Creating a more competitive world

Liberalization of basic telecoms, including satellite networks and mobile phones in the European Union – objectives, policies and expected impact

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Introduction

At the beginning of the twentieth century two very different models of how the economy and society should be organized had been formed:

On the one hand after its revolution in 1917, Russia applied the theories of Marx and Engels and therefore tried to introduce communism - a system in which all property is organized and controlled by the state. Goods and services are designed, produced and sold by public companies operated by the government which also controls production quantities and the prices: The planned economy.

On the other hand, the United States further implemented capitalism, in which property is owned by private individuals. Goods and services are planned, produced and sold by many private companies in order to generate profit for the company itself and its proprietors. Prices and quantities produced are determined by the market by supply and demand. Trade lets participants of these systems specialize their activities: The free market economy.

After World War II, Europe positioned itself in the middle, when most countries introduced a mixture between these two approaches: the social economy.

Goods and services are generally produced by private businesses but some areas are declared basic needs of the general public but not profitable for private companies. Furthermore one considered other sectors as not serving public interests using the model of free markets. As a result, these segments of the economy were nationalized and run by public corporations. Such sectors include utilities (water and electricity), public transport, financial services and telecommunications.

But as technology improved and therefore our economies changed, politicians in Europe began to revise their point of view.
In 1987 when the European Union released a green book which asked the member states to liberalize their telecommunication industries an historical moment for Europe's economy had begun.
Soon, the European states started to transform their planned telecom economies into market economies. In this paper I will look into the objectives, the purposes and the expected impact of that policy.

Background

Before analyzing the liberalization process of an economy, we have to look at private and public organizations in more detail as their objectives differ immensely.

Public Organization

A public organization is run by the government of a country and its purpose is to act in the interest of the general public. These can be critical interests as the national security, economical interests such as protecting employment and providing a universal service – a service, everybody can afford and has access to. Additionally it enables the government to regulate supply and demand where the invisible hand of the market is supposedly inadequate, insufficient or inappropriate.

In the public sector, corporations are financed through taxation and are made accountable for its activities, as they have to provide their superiors (Minister, Parliament or head of the state) with annual reports. Goods and services are sold at a price low enough to avoid making excessive profits but high enough to cover investment costs. Given the case a profit is made, it will be transferred to the state ("ploughing back profits"). In contrast as the main objective comprises serving the public interest unprofitable business activities will often be continued (e.g. many loss-making routes of railway services are kept alive to provide people in rural areas with transportation).

Mostly being monopolies and backed by the tax budget state monopolies large organizations provide high job security to their workforce. In Germany for example, many of the employees are bureaucrats who enjoy life-time employment. This leads to a high hierarchy within the company. Additionally, labour movement inside the organization as well as promotion tends to be low (salary as well as position is based on seniority).

Furthermore, centralization leads to a lot of red-tape within the corporation which results in a lack of innovation.

Private Organizations in a Competitive Environment

Companies owned and run by private individuals form the total opposite of public organizations. Here the main objective is to maximize profits and thereby return of investments for the owners (shareholders or proprietors) whom the board of directors has to report to frequently. These corporations are financed by selling shares, obtaining loans from banks or savings.

The competition forces a company to innovate, to offer the customers something cheaper, better performing, and better in quality as its rivals.

In order to increase profits it is in the interest of a corporation to decrease costs. By making the internal organization structure more efficient it can lower its fixed costs. By finding new ways to produce its goods or services (e.g. the use of new materials, the use of information technology) it can reduce its production costs.

This has led to a trend that hierarchical structures of companies have flattened during the last decade and the high competition in the labour market has caused a higher employee turnover. Salary and promotion is based on performance of the individual employee which makes him more productive.

	Public Organization	**Private Company**
Main Objective	Act in the public interest Provide national security Protect employment	Maximize profit Return on investment
Financed	Through taxation	Through private capital (loans, shares or savings)
Accountability	To the parliament	To its owners
Innovation	Introduced by politician's decisions	High motivation improve or launch products
HRM	Promotion and salary based on seniority Life-time employment High hierarchies	Promotion and salary based on performance High labour turnover Devolved responsibility

What Is Liberalization?

The process of liberalization comprises three major steps: privatization, deregulation and ensuring of a competitive environment.

