1 and 4.2 give the amount allocated to Poland and Hungary for telecommunication projects for the period 1989-1993.

Table 5.1: International Loans for Polish Telecommunication in 1993

Amount ($ million)	Loaner	Project
63.4	EBRD	develop cellular phone.
120	World Bank	promote institutional reforms.
90	EIB	promote institutional reforms.
100-150	EBRD	establish 6 regional joint ventures
14	PHARE	develop rural areas
170	EBRD	modernize and expand network in Warsaw

source: Datapro Reports on International Telecommunications, 1994

Table 5.2: International Loans for Hungarian Telecommunications in 1993

Amount ($ million)	Loaner	Project
90	EBRD	develop rural areas
220	World Bank	develop the country

source:Datapro Reports on International Telecommunications, 1994

As it can be observed by comparing the tables, Poland seems to have been more successful in obtaining funding for its projects. Compared to the $310 million lent to Hungary to develop its telecommunication, the loans granted to Poland is almost double ($557.4 million - $607.4 million).

This could be axplained by the size of the countries. Poland being far bigger than Hungary needs more kilometers of telephone lines to inter-connect the cities and to connect the villages. Moreover, the help given to the countries is proportional to the basic needs in telecommunication. For instance, Poland has been given $170 million to modernize the Warsaw's network. Those funds have been given to Poland because Warsaw is one of the less equiped capital in CEE. Budapest, on the other, hand has been quickly developed and is now the capital city with the most fiber optics lines in CEE. Surely, the needs are less dramatic in Budapest than in Warsaw.

5.1.2. International Telecommunication community

Being member of the international telecommunication community does not "per se" help a country to develop its telecommunication system. However, it is part of a general diplomatic effort to get help from other countries. Once a country has representatives in an international telecommunication organization, it is easier for it to be recognized as a "player" in the "international telecommunication game". The country can then use some resource of the organization for its own communication needs such as Intersputnik satellites. It is also involved in definition of standards which could lead to some transfer of know-how if the standard is unknown in the country. Finally, it can position itself strategically in the international telecommunication "Monopoly"[7] to be one of the required stops on the board.

Here again, the State plays a very important role. As stated earlier, there is no private telecommunication company important enough to be significant on the international level. The only actor able to be accepted in international organizations such as the International Telecommunications Union (ITU) would be the State as a representative of the country or through the telecommunication operator that it controls[8]. The State has then the responsibility to defend alone its country's interest in telecommunication.

Both Hungary and Poland were obliged to be members of Intersputnik before 1989 and they remained members after the fall of Communism as it provided them with a resource to communicate efficiently with the other former Communist countries. The use of only one kind of satellite however is barely enough and both countries have become members of Intelsat and Eutelsat. Poland is also member of Inmarsat to help the communication with its fleet. Such memberships allows them to keep communication links with the whole world and is certainly a useful development of the telecommunication of the two countries that have on that point provided the same efforts toward satellite telecommunication.

For other telecommunication organizations, Hungary is a little more active than Poland. The two countries are members of the ITU, of the COMECON's Postal and Telecommunications committee (CEPT), that retained a minimal activity even after the COMECON dissolution, and of the European Telecommunications Standards Institute (ETSI). However, Hungary is getting more involved in the international telecommunication community. It is member of the European Telecommunications Network Operators' Union (ETNO) and the European Institute for Research and Strategic Studies (EURESCOM). Finally, it is a founding member of the European Telecommunications Informatics Services (ETIS)[9].

Hungary's strong involvement in international telecommunication is not only opportunistic, it allows the country to position itself strategically. In the 10 year plan outlined by the Hungarian State in 1990, a very high priority was allocated to transform Hungary into the telecommunication hub of the area. Consequently, following the influence of the State, MATAV (the Hungarian operator) "is developing an aggressive international telecommunications supplier strategy as a network services hub for the region"[10]. Hungary already hosts Trans European Line (TEL), a fiber optic line connecting Warsaw to Zagreb, Trans-European Telecommunications Network

(TET), a fiber optic network whose major hub is in Budapest, and is member of METRAN, an association whose aim is to establish a pan-European fiber-optic telecommunication network[11].

