

# Telecommunications regulation and deregulation: the impact on businesses. Lessons from the U.S. and around the world

(Juvenile justice in Spain: current regulation and projects underway)

Leo, Evan

Kellog, Huber, Hansen, Todd & Evans

1301, K Street, N.W. Suite 1000 W

Washington, DC 20005

U.S.A.

BIBLID [1136-8834 (1998), 11, 7-24]

---

*Telekomunikazioak arautzeko paradigma klasiko biak —(1) estatuaren jabetza, Europa guztian eta munduko toki gehienetan nagusi dena, eta (2) monopolio arautuaren eredua (Estatu Batuetan erabilia)—, gaurko egunean, pribatizazioak eta desarautzeak ordezkaturik gertatzen ari dira. Kontsumitzaileak pozteko arrazoiak dituzte: telekomunikazioen politikan gertaturiko pribatizazioak eta desarautzeak onura anitz ekarri diete kontsumitzaileei, prezioen jaitsiera eta berritze handiagoa barne.*

*Giltz-Hitzak: Desarautzea. Pribatizazioa. Posta Zerbitzua, Telefonoak eta Telegrafoak. Telekomunikazioetarako Bulego Publikoa. Zerbitzu Unibertsala. Monopolio Naturala. Merkataritzarako Mundu Erakundea. Monopolioa.*

*Los dos paradigmas clásicos de la regulación de las telecomunicaciones —(1) el modelo de titularidad estatal preva-lesciente en toda Europa y en la mayor parte del resto del mundo y (2) el modelo de monopolio regulado (utilizado en los Estados Unidos)— están siendo sustituidos en la actualidad por la privatización y la desregulación. Los consumidores tienen motivos para alegrarse: la privatización y la desregulación en la política de telecomunicaciones han provocado numerosos beneficios a los consumidores, entre los que destacan la bajada de los precios y una mayor innovación.*

*Palabras Clave: Desregulación. Privatización. Correos, Teléfonos y Telégrafos. Oficina Pública de Telecomunicaciones. Servicio Universal. Monopolio Natural. Organización Mundial del Comercio. Monopolio.*

*Les deux paradigmes classiques de la réglementation des télécommunications —(1) le modèle de "titularité" étatique prévalant dans toute l'Europe et dans la plus grande partie du reste du monde et (2) le modèle de monopole réglementé (utilisé aux Etats-Unis)— sont substitués actuellement par la privatisation et la dérégulation. Les consommateurs ont matière à se réjouir: la privatisation et le dérégulation dans la politique de télécommunications ont apporté de nombreux bénéfices aux consommateurs, parmi lesquels on remarque la baisse des prix et une plus grande innovation.*

*Mots Clés: Dérégulation. Privatisation. Postes, Téléphones et Télégraphes. Bureau Public de Télécommunications. Service Universal. Monopole Naturel. Organisation Mondiale du Commerce. Monopole.*

## I. Introduction

In most countries, telecommunications services historically have been provided by a state-owned monopoly. Countries throughout the world are, however, rapidly liberalizing the provision of telecommunications within their borders. Although deregulation does not create competition overnight, in countries that have deregulated telecommunications services there have been clear benefits: prices for these services have fallen, customer service has improved, innovation has increased, and more advanced infrastructures have been built.

Businesses have a vested interest in ensuring that telecommunications services are provided competitively. First, businesses are major consumers of telecommunications services and therefore receive a direct economic benefit from lower telecommunications prices and better service. Second, businesses that have affordable access to advanced telecommunications technologies are better able to compete in the increasingly global economy. Finally, the development of an advanced telecommunications infrastructure will give consumers better access to the products and services that businesses sell.

## II. Traditional Legal Regimes

### A. Public Telecommunications Systems

In most countries, telecommunications services traditionally have been provided by a vertically-integrated state-owned monopoly. Most state-owned telecommunications monopolies are part of a PTT, a department of the government in charge of all Post, Telephone and Telegraph services. PTTs are typically responsible for both the operational and regulatory aspects of providing telecommunications services.

In some countries, postal and telecommunications functions have been split apart. For example, the British Post Office's joint responsibilities for both postal and telecommunications were separated in 1981. In other countries, the regulatory and operational functions of the PTTs have been separated.