Privatization

When businesses are conversed from public into private ownership, they have been privatized. After an internal restructuring the company is usually transformed into a public limited company which shares will then be issued on the stock market.
As seen above the company's objectives and internal policies concerning price, innovation, human resources, etc have to change dramatically during this process. This means making the company competitive is a very long process and requires changes of business operations as well as changes of staff's attitude by creating an entrepreneurial spirit.

Deregulation

As in a private economy the market and thus supply and demand set prices, success of innovations and quantities produces, regulation such as price-bindings and market entries need to be abolished. Especially market entrance for foreign investors companies, or workers may not be restricted if the country is to benefit from the global economy (e.g. in the United States, domestic airlines are still required to be in American ownership).

Ensuring a competitive environment

When an industry is privatized and deregulated, it is crucial for the success of the liberalization process that its market is open. As mentioned earlier, public corporations regularly operate as monopolies. Having a private monopoly is as bad for the consumer as a public one, as it inhibits innovation and a decrease of prices. Only competition lets private companies improve their products, services and internal processes. Consequently, the government has to maintain an open market at all time.
To manage this task, countries in Europe have their own government offices which regulate the market in favour for the ex-monopolist's rivals.
One might ask why the market needs to be regulated again after a deregulation was just carried out but without such an institution, the ex-monopolist could by all its competitors or deny network access to them. Therefore laws and regulation need to be established in order to prevent this from happening (e.g. in Germany, every provider of electricity is under legal obligation to conduct electricity from its competitors to its former customers.
Moreover in order to create competition it might sometimes be better to break up the former monopolist into small companies (One example is AT&T in the United States which became too powerful and had therefore been split into 22 baby bells in 1983).

Why Liberalization?

There are several advantages for consumer, investors, companies and the government of a liberalized market:

Consumer

As now competition rules the economy, the consumer has a choice of suppliers. He can select various companies for his sought goods. On the other hand, companies are eager to achieve a competitive advantage in order to attract and keep them. Ways of doing this might be a better product, better service or a better price

(In some cases, products do not get cheaper when an industry has been privatized. An example would be the Deutsche Bahn which charges a lot more money for its railway tickets than it had when it was operated by the state. However, in this case there is no competition, as the Deutsche Bahn still is the only supplier of railway services and probably had operating losses being paid through taxation before).

Investors and companies

When a market has been opened it is now possible for foreign investors to buy shares of companies operating in that market (An example would be Vodafone which has a high percentage of foreign shareholders). Additionally when companies can grow over their national borders by mergers or acquisitions they can further take advantage of economies of scale (Whereas consumers can also profit from such a development as they have the same supplier for goods and service in several countries).

Government

Selling shares of a public corporation on the stock market generates cash which the administration can use to reduce debts or increase investments. However in most cases the state keeps a certain part of shares as dumping of all its shares would tremendously lower their value. Additionally when the ex-monopolist operates profitably, the government receives dividends which can raise a state's income.
As a competitive environment is more attractive to foreign investors (see advantages for consumer), it is likely that more capital flows into the country on which taxes can be imposed.

