

Regulatory Reform in Spain

Regulatory Reform in the Telecommunications
Industry



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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FOREWORD

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

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

The report was prepared for *The OECD Review of Regulatory Reform in Spain* published in 2000. The Review is one of a series of country reports carried out under the OECD's Regulatory Reform Programme, in response to the 1997 mandate by OECD Ministers.

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

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

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

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Executive Summary

Background Report on Regulatory Reform in the Telecommunications Industry

The telecommunications industry has seen significant regulatory reform in OECD countries in recent years. Twenty-three OECD countries now have unrestricted market access to all forms of telecommunications, including voice telephony, infrastructure investment and investment by foreign enterprises, compared to only a handful only a few years ago. The success of the liberalisation process depends on the presence of a transparent and effective regulatory regime that enables the development of full competition, while effectively protecting other public interests. There is a need to promote entry in markets where formerly regulated monopolists remain dominant and to consider elimination of traditionally separate regulatory frameworks applicable to telecommunications infrastructures and services and to broadcasting infrastructures and services.

During 1998 the Spanish government made significant progress in adopting the regulatory principles prescribed by the EU and WTO. In particular, the April 1998 General Telecommunications Law provides a solid foundation for further progress. On 1 December 1998, Spain officially opened to competition its telecommunications market that Telefonica had monopolised for 74 years. Although this occurred 11 months after most of the other EU countries, in important respects the basic regulatory framework now in place in Spain stands up well to a comparison with other OECD countries.

But while the legislated rules are installed, they must be promptly and effectively implemented to ensure a fair, transparent and stable competitive environment for all market players. There are encouraging signs that CMT (the industry regulator) is gaining respect as a well empowered and resourced agency, with some early successes, particularly in regard to significantly lowering Telefonica's interconnection price. However, problems have been identified. On the institutional side, there has been a lack of clarity about the division of responsibility between the Ministry for Development, the traditional telecommunications regulator, and CMT. Moreover, there has also been uncertainty over the division of responsibility ("competency") between CMT and the competition law authorities in regard to control of anti-competitive behaviour. More specifically, in regard to regulatory rules, the demanding conditions attached to licenses run counter to the streamlining intent of the EC's licensing directive; the requirement to base interconnection charges on an ambiguous concept of "real costs" rather than explicitly on LRAIC; the provision in the law that "access deficits" and universal service funding may be offset by a potentially distortive surcharge on interconnection prices (rather than be funded transparently); the lack of resolution concerning the significance of net costs of universal service and need for a universal service fund; the lack of transparency, delays and other concerns relating to the continuing use of direct government authorisation for price changes, delays in installing carrier pre-selection and number portability and problems relating to rights of way, etc.

These problems constitute some of the short-term tasks to be addressed. But regulatory reform is also being further complicated by technological change and "convergence". In common with other OECD countries, Spain must now address the challenge not only of completing the move to an effectively competitive telecommunications market, but also of preparing for the "next generation" regulatory regime which convergence will necessitate.

This report examines the impact of regulatory reform on the performance of telecommunications markets thus far. It concludes that there are early signs that regulatory reform is already beginning to show evidence of beneficial effects. Several new operators with links to formidable international telecommunications companies have entered the fixed line and mobile markets and are deploying infrastructure and services based on state-of-the-art technology. Customer choice and quality of service are improving and long-distance prices have dropped, although monthly subscriber charges and local usage tariffs have risen as part of the price 'rebalancing' that has occurred.

1. THE TELECOMMUNICATIONS SECTOR IN SPAIN

1.1. *The national context for telecommunications policies*

The telecommunications sector is an important contributor to Spain's economic growth and net gains in employment. In terms of revenue, the Spanish telecommunications market is projected to grow from about US\$16.5 billion in 1996 to about US\$25 billion in the year 2000, making the Spanish market of some 40 million people the fifth largest in Europe.

In recent years, the Spanish telecommunications market has witnessed dramatic changes moving from being a closed and restricted virtually monopolised sector to an open market as from 1 December 1998. In principle, any company can now enter to provide any service. However, before December 1998, market entry was restricted to a second fixed line licence to Retevisión which began operations in January 1998, and a third to the Lince consortium (led by France Télécom) in May 1998. Lince commenced operations in December 1998. In the mobile market, Telefonica was the sole operator until Airtel received a licence in 1995 for the GSM mode. The third licence was granted to Retevisión Movil in July 1998 to operate a DCS 1800 system.

The most important driver of Spain's market and regulatory reform was the requirement to meet European Commission Directives¹ and WTO commitments.² The EC remains an important influence and closely monitors the implementation or "transposition" of the telecommunications regulatory package.³ Notably, Spain (and three other EU member countries⁴) obtained a derogation to delay full liberalisation until after the 1 January 1998 EU deadline, negotiating an extension of 11 months to 1 December 1998⁵. By the end of 1998, Spain was assessed to have largely "substantially transposed",⁶ having incorporated into national law the obligations set out in the various EU directives.

Another driver of regulatory reform has been concerns within Spain that the country was lagging in terms of "teledensity" and network modernisation. As Table 1 indicates, the penetration rate in Spain has increased from 24.3 mainlines per 100 inhabitants in 1985 to 32.1 in 1990 and to about 40 in 1997. As Table 1 shows, this was one of the lowest rates of telephone connection in Western Europe and is significantly lower than the OECD average of about 59. When mobile subscribers are included, 'teledensity' in Spain was about 51% in 1997 (compared to the OECD average of 64) with some 92% of households connected to the telephone network.

1.2. *General features of the regulatory regime*

In December 1987, Spain promulgated the Telecommunications (Regulation) Act, which was the first basic statute to provide a legal framework specific to telecommunications and was the starting point of market liberalisation in Spain. The dynamic nature of the telecommunications sector, the market liberalisation process prompted by the World Trade Organisation (WTO) and the European Union (EU), meant that the 1987 Act became outdated and in need of a major overhaul. Major alterations were introduced by the Telecommunications (Liberalisation) Act of 24 April 1997. This was followed in April 1998 by the *General Telecommunications Law* designed to establish a unified legal framework in accord with EC Directives. The objectives of the law are to:

- Promote competition among service operators, with due observance for the principle of equality of opportunity through abolition of exclusive or special rights.

- Determine the public service obligations attaching to the provision of telecommunications services, particularly obligations in respect of universal service, and to guarantee their fulfilment.
- Promote the development and use of new services, networks and technologies, and likewise to promote access thereto so as to foster territorial, economic and social cohesion.
- Ensure the efficient use of limited telecommunications resources such as numbering and the radio spectrum.
- Defend the interests of users, guaranteeing their right of access to telecommunications.

Table 1. Access lines per 100 inhabitants in the OECD area during 1985-1997

	Access lines per 100 inhabitants					Residential access lines per 100 households 1997	Telecom access paths per 100 inhabitants
	1985	1990	1995	1996	1997		
Australia	41.6	46.1	50.8	50.8	51.2	96.47	77.3
Austria	36.1	41.8	46.8	46.6	45.7	#N/A	59.9
Belgium	31.1	39.3	45.7	46.5	48.5	#N/A	58.0
Canada	45.5	55.0	59.7	60.8	61.6	104.89	69.7
Czech Republic	12.9	15.8	23.4	27.5	32.0	46.86	37.1
Denmark	49.7	56.6	61.3	62.1	63.6	#N/A	93.5
Finland	44.7	53.5	55.0	55.4	55.6	87.98	101.2
France	41.7	49.5	56.1	56.9	57.6	107.88	67.4
Germany	32.9	40.3	51.5	54.0	55.0	98.18	64.9
Greece	31.4	38.6	49.4	40.8	51.6	98.06	60.2
Hungary	7.0	9.6	21.3	26.4	31.9	55.43	38.9
Iceland	42.6	51.4	55.3	56.7	56.7	121.50	80.7
Ireland	19.8	28.1	37.0	39.1	42.1		56.5
Italy	30.6	39.2	43.4	44.1	44.9	91.89	65.4
Japan	37.5	44.1	48.9	49.1	47.9	96.75	78.4
Korea	18.5	35.7	48.3	50.3	52.0	115.38	67.1
Luxembourg	42.0	48.2	57.5	62.7	67.1	116.91	83.2
Mexico	4.6	6.2	9.7	9.5	9.8	33.96	11.7
Netherlands	40.2	46.4	51.7	54.1	56.6	#N/A	67.4
New Zealand	38.8	43.9	46.6	49.5	50.5	#N/A	63.6
Norway	42.3	50.3	56.1	58.6	62.6	97.09	101.1
Poland	6.7	8.6	14.9	16.9	19.4	41.55	21.0
Portugal	14.1	24.1	36.5	38.0	39.0	90.50	54.3
Spain	24.3	32.1	38.1	38.8	39.9	91.90	50.8
Sweden	62.8	68.3	68.4	68.4	68.0	114.08	103.8
Switzerland	50.1	57.7	61.5	63.3	64.5	96.25	78.8
Turkey	4.5	12.3	23.3	25.6	28.0	79.06	30.6
United Kingdom	37.0	44.1	50.6	52.8	54.0	95.98	68.3
United States	48.9	53.9	61.6	63.3	66.0	108.94	86.3
OECD ²	32.9	39.2	46.1	47.4	58.9	#N/A	64.3

1. Telecommunication access paths include the total of fixed access lines and cellular mobile subscribers.

2. OECD average is a weighted average rather than a simple average.

Source: OECD, *Communications Outlook 1999*, Paris, p. 74.

The basic regime on radio and television is expressly excluded from the scope of the 1998 Telecommunications Law. Broadcasting services are subject to a separate regulatory framework, but the network infrastructure used for radio and TV services are within its scope, especially in relation to interconnection and access.

Box 1 indicates the notable developments in the Spanish regulatory regime since 1987 in chronological order. The laws governing competition also apply to the telecommunications sector. As Box 1 shows, the 1998 General Telecommunications Law was followed by a number of Royal Decrees and Ministerial Orders detailing specific provisions of the General Law in regard to interconnection, licensing, numbering and universal service obligations.

The Law on the Defence of Competition enacted in 1989 is aimed at protecting competition within Spain in all sectors including telecommunications. The law contains three main sets of rules: Article 1 of the law, prohibiting restrictive agreements and practices, closely follows Article 85 of the EC treaty. Article 6 is likewise the equivalent of Article 86 on abuse of a dominant position. Breaches of these rules are punishable by fines of up to 10% of the total turnover of the infringer. The control of concentrations (mergers) is also covered by this law which prescribes a control procedure when one of the two following tests is met:

- The turnover in Spain of all companies participating in the concentration exceeds, in the previous financial year, the amount of 20 billion pesetas.
- A market share equal to or in excess of 25% of the national market or of a substantial part thereof is attained or increased for a certain product or service.

Finally, acts of unfair competition significantly distorting competition and adversely affecting the public interest are also covered by this law as well as the Law on Unfair Competition.⁷

Box 1. Developments in the Spanish telecommunications regulatory regime

Notable developments in the regulatory regime include:

- Telecommunications (Regulation) Act of 18 December 1987.
- Satellite Telecommunications Act of 12 December 1995.
- Cable Telecommunications Act of 22 December 1995.
- Telecommunications (Liberalisation) Act 24 April 1997.
- Numbering Plan which came into force on 4 April 1998.
- General Telecommunication Law of 24 April 1998.
- Royal Decree 1651 of 24 July 1998 on interconnection and numbering.
- Royal Decree 1652/1998 of 24 July on registrations of holders of individual licences and general authorisations and on the single window procedure.
- Royal Decree 1736 of 31 July 1998 on public service obligations.
- Royal Decree 1750 of 31 July 1998 on charges.
- Ministerial Order of 22 September 1998 on authorisation and licensing.
- Numbering regulation 25 September 1998.
- Universal service regulation 26 September 1998.

1.3. Market participants

Box 2 shows the major fixed line operators in Spain and their ownership status. The list is certainly not comprehensive. Indeed, since 1 December 1998, the number of operators with different types of licences (A, B and C) to operate in Spain has continued to increase.

The major operator is the incumbent, *Telefonica de Espana SA* (Telefonica), one of Spain's largest companies and the world's 17th largest telecommunications operator in terms of market capitalisation. Telefonica operated as a monopoly for 74 years and still dominates the telecommunications market.

The second major operator is *Retevision*, a former TV and radio transmission company. Retevision was launched in January 1998 and is establishing itself as the main rival to Telefonica. The company is building its own network and is planning to offer all services, including local telephony, so as to allow the client to migrate from Telefonica. During 1998, Retevision attracted about a million customers or some 10% of the long distance market. There was a particularly rapid penetration of the market in Catalonia, where Retevision has already taken a 14% share of the long distance market.

Box 2. Main fixed line telephony operators and their ownership status (1998)

Name of PTO	PTO ownership status (1998)
Telefonica:	The incumbent monopoly for 74 years, Telefonica, privatised in 1997, has over 17 million fixed line customers.
Retevision:	<i>Retevision</i> , Spain's second fixed-line provider, was formerly government-owned but is now fully privatised. Majority control of Retevision was sold to the Endesa electricity group and Stet-Telecom Italia in July 1997. The final 30% was sold to the consortium in February 1999. As at July 1999, Endesa and Telecom Italia have a 28.7% stake each and Union Fenosa has another 15.5%. Spanish bank BSCH holds 5.5% with the rest belonging to Spanish savings banks. With over 800 000 customers, Retevision has some 10% of the long distance and international market. When its own network is established, it plans to also offer local calls.
Lince (Uni2):	Lince, is the third fixed-line carrier, having been the sole bidder for the license granted in May 1998 ahead of the market opening in December 1998. The Lince consortium partners are France Télécom (69%), Editel (30%) (Banco de Santander 51%; Ferrovial 24.5%, Multitel Cable 24.5%); and Cableuropa (1%). It is notable that Cableuropa and Deutsche Telecom each have an option to acquire an additional 15% stake from France Télécom.
JazzTel:	Using a synchronised digital hierarchy (SDH) network Jazztel plans to specialise in providing specific services for business customers. Its main shareholder is Martin Varsavsky, founder of the US operator Viatel Corp with the backing of Nortel (a Canadian company).
Colt Telecom Espana:	A subsidiary of the Colt Telecom Group (which operates in a range of countries) had been operating in Spain since September 1998 providing a range of high bandwidth value added services. In December 1998 Colt was awarded a licence to provide an expanded range of telecommunications services, including voice telephony.
BT Tel:	A 100% owned subsidiary of BT (UK).

Lince (also known as Uni2) is the third fixed telephony operator, with France Télécom and ONO/Cableuropa⁸ its main shareholders. The licence for this third fixed line operator was granted in May 1998, before market opening on 1 December 1998, as part of the negotiated settlement with the EU. Lince has been providing international and inter-provincial service since 1 December 1998 and within six weeks had some 100 000 subscribers⁹ with clients increasing to 400 000 by June 1999. This is well ahead of the company's forecasts and augurs well for its plans to gain a 7.5% share of the domestic telephony business by 2008.

Euskatel, Spain's first regional phone company, started commercial operations in the Basque region in January 1998 and by May 1998 it had signed up over 100 000 customers, or some 11% of the Basque market. Euskatel's financial partners include leading Basque savings banks with 18% of its shares owned by Telecom Italia (its so-called "technological partner").

Jazztel, which commenced operations in 1998 is investing heavily in deploying a broadband network, as well as the installation of a submarine cable between Bilbao and the United Kingdom. The company hopes to attract 10% of the business market.

BT Tel, a subsidiary of BT (UK), has for several years operated Spain's second largest data communications network (Telefonica operates the largest) distributing BT's *Concert* services in the country. In February 1999, BT Tel bought *Arrakis*, Spain's leading Internet service provider, with some 65 000 customers and a 15% share of the Spanish market, for 2.2 billion pesetas (9.5 million UK pounds).

Since full liberalisation of the market on 1 December 1998, there has been a growing number of new entrant operators.

Box 3 indicates the number and ownership of telecommunications operators as at September 1999 in the fast growing Spanish mobile telecommunications market.