Only history will tell if Hungary managed to get the role of telecommunications hub it wants. But the country is already on the way to become one of the mandatory stops on the international telecommunication "Monopoly" board, and stop in "Monopoly" means income for the owner of the land... Such strategic position is very likely to boost Hungary's telecommunication. On the other hand, Poland had taken less advantage of its geographical situation. It could have pushed its position as the meeting point of Germany (an important EU's member), the Scandinavian countries (that are not fully integrated to the EU yet), Russia and CEE.

Hungary seemsto be in a better strategic position than Poland in the international telecommunication "game" thanks to the actions of its State. However, if the role of telecommunication hub came to be very rewarding in the future, it might not be as great to attract investment now. Karoly Okolicsanyi[12] estimates that the perspective of being a hub does not totally match the interesting rate of return that the big population of Poland is likely to bring. Thus, although credits should be given to the Hungarian State for its actions to promote Hungary as a telecommunication hub, this argument is weak when used to explain the differences in foreign involvement between Hungary and Poland. Nevertheless, it compensates for the small size of Hungary's telecommunication market compared to Poland's.

Having raised some funds for telecommunication development, the State had to use them for developing and enhancing telecommunication in the country. But giving funds to a national operators that is still run like a Communist firms is not the more efficient way to use foreign aid at all, and the international loaners are more than likely to be deterred from loaning more money if it is not used efficiently. Moreover, according to Timothy Nulty, the aids will not be enough to finance the development of the whole sector:

"[...] however, it is unlikely that they can contribute more than 40 to 50 percent of the total foreign exchange financing required. More likely they will contribute less."[13]

Thus, the State had to restructure the sector so that it was more efficient in its spending and in its revenue generations. It was done in two ways: restructuring the national operator and open some part of the sector to private interest. The two following sections will examine the two solutions.

5.2. RESTRUCTURING THE NATIONAL OPERATOR

Under Communist rules, in Hungary as well as in Poland, the national telecommunication operator was an inefficient monopoly. The firm was in charge of telecommunication operation, postal operation and in the case of Hungary broadcast signal operation. Moreover, it was part of the ministry in charge of telecommunication so regulatory functions and operation functions were performed by the same staff. The State had then to rationalize the operator and give it the means to develop the sector. It was done through a change of structure of the operator and a strict definition of the role of the operator both following a general strategy outlined by the State.

5.2.1. General telecommunication strategy

Hungary and Poland have followed the first "traditional" step to rationalizing the telecommunication sector: they separated the operation from the regulation by corporatizing the national operator and they divided it into independent part such as postal operation and telecommunication operation.

The Hungarian State parted operations from regulation in 1989. The regulatory body stayed under the supervision of the Ministry of Transport, Communication and Construction and Magyar Posta (the national operator) was corporatized. In 1990, the postal, broadcasting and telecommunication branches of the operator were divided to make three independent companies. Hungarian Telecommunications Company (HTC) became the official telecommunication operator[14].

The Polish State was slower to achieve this first step of the restructuration and the separation between regulation and operation only took place in 1991, leaving the regulatory body under the supervision of the Ministry of Post and Telecommunication. In January 1992, the postal activities were separated from the telecommunication activities giving birth to Telekomunikacja Polska Spolka Akcyjna (TPSA), the telecommunication operator[15].

Those two "traditional" steps are however the only common approach to telecommunication restructuration between the two countries. The Hungarian State developed its restructuration slowly but surely always in the same direction even though the changing political and legislative environment made it quite a lengthy process[16]. The Polish State, on the other hand, considered a lot of options and got caught into a never ending process of structuring and restructuring.