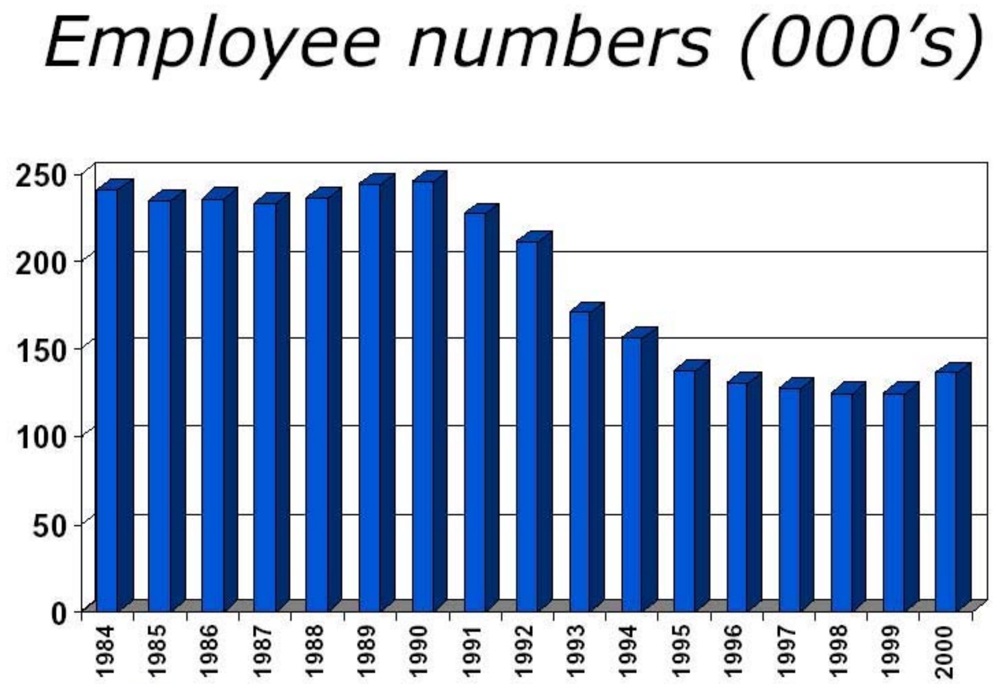
Other markets

When companies try to get consumer attention they often do this via advertisement and commercials. Thereby a competitive market finances the media they promote their products with (e.g. TV commercials, internet banners). Moreover when new companies start to build up their own infrastructure, the market for network supplies rises.

Disadvantages

As public corporations are not mainly interested in operating efficiently and often employ more people than necessary in order to protect employment, lay-offs are a frequent consequence when an organization is being privatized. Yet, taken into consideration that demand in a liberalized environment grows due to growing marketing efforts it is very probable that many of the rationalized workforce could find new employment opportunities at new competitors. Moreover access to goods may decrease as well if the public company served unprofitable areas or target groups (Due to their immense loss the Deutsche Bahn has recently announced that railway service to some rural areas will be closed down). In this case the market would only be able to offer a universal service to its customers when these not lucrative market sectors are subsidized by the government or implementing additional market regulations (see next chapter for details).

Below you can see the development of Labour quantity at British Telecom during the last 14 years.



The Telecommunication Market in Europe

Situation in 1994

Telecommunication in our context comprises all services and goods which are concerned with phones, faxes, telegraphs, early data services (such as BTX) as well as the construction and operation of network infrastructures. These markets were provided by public monopolies long before the European Union was founded (e.g. in Germany, the state monopoly were established 1928).

And for a long time, the governments of the European countries were not interested in changing this environment. The state telecoms worked on their own in cooperation with their domestic industry and were internationally incompatible regarding devices and interfaces.

In an EG guideline concerning the future developments of the European economy published during the seventies, the telecommunication sector were even excluded from those markets which should be opened in the future.

Economical Situation of European Telecommunication Markets in 1994

Country	Operator(s)	Regulation
Belgium	Belgacom	Monopoly
Denmark	Tele Danmark Telecom Danmark Four regional operating companies	Monopoly
Germany	DBP Telekom	Monopoly
Greece	OTE	Monopoly
Spain	Telefónica	Monopoly
France	France Telecom	Monopoly
Ireland	Telecom Eireann	Monopoly
Italy	Telecom Italia	Monopoly
Luxembourg	P & T Administration	Monopoly
Netherlands	PTT Telecom	Monopoly
Portugal	Portugal Telecom CPRM	Monopoly
UK	BT Mercury Kingston Telecom CATV operators Other operators	Competition
Austria	PTV Radio Austria	Monopoly
Finland	Telecom Finland 48 Local companies	Competition
Sweden	Telia Tele 2	Competition

Source 1

Although in some member states multiple infrastructures and service providers existed, only the national monopoly were allowed to operate in the majority states.

Purposes and Expected Impact of Liberalization

But as technology improvements led to the Information Age of our economy and European politicians were faced with slow and inefficient state monopolies it was clear that only a competitive market could provide innovations and low rates to the end user. As telecommunication is the scaffold of the information based economy and therefore plays "a role as did the rail networks in transforming the European economies in the last century" (**source 1)** high costs would inhibit growth in this sector and the EU would be less competitive compared to the US and Japan.

1884 the Council of the European Union (EC) published a recommendation to open the European telecom market followed by the green book telecommunication ("Green paper on the liberalization of telecommunications infrastructure and cable television networks") 1987. Green books include binding guidelines for the member countries which need to be implemented into national law. However, phone services (voice) were kept as monopolies in order to ensure a universal service (universal service guarantees that every European citizen is able to obtain access to a telephone at an affordable price) which changed in July 1993 when the EC decided to liberalize this sector by the first of January 1998.
Nevertheless in order to guarantee that everybody in Europe is able to obtain the possibility to place national and international calls, the EC passed a guideline that in case a company does not provide all consumers (rurally located, bad financial status such as the elderly, and disabled people) it might have to pay transfer to those companies which do.