### B. Regulated Private Monopolies

A growing number of countries have privatized (or partially privatized) their telecommunications networks and operations, removing them from the control of the PTT. One of the first countries to privatize was the United Kingdom, which sold a 51 percent stake of British Telecom in 1984, and the remainder of the company in the early 1990s. By the end of 1989, nine countries had privatized their telecommunications systems. By the end of 1996, a total of 44 countries had privatized their PTTs, raising a total of \$159 billion. At least 15 more privatizations are currently scheduled to take place in the next 12-18 months.

Although privatization is often the first step taken by a country seeking to liberalize its telecommunications system, privatization is not always accompanied by deregulation. In many countries that have privatized, the newly-privatized entity has been permitted to retain its monopoly over the provision of most telecommunications services, at least for a certain period of time. For example, although the PTTs of Portugal, Belgium, Greece and Germany have all been partially privatized, each of these entities has retained a monopoly over local and long-distance telecommunications service.

Although privatization removes telecommunications operations from government control, regulatory functions typically remain with the PTT, or with a new government agency created solely to oversee telecommunications. In the United Kingdom, for example, the Office of Telecommunications (OFTEL) was established to replace the General Post Office (GPO) at the same time that British Telecom was privatized. By contrast, regulatory oversight of telecommunications remained with the PTTs of Germany and Belgium after these countries began privatization of their telecommunications operations.

A few countries in the world have always had a private telecommunications monopoly instead of a government-owned PTT. The most prominent example is the United States, where AT&T was the exclusive provider of all forms of telecommunications service for most of this century. Like countries that have recently privatized their telecom providers, the United States has an independent regulatory body charged with overseeing telecommunications. In the United States the Federal Communications Commission was established in 1934 to regulate the activity of private telecommunications firms.

## III. Deregulation and Competition

Countries throughout the world are deregulating the provision of telecommunications services within their borders. Pursuant to national initiatives and international agreements, by the year 2000, a third of all countries are expected to liberalize their telecommunications markets; these countries represent over 80 percent of the world's population and global economic activity.

Most countries that have deregulated their telecommunications markets have done so in stages. Privatization is often the first step, but it is not an essential one. Many countries have authorized competition, while retaining government ownership over the former monopoly. For example, Denmark, Finland, Sweden and Japan have all authorized competition against state-owned telecommunications entities in the provision of domestic and international long-distance service.

Most countries require telecommunications carriers to obtain licenses before building facilities or providing service. In countries where deregulation has begun, one or more competitors is licensed to compete against the former monopoly. A few countries have removed licensing requirements entirely and have permitted unrestricted entry. For example, New Zealand has done this for all of its markets; the United States has done this in its long-distance and international markets.

Several countries have opted to license just one competitor, creating a duopoly. Britain created a duopoly in 1982 by licensing Mercury to compete against BT in the provision of long-distance service. In 1991, Australia authorized Optus to compete against Telstra in the provision of local, long-distance and international service. Duopoly structures may be only temporary. Britain opened up its markets to unlimited entrants in 1991; Australia did the same as of July 1, 1997.

Most countries have deregulated core services — such as local, long-distance and international — at a much slower pace than adjacent services, such as terminal equipment and mobile wireless services. For example, although most countries still have monopolies over local and long-distance services, a majority of countries have authorized competition in the provision of customer premises equipment, such as telephone handsets and data terminals. In the United States, customer premises equipment was deregulated in 1968, and the provi-

sion of computer-enhanced services was deregulated in the early 1970s. The Royal Dutch PTT released its monopoly on customer premises equipment and value-added services in 1988. Spain liberalized its terminals market in 1989.

A large number of countries that have retained monopolies in wireline services, have authorized competition in mobile wireless services. In the last decade, for example, 17 countries within the OECD have eliminated their monopolies on mobile wireless service. Today, twenty-two OECD countries permit competition in digital mobile services — 15 countries permit two competitors; three countries permit three competitors; and five countries permit four or more. Nine of the 29 OECD countries permit competition in analog mobile services — four countries permit two competitors and three permit four or more competitors.

Deregulation of local, long-distance and international telecommunications services has been slower to occur. The United States was one of the first countries to authorize competition. In the late 1970s, long-distance competition was authorized against AT&T, which until then had been a vertically-integrated provider of all local, long-distance and international service. Competition in international services in the United States did not begin until 1985, and competition in local exchange services has just been authorized under the new Telecommunications Act of 1996. Britain's Telecommunications Act of 1984 authorized Mercury Communications to compete against BT in long-distance. In 1985, Japan reorganized its telecommunications markets and let multiple carriers into its market. In 1991, New Zealand began what is unquestionably the most radical deregulation program the world, eliminating all telecommunications regulation in favor of general laws of competition. Today, no fewer than six countries — the U.S., Japan, New Zealand, Australia, Finland, Denmark — have already deregulated local, long-distance and international service; at least three other countries — Indonesia, Malaysia, and Chile have deregulated international service; Canada has deregulated local and long-distance service (and international service to the U.S.).