In Hungary, during the definition of the ten year plan in 1989-1990 (the ten year plan is a plan for 1990-2000), the State was hesitating between two strategies. Developing an overlay network that develops a new modern network on the old one for business use, thereby freeing access in the old network for residential use, was chosen over the island strategy that targets a specific area for a large scale expansion, thereby reducing the investment per lines but generating an uneven regional development. Since then, the Hungarian telecommunication policies are based on this strategy. In order to overcome the associated infrastructure expansion problem, especially in the rural areas, the program was complemented by regional liberalization[17]. Moreover, to leave the national operator free to develop the network, activities not directly related to telecommunications such as building, installation and others, were assigned to subsidiary companies[18]. Finally, to keep some control on the sector, the State required until 1992, that HTC be present in all telecommunication activities[19]. By 1992, the Hungarian State had finished restructuring the national telecommunication operator that was the basis of its ten year plan and was ready to extend the restructuration to other parts of the sector and to begin to privatize HTC.

On the contrary, the Polish State explored several ideas, going back and forth. Even before 1989, the Polish State was considering restructuring the telecommunication sector. Between 1987 and 1989, the activities of the Polish Post, Telegraph and Telephone (PPTT) that was originally part of the Ministry of Post and Telecommunications, were managed by the Ministry of Transport and Maritime Economy. After having been reintegrated in the Ministry of Post and Telecommunications, the PPTT was the subject of several daring projects aimed at a quick capitalist development of telecommunication. One of them was based on a complete privatization of the sector:

"Poland is considering privatization of all its telecommunications services, including selling off the telecommunications ministry as a private company. Proposals currently in draft form include allowing private companies to compete in voice telephony on long distance and international routes."[20]

However, in this case, the State would have lost its entire power on the sector and the regional development of the sector would have been uneven, widening even more the gap between urban and rural areas and forming island of well developed telecommunication that might be able to communicate with each other. The project was abandoned, but some ideas were kept. For instance, the regulatory body that has been created in 1991 as a part of the Ministry has the potential to evolve into independent bodies. Another project was to mimic the American model with local and long distance operators. This project would have left the ministry with the setting of technical standards of Poland's public network and the setting of ceiling on consumer prices[21]. Here again, the project was not implemented all the way, but some ideas were kept. For instance, the State has passed legislation splitting its national telephone operator into six regional companies that might be privatized over the long run. The plans have changed so much, that it was hard for the Polish parliament in 1990 to take any proposition as a serious one. An official of the ministry's department of political economy of telecommunication confessed: "We have reorganized this ministry so many times no one will believe that we really mean it now."[22] Consequently, Poland is going from one proposition to another without having a very well defined strategy to guide its legislators and its regulatory body. Their only point of reference is the "Program of Modernization and Development of Telecommunications 1991-1993" originally drawn up by the PPTT under the guidance of the ministry[23].

5.2.2. Role of the telecommunication operator

The differences in basic strategy between the two countries had a very strong influence on the definition of the role of the operator in the telecommunication sector. The Hungarian State was very narrow in its definition of the activities allowed to HTC and is forcing the network's development through specific goals and drastic sanctions if they are not achieved. In Poland, the situation is less clear, some minor points in the role of the operator have been addressed, but in general, the operator has had little guidance from the legislators.

When the Hungarian telecommunication strategy was clearly defined, the State began to consider privatizing HTC. A new bill passed by the parliament in 1992, divided basic telephony services in two classes. International and long distance calls were to be entirely handled by HTC whereas local calls were subject to future licensing even though they would stay in a monopoly structure. Right afterward, the State invited foreign bidders to tender for part of HTC soon to be called MATAV. In December 1993, the State selected the MagyarCom Consortium (Deutsche Telekom and Ameritech) offer of $875 million for 30.29% of the operator.

The Consortium has the right to manage MATAV's day-to-day operation and should enjoy a monopoly on international and long distance calls until 2002. In exchange, the Hungarian State nominates the Chief Executive Officer[24] and still keeps some monitoring action through the Chairman of the telecommunications subcommittee in the Hungarian Parliament who sits on the board of directors of MATAV[25]. Moreover, MagyarCom is committed to specific goals in international and long distance communication.