Telefonica Moviles has about a 66% market share of the mobile phone business in Spain. At the end of July 1999, Telefonica Moviles had about 6.54 million mobile customers in Spain, of which most subscribe to *MoviStar's* fast growing GSM 900 service while subscribership declined for *MoviLine's* analogue service.¹⁰ Telefonica disclosed that by November 1998, 37% of the company's profit came from its mobile operations¹¹ compared with only some 11% towards the end of 1997. Net profits from the mobile business almost quadrupled to 61 billion pesetas. In July 1999, CMT granted a fixed-line telephony licence to Telefonica Moviles permitting it to supply "convergent services" (with a requirement that the company provide separate accounts for fixed-line and mobile services to allay fears of cross-subsidisation practices).¹²

Airtel, using GSM 900 technology, has been competing with Telefonica since 1995 and as at March 1999 had some 32% of the mobile market. Airtel hopes to further consolidate its position with the launch in July 1999 of its fixed line telephone service¹³ making it an integrated telephone service supplier.

Retevision Movil, a joint venture between Spain's fixed line operator, Retevision, and Italy's Telecom Italia, was awarded Spain's third mobile phone license¹⁴ in May 1998 through a public tender conducted by the Ministry for Development.¹⁵ Using DCS-1800 technology, Retevision Movil (also known as "Amena") claimed to have more than 200 000 customers by June 1999 and plans to integrate its activities with the fixed line operator Retevision and with cable operators controlled by its shareholders.

Box 3. Mobile operators and subscribership as at January 1999

	Commence- ment date	Number of subscribers (Jan 1999)	Ownership status
Telefonica Moviline (analogue TACS 900 system)	April 1990	Fell (-18.1%) from 1.08m in Jan 1998 to 0.88m in Jan 1999.	100% owned by Telefonica.
Telefonica Movistar (GSM 900)	July 1995	Increased by some 100% to 4.4m between Jan 1998 and Jan 1999.	100% owned by Telefonica.
Airtel (GSM 900)	October 1995	Increased by 88% to 2.3m between Jan 1998 and Jan 1999.	Airtel, the second mobile carrier, which accounts for 30% of domestic cellular business, is backed by Vodafone-AirTouch (21.7%); BT (17.81%); investment companies: Grupo Acciona, Torreal, and Corporacion Financiera Alba; banking group BSCH (30.45%).
Retevision Movil ("Amena" DCS-1800)	Jan 1999	5 000 subscribers in Jan 1999.	Jointly controlled by Retevision (40.1%) and Stet, an Italian company, (39.1%), Endesa, Union Fenosa and several savings banks.

Source: OECD and *Global Mobile*, Volume 6, No. 5, 4 March, 1999.

The liberalisation guidelines for cable were approved in December 1995. The process of allocating licenses, initiated in 1997, has been finalised, with licences going mainly to two large groups of companies. One group is that formed by Retevision, the electrical companies and Stet. The other group is headed by Cableuropa. Telefonica is licensed to operate cable in all of the 43 demarcations into which the country is divided. Only one license is to be granted to a cable operator to compete with Telefonica in a duopoly situation, in each of the demarcated regions. Cable operators can provide telecommunications services and are permitted to set tariffs freely within their respective territorial demarcation. But Telefonica must wait two years from the time a licence is granted to the second operator before it can offer cable-based telecommunications service in that region.¹⁶ The two-year moratorium has not deterred Telefonica that has plans to invest some US\$3 billion over the next 10 years building cable systems in the country.¹⁷

The cross-ownership of different competing telecommunications operators and the effect of such cross-ownership on competition should be closely monitored. For instance, Endesa and Union Fenosa own shares in Retevision and Retevision Movil as well as competitor Airtel (which now also has a fixed line as well as a mobile licence). To its credit, the regulator (CMT), has required that these companies sell their 8.14% shareholding (each) in Airtel.¹⁸ In May 1999, the shares were purchased by banking group BSCH (Banco Santander Central Hispano) increasing its shareholding in Airtel from 14.09% to 30.1%. In consequence, BSCH had to sell its 5.5% shareholding in Airtel's competitor Retevision. But BSCH continues to have a stake in Uni2 (15.6%), Amena (2.7%), and a 32.4% shareholding in Cableuropa.¹⁹ And there are other examples of cross-ownership. BT (UK) has a substantial 17.81% shareholding in Airtel and is to commence operations in fixed line service. Telecom Italia is an important shareholder in both Retevision as well as cable operator, *Madritel*. Also, the Spanish banks are heavy investors in most of the country's telecommunications operators.²⁰

2. REGULATORY STRUCTURES AND THEIR REFORM

2.1. *Regulatory institutions*

The *Secretaria General de Comunicaciones*, located within the Ministry for Development (the ministry), has been traditionally responsible for regulating the telecommunications sector. The ministry continues to advise the government on telecommunications policy and retains a major role in the new regulatory regime raising concerns about a lack of clarity in the division of regulatory responsibilities. To clarify the division of responsibilities in relation to the independent regulator, the ministry released an unofficial circular on 26 January 1999. Notably, as indicated in Box 4, the ministry is responsible for awarding individual licences where radio spectrum frequency is considered to be limited.²¹

Box 4. **Regulatory powers of the Ministry for Development concerning telecommunications**

- Definition and execution of national policy in the telecommunications sector.
- **Development of new administrative regulations**, and drafting of new laws both for telecommunications and broadcasting.
- Co-ordination of the Spanish policy in international telecommunications organisations, and the relations with these organisations.
- Radio spectrum management and monitoring; frequency assignment and spectrum pricing.
- **Control of the quality of telecommunications services and public networks.**
- **Application of penalty procedures.**
- Policies for stimulation and promotion of advanced services.
- Development of technical standards for telecommunications equipment, and type approval.
- Granting of individual licenses for services that use the radio spectrum (with limitation in the number of licenses and licenses for non public services).
- Development of new numbering plans.
- Definition of the different components of the universal service concept and proposals for increasing the number of services included under this concept.
- Control of the content of TV programmes.

Source: Ministry for Development, "The Administration of the Telecommunications Sector in Spain", 26 January 1999.

The *Comision del Mercado de las Telecomunicaciones* (CMT) was created by Royal Decree-Law in June 1996 and began operating in 1997 as the independent national regulatory authority provided for in EC Directives. The mission assigned to the authority is to: "safeguard the existence of effective competition in the telecommunications and audiovisual, telematic and interactive services market, for the benefit of the citizens, to ensure proper price formation and to act as arbiter in any conflicts arising in the sector."²² CMT's broad objective is to facilitate the attainment of the most advanced, least expensive and most accessible telecommunications services. Box 5 details CMT's responsibilities.

Box 5. Responsibilities of the telecommunications regulator, CMT

Advise the government on telecommunication policy, including:

- Adopting measures necessary to ensure free competition in telecommunications markets.
- Overseeing and granting general authorisations and individual licenses for providing all telecommunication services, except where tendering for a licence is mandatory due to lack of scarce resources, in which case the Ministry for Development is responsible.
- Maintaining public registers of the holders of individual licences and general authorisations.
- Assigning numbering blocks to operators.
- Arbitrating on conflicts between operators in access and interconnection and definition of maximum interconnection prices; approval of the reference interconnection offer.
- Assessing tariff proposals for services.
- Evaluating and reporting on proposals for new regulations.
- Determining the cost of universal service and distributing this cost among operators and administering the universal service fund if one is considered necessary and is established.
- Reporting its views regarding the desirability of mergers and takeovers to the Competition Defence Service.

Source: Ministry for Development, "The Administration of the Telecommunications Sector in Spain", 26 January 1999.

The legislation makes commendable effort to establish the prerequisites of an independent regulator. A board consisting of a chairman, a vice-chairman and seven members governs CMT. The authority is not financed by the government but by contributions levied on telecommunications operators.²³ The authority is well resourced in terms of staff. Including the board, there are 91 CMT staff who are not civil servants (staff previously employed by the administration have had to resign their positions). The chairman is appointed by the government, subject to parliamentary approval, with other members appointed by the Minister of Development for five years, with removal before then only for "exceptional and well established reasons". Decisions of the board are made on the basis of simple majority.

The instructions, resolutions, decisions, and requests for information issued by the CMT are binding, and, if ignored, will be considered a serious breach of the telecommunications law.²⁴ The CMT has authority to ask for any information it requires (restricted to being used only for the purpose specified). Decisions can be appealed to the courts but not to the government. CMT is well endowed with legislative powers and resources and, indeed, has scored some early successes. For instance it is widely regarded to have performed well in achieving a pro-competitive interconnection offer from Telefonica. Another example was the case of RSLCom, a new entrant that saw the potential of offering calling cards allowing the millions of visitors to Spain each year to make international calls at cheaper rates than Telefonica. In August 1998, Telefonica tried to block access to RSLCom's freephone number from payphones in airports and other locations frequented by visitors. RSLCom complained to CMT that found in its favour and obliged Telefonica to let RSLCom customers use the service from any call box. CMT's continued performance in nurturing competition will depend critically on the willingness of the Ministry for Development to hand over real power to make independent decisions to the regulator. It is important for effective regulation that the relationship between CMT and the administration is transparent and that CMT materialises its potential to be an independent national regulatory authority.²⁵

As noted earlier, on 26 January 1999 the ministry circulated a brief document outlining the division of responsibilities. It is notable that several areas indicated in Box 4 as the ministry's responsibility, such as control of the quality of services, development of new administrative regulations, and application of penalty procedures, are in many other OECD countries designated as the responsibility of the independent regulator. The policy aspects of these responsibilities (justifiably within the ministry's jurisdiction) should be clearly demarcated from the "operations" aspects (that are the CMT's responsibility). On the other hand CMT is required to assess tariff proposals for services provided by an operator in a dominant position, as does the *Commission for Economic Affairs* (referred to later) which is still the government body that authorises Telefonica's price change applications for those services under price control. The ministry's involvement in price regulation therefore continues to be significant since it is responsible for briefing its minister who is a member of the Commission.

CMT can enhance its reputation for independent decisions by moving determinedly towards more open hearings, establishing a formal process for receiving submissions, consulting widely, etc. New entrants have also called for CMT to issue clear and timely guidance to assist them to conform to CMT's filing requirements. These are practices that can be used to good effect in installing a transparent system, as demonstrated by OFTEL and the FCC. Open decisions based on sound reasoning and information makes political over-ride much more difficult and, indeed, is likely to make CMT much less open to allegations of being "captured".

Spain's competition law authorities are the *Tribunal de Defensa de la Competicion* or the Competition Defence Tribunal (henceforth referred to as the Competition Tribunal) and the *Servicio de Defensa de la Competicion* (Competition Defence Service) located within the Ministry of Economy and Finance. Both are responsible for the application of the competition rules contained in the law on the Defence of Competition 1989.

In the context of price regulation, the 1998 Telecommunications Law provides a role for the *Commission for Economic Affairs* (comprising ministers of economics-related portfolios). The Commission may, following a report from the CMT, provisionally set maximum and minimum prices or lay down criteria for the setting and mechanisms for price control in the light of the "actual costs" of providing the service and the degree of competition among operators in the market. Furthermore, in order to determine the said degree of competition, the situation of each separate service shall be analysed in such a way as to guarantee competition, the control of abuse of dominant positions, and access to these services for all citizens at affordable prices. To this end network or service operators shall be obligated to furnish detailed information on their costs subject to whatever criteria and conditions shall be established by regulation. In any event, such information must be relevant to the purpose of price regulation and furthermore must be furnished along with a covering report from an independent firm of auditors accrediting conformance to regulations.²⁶

Notably, the Commission for Economic Affairs may establish a provisional surcharge on interconnection prices to cover the access deficit caused by the present tariff imbalance until such time as a balance is re-established, and to help finance universal service pending formation of the National Fund for Universal Service. The said surcharges must be included in the actual interconnection prices.²⁷

One question pertaining to these provisions is whether it should be CMT rather than the Commission that should be responsible for price regulation. Another issue is the extent to which the rules pertaining to the accounting separation of costs has in fact been enforced. A third issue is that a surcharge included in the actual interconnection charge will reduce the transparency of the interconnection price and is a distortive and inefficient way of raising funds to offset the access deficit or fund universal service obligations. These issues will be discussed further later.

Another regulatory institution is the *Telecommunications Advisory Board* which is responsible for advising the government “in matters relating to telecommunications.” The Board’s function is to conduct studies and “make proposals” on matters relating to telecommunications.²⁸

2.2. *Telecommunications regulation and related policy instruments*

As noted earlier, the *European Commission* (EC) has played a major role in driving regulatory reform in Spain and it continues to be responsible for guarding against abuse of a dominant position and anti-competitive behaviour at the general EU level.

An operator (whether a new entrant or an incumbent) which finds that an EU directive has not been properly implemented can initiate action at either (or both) the EU level as well as the national level. At the EU level, the complainant can either file a complaint with the EC or rely on the Commission to take the initiative to open administrative proceedings (negotiations with the relevant member state) or infringement proceedings (litigation before the European Courts). At the national level, the complainant can bring the case before the national authorities and/or courts which, according to the relevant national law, have jurisdiction to apply directly effective EU law.

There have been several instances of Spanish telecommunications operators taking their complaints to the EC for resolution during 1998 rather than the national authorities.²⁹ But this may have been in part due to the fact that at that time regulatory rules had not yet been clearly established.

2.2.1. *Regulation of entry and service provision*

With the introduction of full competition on 1 December 1998, there is no limit set on the number of operators, although each must still obtain authorisation or an individual licence to operate.³⁰ Individual licences are required to:

- Establish or operate public telecommunications networks.
- Provide public telephony services.
- Provide services or establish or operate telecommunications networks which use radio frequency spectrum.

Notably, the government can add to this list by Royal Decree. All other services which do not fall within the scope of the individual licensing regime³¹ require a general authorisation.³²

Both general authorisation and individual licences are granted³³ by CMT. However, the ministry is responsible for awarding licenses for frequency spectrum (when in limited supply).

There seems broad discretion available on what terms to attach to a licence. For general authorisations, attachable conditions are: fulfilment of the essential requirements for the provision of service; a competitive approach to the market; efficient use of numbering capacity; protection of users; routing of emergency calls; access to telecommunications services by disabled people; network interconnection; and protection of national defence and public security.

The Ministerial Order of September 1998 on general authorisation and licensing expressly adds, even for non-dominant operators: the fulfilment of public service obligations; transparency of prices; confidentiality; personal data protection; respect of land and environmental regulations; security in the networks; and detailed invoicing of the service.

The intent of the EC's efforts to develop a licensing directive was to minimise the need for licences and the conditions attached to licences. This was in recognition that licence conditions can be important in impeding/detering entry and in slowing post-entry developments in competition. However, the need to negotiate an acceptable Licensing Directive led to concessions by the EC which provide more scope to attach licence conditions than are conducive to open competition.³⁴ Aside from the question about whether Spain is in breach of the EU's licensing Directive, there are questions about whether it is taking advantage of the scope for abuse in the nature and extent of conditions imposed on general authorisation and individual licences.

Before 1 December 1998, applicants for individual licences had to submit detailed technical information including expected quality standards, as well as a business plan and commercial strategy. The business plan must cover at least the first four years of the licence term, and must include information regarding the company's infrastructure investment plan – including commitments and guarantees – and a profitability, solvency and liquidity analysis. Similarly, applicants must include information about their commercial strategy for the first four years, and enclose the model contract that will govern relations between the operator and subscriber, and a description of their customer care policy.³⁵ A welcome development is that since 1 December 1998, the requirement to submit details of a business plan, as well as some other requirements have been streamlined, at least in principle. However, some conditions remain. Applicants for a B1 national carrier licence must commit to providing 50 interconnection points of presence (one in each demarcated Spanish region) within one year of licence approval. Simple resellers must pay a higher interconnect price to Telefonica and must require their customers to dial a prefix (which resellers consider to be a significant competitive disadvantage). On the other hand, holders of a B1 licence pay a lower interconnect charge than simple resellers, but are required to carry 40% of their traffic over their own infrastructure within two years of commencing operations.

