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Telecommunication liberalization and economic development in European countries in transition

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Abstract

Developed and widely available telecommunications services are regarded as key enablers of a new economy. In Eastern European countries in transition, investment in telecommunications is generally perceived as a stimulus for economic growth. We investigate empirical correlation and Granger causality between certain indicators of telecommunications activity and economic growth. The indicators include total investment in the telecommunications sector and other parameters such as the penetration rate of services. We also propose additional indicators that may describe telecommunications sector development better than traditional, fixed, telephony-based measures. This is due to the migration of users from fixed to mobile networks, and from basic to broadband Internet access in the last few years. In the near future one also can expect broadband Internet users to move to mobile network infrastructure.

Keywords: Eastern Europe; Telecommunications services; Economic development; Mobile communications; Transition countries; Developed countries

1. Introduction

The development and stable functioning of a telecommunications system is a defining factor in national and global markets, especially in transition countries where an imbalance exists between telecommunications supply and demand. While the imbalance is due primarily to non-functional market mechanisms, there were other equally important reasons.

Slow development and insufficiently developed telecommunications infrastructure and services in transition countries may be factors that restrict the process of opening toward countries with a developed market economy. However, these same factors may also be major obstacles to acquiring new knowledge, developing international trade, and identifying new sources of financial capital.

The large gap in telecommunications development between developed and undeveloped countries is increasing despite existing international programs aimed at stimulating the construction and use of telecommunications infrastructure and services. Even with the increased capacities of telecommunication

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equipment, and prices (based on the amount of transferred information in relation to processing speed) that are dropping, the gap continues to grow. On the other hand, efforts are being made to open up markets and privatize in order to attract sufficient capital from the private sector to further develop telecommunications. The transition countries that rapidly reorganize and develop their telecommunications infrastructure and networks and introduce new and innovative services will create increased opportunities for economic growth and progress.

Today's society is rapidly becoming an economic system that demands continual exchange of information. Countries and economies that have the necessary telecommunications infrastructure and services are better prepared for post-industrial, information-based economic growth.

Note: The research results presented hereafter are based on data from four major database sources [1–4].

2. Telecommunications in European countries: developed vs. transition

Twenty years ago, incumbent telecommunications operators offered traditional voice and data transfer services via fixed telecommunications networks. This situation existed in Eastern European countries as well, except that the development of telecommunications networks lagged behind Western European countries (see Table 1). Indeed, the number of telephone connections in Eastern European countries was less than in the worst-developed West European country. One of the main causes for this delayed development was that in Western European countries the market itself created the need for more extensive exchange of information.

It is instructive to compare developed versus transition countries 20 years ago:

- Transition countries had less income from telecommunications as a proportion of GDP, which confirmed that telecommunications development lagged behind in the national economy [5].
- Developed countries had higher income per telecommunication access point.
- In developed countries, where there was competition in the telecommunications market, there was considerably more income from telecommunications as a proportion of GDP as compared to countries in which a single company held a monopoly.
- In transition countries, due to strict regulation of national telecommunication operators, there was a large imbalance between supply and demand for telecommunications services. Demand for telephone service far exceeded the supply offered by the incumbent in the national market.
- In transition countries, the demand for telecommunications services was insufficiently satisfied, which was corroborated by the fact there were long waiting lists for telephone service [5].
- In transition countries, income from national operators was *de facto* state income, which meant that only a small portion of funds was reinvested into telecommunications based on the government's political estimate rather than actual market demands.

Comparative studies conducted in the 1980s show that, according major indicators, social cohesion (at the local, regional, and national levels) in socialist countries was much weaker than in Western economies [5]. Barriers to the use of communications media and the free flow of information were widely acknowledged as an important factor in weakening the social cohesion. That also contributed to a cycle of less freedom in society, which transition countries would eventually have to overcome.

Such disrupted market relations resulted in considerably lower prices for telephone services in Western European countries. However, the huge unsatisfied demand for service annulled the presence of low, uniform

Table 1
Telecommunications development, measured by penetration rate (1990)

	Penetration rate (%)
Average East European transition countries	14
Average West European countries	45.1

Source: ITU [1].