It has to insure each village of a tie into an international telecommunication network by 1996[26], it must develop the local concession that have been given to it as if it had won the tender (the local concessions are discussed in the following section) and it has to develop the telecommunication infrastructure so that Hungary is the telecommunications hub of the area:

"[Making of Hungary a telecommunications hub for Central and Eastern Europe] is actually a commitment entered into MagyarCom's contract with the Hungarian government. Quite how the government will be able to measure its success in making Hungary a hub in five years time is less clear."[27]

To be sure of the development, the Hungarian State implemented a system of penalties if MATAV fails to meet its contractual development targets. The penalties go from payment of financial penalties into the future Telecommunications Fund[28] to a reduction in the duration of the MATAV's monopoly concession.

On the other hand, in Poland, there are less guidelines and no penalties for the operator if goals are not reached. TPSA has been since 1994 a joint stock company which is 100% owned by the State treasury, and even though there is no official position on the subject, sources inside Poland do not envisage privatization for three to five years. Even though it has not been privatized, TPSA has been corporatized. It is then free to set long distance and international tariffs with the exception that the Ministry of Communications has the right to impose maximum tariffs for voice and telex services as long as they are agreed by the Ministry of Finance. Moreover, it has very little State-set goals and no sanctions in case the goals are not reached. The only requirement the Ministry of Communications has really set was that only digital central office switches were installed after 1991 so that it would prevent the dumping of used technology. Finally, the monopoly of TPSA has been reduced as in 1993, "controlled competition" was introduced at the intercity infrastructure level. Foreign participation is limited to 80% and foreign investors may not operate international links or connections of any kind which reduce greatly the threat to TPSA[29].

As for telecommunication strategy, the situation of the national operator and its goals are cut clearer in Hungary than in Poland. The Hungarian State has paid a great deal of attention in order for the operator to develop the network as it should be, whereas the Polish State was less active on that matter and let the operator set its own objectives. Yet, whether the operator has been well guided or let free, there is not enough capital in neither country to make up for the 50 to 60% financing of the network that is not given by international organizations. Here again, the State had to jump in and decide how to raise more funds.

5.3. FOREIGN PARTICIPATION

Both countries had the same reaction and looked for foreign partners that could not only bring fresh capital, but also new technologies for which there was no expertise inside the country. Both countries allowed foreign and domestic investment in telecommunication and actually tried to attract them with tax breaks or monopoly concession. For instance, Dr Gosztony, the Hungarian telecommunication official, explains:"Are we looking for partners? The door is always open."[30] The situation is such that:

> "The country's Government has seen to it that there are now more foreign carriers active in Hungary than in any other country in Europe, east or west of the iron curtain."[31]

Opening the country to foreign investment is however not enough to insure an even and adequate development of telecommunication. Let by themselves, investors are "selective cherry pickers". They only invest in markets with an interesting return on investment perspective and they select the best way to maximize their profits in those markets even if it means loosing some customers because of too high a price. In order to develop telecommunication as they expect, the States have to be really careful and balance incentives and regulations. This section will examine the telecommunication sub-sectors where the Hungarian and the Polish States requested foreign capital. It begins with a presentation of the situation for local communication. Then it deals with added value services such as cellular phone and satellite communication. Finally, it examines the case of the telecommunication manufacturing sub-sector.

5.3.1. Local communications

Here again, Hungary adopted a very rigid position whereas Poland followed a "laissez faire" policy. Though Poland was the first country to approve of foreign investment in local communication, its regulatory framework was so unclear that relatively few candidates were ready to invest. On the other hand, Hungary waited until February 1994 before taking part of local communication away from MATAV. Yet, the results were impressive and foreign investors did respond to the call probably because everything was set before the investment and the risks were therefore reduced.