In this context, it is notable that Spain's offer to licence a third national fixed network in July 1998, ahead of full market opening in 1 December 1998, drew only one bidder, despite the keen interest in entering the market (as demonstrated by the large number of applicants after 1 December 1998). The deterrence to bid in the July offer, it has been suggested, was attributable in part to the terms of the license tender which required that the winning bidder for the license invest at least 100 billion pesetas (about US\$653 million) over five years. A spokesman for France Télécom, which headed the winning team, said that this did not deter the Lince consortium because it was intending anyway to spend sums well in excess of what was required by the ministry.

Apart from concerns in regard to onerous licence conditions, the lack of transparency in regard to conditions and procedures, and the length of time required to issue licences in certain cases, have also been the subject of complaints.

Where spectrum is considered to be in limited supply, mobile licences are awarded in Spain through a "beauty contest" on the basis of business plans, network rollout commitments, etc. As indicated earlier, the ministry selects the winner under certain criteria and it is then the responsibility of CMT to administer the licence to ensure compliance with licence conditions.

1 January 2002 is the deadline set by the EC for the commencement of commercial service based on UMTS 3rd Generation technology and 1 January 2000 for the implementation of a licensing system. In November 1999 the government announced that four UMTS licenses would be granted. In March 2000, Telefonica Moviles, Retevision, Airtel, and Xfera obtained the four licenses. UMTS presents an important regulatory issue, particularly since the broadband capacity it would offer could present the alternative infrastructure for bypassing the access bottleneck which confers market dominance to incumbents such as Telefonica.

A basic issue is whether UMTS licences should be awarded by “beauty contest” or by auctions.³⁶ The net benefits of each system are difficult to generalise, particularly when dynamic efficiency aspects are included. The French authorities have expressed their preference for awarding UMTS licences by beauty contest³⁷ rather than by auction. By contrast, the UK will conduct an auction, and Germany has stated in a consultative document published in January 1999 that it also favours the auction model.

Notably, using auctions to determine who obtains access to commercial spectrum would mean that it is licensees, not regulators, who formulate business and marketing plans. Indeed, it would help ensure that spectrum will be allocated efficiently among telecommunications firms and telecommunications services if mechanisms for trading in spectrum are established. If firms can buy and sell spectrum freely they have strong incentives to economise on their spectrum use and to apply the spectrum in its highest value use, just like any other key business input. In the absence of mechanisms for trading spectrum, spectrum can remain in outdated technologies or with inefficient companies longer than is appropriate. New entrants with innovative new services may not be able to bid the spectrum away from old, outdated, existing technologies or uses. As long as spectrum is assigned to firms by government officials using a “beauty contest”, there is no guarantee that the spectrum will be allocated to the most efficient user or the most efficient application. Spain should consider moving quickly to establish auctions for allocating spectrum and for establishing tradable property rights in spectrum.

Another issue is whether existing cellular operators should receive licences automatically, or be made to go through the same bidding process as new entrants. Or, indeed, whether in the interests of widening the range of competitors, they should be precluded from obtaining a UMTS licence? Or whether a moratorium of say five years should be applied to give new operators some time to establish themselves but without precluding any operator permanently? Certainly, to promote competition within the mobile market and between mobile and wireline, the case for precluding any existing dominant operator from obtaining a UMTS licence, at least for a specific moratorium period, is a strong one.

Spectrum frequency will become a very important scarce resource in the Information Age. It is essential therefore to increase flexibility in the use of frequencies, allow access to new types of services, and facilitate the optimal use of frequency. Where the efficient use of frequency is considered to require a limit on the number of entrants, the rationale for such restrictions should be made clear and these limits relaxed as soon as practicable. It is essential that the process be based on assuring the longer-term requirement for the dynamic efficiency advantages of competition, rather than on criteria stemming from short-term political horizons. In this context, the responsibility for awarding licences for use of spectrum frequency should be shifted from the Ministry for Development to the CMT.

2.2.2. *Regulation of interconnection*

Interconnection charges are a critical factor in the development of effective competition, for one thing because they can account for some 50% of the costs incurred by new operators. The Royal Decree 1651 of 24 July 1998 implements the regulations relating to interconnection set down in the 1998 General Telecommunications Law. Interconnection charges are, in principle, a matter for commercial agreement

between operators. But, where necessary, the CMT is empowered to arbitrate and is required to issue, within six months, a binding resolution open to challenge in the courts. A dominant operator is obliged to publish an unbundled Reference Interconnection Offer (RIO) as a standard rate for other service providers. Such an offer can be varied with different prices, terms and interconnection conditions to different categories of operators when justified.

The terms of Spain's derogation negotiated with the EC stipulated that Telefonica had to publish a standard interconnection offer by 1 August 1998. Telefonica's initial RIO was rejected by CMT and after protracted negotiations, a binding resolution was put forward by CMT and the ministry³⁸ in October 1998. This RIO resulted in Telefonica's interconnection charges being reduced by some 30% to 50%³⁹ (see Table 2) becoming the second lowest in single transit among EU member countries (with only rates in the UK being lower). However, double transit charges remain too high. The RIO was seen to have been a major test for CMT's effectiveness in promoting competition, a test it is generally regarded to have passed well.

Table 2. **Telefonica's interconnection charge per minute^(a) in US\$**

	Local	Single transit	Double transit	Interconnection charge in pesetas per minute
March 1998**	1.64*	1.64	4.58	Prices since April 1997 (in pesetas): -Local/metropolitan = peak = 2.5 per min; normal = 2.5; reduced = 2.3; Provincial: peak = 4.25 per min; normal = 3.87; off-peak = 2.38 -National peak = 7 per min; normal = 4.97; off-peak = 3.01
Recommended EC "best current (1998) practice"	0.65-1.08	0.98-1.95	1.63-2.82	
1 Dec 1998	1.15	1.85	3.56	Prices since 1 Dec 1998 (in pesetas): -local: peak = 1.65 per min; normal = 1.65; off-peak = 1.05 -single transit: peak = 2.65 per min; normal = 2.31; off-peak = 1.62 -double transit: peak = 5.11 per min; normal = 4.44; off-peak = 3.11
Recommended EC "best current (1999) practice"	0.59-1.08	0.94-1.88	1.63-2.70	

Notes:

(a) Based on a three-minute call duration.

* In Spain, the lowest interconnection charge covered interconnection at a local or a tandem exchange. Thus the "local" rate was the same as the "single transit" rate.

** In Spain, this offer was only available to a limited number of authorised operators until full liberalisation on 1 December 1998 (in accordance with the derogation granted under Directive 96/19/EC). Conversion rate to USD as at March 1998.

Source: Ovum and European Commission.

Telefonica appealed to the national court for a suspension of the order from the ministry approving the RIO⁴⁰ but the courts have rejected the appeals. One basis of Telefonica's appeal is that the wrong concept of costs was used to determine the interconnection charge. Telefonica argues that despite the fact that the 1998 Telecommunications Law clearly stipulates that "real costs" must be used (which Telefonica took to mean historical accounting costs), "fictitious costs" have been used to establish interconnection prices. Telefonica points out that the interconnection regulations apply a formula that prevents Telefonica from including a substantial number of network investments in its calculations, many of which were mandated according to the government's instructions.⁴¹ In Telefonica's view, this mistaken criterion is what has led the CMT to propose a RIO that deviates widely from real (accounting) costs.

Telefonica argues that CMT's use of the so-called Long Run Average Incremental Cost (LRAIC) approach takes account only of those costs that would be incurred by an operator which uses a plant of optimum size, with the best technology possible. Since in the real world, an operator would have higher costs, the result is that, under these interconnection prices a "real", as opposed to an imaginary, ideal network is made available to third parties interested in using it to conduct business at less than the actual cost involved.⁴² Under such circumstances Telefonica argues, third parties cannot be expected to invest in their own networks nor Telefonica in its own. Thus companies would not invest in improving networks. Nor will there be adequate research or innovation for the simple reason that if it is successful, the gains have to be shared, whereas if it fails, the company concerned must bear the costs alone.

The efficient price is clear: to encourage only efficient investment in local service competition, interconnection charges should reflect long-run incremental costs including a reasonable profit margin. The access fees that the access provider charges must be reduced to cost. The best way to accomplish cost-based pricing is through competition itself, but competition in access termination charges is very unlikely as long as access customers face a local monopoly. In the absence of local competition, the regulator should reduce access charges to reflect costs.

Interconnection conditions are still problematic for new entrants.⁴³ While the RIO was concluded, Telefonica has allegedly been reluctant to provide interconnection on these terms to some operators. In February 1999, the CMT started an action against Telefonica demanding that it provide immediately its RIO to the UK Company Colt Telecom.⁴⁴ And Airtel and Jazztel have reportedly already complained to the CMT about Telefonica. By July 1999, it appeared that CMT had successfully steered several interconnection agreements with these companies and several other new entrants.

Non-price discrimination⁴⁵ is in practice also not easily addressed by interconnection regulations.⁴⁶ The scope to act anti-competitively in regard to these non-price terms of access is magnified by the absence of an effective regime to separate monopoly and competitive activities of Telefonica. There is provision for accounting separation in the law but this has not yet been enforced. Accounting separation is admittedly a weak measure since the problems of "information asymmetry" concerning an incumbent's costs, as well as the ingeniousness of "creative accounting" are well known. Nevertheless, data provided on the basis of accounting separation will go some way in restricting Telefonica's cross-subsidisation activities. At minimum, therefore, the CMT should require immediate accounting separation by Telefonica with accounts subject to scrutiny by an independent accounting firm.

Interconnection tariffs are also important for mobile operators. The RIO for basic telecommunication operators can be used as a useful benchmark in negotiations with mobile operators.

2.2.3. *Promotion of local competition: resale and unbundling*

Thus far there has been little development of local competition in Spain. To facilitate market entry and promote local competition, the various pathways to competition should be kept open, including facilities-based competition, resale, and unbundled network elements.

In Spain simple resale is permitted. However, as noted earlier, simple resellers must pay a higher interconnection charge to Telefonica than operators who construct their own infrastructure. Also, customers of resellers must dial an access code before each call. Resellers should not be handicapped since resale can help promote and sustain competition in telecommunications services by: (1) allowing retail-stage competition to emerge more rapidly and on a more geographically widespread basis than facilities-based entry; (2) yielding substantial net benefits to customers by way of price falls and increased customer choice as the retail portion of the industry begins to develop; and (3) facilitating a more rapid rate of facilities-based entry as the number of retail customers increases.

Regulation is required to reduce the market power of incumbents where necessary through restructuring and/or divestiture. As the OECD has warned in its 1997 report on regulatory reform, the ownership of cable television networks by incumbent telecommunication companies, together with their control of the public switched telecommunication networks, could give them an extremely powerful bottleneck position in the local loop. Effective competition is likely to develop only when the existing bottleneck power derived from ownership and management of local access networks, is eroded by the emergence of alternative access networks. In this context, reducing the market power of existing dominant operator(s) over alternative infrastructures, such as cable television networks, is crucial. Each source of alternative infrastructure foreclosed by the incumbent makes it less likely that effective competition will develop.

In Spain, a two-year moratorium has been imposed on Telefonica's entry into cable telephony. This is because the government wanted to ensure that new entrant cable companies entering the business to provide integrated television programming, Internet access and telecommunication services to homes and businesses, will have time to establish themselves before Telefonica enters the industry. The initial 16 months moratorium originally applied was considered insufficient because of delays in network construction and other problems encountered by the new entrants and the moratorium period was increased to 24 months. Some companies, including *Madritel* which now has licenses to operate in the Madrid region, are facing significant problems in obtaining local government approval to construct planned networks.

The Spanish government should give serious consideration to requiring divestiture of Telefonica's cable interests so as to remove the distinct danger that the company's cable networks coupled with its dominance over the fixed network would foreclose the potential for cable operators to provide effective competition in the local service market.⁴⁷ Alternatively, particularly in view of the delays in installing their networks, the government should at least extend the moratorium period to say five years, (Spain's cable operators association is seeking a five year extension⁴⁸) or to when Telefonica can demonstrate that is no longer "dominant". Two years is far too short a period for new entrants to establish their businesses firmly enough to withstand Telefonica's considerable advantages, particularly in view of problems being experienced in installing planned cable networks. Indeed, the two-year moratorium is already ending in some areas. Telefonica has announced that in early September 1999, it would start to provide cable services in three regions of Spain packaging television, music and high-speed Internet and telephone services with plans to offer free services for an initial period of four to six months. Notably, by the end of 1999, Telefonica would be able to provide cable services throughout Spain.⁴⁹

In extending the moratorium from 16 to 24 months, the Spanish government has acknowledged that difficulties exist that warranted an extension. From all accounts, these difficulties have not been resolved.⁵⁰ A further decisive action is required while making it clear that no further amendment will be made since uncertainty in this regard would be damaging to corporate decision-making. Furthermore, the duopoly policy⁵¹ for cable should be rejected in favour of allowing unrestricted market entry.

Spain has no policy in place to allow for access to unbundled network elements that are essential facilities. The pricing of *unbundled network elements* (UNEs) is problematical, as the US debate indicates. In the US, the FCC and some state regulators have decided that the RBOCs' network elements must be made available to new entrants at their incremental *forward-looking* costs – approximately the long-run cost of the best available technology. The decision over UNE pricing is critical since if UNEs are priced either too high or too low, competition in local service will suffer.

If elements are made available at low prices relative to the cost of investing in new facilities, entrants will use the incumbent's facilities even if, on a stand-alone basis, the investment would have been an economic proposition for the entrant. That is, there is a danger that regulatory prescriptions for unbundling at prices that are excessively low may act against the consumer's longer run interests through the reduction of incentives for companies to install their own wired (or wireless) networks. This could generate disincentives to install state-of-the-art technology and services essential to the Information Economy. In general, resale and unbundling should be used as a temporary measure subject to review over time.

One approach that has been proposed is that the price of UNEs be set at the average cost of incremental local access investments during the preceding year.⁵² This procedure would avoid looking to hypothetical technologies to assess costs, but would retain the important principle that prices should be set close to incremental costs. Oftel, the UK telecommunications industry regulator, appears to support this approach in its recommendation that an "incurred cost" approach to LRAIC be used.⁵³

The approach adopted in Canada where unbundling of designated elements is mandated for a limited period (five years) is worth considering.⁵⁴ Also worth considering is the Netherlands system whereby local loop unbundling will start at cost-based prices and move to commercial pricing over five years. This finite period maintains incentives for firms to seek to deploy their own infrastructure rather than depend indefinitely on another firm to provide it. This approach could be applied in considering a mandated unbundling of Telefonica's xDSL⁵⁵ network to allow access by other operators, currently a very topical issue in Spain of close concern to Spain's rapidly growing number of internet users.⁵⁶

2.2.4. Numbering

Numbering is another important local competition issue. According to the 1998 Telecommunications Law, all publicly available telecommunications service operators are entitled to have access to adequate numbers in order to achieve an effective provision of their services. The rules on assignment and management of numbering resources have been developed by Royal Decree 1651 of 24 July 1998. Numbering policy is the responsibility of the Ministry for Development while CMT is responsible for managing numbering blocks.

Number portability is also important and refers to the ability of customers to change their location, service provider, or service without being required to change their number. An absence of provisions to allow for number portability acts as an artificial disincentive for customers to switch from the incumbent to a new entrant because such switching imposes transaction costs, such as the burden of informing others of their new number.

The 1998 Telecommunications Law prescribes that fixed network operators must ensure customers' number portability whereby users may retain their number on the fixed public telephone network at a specific location independent from the organisation providing the services. Number portability regulation has been under discussion but as at March 1999 had not been put in place.

Carrier selection through dialling a prefix (*e.g.*, 050 for Retevision) is now available but new entrants argue that carrier *pre*-selection is necessary for effective competition. However, carrier *pre*-selection is behind schedule in Spain. According to the 1998 Telecommunications Law, *pre*-selection was to have been available by November 1998 but this requirement was not met. Telefonica claims that the delay in availability is due to technical problems and that switching suppliers, including Ericson, Alcatel and Lucent, do not have the solution at least for some areas. In this context it is notable that carrier *pre*-selection is firmly in place in several OECD countries such as Australia, Denmark, Mexico, New Zealand,

US, the Netherlands, etc. The EC requires member states to ensure by 1 December 2000 that fixed network operators with significant market power enable their subscribers to obtain access to the services of other interconnected service providers, by means of pre-selection with a call-by-call over-ride facility. This requirement should be strictly enforced.