A large number of additional countries have committed to deregulate telecommunications within their borders pursuant to international agreements. On February 15, 1997, 69 countries signed the WTO agreement to open their markets for all basic telecommunications services to competition from foreign-owned companies. Each participating country committed to varying foreign ownership restrictions and to a different schedule of implementation based on its current level of liberalization and infrastructure. Pursuant to a directive of the European Commission (90/388/EEC) the 15 member countries of the European Union independently are required to liberalize their telecom markets by January 1, 1998. The nations must privatize their state-owned voice monopolies if they have not already done so, and allow facilities-based competition for wireless, data, cable, and public voice service.

Finally, it is worth noting that deregulation comes in different colors and sizes. Many countries that authorize competitive entry simultaneously establish regulatory policies designed to ensure that markets are kept open, and that former monopolists don't abuse their position. Many countries, for example, have instituted interconnection policies that require an incumbent to permit a competitor to connect to the incumbent's network. Interconnection rules of various kinds have been adopted by the United States, the United Kingdom, Japan, Australia, France, and Germany. In a few countries, general competition laws enforced through the court system are favor-

red over telecommunications-specific regulation. New Zealand is the only country to rely almost entirely on general competition laws as a means of regulating its telecommunications industry; Sweden and Finland also rely heavily on general competition laws as opposed to regulation.

#### IV. Benefits of Telecommunications Competition

##### A. Lower Prices and Better Service

The most pronounced benefit of competition, and the one often noticed first by businesses and other consumers, is a decline in consumer prices. Although the record of deregulation in most countries is still fairly young, there are clear signs that the prices for services in countries that have deregulated such services are, on average, lower than the prices for identical services in countries where they are provided by a monopoly. The following examples illustrate this point:

- Among OECD countries, the average annual spending by business users for local service in countries where there is some degree of competition for local service is, on average, 9 percent lower than the OECD average. By contrast, the average annual spending by a business user for local service in countries where local service is still a monopoly is, on average, 8.5 percent higher than the OECD average. In Western Europe, local business rates are 27 percent lower than in countries with local competition than in monopoly countries; average annual spending by business is 30 percent lower in competitive countries than in monopoly countries.

- In Western Europe, the price of a one-minute call to the United States is, on average, 22 percent lower in countries that have authorized competition in the provision of international services than in countries where international service is still a monopoly.

- From the U.S, Canada and countries in Western Europe, the price of a one-minute international call to the most-frequently called destination country is, on average, 33 percent lower in countries that have authorized competition in the provision of international services than in countries where international service is still a monopoly.

- According to the International Telecommunications Union, the costs of Internet access are 34 percent cheaper in competitive countries than monopoly countries.

- The experience with deregulation in the United Kingdom demonstrates the potential for competition in local telephone service. In 1992, Britain authorized cable operators to provide competitive telephone services over their networks. Today, five years later, the U.K. has over 20 facilities-based competitors offering local service at prices that are, in most cases, below British Telecom's rates.

In competitive markets, price and quality tend to vary in direct proportion to each other. But service quality, unlike price, cannot easily be measured objectively. Nevertheless, anecdotal evidence suggests that in telecommunications markets that have been opened to competition, businesses express a much greater level of satisfaction with their service providers than in markets served by monopolies. For example, in Deloitte & Touche's recent Third Annual Telecommunications Competition Survey: Business User Perspectives on Competition Issues (a survey of 3,500 managers of telecommunications service in large U.S. businesses at the end of 1996), twice as many businesses were satisfied with the overall quality service from their long-distance provider (which

operates in a highly-competitive market) than from their local carrier (which still has a de facto, but not de jure monopoly).

Finally, lower prices and improved service generally increase total output — that is, they cause the size of the market to expand and grow the economy. For example, in developed countries with competition in international service, international traffic per subscriber grew over twice as much from 1990-1995 as compared to developed countries without competition. In emerging countries with international competition, traffic grew over three times as much in this period as compared to emerging countries without competition.