Poland was probably the first CEE country to accept foreign investment in local communication. Since November 1990, any one can invest in local communication and operate a local network provided that the Ministry of Communication gave a license for such operation. Some of the contracts that have been signed are impressive. For instance, Cable and Wireless agreed to build a $356 million digital network in Gdansk in exchange for a license to operate it for 25 years[32]. However, a lot of points are left unexplored. There are no deadlines, no minimum development and no penalties if the contract is not met. Until 1994, there was not even a formal procedure or any tariff in place for the interconnection between local networks and the TPSA's network. This point is one of the problems holding the development of local network back. According to Henryk Lasota, Managing Director of Gdansk Telekom:

"The construction of local network is severely hindered by the reluctance of the state TPSA to negotiate on access charges and general rules of networking."[33]

In February 1994 the Polish State finally announced it had found a formula for revenue sharing between independent operators and TPSA. However, this formula is only a temporary settlement to be changed again in three years. This is not very likely to reassure shy investors about risks. As for the ones who have already invested, it might already be too late:

"In the interim, two pioneer operators have built out two new networks serving a few thousand customers in two districts of South Eastern Poland. But under the terms of the agreement which they signed with TPSA, these two companies are not receiving a single Zloty of the revenue from the long distance or international calls which their customers are generating. Not surprisingly, the two companies are understood to be close to financial collapse."[34]

Moreover, the State is still struggling to define the geographical boundaries dividing the localities where TPSA will provide local services and those where independent companies will exercise their own franchise. This is also a cause of delay in the development of local networks[35]. Finally, as the licenses are given without official tender and on the investor initiative, it is really difficult for an investor to know if his/her offer is in competition with some one else's. The complications of the Polish State make it even more difficult to obtain an exclusive license:

"'It's incredibly easy to believe because you are speaking to a minister with a relevant sounding title that you are actually being given something. Three rooms away, another minister who thinks he had the appropriate authority is negotiating the same exclusivity with another company.' says C. Jonsher, founder of Central Europe Trust, a London-based consultant that advises western firms investing in Eastern Europe."[36]

On the contrary, the situation in Hungary is meant to inspire confidence. Hungary has been divided in 54 regions representing 54 local networks. Out of the 54, 29 regions were automatically given to MATAV for operation, the licenses for the other were awarded after an international bidding in February 1994. Before the bidding, everything was defined: the future relation between MATAV and the local operators, the price to be paid to MATAV for the infrastructure already in the concession and the goals and penalties imposed by the State. Matav was to pay 100% of the revenue from the international calls and 60% from the revenues for domestic long distance calls which they originate. Of course, for terminating calls, the local operator's share was to be smaller, but it was not defined[37]. This actually helped financial analysts to evaluate the concession proposed and reassure investors about future revenues. When an investor had won a concession, it had to buy the existing network together with the local MATAV employees that go with it. According to an observer, the price of purchase was much lower than what MagyarCom had proportionally paid for the portion of network in question[38]. Finally, to promote network development, each license (including MATAV's licenses) is tied to improvement in service level including installation waiting quotas. Each franchise must attain a 15.5% annual growth for a 6 year period through 1999 or endure the same kind of penalties as MATAV if the objectives are not met and the State has always the right to put a ceiling on communication prices. Normally, franchises are valid for 15 years and may be renewed once for an additional 12.5 year period, but penalties can shorten that period[39].

The results of the auction are very satisfactory and it raised $8.5 billion. Out of the 25 franchises, only 2 did not attract any investors and were automatically given to MATAV, 8 were won by MATAV which totalizes now 39 licenses, and 15 were awarded to other foreign investors[40].

Hungary was able to attract more interest for its local communication operation than Poland because of a clearly defined framework that has been announced prior to the opening to investment. This kind of situation was more likely to reassure the investors about the risks and the return than the unknown that investors had to face in Poland.

5.3.2. Value added services

The situation in the value added services is a little similar to the situation for local communication. The Polish State was slow to give the licenses and did not regulate the licensees in order to be sure of satisfactory results. In Hungary, the State chose almost the same approach, but it took one step further and liberalized almost all the value-added services.

Due to a long legislative mechanism, the Ministry of Communications in Poland was unable to give licenses to companies before the end of 1990[41]. However, by the end of 1992, 45 licenses had been granted for operation of paging, data transmission, value-added services and cellular telephony services. This process was quick thanks to an absence of regulation. Once the operator has its license, it can manage its resources, serve the areas it thinks are profitable and charge the price it considers "fair". Only the nationwide cellular mobile radio network was not totally liberalized as Centrel is the only company to provide such service in Poland. Poland is also waiting for the military to free the 900 MHz frequency in 1995 to be able to license two digital cellular phone operators.