2.2.5. *Rights of way*

In principle, there must not be discrimination between providers of public telecommunication networks with regard to the granting of *rights of way*.

The problem of obtaining rights of way for new entrants can be a formidable one, however. In Spain the ability of powerful local governments to delay the construction of telecommunications networks has received considerable prominence recently in regard to the construction of cable network infrastructure. The case of Madritel, a cable operator facing considerable delay in deploying its network in Madrid is a notable example.

Since concerns relating to the protection of private property and the environment,⁵⁷ as well as the scarcity of suitable sites, appear to be growing, the regulatory authority should act to encourage negotiated arrangements and as a last resort impose facility-sharing arrangements. In Spain, CMT has the power to oblige sharing but only for new ducts. The government should consider legislating further powers to enable the mandated sharing – on reasonable terms – of the facilities of all telecommunications operators as well as other public utilities.

2.2.6. *Regulation of pricing*

As noted earlier, for an unspecified “transitory period”, the *Commission for Economic Affairs* is responsible for regulating Telefonica’s prices.⁵⁸ Telefonica has complained that government-regulated tariffs prevent it from matching Retevisión’s (unregulated) rates on long-distance and international calls, which, according to Telefonica, undercut its rates by up to 25%.⁵⁹ In March 1998, Telefonica appealed to the Spanish Supreme Court against its regulated prices claiming that it is discriminated against since new companies entering the market can freely set tariffs.⁶⁰

In the mobile service sector, Telefonica Moviline complained that it was kept waiting four years for approval from the Economic Affairs Commission to reduce prices. Moreover, Telefonica Moviles complained that although it had argued for total freedom to set prices, “the administration, however, has judged it necessary to now establish a price fluctuation band, first announced in 1994, which sets the limits within which Moviline’s charges are allowed to move.”⁶¹ Notably, since June 1999, Telefonica Moviles is only constrained to maximum prices.

According to Telefonica, the decisions on tariffs (Ministerial Orders of 17 March 1998 and 31 July 1998) did not achieve the required tariff re-balancing. Telefonica argues that if tariff rebalancing had been initiated from the time it was first known that telephone services would have to be liberalised (1993-1994), the effects of this measure could have been gradually absorbed. Telefonica points out that such a plan has existed since 1993, when it was drawn up by the Ministry for Development, quantified and published. But evidently, both the Socialist and Conservative Administrations postponed implementation of this plan.⁶²

One reason for Telefonica's concern that it has not been permitted to further increase the rental charge (which generates most of the "access deficit") and local call price is that this constrains its ability to reduce the price of long distance calls to levels offered by competitors. With competition already driving long distance prices down and poised to drive them down further (according to Telefonica by about 12% for national long distance and 20% for international calls during 1999), Telefonica is anxious to further increase local charges, particularly the monthly rental charge which is currently about the lowest in the EU⁶³ to at least about the EU average.

The Ministerial Order of March 1997 foresaw the beginning of tariff re-balancing starting in 1998, with Telefonica permitted to increase the monthly charge from 1 242 to 1 442 pesetas in two steps, 100 pesetas by March 1998 and by another 100 pesetas by August 1998.⁶⁴ Telefonica itself considered an increase to 1 900 pesetas per month to be necessary, although no account information is provided to support this claim. In October 1999, Telefonica was allowed to increase the monthly charge by 300 pesetas by August 2001.

Usage charges for local calls were also permitted to increase in terms of a reduction in the number of seconds per tariff unit as indicated in Table 3. In effect, this resulted in an increase of 13.6% in the average call price per minute.

Table 3. Permitted increase in local charges during 1998
(by way of reductions in the number of seconds per tariff unit)

	Level since 1994	4/1/98	8/1/98	11/1/98
Peak-hour	180	138	123	110
Off-peak	180	138	123	110
Reduced tariff	240	172	150	132

Note: Telefonica estimates that the impact of the changes in these charges is equivalent to an accumulated increase of 13 % in the average price per minute.

Source: Telefonica at <http://www.telefonica.es/cgi-bin/telefo>.

Telefonica claims that in 1993, "the ministry itself officially and publicly acknowledged the existence of an access deficit (of the order of 150 000 million pesetas)".⁶⁵ While Telefonica acknowledges that the access deficit is now somewhat lower due to recent rises in rentals, the company is emphatic that, contrary to the government's claim that full re-balancing has now occurred, further price re-balancing is required.

The long delays in government authorisation due to the politically sensitive nature of telecommunications price increases (partly due to its impact on the inflation rate) require that responsibility for price regulation be immediately shifted to CMT whose primary focus is the impact of price changes on competition. Indeed, the Telecommunications Law clearly stipulates that CMT is responsible "to ensure proper price formation". Moreover, price regulation on the basis of a price cap scheme offers the best prospect for a distinct move away from decisions based on political considerations towards "arm's length" price regulation.⁶⁶ So long as a price increase does not exceed what is permitted under a "CPI - X" formula, no approval need be obtained. Price regulation should be applied only to those market segments where there is insufficient competition. If the liberalisation experience in Spain follows that of other OECD countries, and there is no reason to believe that it would not, price regulation should not be required for international long distance prices or national long distance prices. Indeed, if applied, such price regulation would diminish the gains from competition.

In designing a price cap scheme, it is important to bear in mind the need to continue to permit substantial price rebalancing towards a better reflection of service costs as a fundamental requirement in addressing the problems stemming from cross-subsidisation. Otherwise, the difficulties of attempting to force competition upon a fundamentally distorted local service market (where prices are kept artificially low) will continue.

The price cap formula should not be designed on the basis of attaining a particular rate of return target as has been the practice in some countries.⁶⁷ The price cap formula and the “X” factor it incorporates is meant to promote efficiency incentives while delivering a “productivity-sharing” dividend to customers by way of a targeted fall in real prices. The sustained incentives for efficiency promised by the price cap system arise through the ability of the operator to keep profits earned through superior performance. Relating price caps to profit targets or ceilings would blunt these incentives. Certainly the inefficiencies of profit controls are well known. To focus on *both* price as well as profit control risks applying a system with the worst features of both price regulation approaches.

Price regulation should be seen to be only a temporary measure since price controls can result in distortive inefficiencies, especially when left in place for long periods. As soon as competitive circumstances permit, the price cap regime should be streamlined then withdrawn as effective competition develops. To ensure that price caps are withdrawn promptly when a competitive market develops, a price cap scheme should include a “forbearance provision” (a sunset clause) to oblige withdrawal of price caps in any market that the regulated operator could prove had become competitive.

2.2.7. *Social regulation, including universal service obligations*

The 1998 Telecommunications Law requires that the following services must be guaranteed in whatever terms are determined by regulation:

- All citizens can be connected to the fixed telephone network and have access to the fixed telephone service for local, national and international calls and that such service must permit the transmission of speech, facsimile and data.
- Free directory service.
- Sufficient supply of public payphones throughout the nation.
- Access to fixed telephone service by handicapped people in comparable conditions to those offered to other users.

The law provides that the government may revise and extend the list of services embraced by the universal service concept “to keep pace with technological progress and market demand for services, or for reasons of social or territorial policy”. It may also revise the quality of service levels and the criteria for determining prices that guarantee affordability.⁶⁸

Any dominant operator within a given area may be appointed to provide, in that area, any of the services included in the universal service concept. Provision by non-dominant players is possible, provided that minimum standards of quality and price are fulfilled. Telefonica has been designated the dominant operator required to provide universal service until the end of 2005. During 2005, the CMT is required to determine whether or not, as from 1 January 2006, Telefonica will continue to be considered the dominant operator and the universal service provider in each geographic area.

There is to be compensation for any “competitive disadvantage” caused by the provision of universal service. The burden which the provision of universal service represents is to be calculated by the operator – according to general criteria specified by CMT – as the net cost of the obligation to the operator concerned. This calculation must be audited and approved by the CMT and the results made available to operators who are obliged to contribute to the USO Financing Fund in proportion to their share of the market.

As noted above, CMT is responsible for specifying the costing methodology to be used. But this has not yet been done leaving unresolved the issue of whether the net costs are significant enough to warrant contribution by other operators through the establishment of a universal service fund. This delay is generating considerable uncertainty and concern⁶⁹ since new entrants are unsure of whether they will be required to pay any contributions over the next few years, and if so, what their payment obligations are to be.

2.2.8. *International aspects*

Spain’s international commitments concerning regulatory reform are related to the regulatory principles in the “Reference Paper” attached to the 1997 WTO agreement of basic telecommunications services. Except for questions about the lack of a transparent universal service funding mechanism, Spain appears to have accorded with WTO regulatory principles.

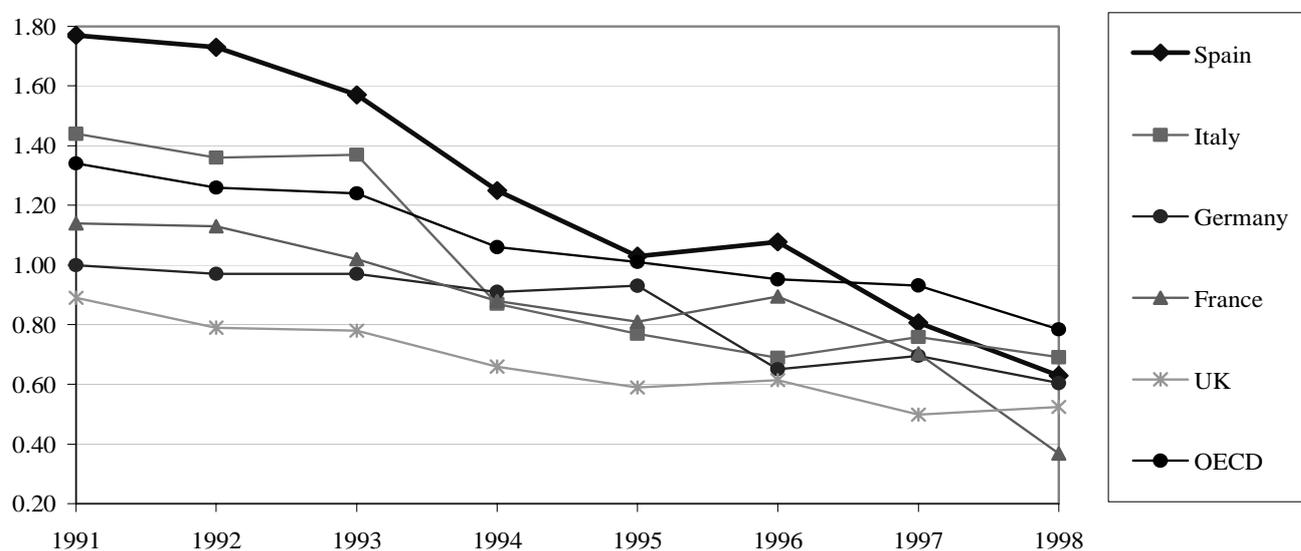
Several formidable international players have entered the Spanish market, including France Télécom, Telecom Italia and BT. There has also been significant investment from US companies, such as mobile operator Airtouch – which has a 21.7% stake in Airtel. Foreign companies from non-EU states cannot hold more than 25% of the equity in a company granted an individual licence, unless permitted by an international agreement⁷⁰ or according to the principle of reciprocity. In exceptional cases, the government can approve a higher level of foreign participation. A Royal Decree of August 1997 stipulates the need to obtain government authorisation prior to any individual or corporation, whether national or foreign, gaining control of 10% or more of Telefonica’s capital.

Telefonica’s own offshore activities have been impressive, especially in Spanish-speaking Latin America. While there will no doubt be support for the legitimate commercial activities of a “national champion”, the CMT should remain vigilant that Telefonica’s customers at home, and its mandated universal service obligations do not suffer as a consequence.

Also notable is that Spain has had relatively high collection charges compared to other OECD countries. As Figure 1 shows, up to 1996, Spain’s charges were higher than the other OECD countries in the comparison and higher than the OECD average. However the onset of competition for international telecommunications services has resulted in a rapid decline in these charges and in 1998, Spain’s charges were below the OECD average but still higher than countries like France, the UK and Germany. But there is still room for improvement. In particular, Spain still has high charges for non-Europe destinations compared with other EU countries.⁷¹

Figure 1. Spain's collection charges, 1991-98

(Average of peak one minute to OECD countries, expressed in US\$)



Source: OECD, Eurodata.

2.2.9. Streamlining regulation

Regulation can impose costs as well as benefits and there is accordingly need to ensure that benefits of regulation outweigh its costs. Even though Spain has only recently installed a new regulatory system, it has to bear in mind that all regulations should be subject to regular review to ensure that only regulations which confer benefits in excess of costs are retained. The government should require that a systematic regular review of all regulations be conducted to ascertain whether the regulations are still in the public interest and whether such regulation should be abandoned or modified. CMT should implement procedures to review, on a regular basis, regulations which may no longer be necessary. Such regulatory “forbearance” procedures (or “sunset clauses”) facilitate the transition to a competitive market regulated through general competition law.

2.2.10. Application of competition principles

The 1998 Telecommunications Law stipulates that CMT is required to discharge its functions with due respect for the powers assigned to the competition protection authorities under the Defence of Competition Act 16 legislated in July 1989. Whenever the CMT detects signs of practices liable to restrict competition and which are prohibited under this Act, it is required to bring this to the notice of the Competition Defence Service, also furnishing all factual details at its disposal and, where appropriate, a non-binding opinion as to the judgement that the case merits. Where the Competition Service considers the matter to be serious, it refers the case to the Competition Tribunal for judgement and penalty.

The telecommunications industry as such is not exempted from the competition law, but decisions made by the telecommunications’ regulator convey an exemption from the law for conduct that they authorise. Parties following the telecommunications regulator’s instructions risk liability if they take it upon themselves to agree on anti-competitive means to do so.

The Competition Law has been applied recently to forbid the incumbent's efforts to exclude competition. Most recently, Telefonica was fined about 14 million pesetas for resisting access by Internet service providers. That was at least the second recent substantial fine for interconnection violations.

The Telecommunications Law of 1997 introduced some ambiguities in the assignment of regulatory competency, between the competition authorities and CMT, as the CMT's powers seemed to extend to resolving questions about restrictive practices and concentrations that are also subject to the Competition Law. These problems were addressed by the 1998 Telecommunications Law: the CMT is to advise the government of its views about mergers, without prejudice to the Tribunal's own separate recommendation, and the CMT is to communicate to the Competition Service evidence and non-binding recommendations about restrictive practices.

The 1998 General Telecommunications Law is considered by some to be unclear on the division of competency (responsibility) between the Competition authorities and CMT since both are responsible for protecting competition. The current division of competency between the CMT and the Competition Tribunal in regard to the regulation of anti-competitive behaviour should be clarified, since it is causing considerable uncertainty⁷² not only to operators but also to the regulatory agencies involved.⁷³

The government evidently feels this allocation is unclear because the proposal for new competition law legislation is intended to ensure that competition policy is truly "horizontal" and to clear up the assignment of jurisdiction between the competition and telecommunications regulatory agencies.

The usual merger procedures apply to transactions in telecommunications. But merger reporting is voluntary, and although there are procedures and deadlines for investigation and recommendation by the Competition Tribunal, in the end decisions to accept, reject, or impose conditions on a merger are made by the government, case by case. They are thus treated as matters of economic policy, rather than application of competition law. An example of a merger decision in telecommunications is the government's approval of the 1998 acquisition by Retevisión of Redes TB and Servicom, two internet service and access suppliers, so that Retevisión could compete more effectively with Telefonica in downstream telecommunications markets.⁷⁴ The CMT may notify the Competition Defence Service of any merger within its purview if it believes the merger falls under the merger control provisions of competition law.⁷⁵ CMT may submit during the second-stage investigation when the matter is at the Competition Tribunal, a non-binding report to the competition authorities prior to the government's decision on whether to clear the merger.

The role of the Spanish competition law authorities in telecommunications is expected to increase. But those institutions, particularly the Tribunal, are inadequately resourced, and lack telecommunications-specific expertise. Perhaps as a result, competition decisions are said to take far too long (between one and two years). Adequate resources must be devoted to bring greater clarity to the competition rules and muscle to allow them to be enforced quickly and effectively. One way of improving the system, in addition to increasing the agencies' resources, could be to give independent agencies such as CMT the power to submit evidence and claims directly to the Competition Tribunal.