#### B. Innovation and Availability of Advanced Infrastructure

Deregulation goes hand-in-hand with increased innovation, which can be measured by the availability of advanced telecommunications services and technology. The following examples illustrate this point:

- Among OECD countries, the percentage of lines that have been converted to digital switching is, on average, 29 percent higher in countries that have authorized competition in local service than in countries where local service is still a monopoly.

- Among OECD countries, the number of Internet hosts per 1,000 inhabitants is, on average, 130 percent higher in countries that have authorized competition in either local or long-distance service than in countries where either of these services are still a monopoly.

- Among OECD countries, the percentage of Internet subscribers is, on average, 109 percent higher in countries that have authorized competition in local or long-distance service than in countries where local or long-distance service is still a monopoly. The United Kingdom, which has had the most deregulated telecoms market in the European Community, also has the highest percentage of Internet users.

#### C. Global Competitiveness

There appears to be a strong correlation between countries that have deregulated telecommunications, and the overall competitiveness of those countries in the global economy. This correlation is, admittedly, difficult to quantify or prove. The World Economic Forum, conducts an annual survey of the overall competitiveness of countries throughout the world. This survey — the Global Competitiveness Report — identifies “technology” as one of the key determinants of a country’s competitiveness and growth. The World Economic Forum’s 1997 Competitive Index compares over 50 of the largest countries in the world. Six of the top ten most competitive countries have deregulated some telecommunications service: three countries have deregulated the provision of local, long-distance and international telecommunications services; two additional countries have deregulated local and long-distance; one country has deregulated just international service. On the second tier of most competitive countries, seven of ten countries deregulated some telecommunications service: five have deregulated the provision of local, long-distance and international telecommunications services; one has deregulated long-distance and international; and one country has deregulated just international service. The average competitive index of countries that have deregulated local, long-distance and international telecommunications service is over five times higher

than the average of all countries and nearly twice as high as the average of all Western European countries.

#### V. Concerns with Deregulation

If competition in telecommunications is so great, why is it that most countries have just now begun to authorize it? Until fairly recently, the provision of telecommunications service, especially local service, was widely considered a “natural monopoly” — that is, a service most efficiently supplied by a single firm. Many viewed the duplication of investment of telephone competition as undesirable. In the past two decades, however, technologies such as fiber optics and digital wireless have dramatically reduced the costs of providing telecommunications service, and, as a result, have forced a reconsideration of exclusionary regulatory policies based on the “natural monopoly” concept.

Another reason that governments have outlawed competition is to promote certain social policies, particularly the universal availability of telephone service. The cost of providing telephone service varies greatly among different geographic and demographic groups. It is, for example, very expensive to wire sparsely-populated rural areas, but relatively cheap to wire dense urban areas. The only way that a competitive business profitably may serve a high-cost customer is to charge that customer a commensurably high rate. But if such conditions were allowed to exist, very few people living in rural areas would be able to afford telephone service. This is bad for everyone, as the value of the telephone network increases as more users are connected to it. Until recently, the accepted logic has been that, a monopoly is required in order to provide universal telephone service. The reason is that, only a monopoly can engage in price discrimination — that is, charge some customers higher rates than others. A firm in a competitive industry could not as easily engage in such price discrimination — it would lose sales to other firms willing to drive prices down to marginal costs. A monopolist, on the other hand, does not suffer from that inconvenience: under certain circumstances, it is able to engage in price discrimination.

Recent criticisms of deregulatory initiatives are that competition has been slow to emerge, and that the regulatory costs of maintaining competition are very high. But these arguments are not fair criticisms of competition itself; if anything, they speak only to the particular regulatory mechanisms that governments have employed to open their markets. Even under the most permissive legal regimes, like New Zealand, competition does not develop overnight. Monopolists typically lost their market shares very gradually, and, if given the opportunity, a monopolist will try to retain its dominance for as long as possible. Competitors do, however, invariably gain ground against incumbents. After nearly 20 years of long-distance competition in the United States, AT&T has, for the first time just this year, earned less than 50 percent of all long-distance revenues.

There are, to be sure, costs involved with deregulation and overseeing the transition to competition. In most countries, the transition from monopoly to competition is managed through regulation such as rules governing interconnection, price regulation, and mechanisms designed to prevent cross-subsidization by former monopolists. But the costs of these mechanisms that help promote competition are trivial compared to the costs of retaining monopolies, and foregoing the benefits that are discussed above.