The situation in Hungary is similar. In 1990, wireless communication such as paging, VSAT and mobile telephones were not State monopolies anymore, but the State only gave licenses to companies in which it had a majority holding. In April 1994, all telecommunication services has been liberalized with the exception of public-switched telephone, mobile phone and nationwide paging. Mobile phone and nationwide paging still require licenses. However mobile phone and nationwide paging are not as regulated as public-switched telephone, the State does not set objectives for them nor does it implement any penalties. There are only three cellular phone operators, one for analogue cellular communication and two for digital cellular communication. The nationwide paging operation will only begin in 1995.

There is no real differences in the actions of the Hungarian and Polish States toward value-added services. If the Polish State has to give licenses, they are really easy to get and it can not be considered as a major difference. The only notable difference between the two countries is not due to part of the State in charge of telecommunication but to the military who were slower to evacuate the 900 MHz frequency that is required for digital cellular communication.

5.3.3. Telecommunication manufacturing

Telecommunication manufacturing is an atypical example in the telecommunication sector. Since the CoCom was only completely dissolved in 1994, importations of telecommunication hardware were still restricted for the CEE countries for the period studied. The sector has then the task to produce goods it never produced before to satisfy the foreign operator who had invest in the countries. Moreover, instead of being of profitable sector like telecommunication operation, manufacturing had to be restructured to be efficient. Foreign help was badly needed in that area. Surprisingly, the Polish State that adopted a "laissez faire" policy for any other telecommunication sub-sector was the one to stress regulation compare to the Hungarian State.

Indeed, after a period of search for partners in telecommunication manufacturing, the Polish Ministry of Communication passed regulation to control more closely the sub-sector. 50% of all telecommunication equipment for the network infrastructure was to be produced locally, the number of telecommunication suppliers was to be limited to three and the suppliers had to purchase stocks in selected State-owned telecommunication manufacturing plants. However, the three suppliers were guaranteed of State's digital switch business for 6 years (they would only bid for future State business against each other). Any other suppliers would have to leave or to survive without any State contract. In the late 1993, Alcatel, AT&T and Siemens were selected to be the suppliers of Polish State[42].

Hungary was less protectionist in that field. Since 1990 joint ventures have multiplied between Hungarian interests and foreign interests in the telecommunication manufacturing sub-sector[43]. The Hungarian State did not interfere with the process and encouraged a policy of open procurement for telecommunication.

"Open procurement policy was unheard of in the past and even today is not often favored because of the lack of foreign exchange and the need to use large public investments in telecommunications to stimulate the restructuring of an important manufacturing sector."[44]

The only special help given to the manufacturing sector is a 10 to 15% price advantage on tenders in international bids.[45]

As it has been seen in this chapter, the two countries have two different approach in telecommunication development. While Hungary has laid down slowly but very accurately a basis for operation with private interest taking little by little operation from the State's hand, Poland was more adept of a "laissez faire" policy that let the investors and the national operator take the initiative. The two approaches have their advantages and their trade-offs. However, it has to be noted that the Polish approach did not foster an even development. If the big Polish cities benefited from a lot of investment, the rural areas were left behind. In Hungary, on the other hand, the regulation forced the investors to developed their concession at a minimum rate, and each concession include rural areas subject to special objectives.

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43. Patricia Striplin, 1994.

44. Jürgen Müller and Emilia Nyevrikel, 1994.

45. Jürgen Müller and Emilia Nyevrikel, 1994.

CHAPTER 6: LESSONS

Hungary and Poland offer two examples of totally different approaches toward the role of the state in telecommunication development. On one hand, the Polish State has a policy of "laissez faire". It only defined broad objectives without implementing control structure to insure that they are reached and it waited for the investors to take the initiative before considering a "personalized" framework for investment. On the other hand, the Hungarian State has defined very detailed objectives and the procedure necessary in order to reach them. As of yet, this difference in approaches has only made a difference in the telecommunication sector structure. However, it might eventually make a difference in the development of the telecommunication sector.