2.2.11. The impact of convergence on regulation

The onset of technological, infrastructure and service convergence between the telecommunications, broadcasting, information technology and content sectors is now exerting pressure for regulators to look beyond current concerns that effective competition develops in telecommunication markets to consider how to facilitate the process of convergence or at least to ensure that regulation does not present barriers to convergence. A major concern here is that regulatory barriers do not constrict materialisation of the potential economic and social benefits of convergence and the new services it will deliver, including, notably, electronic commerce.

Spain should increase attention given to the impact of convergence now even though it is just establishing specific policies to liberalise its telecommunication markets. Prompt action will help ensure that short-run regulatory decisions are consistent with broader longer-term policy objectives, so that regulatory change does not occur in an *ad hoc* manner.

3. PERFORMANCE OF THE TELECOMMUNICATIONS INDUSTRY

3.1. Regulation and market performance

The rationale for regulatory reform is the desired effects it is expected to deliver. Thus in assessing the impact of regulatory reform, the primary criterion is how well it has delivered these desired effects. The main elements of market performance examined below are:

- Lower prices.
- Network development and modernisation.
- Improved quality of service.
- Services based on leading edge technology and infrastructure.
- Increased product range.
- Increased customer choice.

These effects are among those promised by effective competition.

This section focuses on available indicators relating to these main elements of performance. The concern relating to network development and modernisation is important since it is critical in the delivery of the benefits of the Information Economy. This makes it important to also identify how reform is impacting on operator revenue and profitability since these factors influence the capacity for network expansion and modernisation.

3.2. Price trends

As depicted in Table 4, long distance prices have been falling in Spain since December 1995. Since 1997 the falls continued in anticipation of the introduction of competition.

Table 4. Falls in Telefonica's long distance tariffs

December 1995	International calls	-13.1%
July 1996	International	-13.15%
March 1997	International	-7.73%
April 1997-July 1997	Interprovincial	-8.7%
July 1998 ¹	Provincial	-5%
	Interprovincial	-15%
	International	-12%
April 1999	Provincial	-10%
	Interprovincial	-20%
	International	-12%
October 1999	Interprovincial	-7.56%

1. Includes reduction in price due to conversion from a system of charging per minute to charging per second.

Source: Ministry for Development and Telefonica at <http://www.telefonica.es/cgi-bin/telefo>.

In 1998, Telefonica lowered its inter-provincial long distance charges by some 15%, while it cut international tariffs by 12%. In 1999, provincial calls (calls up to 50km) were lowered by 10%, while interprovincial (calls beyond 50km) and international calls will fall by 20% and 12% respectively. Telefonica expected international call prices to fall by 27.56% over 1999.

Telefonica has also changed its tariff system to bill its users per second, as opposed to the previous system of billing per three minutes for national calls and per one minute for international calls.

On 1 September 1998, Retevision, a new entrant, cut its long-distance rates by an average of 16% and international rates by 8%. The Barcelona-based operator (which now has over 600 000 clients and one million lines in service) lowered its prices in accord with its declared strategy of always keeping its rates lower than Telefonica's. In June 1999, Jazztel announced prices that were estimated to be around 20% less than Telefonica's prices. BT which entered the fixed line market in June 1999 also announced its intention to compete vigorously especially in terms of connection fees, rentals and prices of international calls.⁷⁶

The standard "list" prices of long distance calls do not tell the full story. Competition has resulted in a range of price discount schemes being introduced, with varying discounts and eligibility conditions, including up-front fees for some schemes but not others. In 1999, Telefonica introduced schemes offering corporate customers up to 40% reductions in prices. Telefonica and Retevision have several discount schemes on offer⁷⁷ to residential customers and Telefonica also offers a set of discounted Internet rates.

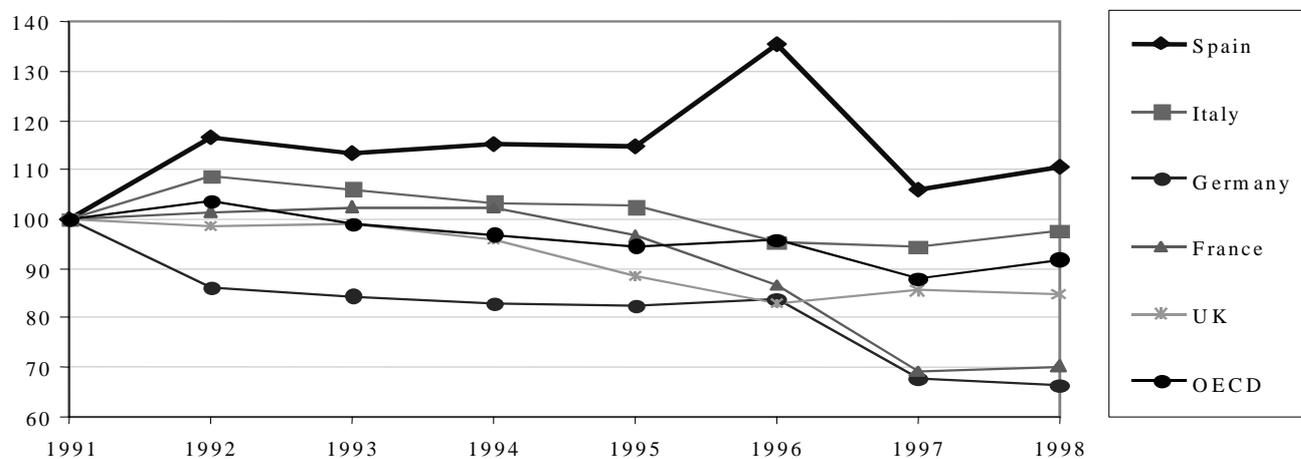
On 18 September 1998, Telefonica MoviLine, (Telefonica's analogue mobile service subsidiary) cut 65% off its connection charge, lowered its monthly subscription charges by between 10% and 12%, and dropped its usage charge by some 12% to 53%.

Because the generally reduced prices for newly competitive long distance services have been offset by increased prices for less competitive basic carriage local services, the extent of gains to customers cannot be generalised. Clearly customers who make significant long distance and international calls are more likely to be better off.

Price comparisons undertaken by the OECD indicate that Spain's long distance prices have been and still are amongst the highest prevailing in OECD countries.⁷⁸ While, as noted above, the onset of competition has led to recent price falls, as Figures 2 and 4 show, the fall in the price of the OECD national business and residential baskets other countries shown have been relatively greater than Spain's. Figures 3 and 5 indicate that prices in Spain as at November 1998 were at the higher end of an OECD comparison for both business as well as residential customers. According to OECD data, Spain's prices for leased lines were also relatively high.⁷⁹ The relatively high prices Telefonica charges for leased lines was confirmed a European Commission report released in November 1999⁸⁰. But since Spain's market was only fully opened to competition in December 1998, 11 months later than most other EU countries, Spain's relatively poor performance is not surprising. The experience of other OECD countries that have liberalised their telecommunications markets sooner indicates that there is potential for considerable further price falls in Spain.

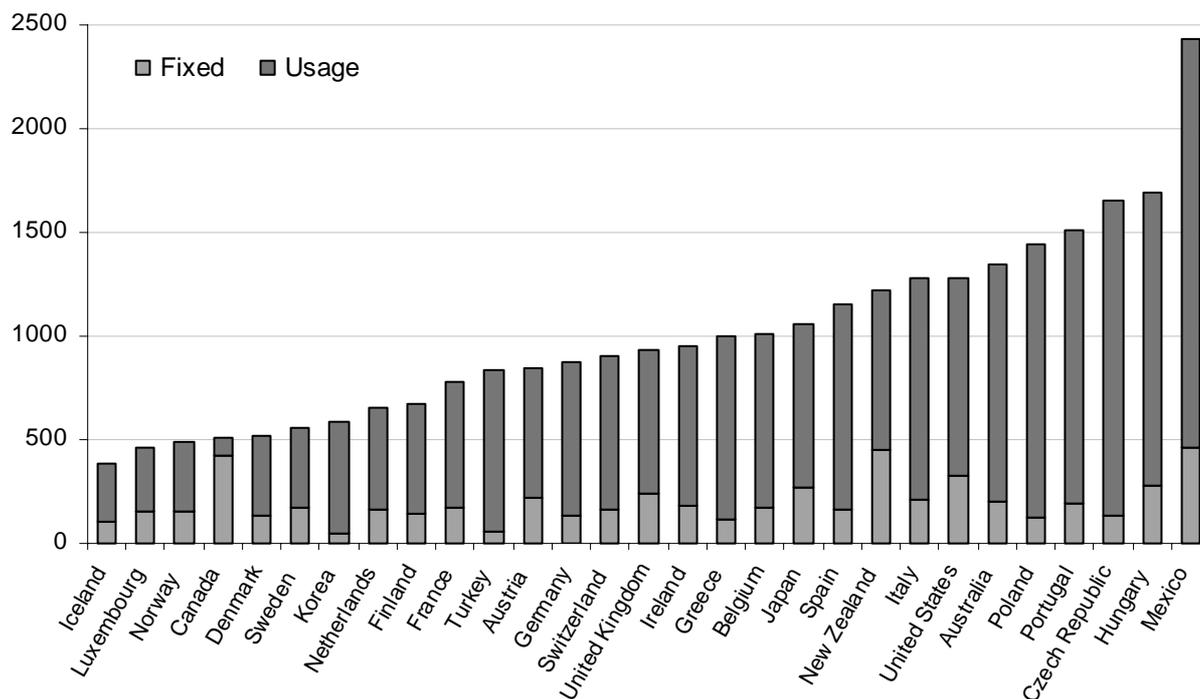
Figure 2. OECD national business tariff basket, 1991-98

(Index 1990 = 100)



Source: OECD, Eurodata.

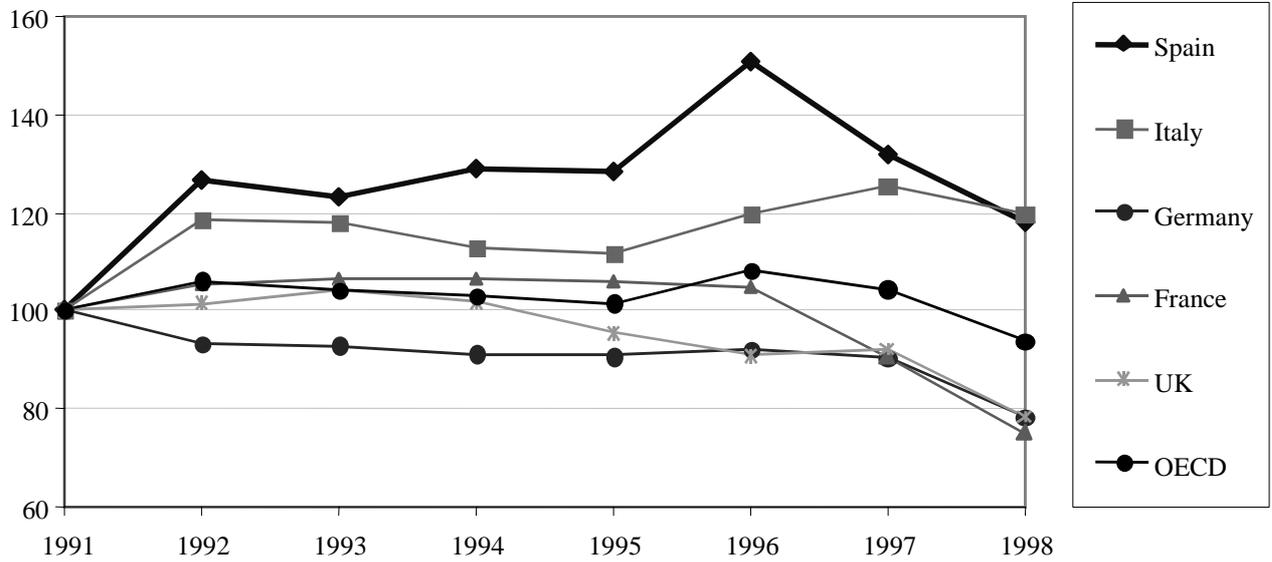
Figure 3. OECD national business basket as at November 1999
(in US\$ PPPs)



Source: OECD, Eurodata.

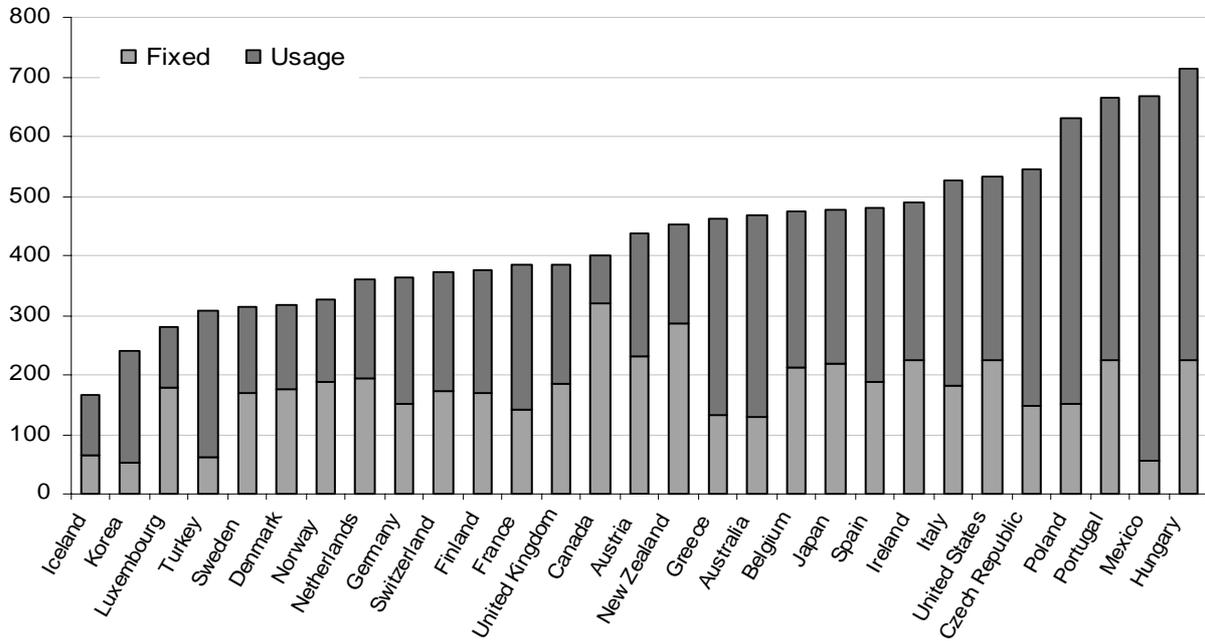
Figure 4. OECD national residential tariff basket, 1991-98

(Index 1990 = 100)



Source: OECD, Eurodata.

Figure 5. OECD national residential basket as at November 1999
(in US\$ PPPs)



Source: OECD, Eurodata.

3.3. *Impact on revenue and profitability*

A source of concern about market liberalisation was that this would lead to an erosion of the incumbent's revenue and profits reducing its capacity to expand and modernise the network. This has not happened in Telefonica's case. Telefonica discloses that as at May 1999, it has lost 14% of market share for intercity calls, 11% for international calls, and 4% for provincial calls.⁸¹ But revenue and profits have continued to rise.

As shown in Table 5, from a total sales revenue of about US\$9 billion in 1992, Telefonica's revenue rose to about US\$14 billion in 1995, US\$15.3 billion in 1996 and US\$15.6 billion in 1997. In 1998, total traffic billed to customers grew by 12.1%.

Table 5. **Telefonica – some financial data for 1992 - 1997**

	1992	1993	1994	1995	1996	1997
Sales (US\$ million)	8 924	12 203	13 162	14 297	15 288	15 601
Net income (US\$ million)	793	1 079	856	1 094	1 222	1 255
Earnings per share (\$)	2.52	3.45	2.68	3.42	3.82	3.58
Dividends per share (\$)	1.19	1.19	5.13	1.17	1.32	1.11
Stock price FY close (\$)	25.85	36.75	34.42	41.04	67.87	89.24

Source: Telefonica, and data published by Reuters News Services.