Whilst Great Britain and the Netherlands were eager to liberalize the European markets as soon as possible, Spain, Portugal, Ireland and Greece plead to postpone this process to the new millennium. Germany, France and Luxemburg proposed a middle course which the turned out to be a consensus within the Union.
Hence, in March 1996 deadlines for the Liberalization were set: January first 1998 for all countries with advanced infrastructure and for countries with less sophisticated networks a grace period of two or five years (2003).

Expected impact comprises a "proliferation of new companies in the sector […] and a greater involvement of established companies providing various kinds of communication services to business, e.g. Reuters, Visa and IBM" (**source #**) as well as a further growing of companies over national borders in order to serve their international customers and forming joint ventures. By growing globally these companies could dramatically take advantage of economies of scale as telecommunication is not very labour intensive (see section "Why Liberalization" for more details).

In order to cover the third dimension of liberalization special telecommunication offices were established in all countries (**see table #**) to ensure that the ex-monopolist would not misuse its inherited power.
These administration bodies also regulate the prices for renting the local loop ("last mile") to enable private companies to offer local call services as well. When ex-monopolists want to introduce new tariff models they need the approval of the regulating office as well. Additionally all companies had to assure interconnectivity between their networks with the infrastructure of their competitors so that a Europe wide interoperability of telecommunication services can be assured.

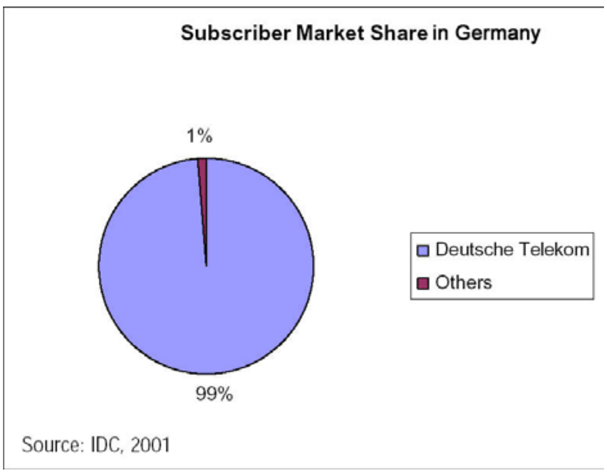
Examples

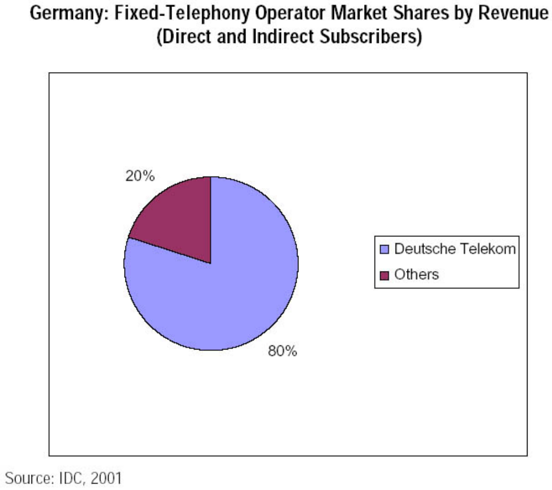
United Kingdom

The first country which liberalized its telecommunication sector was Great Britain which privatized its British Telecom monopoly 1984 under Margaret Thatcher (even before the EC released its green book about telecommunication). It sold its shares in three stages. In 1984 it issued approximately 50% of its shares on the stock market. 1991 it reduced its share to 21% and 1993 it offered all remaining shares for sale.

Germany

In 1994 the German Bundestag decided the liberalization of its telecom economy to be introduced by the first of January 1998. After January the first, plenty of small operators were founded, offering long distance services by leasing minutes from the ex-monopolist Deutsche Telekom (Call-by-Call). Mannesmann Arcor, o.tel.o, net.cologne and many more began to build their own net infrastructures. Especially the strong competition on long distance and international calls made tariffs decline tremendously. Today, compared to the consumer price index talking on the phone in Germany is the cheapest in the whole European Union (Deutsche Telekom tariffs went down 45% whereas third party companies sometimes offer the same services for 75% less – Source #2).