The literature on the role of the State in telecommunication for other countries may help to determine some lessons that Poland and Hungary could follow to help their telecommunication development. For instance, according to Spiller,[1] the lack of interest from the foreign investors for the Argentinean privatization is, at least in part, due to the fact that the Argentinean regulation was not clear enough. The terms of the licenses were not clearly set and nothing was said about how, and by whom, the terms of the licenses would be enforced. The absence of regulation in Poland could then deter foreign interest from investing in the country. If they do however, they are likely to:

"Seek only most profitable markets and prefer not to serve the others, while at the same time undermining the profits of the PTT which it needs to extend service to underserved areas."[2]

And it is already happening as foreign investors compete with PTSA for highly populated and industrialized areas but leave the unprofitable rural areas to the national operator. In Hungary, on the other hand, the auction forced the investors to accept the rural parts of the sector they won and to develop telecommunication in those parts.

Moreover, if regulation does not require foreign investors to develop the telecommunication network, they might only invest enough to create a profitable network. After a while investors might stop investing and only collect profit even if their concession is far longer than the period over which they invested. It was the case in Chile where the law fails to provide sufficient obligations for the firms. The companies were obliged to follow an investment schedule over a period less than 15 years whereas the concessions were to last for 50 years.[3] In the case of Poland, the obligation is generally stated in currency instead of years, but it could lead to the same kind of problem. Hungary has protected itself from such problems by linking the length of the concession with the annual telecommunication infrastructure growth in the concession zone.

The Hungarian State seems to have thought of every single problem that might appear and to have protected the country's telecommunication against it. That may be attributed to the very restrictive regulation it has chosen. One may also say that Poland, because of its "laissez faire" approach, did not bother with the possible problems and could be really surprised in the future. According to Nulty, "the telecommunication sector is not like restaurants or textile factories; it cannot be completely unregulated."[4] However, while Poland will probably need to straighten its position, at least a little, it does not have to be as rigid as Hungary. In fact a more malleable position than Hungary will probably be more favored by investors as long as the conditions of investment are known in advance. For instance, instead of letting the investors have the concession they want in the profitable areas, the State could define the concession zone so as to include profitable and unprofitable areas. Then, it could reward the firms that have invested in the unprofitable area by granting them exclusivity in a profitable area. As the service zones are not defined yet, this could be easily done and could help to connect the numerous villages that don't have any phones yet. It would still be less restricting than the Hungarian regulation.

Whatever approach to the telecommunication development is chosen, the clearness of the situation is probably the most important characteristic a State has to create. Therefore, it has to define clearly and in detail the objectives that are to be reached and when they are to be reached.[5] Then, it has to choose clearly what model is to be adopted, deciding whether the state-owned firms should be privatized and/or to what degree the different sub-sectors should be regulated. Finally it has to define regulations that follow the model and that make sure developments are taking place according to the objectives.

1. P. Spiller, Institutions and Regulatory Commitment in Utilities Privatization, Institute for Policy Reform, Washington D.C., 1992.

2. Timothy Nulty, "Challenges and issues in Central and Eastern European Telecommunications", in Bjōrn Wellenius and Peter Stern (eds.), Implementing Reforms in the Telecommunications Sector: Lessons from Experience, World Bank, Washington D.C., 1994, pp. 339-352.

3. A. Galal, Regulation, Commitment and Development of Telecommunications in Chile, The World Bank, Washington D.C., 1993.

4. Timothy Nulty, 1994.

5. John Collings, "Managing the Process of Sector Reform", in Bjōrn Wellenius and Peter Stern, Implementing Reforms in the Telecommunications Sector: Lesson From Experience, The World Bank, Washington D.C., 1994, pp. 567-580.

CHAPTER 7: CONCLUSION

In this document, the role of the State on the development of telecommunication infrastructure in Hungary and Poland has been qualitatively defined using literature about the two countries and CEE in general. It has been found that the State has two ways of affecting the development of telecommunication; either directly through laws and regulations on telecommunication or indirectly mainly through the general investment situation in the country.