Although Telefonica lost some 6% to 7% of the long distance market during 1998, the company's net profit is reported to have risen by 14.5% (to 217.9 billion pesetas) in 1998 and it expects profits in 1999 to again rise by at least as much.⁸² Earnings per share has risen from US\$2.25 in 1992 to US\$3.58 in 1997. Reflecting confidence in the company, Telefonica's stock market price has risen sharply in recent years. In 1998, the value of the company's shares increased by 52%, sustaining a trend which has seen them increase by 104% since the conclusion of the privatisation process in 1997.⁸³

Cellular service

The number of subscribers to mobile service in Spain grew by about 68% between January 1998 and January 1999 to some 7.5 million and to 17 million by March 2000, and is forecast to keep increasing strongly over the next few years. 88% of mobile subscribers are now connected to digital GSM networks.

As Table 6 indicates, revenue from Telefonica's cellular telephony service operated by its subsidiary, Telefonica Moviles, which has a market share of about 70%, increased by about 40% between 1996 and 1997. Indeed, Telefonica Moviles is assuming the role of profit engine and in 1998 is expected to earn around 37% of the group's total profit.

Table 6. Telefonica Moviles financial data

	1996	1997	Increase between 1996 to 1997 (%)	1998	Increase between 1997 to 1998 (%)
Operating revenue (million ptas)	258 882	362 938	40.2	468 203	29.0
Capital expenditure (million ptas)	140 997	100 203	-28.9	92 269	-7.9
Total assets	352 744	400 459	13.5	459 449	14.7
Carried calls	1 684	2 954	75.4		
Cellular customers	2 345 645	3 187 696	35.9	4 894 264	53.5
Mensatel customers (paging)	56 125	344 689	514.1	391 574	13.6
RadioRed customers (Trunking)	8 906	17 612	97.8	24 469	38.9
Basic telephony with cellular access	222 260	238 626	7.4	252 028	5.6
Employees	1 831	2 377	29.8		

Source: Telefonica, Annual Reports.

Airtel too is improving its financial performance posting a net profit of 2.78 billion pesetas in 1998, after three years of losses since commencing operations in 1995.⁸⁴

3.4. Network development and modernisation

The growth in telecommunications access lines provided in Spain by Telefonica fell from a compound annual growth rate (CAGR) of 6.2% 1987-92 to 2.8% during 1992-97.⁸⁵ The later CAGR figure for Spain compares unfavourably against an average rate for OECD countries of 3.9% during 1992-1997.

Table 7 indicates that in Spain, public telecommunications investment (*i.e.*, Telefonica's investment) as a percentage of revenue has fallen significantly over the past ten years. From a peak of 65% in 1989-91, the percentage of revenue devoted to investment fell to 26%.

Table 7. Public telecommunication investment as a percentage of revenue

	1986-88	1989-91	1992-94	1995	1996	1997
Spain	46	65	36	33	33	26
OECD avg	26	27	25	23	25	24

Source: OECD, *Communications Outlook 1999*, Paris, Table 4.10, p. 81.

As Table 8 shows, at about US\$230 in 1997, Telefonica's investment per access line was less than the OECD average of US\$273. Table 9 indicates that Telefonica's network digitalisation has grown between 1991 to 1998 to cover 86% of the network which is a digital coverage behind that of many other OECD countries that have already achieved a 100% coverage.

Table 8. Public telecommunication investment per access line in US\$

	1988-90	1991-93	1994-96	1997	1997 (PPP)
Spain	383	312	265	230	272
OECD avg	226	245	259	273	259

Source: OECD, *Communications Outlook 1999*, Table 4.12, Paris, p.83.

Table 9. **Telefonica's network digitalisation, 1991-1998**

1991	1992	1993	1994	1995	1996	1997	1998
33.6	36.4	41.4	47.8	56.5	67.4	80.7	86.2

Source: *Telefonica, Annual Report 1997*. 1998 figure provided by Telefonica to OECD study team, 17 January 1999.

3.5. *The impact of new entrants on network development*

Retevisión plans to spend 360 billion pesetas in a ten year investment program. Retevisión plans to install over one million lines, including 9 600km of fibre optic as well as microwave links. The company will cover all cities populated by more than 300 000 by the end of the year 2000, providing coverage to 95% of the population.

Airtel, has announced that it is constructing a 6 000 km fibre optic network throughout Spain in conjunction with railway company Renfe. Airtel also plans to invest between 60 billion and 70 billion pesetas during 1999 on improving its fixed telephone (which would commence operations in May 1999), Internet and mobile phone business.

Lince (France Télécom) plans to invest 207 billion pesetas (US\$1.4 billion) over a ten year period in order to gain 7.5% of the domestic market by 2008. The company announced that it would build a local telephony network in 72 towns and cities by 2001, with fibre rings in some business districts, wireless local loop in 60 towns, and data network services including asynchronous transfer mode, frame relay, VSAT (very small aperture terminal) and X.25.

BT Tel disclosed it had already invested "several hundred million pounds" in Spain as part of a European infrastructure investment program estimated to have cost UK pounds 1.5 billion (\$2.467 billion) to UK pounds two billion so far. BT started operations in Spain in 1994 and provides corporate voice and data over a leased network to an estimated 1 000 corporate users. BT, which already operates a data transmission company in Spain and is a main backer of Airtel, the second mobile carrier, added basic telephony services to its Spanish operations in 1999.

Jazztel Telecommunications, a new entrant based in Barcelona, is building an entirely new state-of-the-art network infrastructure for Spain, based on a fibre optic cable over which it plans to offer broadband services. The so-called E1-4U network has been designed as a multi-service network with a capacity of 20Gbps upgradable to 320 Gpbs to provide the most advanced multimedia services: voice telephony and data on Internet, and intelligent network as well as customised services. Jazztel plans to combine long-distance and local broadband infrastructure targeted at business users in major cities.⁸⁶

Euskatel, another new entrant, plans to extend the backbone network and build its local networks. By the year 2007, Euskatel intends to have 300 000 lines installed, representing over 25% of the market. Euskatel has formed a strategic alliance with Retevisión to use its fixed and mobile network for long distance and international calls and offers its customers local calls by direct access to its own fibre optic network in the Basque Country. This access allows subscribers not only to make phone calls but also to use the Internet and receive 18 cable TV channels.

Retevisión, led by Telecom Italia, is a fixed network operator that will invest 597 billion pesetas by 2008 with service coverage rising to 95% by 2000.

Reveision Movil has been awarded Spain's third mobile licence and plans to spend 600 billion pesetas in the Spanish mobile telecommunications market by 2008. *Reveision Movil* is the first operator to use DCS-1800 technology and plans to invest about 280 billion pesetas (US\$1.98 billion) to establish its own network. Due to a series of interconnection agreements with Telefonica and Airtel, it is able offer national cover from the start, although initially it will only be present with its own network in eight of Spain's most important towns.

Code Division Multiple Access (CDMA)-based platform networks⁸⁷ are being developed by the San Diego based Qualcomm to deliver mobile and fixed wireless systems.⁸⁸ CDMA technology enables the provision of value-added services such as data transmission, voice mail and other digital products, allowing a cellular telephone company to offer local service through mobile frequencies.

Iridium has obtained a B-2 licence to operate in Spain.⁸⁹ In October 1997, Iridium signed roaming agreements with Airtel Moviles and Telefonica Moviles.

3.6. *Increased range of products and services*

The entry of new operators with new technology, products and services is expanding the range of customer choice. *Reveision* has announced the launch of a telephone translation service to facilitate commercial dealings for Spanish companies calling abroad. By dialling 902, the desired language is selected and the interpreter participates in a three-way conference.⁹⁰

Telefonica is responding vigorously to the challenge of new competitors with its own new services, including price discounts and prepaid cards (such as prepaid cards which enables customers to place calls from any telephone using a password). Caller ID, three way calling, call forwarding and call waiting are now increasingly available. Telefonica is reported to have attracted three million subscribers to its *Planes Claros* (Transparent Plans) discount scheme, or 24% of the company's 12.5 million residential customers. The company estimates that 60% of its customers who make use of long distance and international service use one of the *Planes Claros* schemes.

As elsewhere, the Internet is a growing presence in Spain increasing the demand for telecommunications networks that can provide packet-switching and other functions that are necessary to facilitate further Internet growth. In relation to Internet usage, it is noteworthy that RSLCom, a new entrant, is planning to sell Internet calling cards to Spain's immigrant communities. By routing calls over the internet – RSLCom owns the Delta Three Internet telephony network – the otherwise prohibitive cost of calling countries such as Columbia or the Dominican Republic would be reduced dramatically, although there is a noticeable drop in quality. OLA Telecom, a new Internet telephony operator, has announced plans to offer a high quality Voice over Internet Protocol (VoIP) phone-to-phone service with toll voice quality circuits. BT has also announced plans to supply IP telephony and Telefonica has focused increasingly on developing its Internet services (*e.g.* linking with Cisco to deliver voice and video data over the Internet).⁹¹

The development of state of the art telecommunications infrastructure being accelerated by competitive entry will facilitate the rapid convergence between communications services and materialisation of its promised benefits.

3.7. Quality of service

There is no doubt that improvement in telecommunications technology has significantly improved quality of service. Table 10 shows that in terms of the usual indicators, Telefonica has performed well.

Table 10. Telefonica's quality of service indicators, 1990-1997

	1990	1991	1992	1993	1994	1995	1996	1997
Faults per 100 lines*				2.0	1.7	1.3	1.5	1.6
% repaired in 24 hrs							94.4	97.2
Answer seizure ratios	45.7	48.1	51.4	52.7	57.1	60.1	60.0	59.4
Waiting time for new connections (days)				8	5	3	4	5
Itemised billing** (%)				17	54	65	92	100
Digitalisation of fixed network*** (%)				41		56		81

Notes:

* Figure is for faults in urban areas. In rural areas: 9.7 per 100 lines in 1996 and 8.2 per 100 in 1997. In 1997, 81% of faults in rural areas were repaired within 2 working days.

** Itemised billing provided free of charge.

*** In 1997, about 75% of mobile service subscribers were connected to digital networks.

Source: OECD, *Communications Outlook 1999*, Table 8.5, p. 199, Paris.

Telefonica's quality of service has improved markedly between 1990 and 1997. When polled, however, customers frequently identify billing accuracy as their paramount concern in regard to quality of service. In this respect Telefonica's performance is more contentious.⁹²

In an effort to improve services and customer relations in response to growing competition, Telefonica has reduced provisioning times for international leased lines to an average of 44.7 days. Fault reports per 100 lines dropped to 8.48 per month from 9.87 per month and the average duration of outages was reduced from 150 to 120 minutes between February 1998 and June 1998.⁹³

3.8. Productivity

Competition also promises to exert sustained pressure for productivity improvement (thereby enhancing the potential for price falls).

Total factor productivity estimates for Telefonica are not available. While only a rough indicator of productivity, according to the widely used "lines per employee" measure Telefonica showed an improvement of about 57% between 1990 and 1997. As Table 11 indicates, this improvement was comparable to the average improvement of 58% in OECD countries. However, the OECD average "lines per employee" was at 206 somewhat lower than Spain's 217. Also, since 1995, while the number of lines and revenue have grown, as noted earlier, Telefonica's operating costs have remained relatively constant, suggesting that cost control measures put in place have performed well.

Table 11. **Spain (Telefonica) – access lines per employee, 1985-1997**

	1985	1990	1995	1996	1997	Change 1990-97 (%)	Employment change 90-97 (%)
Spain	130	160	217	205	217	57	-7
OECD average	117	147	194	199	206	58	0.04

Source: OECD (1999), *Communications Outlook 1999*, Paris, p. 210.

3.9. *Benefits to community and employment*

Accelerated network development is creating employment in the telecommunications industry with multiplier effects in other industries. Importantly market liberalisation is helping Spain to accelerate deployment of the infrastructure requirements of the Information Economy. This will help position Spain to benefit from the opportunities that will emerge and will also help enhance her international competitiveness.

In discussing technological developments, it is informative to consider the impact on employment levels. Despite considerable “downsizing” by telecommunications carriers in many countries, as Table 12 indicates, Telefonica’s employees in Spain rose from about 72 000 in 1985 to some 78 500 in 1990 but by 1997 had fallen back to 1985 levels. During 1998, Telefonica shed about 4 000 employees amounting to some 7% of its workforce.⁹⁴

The data does not allow jobs recently created by new entrants to be monitored. There have been reports that new entrants such as Retevision and Jazztel have increased staff numbers, including some attracted from Telefonica.⁹⁵

Table 12. **Number of employees in telecommunications service supply**

	1985	1990	1995	1996	1997
Spain	72 086	78 518	69 543	75 000	73 000

Source: OECD, *Communications Outlook 1999*, Paris, p. 208.

While Telefonica’s employees are at about the same level as 1985, the entry of new operators promises that the telecommunications industry as a whole is poised to grow. The business plans announced by the new concession holders estimate that a substantial number of new jobs will be created over the next few years. For instance, Retevision Moviles plans are expected to create 3 957 direct jobs and 34 000 indirect positions over a ten year period.

3.10. *Some costs of regulatory reform impacting on customers*

In countries where competition has been introduced, some customers have been victims of unscrupulous operators⁹⁶ and have:

- Found that their long distance carriers have been switched without proper consent (a practice known as “slamming” in the US).
- Received bills for services they never ordered (a practice referred to in the US as “cramming”).

- Been levied line item charges that are sometimes too high and are often inadequately explained.

Such infringements are likely to occur in Spain as competition intensifies unless action is taken to contain them. A remedy for dealing with slamming and other billing issues is the provision of clear and timely information to subscribers. Three important principles can be identified. First, telephone bills should be clearly organised and should highlight any new charges or changes to services provided. Second, telephone bills should provide clear descriptions of all charges and of the service provider responsible for each charge. Third, telephone bills should contain clear and conspicuous disclosure of information necessary to make inquiries about charges.

The government should consider requiring the establishment of an industry *Code of Conduct* backed up by a *Customer Service Guarantee* scheme to help maintain standards by prescribing financial compensation for customers when operators fail to meet minimum service levels, including billing accuracy. The government has recently approved a ministerial order containing regulations about quality conditions, a step in this direction.

CMT should determine – after broad consultation with customers – information to be made publicly available that will enable customers to make comparisons (such as of quality of service) delivered by operators. Customers – residential and business – too need adequate information in order to make efficient choices among the increasing range of products and operators in a competitive telecommunications market. After all, a major benefit promised by competition is that customers will be empowered with more choice. Regulators can help enhance the efficiency of this choice by ensuring that information made available to customers is meaningful, relevant, accurate, timely, and unbiased.

CMT should define performance indicators that enable evaluation of the effectiveness of competition and should ensure such data is available on a timely and regular basis. It is important that information to enable the performance of regulatory reform to be monitored and assessed is available. This section makes a start on this task. But additional information generated in time should allow a more thorough assessment to be made. Improved information is also crucial for assessing the nature and scope of any problems associated with efficient development of, and equitable access to, the developing Information Economy and for designing well-targeted and cost-effective strategies for overcoming them.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1. *General assessment of current strengths and weaknesses*

The regulatory regime in Spain displays some distinct strengths, including those listed below.

The 1998 Telecommunications Law is strongly pro-competitive in principle. But although the legislation was a crucial step, effective competition will develop only if the legislated rules are implemented vigorously and effectively and this will require a sustained commitment to pro-competition reform.

Market entry has been liberalised for both fixed wireline and mobile service with several new licences already awarded, largely to operators with links to formidable international European and US telecommunications operators. Several new entrants have plans to develop technologically-advanced network facilities and this will enhance the prospects for infrastructure competition. There appears to be clear recognition by the government of the need for effective pro-competitive sector specific regulation with an increasing role for competition law as the number of operators increases and competition intensifies. CMT has adequate powers and resources, and has scored an early success in achieving a strongly pro-competitive initial Reference Interconnection Offer from Telefonica.