Situation Today

After Liberalization in 1998, consumers have enjoyed an increased choice of operators accompanied by declining tariffs overall. On the average, charges for long distance calls provided by the former public monopolies reduced 45% whereas new entrants' prices are in most cases tremendously lower (from 36% in Spain and 56% in the UK up to 75% in Germany, **Source#2**). Within the member states prices begin to move between the same price dimensions. Charges for local, national and international calls are converging which means that they begin to reflect the actual cost of providing the service.

Consumer choice has improved as well. In every member state, citizens can choose between at least five operators for long distance and international calls (with the exception of Belgium, Luxembourg and Greece, whose market has been opened in July 2001). The amount of service suppliers has risen from 21 to 214.

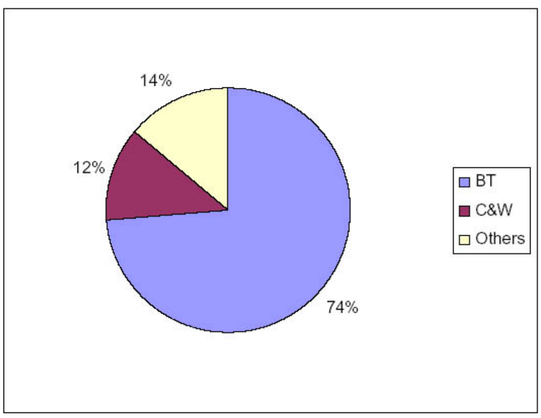
Consequently ex-monopolists' market share have decreased in all fixed call markets. Since Liberalization they have fallen 10% for local calls, 20% for national and 30% for international calls.

After opening the markets, foreign investments in domestic telecoms have risen significantly. These investments stem mainly from other European investors and companies and not from the US or Asia. For example France Telecom has subsidiaries in the Netherlands, United Kingdom and Spain. Moreover it holds 2% of Deutsche Telekom's, 27% of Italian' Infostrada's and 43% of Portugal's Sonae.com's shares.

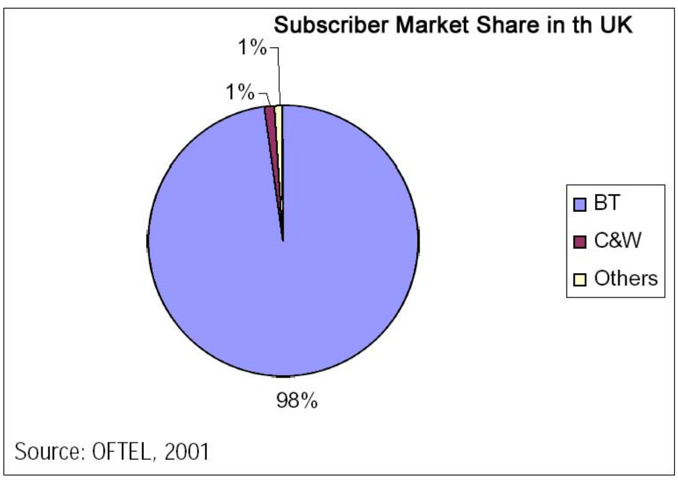
In Germany there are subsidiaries of Italy's Tiscali (Planet Interkom), British Telecom (O² Viag Interkom), UK's Colt (Colt Germany), Norway's Telenor (Nextra Germany) and many more.

Despite all these good developments, as you can see on the figures below, the incumbents still are the very market dominators (especially when it comes to subscribers). Therefore further regulatory instruments could possibly be implemented in the future to accelerate the establishment of real competition.

United Kingdom: Fixed-Telephony Operator Market Shares by Revenue (Direct and Indirect Subscribers)