Both countries have managed to get important financial aid from international organizations for the development of their telecommunication. However, a complaint from the World Bank about the Polish State shows some tension that might reduce the rate of approval funds to be lent to Poland:

> "In the summer 1990, World Bank officials complained that Polish Telecommunications Ministry officials were not technically competent to judge various proposals submitted to them for modernizing the telephone system and were terrified of making the wrong decision."[1]

Hungary and Poland have restructured their telecommunication sectors after 1989 to define the goals to be reached, the role of the national operator, and the role foreign interests have to play. Hungary has produced well defined goals and very clear strategies to reach them. The Hungarian State was very careful to define meticulously the rights and obligations of each actor. On the other hand, Poland seems to have let the actors take the initiative through a "laissez faire" policy. The State only outlined vague objectives that are to be reached eventually. Even if the situation in Poland might provide actors with more freedom about their business and the way to make a profit, it is not a sure investment. If there are less obligations, there are also less explicit rights and this may disturb the investors. It is hard to explain those differences. They may come from an incertitude of the Polish legislators, who are afraid to make mistakes, as the World Bank official claimed. However, they may also come from the general political system and the traditions of the countries. Poland is a republic, so every politician is subjected to public approval and is likely to follow the shift in popular trends. Moreover, because of its tradition of political debate, it may be harder to pass detailed strategic legislation quickly.

The same kind of differences are found in the indirect influences. While Hungary prepares its privatization very slowly and carefully, Poland has a broad framework for a quick privatization of the economy and let the market forces develop the economy. Here again, even though it gives more freedom to investors, it increases uncertainty about the other actors in the country and might hinder privatization. The financial environment follows the same pattern. In Hungary, the free flow of capital is already achieved for foreign investors.

Moreover, fiscal rules are clear-cut and they are enforced very seriously. In Poland, it may still be difficult to repatriate profits in hard currency. However, the fiscal system in Poland is easier to dodge than in Hungary. In the long run, when capital movement will not be a problem anymore, it might lure investors in Poland. These differences might be explained by the different approach taken by the two countries. The Hungarian State has decided to follow the transition from Communism to Capitalism very carefully. It wants to make sure the transition is done properly, even if that means slowing it down. On the contrary, with its "shock therapy" policy, the Polish State wants the transition to be quick. It believes that a "shock" at the beginning will put the country on the right track. Thus everything is done quickly when it is possible and with as little intervention of the State as possible. However, when a decision is blocked by the political process, the situation can lead to a full stop since there is no progressive actions planned.

This study shows the differences in approaches taken by the Polish and the Hungarian State. It tries to show how the differences in approaches may influence the development of the telecommunication sector. However, it is limited and should be taken only as an tentative try to see the role of the State in telecommunication development in two countries with the same past but a different approach to reforms.

When considering the results of the study, one should keep in mind several inherent limitations.

First, the study is only qualitative and does not provide any proof other than a conceptual view. It is based on facts but does not have any means of scientifically linking State's actions and telecommunication development to provide empirical evidence. However, the rationale on which it is based is largely approved in the literature and has been observed several times.

This limitation is really difficult to lift through further research. Not only the relation between friendly environment and development is impossible to prove through simple scientific method, but also the statistic data available on the countries are more than likely to be at best inaccurate.[2]

Second, the study is not complete. Even though the State plays an important role in the definition of the objectives for telecommunication and in the creation of an investment friendly environment which is needed for luring capital in the sector, no development would be taking place without other actors. The results of this study are only considering the creation of proper environment while holding the participation of any other actor equal. No attention is given to particular situation like the important Polish community in the United States that is likely to push for investment in the mother country. Contrasting with the first, this limitation may be lifted through some further studies.

This limitation is a little easier to lift, as it only requires the same kind of study for other factors of telecommunication development. However, the problem of scientific validity and empirical proof is always the same even without considering the inaccuracy of statistical data.

1. Karoly Okolicsanyi, "Telecommunications in East Central Europe", RFE/RL Research Report, Sep. 18 1992, pp. 55-60.

2. "The false trails of Eastern Europe's hidden economies", Euromoney supplement, Apr. 1994, pp. 124-126.