Box 6. Strengths

- Pro-competitive telecommunications legislation consistent with EU and WTO regulatory principles.
- Market entry has been liberalised for both fixed wireline and mobile service with several new licenses already awarded.
- Entry of several carriers with links to formidable international European and US telecommunications.
- Operators, facilitating plans to develop technologically-advanced network facilities.
- No line-of-business restrictions between fixed-mobile, CATV and telephony.
- Strong pro-competitive Reference Interconnection Order (RIO) concluded in October 1998.
- Potential for development of infrastructure competition through cable networks.
- Recognition by the government of the need for effective pro-competitive regulation.
- CMT, the industry regulator, has adequate legislative power and resources.

Weaknesses

Significant weaknesses are also, however, evident as listed below.

Box 7. Weaknesses

- Conditions attached to licences have been too onerous and not in accord with the “streamlining” intent of the EU Licensing Directive.
- Although some price re-balancing towards costs has occurred, further re-balancing is required since price-distorted markets impede competition.
- Delays in implementation of essential competitive safeguards including numbering policy, carrier pre-selection and frameworks to assure rights of way for new entrants.
- The legislation’s reference to the ambiguous concept of “real costs” and its provision that surcharges may be made to the interconnection price to offset “access deficits” and universal service costs has been problematical.
- Unclear allocation of responsibilities with respect to price regulation with price changes still subject to government authorisation (with long delays experienced) rather than on an “arm’s length” price cap scheme administered by CMT.
- Although provided for in the legislation, the question of whether a transparent, competitively and technologically neutral universal service costing and funding mechanism should be established has not been resolved.
- Undeveloped local service competition.

Licences have been awarded on the basis of a transparent published procedure but there has been concern over the range of demanding conditions attached not only to licences, but also to so-called authorisations, even for non-dominant operators. Moreover, an individual licence has been required for some leased lines, which in many other countries requires only an authorisation.

Onerous conditions attached to licenses can act as a deterrent to entry and can present post-entry disadvantages for a new entrant and its preferred competitive strategies. Conditions attached to licences also precipitate the problem of harmonising conditions between old and new licenses. The approach to licensing Spain has taken was not the intent of the 1997 EU Licensing Directive which was emphatically to streamline licensing principles and procedures and minimise conditions attached to licenses.

Licensing for use of (limited) radio frequency spectrum is still the responsibility of the Ministry for Development.

Although some price re-balancing towards costs has occurred, more might be required. When Telefonica issues its cost information, price distortions should be eliminated to favour competition. Price modifications are still subject to government authorisation. This may partially account for the perception in some quarters that in practice the source of real regulatory control has not really moved out of the Ministry for Development.

Under the 1998 law, a dominant operator is required to provide CMT with separate accounts, for example, for telephone services and for interconnection service, but this has not been rigorously enforced and has not yet occurred. While the effectiveness of accounting separation is weakened by the problems of “information asymmetry” about an incumbent’s costs as well as by the ingeniousness of “creative accounting” the information provided may go some way towards detecting cross-subsidisation activities.

An explicit, portable, competitively and technologically neutral universal service fund required for the cost-effective pursuit of network development and universal service objectives has not yet been established. And this is causing uncertainty on the part of both incumbent and new entrants (who remain uncertain about what their payment obligations will be). Moreover, there seems to have been inadequate action to address the impact on regulation of quickly converging technology and markets.

So while a good start to regulatory reform has been made in Spain, much more needs to be done. It is notable in this context that a study (conducted for BT) published in January 1999 found Spain to be the “worst offender”, of ten European Union countries it compared, for hindering new entrants. The study⁹⁷ ranked the regulatory systems in terms of issues such as licensing conditions, non-discrimination against new competitors, transparency of accounting procedures used by the traditional operator and the independence of the national operator. While a reassessment some six months later⁹⁸ found that regulatory conditions in Spain had improved noticeably, it concluded that further improvements were required.

It is true that since the Spanish market has been open to full competition only from 1 December 1998, 11 months later than most other EU countries, there has been less time for reforms to be implemented and to take effect. Nevertheless, the study does sound a warning that the administration in Spain should not adopt a complacent view that it is “ahead of other EU countries” in terms of regulatory reform legislation. Such a reputation will be earned (and maintained) by how effectively the rules are implemented and by the benefits delivered.

4.2. *Potential benefits and costs of further regulatory reform*

While the impacts of reform – some of which are long term – need to be judged over many years, Section 3 of this document pointed to some early evidence that some benefits are already identifiable by way of:

- Lower national and international long distance prices for both fixed line and mobile service, although offset to some extent by increased monthly subscriber and local usage charges.
- Accelerated network development and modernisation.
- Wider range of services, including advanced services.
- Increasing choice for customers.
- Improved quality.

A sustained commitment to regulatory reform is required to ensure that the regulatory principles enacted recently are effectively implemented and weaknesses addressed. Moreover, there are additional complexities emerging as a result of technological and market “convergence” that require attention.

In the short term, the task is to ensure that local markets become competitive and that regulatory constrictions on competitive incentives in those markets (such as restrictions to price rebalancing) diminish. From a longer term perspective, the most important impact of pro-competitive regulatory reform is its contribution to facilitating dynamic growth, innovation and employment. The introduction of competition has already accelerated and will continue to accelerate the development and adoption of new technologies and services, including the growth of electronic commerce and other information-intensive sectors, and the development of the Information Economy. The new products and services that customers might demand are difficult, if not impossible to predict. But the possibilities and potential benefits are substantial.

4.3. Policy recommendations

The following recommendations are based on the assessment presented above, and the policy recommendations for regulatory reform set out in the *OECD Report on Regulatory Reform* (OECD, June 1997).

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

- *Reduce barriers to entry by minimising the requirement to obtain a license and the range of conditions attached to a licence.*

There has been broad discretion available to the Ministry for Development and CMT in the decision to grant a licence, and on what terms to attach to a licence. Licensing procedures need to be simplified. This could best occur through implementing a general class licensing framework rather than require individual licences for entry.

- *Amend the legislation providing for the use of “real costs” as a basis for setting the price of interconnection so that it explicitly refers to long-run average incremental cost (LRAIC) as the appropriate cost basis for pricing.*

The concept of “real” or historical costs is not meaningful as Telefonica is in the process of price adjustments by eliminating cross-subsidies and operating inefficiencies developed as a result of its former monopoly position. Efficient pricing needs to be based on forward-looking LRAIC costs, including a reasonable profit margin.

- *Refrain from collecting funds to offset any “access deficit” or fund universal service as a surcharge on the interconnection price as provided for in the legislation. Any access deficit should be addressed through appropriate price rebalancing.*

Assuring interconnection to the incumbent’s public switched telephone network is a key competitive safeguard. Such safeguards are particularly important where, as in Spain, the incumbent carrier is vertically integrated into local, long distance and other services and therefore with strong incentives to hinder equal access. Progress in establishing an effective interconnection regime is important to assuring that the benefits generated from competitive market structures are fully realised.

Recent steps have reduced the economic distortions generated by Spain's interconnection regime. To help ensure effective competition, the price of interconnection to the incumbent's public switched network should be based on long-run average incremental costs. Interconnection rates based on "real costs", interpreted as historical accounting costs, will maintain high rates and restrict new entrants from offering lower rates to customers. Further, any access deficit contributions should be addressed through price rebalancing, and transparently separated from interconnection charges.

- *Require Telefonica to provide unbundled access to its network by other operators on reasonable terms, including any ADSL enhanced segments, for a limited period of five years.*

Forward-looking LRAIC-based pricing is also the appropriate cost basis for pricing unbundled network elements. To maintain incentives on new entrants to deploy their own infrastructure rather than depend indefinitely on the incumbent's, the requirement on Telefonica to provide unbundled elements of its network should be restricted to a specific specified period.

- *Take steps to assure new entrants appropriate access to rights-of-way.*

An arbitration procedure to be used when carriers and local governments cannot reach agreement on the use of public land should be established. In addition, improved arrangements should be made for facility sharing between operators insofar as this would not impose an unreasonable economic burden or technical difficulties on the incumbents and facility-based carriers.

- *Ensure that numbering allocation and number portability policies for both mobile and wireline carriers are competitively neutral. Policies should allow for call over-ride to enable carrier selection on a call-by-call basis.*

An absence of provisions to allow for number portability acts as a strong disincentive for customers to switch from the incumbent to a new entrant because such switching imposes transaction costs, such as the burden of informing others of their new number. Moving forward toward full implementation of a permanent form of number portability would be an important step in ensuring that subscribers do not face artificial disincentives in deciding whether to switch between carriers in response to price competition. It is also important that Telefonica comply with carrier pre-selection obligations by January 2000.

- *Introduce policies to promote infrastructure competition in the local loop. In this context, Telefonica's cable television business should be divested.*

Future local competition will depend importantly on the ability of alternative infrastructure to offer both voice telephony services and newly developing information services. As discussed earlier, due to its dominance in the local market, permitting Telefonica to engage in cable operations generates a high risk that it can foreclose an opportunity for cable to provide an alternative local loop for telephony. Divesting Telefonica's cable operations would help stimulate local competition as well as competition in the CATV market. At minimum, there should be a moratorium on Telefonica's entry into cable telephony for five years or until Telefonica is no longer considered dominant in the local service market.

To promote competition in the local market, various entry options should be maintained, including facilities-based competition. The regulator needs to ensure that access to unbundled elements of Telefonica's network is made available at reasonable prices.

- *Abandon the duopoly policy in the CATV market in each of 43 demarcated regions to permit other entrants.*

CATV infrastructure provides one of the most rapid and efficient means to stimulate entry into the local loop. Maintaining a duopoly only retards the build-up of competition in this area.

- *Move price regulation from government authorisation to become the responsibility of CMT.*

The regulation of prices through government authorisation – a practice with a history of long delays being experienced before approval is granted – was one which may have been appropriate during the era of government owned monopoly provision of telecommunications. It is unsuitable for current competitive circumstances particularly since it depends on a process which lacks transparency and is driven more by political considerations rather than the pro-competitive need for price flexibility in the dynamic, converging, telecommunications industry. If price regulation is considered necessary, it should be on the basis of an “arm’s length” price cap regulation scheme designed and monitored by CMT.

- *Base price regulation on a simple transparent price cap approach. Incorporate an appropriate “sunset clause” to ensure that streamlining/abandonment of price regulation occurs as soon as effective competition permits.*

The price cap formula should be designed to allow continued price rebalancing of prices to reflect costs. Price rebalancing should be conducted as rapidly as possible since price-distorted markets impede competition. But Telefonica should be required to substantiate its claim of the substantial “access deficits” it incurs by making available for public examination the data upon which it bases its calculations. The benefits ownership of the local loop confers should not be overlooked.

In order to enable the pricing flexibility that “convergent” technologies, markets and services require, price cap regulation should be clearly installed as a temporary measure to be streamlined and withdrawn as soon as (competitive) conditions permit. To help ensure price caps are withdrawn promptly from competitive markets, a price cap scheme should incorporate a “forbearance provision” to oblige withdrawal of price caps in any market that the regulated operator could prove had become competitive.

- *Proceed without further delay to estimate the net cost of Telefonica’s universal service obligation and, if considered necessary, promptly establish an explicit, portable, competitively and technologically neutral universal service fund.*

There should be no further delay in deciding whether the significance of the net costs of Telefonica’s universal service obligations constitutes a competitive disadvantage thereby warranting the establishment of a separate Universal Service Financing Fund to which all operators would contribute. Such a fund would make the delivery of universal service more transparent. In an era of rapid technological change, it is important that it be designed to be technologically neutral.

A preliminary step in the process is the definition of the nature, extent and speed with which universal service objectives are to be addressed. Since (as noted earlier) the Ministry for Development is responsible for specifying universal service coverage, it should complete this task as soon as possible to enable CMT to proceed with the determination of the net costs of the universal service obligations identified.

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

- *Review regulations in all areas of telecommunications regularly and systematically with a view to streamlining and where appropriate abandoning them.*

The government should require that a systematic regular review of all regulations be conducted (say every three years) to ascertain whether the regulations are still in the public interest and whether such regulation should be abandoned or modified. “Forbearance” procedures (or “sunset clauses”) should be incorporated to ensure that regulations no longer necessary are eliminated.

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NOTES

1. The EC Directives include: Terminal Equipment Directive (88/301/EEC of 16th May, 1988); Services Directive (90/388/EEC of 28th June 1990); ONP Framework Directive (90/387/EEC of 28th June, 1990); ONP Leased Lines Directive (92/44/EEC of 5th June 1992); Satellite Directive (94/46/EC of 13th October, 1994); Cable Directive (95/51/EC of 18th October, 1995); Mobile Directive (96/2/EC of 16 January 1996); Full Competition Directive (96/19/EC of March, 1996); Licensing Directive (97/13/EC of 10th April, 1997); ONP Interconnection Directive (97/33/EC of 30 June 1997); ONP Amending Directive (97/51/EC of 6th October, 1997); Telecoms Data Protection Directive (97/66/EC of 15th December, 1997); ONP Voice Telephony Directive (98/10/EC of 26th February, 1998).
2. Spain made international commitments for regulatory reform through its acceptance of the regulatory principles in the “Reference Paper” attached to the February 1997 WTO agreement on basic telecommunications services.
3. The most recent of which is, “*Fourth Report on the Implementation of the Telecommunications Regulatory Package*”, Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, November 1998. <http://www.ispo.cec.be/infosoc/telecompolicy>; <http://www.europa.eu.int/comm/dg4/lawliber/libera.htm>.
4. Extensions were to 1 July 1998 in the case of Luxembourg, 1 January 2000 in the case of Ireland and Portugal, and 31 December 2000 in the case of Greece. The Irish government subsequently announced its intention to liberalise the Irish market by the end of 1998, one year ahead of its extended deadline.
5. The negotiations established a schedule for implementing EU Directives, including: on 1 January 1998, notifying the European Commission of Spain’s procedures for the award of licences to provide basic telephony services and the supply of public telecommunications networks; granting a third basic telephony licence by 30 April 1998 (this was done on 27 May 1998); publish and provide for the entry into force of the procedures to grant basic telephony licences by 1 August 1998; totally liberalise the market by 1 December 1998.
6. “Substantially transposed” means that it is considered that the major provisions and principles of the EC directive concerned have been transposed.
7. The Law on Unfair Competition generally deems unfair any behaviour that is contrary to good faith. In particular, the following are expressly stated to constitute unfair behaviour: acts of confusion, misleading statements, the offering or delivery of gifts, advantages or supplementary conditions in certain circumstances, denigration of competitors or their products, comparisons (when relating to criteria which are not analogous, relevant or verifiable), acts of imitation, exploitation of a third party’s reputation, violation of secrecy, inducement to breach of contract, violation of norms (when significant competitive advantage has been attained through the breach of rules, or the simple breach of rules designed to regulate a competitive activity), discrimination and predatory pricing.
8. The ONO Group is the largest broadband telecommunications and cable television multiple systems operator in Spain. The group controls and manages contiguous telecommunications and cable television franchises serving 3.8 million homes and 265 000 businesses situated in some of Spain’s fastest growing areas.
9. El Pais, “Uni2 has 100 000 subscribers”, 19 January 1999.
10. Analogue service is to be phased out by the year 2007.
11. David White, “Telefonica boosted by mobile growth”, *Financial Times*, 17/11/1998, p. 32.