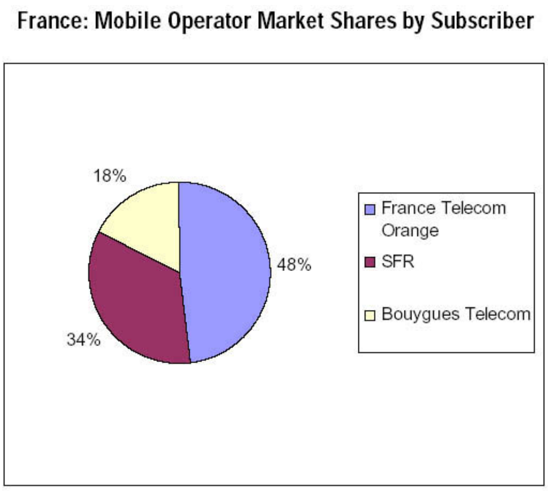
Source: OFTEL, 2001



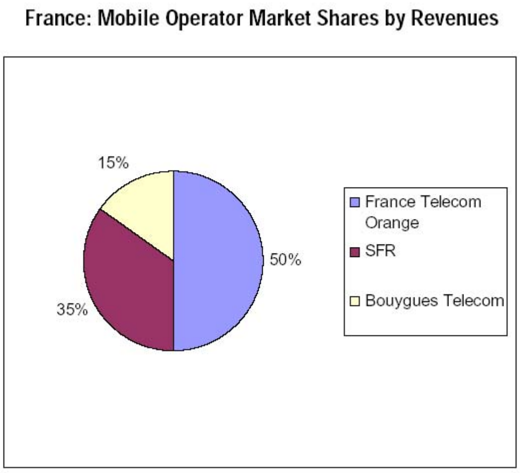
Mobile Phones

The market for mobile telecommunication developed considerably different. It can be divided into two eras:
Firstly the analog mobile communication of the eighties market which showed the failure of national telecommunication policy as there were five different, incompatible networks in Europe for car phones. Therefore it was not possible to use the same phone when entering the neighbour country. As a result, the European Union asked their member states 1987 to reserve the 905-914 MHz and 950-959 MHz frequencies for a future common standard.
The second era is the digital era beginning in the early nineties with the launch of GSM (Global System for Mobile Communication) using these frequency spectra. As this took place during the European Council's reorientation concerning liberalization, the private economy happened to have an important role from the beginning.
In 1988 the 18 telecom operators signed a Memorandum of Understanding (MoU) which obliged them to build a mobile network within a given time table. Furthermore one private competitor should be allowed to offer mobile communication services in each country.
Surprisingly, free competition was excluded in that market until 1994 when the EC released a green book in which it initiated a complete liberalization of the mobile market as well.
From an oligopoly to a free market after six years – Immediately new mobile operators were founded and due to high subventions and marketing efforts, mobile penetration soared.

Today we have at least three suppliers of mobile service in each European country with more and more international investments. Vodafone is a very good example of aggressive growing over the national borders. During the last years they acquired companies in Spain, Ireland, Sweden, Netherlands, Germany, Italy and Belgium. Given the fact that Vodafone is not the former public monopoly in the Great Britain, this company is an example of a successfully implementation of a free market.



Source: IDC, 2001



Source: IDC, 2001

Satellite Networks

From the beginning of the eighties on, satellite networks became more and more important.
In 1982 Eutelsat was founded in order to manage European telecommunication via satellite. Global communication was covered by Intelsat, the American equivalent. In that time, the satellite business was completely controlled by the public administration of the member states. However, during the late eighties as technological improvements made cheaper and smaller ground stations possible, the EC released a green book by 1993 prescribing a total liberalization of the ground sector (broadcasting and receiving stations), free access to satellite transmission capacity and commercial freedom to its suppliers. Besides it started a program to harmonize services and technologies in terms of compatibility and interoperability within Europe.
In 1985, Eutelsat faced its first competitor. SES Astra launched their first satellites in 1989 broadcasting TV and radio contents directly to the end user.
Ten years later (1999) the European states forming Eutelsat decided to privatize their satellite organisation by July 2001. The name of the company will be Eutelsat S.A.
Today, not only telephony and TV is broadcasted via satellite but internet traffic as well. There are even companies which offer you broadband access via satellite (you can use a normal TV satellite dish fore reception). Yet these techniques could not penetrate into the mass user market as DSL were and is undoubtedly cheaper.
We saw Iridium trying to establish a worldwide telephone network via satellite. This was the first direct mixture between mobile and satellite communication as your cell phone contacts the next iridium satellite when a conventional network is not reachable. Unfortunately the market was not ready for such a product yet and the company went bankrupt. Nonetheless, other investors have not lost their hope and new companies such as Globalstar are offering the same service. This market sector is in its first stages and early adopters form the customer base. In my opinion, this business will become more and more important.

Conclusion

Liberalization in these three market areas has led to an enormous proliferation of new companies, competitors which forced the market to develop and grow. Consumers can choose between several suppliers of service and goods which also have improved due to companies' efforts to gain competitive advantage.
The trend to transform the last public monopolies in Europe can also be seen in other market sectors. In Germany, consumers can obtain their electricity from many enterprises. In my opinion, it will not take too much time until all utilities and everything which provides the people of a country with goods and services (police and national defence excluded) will be private because private companies in a competitive environment are far more efficient to reallocate our scarce resources.

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