12. “CMT Awards Fixed-line Licence to Telefonica Moviles”, *Cinco Dias*, 12 July 1999.
13. “Airtel Launches Fixed Phone Services”, *Gaceta de los Negocios*, 16 July 1999.
14. The government, reportedly, had hoped that Retevisión would align with Airtel, to form a full service wireline and wireless telephone company, thus leaving France Télécom as the sole bidder for the third license. But in July 1998, Airtel’s shareholders blocked any link up with Retevisión.
15. Retevisión Movil beat a consortium led by France Télécom that in December 1998 said it would go to court to challenge the decision (according to Reuters News Service).
16. Jeffrey Lewis, “Telefonica Must Wait Two Years Before Selling Cable Services”, *Bloomberg News* as reported in *Total Telecom*, 4 December 1998.
17. “Major Groups Battle It Out in the Cable Sector”, *El Pais*, 6 June 1999.
18. “Endesa Sells 7.9% of Cepsa, Market Shrugs News”. *Reuters News Service*, 23 March 1999.
19. “Government Will Force BSCH to Choose Between Telecom Holdings”, *El Pais*, 8 July 1999.
20. The Spanish government announced in June 1999 that it would restrict financial institutions from holding significant stakes in more than one public company in each sector. The government reportedly informed BSCH it would be allowed to hold more than 3% of only one company in key sectors such as telecommunications. *Reuters News Service*, “Spain’s BSCH in Talks on Sale of Retevisión Stake”, 16 July 1999 and “Spain’s BSCH Seeking Control of Airtel Paper”, 26 July 1999.
21. Under the terms of the 1998 General Telecommunications Act, the Ministry for Development shall exercise such powers in respect of general authorisations or individual licences as are not assigned to the CMT under the Telecommunications (Liberalisation) Act of 24 April 1997.
22. Jose Maria Vazquez Quintana, Chairman of CMT, “*CMT and the Spanish telecom market*,” Comision del Mercado de las Telecomunicaciones, Madrid, October 1998.
23. Any holder of a general authorisation or individual licence for the provision of services to third parties is obligated to pay a charge of 1.5 per 1 000 or 0.15% of revenue on an annual basis.
24. Almudena Arpon de Mendivil, “Creating Competition in Spain’s Telecoms Market”, *Global Competition Review*, August/September 1998, p. 28.
25. Public Network, “Spain: Now the Siesta is Over...”, October 1998, p. 28.
26. 1998 General Telecommunications Law.
27. 1998 General Telecommunications Law.
28. The composition and rules of functioning of the Telecommunications Advisory Board is established by the government by Royal Decree. Its members represent the state administration, the regional administrations, the local administration through its most representative associations or federations, users, operators managing telecommunications services or public telecommunications networks, the telecommunications equipment manufacturing industry and the most representative trade unions in the sector.
29. Airtel took its complaint over being made to bid an excessive amount during the auction of the mobile licence it won. The EC found in Airtel’s favour and the Spanish government made a substantial refund to Airtel. This experience appears to have soured the authorities attitude towards the use of auctions for

awarding spectrum licences. Telefonica has also submitted complaints to the EC, including one over not being permitted by the government to rebalance its prices.

30. The EU Licensing Directive (97/13/EC of 10th April, 1997) specifies that the circumstances in which individual licenses can be required are limited: for certain specified purposes (namely to allow access to scarce resources, give rights of way, or impose limited obligations on the licensee) or for the provision of public voice telephony services, public telecoms networks or other networks using radio frequencies. The number of licenses can be limited only to the extent that it is necessary to ensure the efficient use of radio frequencies or for so long as limitations are necessary to ensure the availability of sufficient telephone numbers. Conditions for authorisations (whether general or individual) must be objective, non-discriminatory proportionate, transparent and limited to those listed in the directive. Fees for licences are to reflect the administrative costs of the relevant national regulatory authority.

31. There are several categories of licences. **Type A Licence:** Provision of publicly available fixed telephone service, by means of the use of a set of switching and transmission media. This does not include “mere resellers of the telephone service.”

Type B Licence: Publicly available telephone service by means of the establishment or operation, by its holder, of a telecommunications network.

B 1 – Provision of the publicly available fixed telephony service by means of the establishment or operation, by the licence holder, of a public fixed telephone network. The operation of the network includes the right to provide leased lines. **B 2** – Provision of the publicly available mobile telephony service by means of the establishment or operation, by the licence holder of a mobile telephone network. This network may be:

a) A terrestrial network.

b) A medium or low-orbit satellite-based network.

Type C Licence – Establishment or operation of public networks, without the holder being entitled to provide a publicly available telephone service.

C 1 – Establishment or operation of public networks that do not involve the use of public radio spectrum.

C 2 – Establishment or operation of public networks that involve the use of public radio spectrum. These networks may be:

a) Terrestrial networks.

b) Satellite-based networks.

32. Known as a “class licence” in some countries.

33. Licences are for 20 years, and can be renewed for another ten at the holder’s request, but are not to last more than 50 years.

34. For a detailed discussion, see P. Xavier (1997), “The Licensing of Telecommunications Operators: Beyond the EU’s Directive” *Telecommunications Policy*, September.

35. Ministerial Order Establishing the Regulations Governing Individual Licences, 26 September 1998.

36. It has been contended that the initial spectrum availability constrains the number of licenses that can be awarded for national coverage to four (Government of France, *The Introduction of UMTS in France*, December 1998).
37. Basing judgement on criteria such as the bidder's coverage plans', views on roaming onto rival second or third-generation networks; the subsidisation of networks in areas of low-population density (government of France, *The Introduction of UMTS in France*, December 1998).
38. "Spanish Regulator Passes First Test", *Eurocom*, 13 November 1998, p. 3
39. Telefonica claimed that revenue would fall by 20 billion pesetas (US\$13.8 million) a year. "Spain's Telefonica Says Lower Fees Will Cut Revenue", Andrew Davis at Bloomberg News, *Total Telecom*, 23 November 1998.
40. "Spain: Court Turns Down Telefonica Over Interconnection Tariffs", *Cinco Dias*, 7/12/98.
41. "Memorandum about Regulation in Spain: Telefonica's Views" Submitted by Telefonica, January 1999, p.3.
42. "Memorandum about Regulation in Spain: Telefonica's Views" Submitted by Telefonica, January 1999, p. 8.
43. David Molony, "Spain's Regulatory Delay Deters New Entrants", *Communications Week International*, n° 201, 980316, p.13.
44. "CMT Starts Action Against Telefonica Over Colt Telecom", *Gaceta de los Negocios* 13/02/1999 (Reuters News Report).
45. The access provider can discriminate in providing access in various and subtle ways that are difficult for regulators to detect and monitor: by providing poor interconnections, slowly and/or ineffectively repairing and maintaining leased network facilities, and delaying or denying the use of local network innovations to their competitors. The access provider who is also a down stream competitor, has strong incentives to behave in this way, leading customers to reject alternative providers thereby preserving their position.
46. In March 1999, Airtel asked CMT to act as mediator in efforts to persuade Telefonica to "unblock negotiations on interconnection charges". (*El Pais*, 26/03/1999, p.67). Notably, CMT has shown some determination to address such problems. On 18 March 1999, it made a provisional ruling under which Telefonica must make its network more accessible to RSLCom. The ruling was made in response to RSLCom's complaint that Telefonica has made the technical requirements for interconnection more complicated in order to deliberately delay a new competitor's entry into the market. ("RSLCom complains about access to Telefonica's networks", *El Pais*, 25/03/1999 p. 63).
47. Technically, the cable telecommunications service would not be provided directly by Telefonica but by one of its subsidiaries called Telefonica Cable.
48. Spain's cable operators association has made submissions to the ministry and CMT asking for an extension of the moratorium by five years (in addition to the 24 months already in force). See "Los operadores de cable piden que Telefonica no de servicio en 5 anos." *El Pais*, 11 March 1999.
49. "Telefonica to Start Cable Services in Three Areas Saturday" *Reuters News Service*, 27 August 1999.
50. See "Los operadores de cable piden que Telefonica no de servicio en 5 anos." *El Pais*, 11 March 1999.

51. The sense in which there is a duopoly policy needs to be explained. The qualifying titles to provide cable telecommunications service comprehend two main classes of services: (a) the so-called telecommunications services, including telephony network, access to Internet, data transmission, etc; and (b) broadcasting services, mainly radio and television. There has been complete liberalisation in respect of the first mentioned category. The second class of services, radio broadcasting and cable television has not been liberalised. Thus cable telecommunications services are provided in full competition and only the cable broadcasting services are still provided under a duopoly restriction.
52. Litan R and R. Noll (1998), “Unleashing Telecommunications: The Case for True Competition”, *Brookings Institution*, Policy Brief #39 – November, p. 5.
53. Oftel (1998), “Access to Bandwidth: Bringing Higher Bandwidth Services to the Consumer”, a consultation document issued by the Director General of Telecommunications, December. At <http://www.oftel.gov.uk/competition/llu1298.htm>.
54. The approach to pricing unbundled elements introduced in the Netherlands in March 1999 is also worth considering. Prices are to be initially related to LRAIC rising over five years to commercial negotiated levels. This approach is considered to maintain incentives for new entrants to develop their own infrastructure rather than continue to depend on the incumbent’s unbundled network.
55. xDSL is a generic abbreviation for a range of Digital Subscriber Line (DSL) systems providing high speed access for customers over existing copper telephone cables in the local loop.
56. On 26 March 1999, the Ministry for Development announced that it had approved a flat monthly charge of 5 000 pesetas (about US\$33) for internet users (after an initial fee of 15 000 pesetas), applicable by Telefonica upon introduction of ADSL (asynchronous digital subscriber line) technology. (The new technology avoids lines being saturated and allows the communication of data at a higher speed.) The monthly charge for higher transmission speeds would be set at between 9 180 and 18 800 pesetas. (“Spain Approves Flat 5 000 Peseta Internet fee”. *Reuters News Service*, 26/03/1999). Retevision has urged mandatory unbundling (with provision for co-location) of Telefonica’s ADSL enhanced network.
57. A cost of market liberalisation perceived by the community has been in regard to environmental degradation as companies dig up streets to deploy cable networks in ground, or above ground through installation of antennas or overhead cable. Spain’s 1998 Telecommunications Act contains specific penalties for operators who act in a manner that degrades the environment.
58. Price discount schemes also require approval by the Commission for Economic Affairs to ensure that there is no discrimination in the provision of discounts. Sharp price reductions through discounts are not necessarily evidence of anti-competitive predatory pricing (with prices reduced below costs). Indeed, price discounts are generally to be welcomed as an aspect of the lower prices competition promises to deliver. Regulatory intervention in regard to setting a “price floor” should be based on the principle that only predatory price falls below long run incremental costs be prohibited.
59. Telefonica is reported to have complained that in Spain: “We lack clear and precise rules that are equal for all, and an independent referee capable of settling conflicts.”, David White, “Madrid Attacked on Phone Tariffs”, *Financial Times*, 980130, p. 02.
60. “Telefonica Appeals to Supreme Court Against Regulated Prices”, *Cinco Dias*, 13/03/98.
61. “Moviline Lowers Its Prices and Launches New Products.” *Telefonica Moviles*, 15/12/1998.
62. “Memorandum About Regulation in Spain: Telefonica’s Views”. Submitted to the OECD study team, January 1999, p. 3.

63. OECD (1999), *Communications Outlook 1999*, Paris 1999.
64. In fact, in June 1998, Telefonica increased the monthly charge by 200 pesetas in one step.
65. “Memorandum About Regulation in Spain: Telefonica’s Views” Submitted to the OECD study team, January 1999, p. 12.
66. OECD (1995), “*Price Cap Regulation – Policies and Experiences*”, Paris. Also OECD (1999), *Communications Outlook 1999*, Paris.
67. Mexico and to some extent the UK and Australia.
68. The General Telecommunications Act 24 April 1998, (English Translation, p. 20).
69. Gartner group, “Liberalisation Milestones: One year on.” Issue 2, January 1999 <<At <http://www.bt.com/liberalisation>>>.
70. Spain has ratified the Fourth Protocol on Basic Telecommunications, attached to the WTO’s General Agreement on Trade in Services and the 25% limit does not apply where the foreign company is from a country which is party to that agreement.
71. OECD, *Communications Outlook 1999*, Paris, 1999.
72. According to a Spanish legal authority on the matter: “One of the most significant issues to be taken into consideration when assessing the defence of a telecommunications operator in competition matters is deciding which rules to apply and before which authorities they should be invoked.” Almudena Arpon de Mendivil, “Creating Competition in Spain’s Telecoms Market”, *Global Competition Review*, August/September 1998, p. 28.
73. In May 1999, cable operators disappointed with CMT’s ruling authorising Telefonica to continue marketing a combined package, that includes basic telephony services, satellite television with the Via Digital brand and access to the Internet through Teleline, announced they would appeal the CMT decision to the Competition Tribunal. The cable operators also have another complaint before both the CMT and the Competition Tribunal alleging that Telefonica has abused its dominant position to engage in unfair competition. *El Pais* (1999), “Regulatory Body Rules in Favour of Telefonica”, 22 May.
74. Questionnaire response, 12 February 1999 (Item 11).
75. Section 17, 1998 General Telecommunications Law.
76. “Jazztel Enters Market with Aggressive Pricing Strategy”, *Reuters Business Briefing*, 26 July 1999.
77. It has been estimated that about 1.7 million subscribers are using Telefonica’s discount schemes that are providing discounts of some 10% to 60% off standard list prices. Telefonica’s so-called *Clear Provincial Discount Plan* gives subscribers discounts of 10% on calls within the same province during the day and 15% from 8 pm to 8 am when calling 20 pre-selected telephone numbers. Telefonica’s new rates on off-peak calls will fall to 13.91 pesetas per minute for calls within the same province. Rates will fall to 12.1 pesetas per minute from 5 pm to 8 pm and to 11.42 pesetas from 9 pm to 10 pm. Telefonica has a Low User Scheme called “Abono Social” (“Social Scheme”) for elderly people with low incomes. This scheme offers a discount of 95% of monthly charges and a 70% discount on usage charges. Telefonica also has a discount scheme for Internet use.
78. OECD (1999), *Communications Outlook 1999*, Paris.

79. OECD (1999), *Communications Outlook 1999*, Paris.
80. European Commission (1999), *Towards a New Framework for Electronic Communications infrastructure and associated services - The 1999 Communications Review*, Brussels, November.
81. *El Pais*, 19 May 1999.
82. Telefonica Press Release 25 February 1999.
83. Telefonica, *Annual Report 1998*, p. 9.
84. "Spain's Airtel Made a 1998 Profit of 2.78 Billion Pesetas" *Reuters News Service*, 10 February 1999.
85. OECD (1999), *Communications Outlook 1999*, Paris, Table 4.1, p. 97
86. Jazztel will use DWDM (Dense Wavelength Division Multiplexing) technology which will allow carriage of one hundred times more information over a fiber optic cable than with PDH (Plesiochronous Digital Hierarchy) technology, which most Spanish networks have used previously. As well as being fast, it is highly reliable due to its SDH (Synchronous Digital Hierarchy) ring structure. At <<<http://www.jazztel.es>>>.
87. CDMA uses unique digital codes, instead of separate FR frequencies and channels, to differentiate subscribers' phone conversations. This advanced digital technology is said to provide eight to ten times more capacity and enhances voice and call quality and in-building coverage compared with traditional analogue systems. In addition to clarity and capacity benefits, CDMA allows the operator to minimise the total number of cell sites that must be installed to cover a geographic area.
88. For instance, some analysts consider that fixed wireless, which uses digital microwave technology to provide basic local telephone service, more economical than wireline networks in providing service to remote and unserved areas. With the use of fixed wireless service, the installation cost per line is estimated to decrease significantly and there is also a significant reduction in installation time, which accelerates cost recovery of the initial investment. But the system requires radio spectrum.
89. "Spain: Iridium Obtains B-2 Licence from CMT", *Reuters News Service*, 2 February 1999.
90. "Spain Retelevision Starts Translation Service", *Reuters News Service*, 9 February 1999.
91. "Telefonica Enlists Cisco for Internet Push", *Reuters News Service*, 15 July 1999.
92. Telefonica itself has argued that it is important to shift from a preoccupation with the operator's internal indicators of performance to those of concern to customers.
93. Data Communications, *Spain's PTT Shapes Up*, Vol. 27, No. 11, 980800, p. 36
94. Telefonica's Annual Report 1998, p. 101.
95. "Retelevision Hires Telefonica Managers", *El Pais*, 13 July 1999.
96. "Consumers First", Remarks of U.S. Federal Communications Commissioner, Susan Ness, before the Consumer Federation of America Utility Conference, Washington, D.C. 1 October 1998.
97. Gartner Group, "Liberalisation Milestones: One Year On", Issue 2 January 1999. This report is available at: <http://www.bt.com/liberalisation>.

98. The Gartner Group, “Liberalisation Milestones”, 3 June 1999. The report is available at: <http://www.bt.com/liberalisation>.