

THE DESIGN OF REGULATORY INSTITUTIONS IN PUBLIC UTILITIES IN PORTUGAL:

The case of telecommunications, electricity and gas

by

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1. Introduction

Portugal has a rather centralised and bureaucratic tradition and the direct intervention of the Government in the economy has been always seen as normal and probably desirable. Until the eighties this view of the role of the Government was, to some extent, shared by most Europeans. The specificity of the Portuguese attitude is that, partly as a consequence of the political changes that took place in 1974, the general public and politicians attitudes toward the advantages of direct government intervention persisted for a longer time than in some others countries.

This interventionist perspective of the role of the Government in the economy was inevitably translated into an industry structure characterized by the dominance of state-held, legal monopolies, notably in public utilities. Direct state intervention emerged whenever the aim of developing specific services (which no one doubted the operators pursued) negatively affected the global goals of government policy, like keeping inflation low or financing public expenditure. Hence the government always kept for itself the direct regulation of price changes, seen as macroeconomic policy instruments.

During the 1980s the changes that took place world-wide concerning general public attitudes toward monopolies and state-owned companies began to affect Portugal. These alterations were mainly induced by the "government's failure" literature, but the specificities of technological progress, (particularly in telecommunications) were, of course, an important factor in this change. For instance, it became more and more difficult to defend telecommunications monopolies (at least in long-distance and international telecommunications) based on economic arguments about the existence of subadditive cost functions.

As a consequence of these developments, several restructuring of the telecommunications, electricity and, to a lesser degree, gas, were proposed by the government in the last 15 years. The advantages of independent regulation were discussed, and privatisation's were announced. The incidence of these movements was not uniform over all sectors of the economy, neither over time, as will be shown below, but to a larger or smaller degree affected all public utilities.

Nevertheless, the continued postponement of privatisation's and the restrictions placed upon regulators, (there is only one regulatory body, for the telecommunications sector) show that the maintenance of public monopolies in some services is obviously seen by Portugal as a major policy¹ objective. This insistence on public monopoly structures seems to stem from an implicit aim to keep the control of industries in Portuguese hands. It is felt that public suppliers are not prepared to face competition from international companies, and it is expected that the preservation of current monopolies will allow the operators to strengthen their positions and thus reinforce their international competitiveness. Furthermore, it seems that independent regulation --and we are talking about independence of the government-- continues to be seen with suspicion.

In this paper we analyse the successive changes that took place in the telecommunications, electricity and gas industries in the last years, and present the actual situation in these industries, taking into particular attention regulation and regulatory institutions. Our view of the future prospects for each of these industries is presented. Finally, some conclusions are presented.

2. The design of regulatory institutions in the telecommunications services industry

2.1. The supply of telecommunications services: monopolised markets

In Portugal, telecommunications services have always been supplied by three operators: a supplier of local telephony in Lisbon and Oporto, "Telefones de Lisboa e Porto" (TLP), a supplier of local and long distance telephony for the rest of the country, Telecom, and an intercontinental telephone supplier, Marconi.

TLP was created in 1881, as a concession to a British operator, APT. In 1967, at the end of the concession, the existing private operator was nationalised. In 1989 the legal status of the company was changed. It is now a firm with tradable equity, although all equity remained in state hands. This supplier has a monopoly concession corresponding to only 3% of the Portuguese territory, but where 40% of the population and 60% of the purchasing power in the country

¹ Portugal negotiated with Brussels a derogation until 2003 of the liberalization of international voice services.

are concentrated. Furthermore, 80% of the largest 500 companies are located either in Lisbon and Oporto.

In 1904 the government started to directly provide long-distance telecommunications between Lisbon and Oporto. Other local networks were then installed and connected to APT's networks. In 1911 the government created CTT to supply these services, first as a body of the Public Administration, and finally as an autonomous utility. Like most European public operators this company supplied postal services together with telecommunications services: local telephony all over the country except in Lisbon and Oporto, and toll and long distance telecommunications and international telephony to European countries. In 1967 CTT was nationalised. In 1990 all of its equity became tradable but, as in the case of TLP, remained entirely under state control². Its name was then changed into Telecom.

There is a third operator, "Companhia Portuguesa Rádio Marconi Marconi-CPRM" (Marconi). This was a British operator which negotiated its first concession with the Portuguese Government in 1922, for the supply of radio transmission means for telegraph services. Presently this company has a legal monopoly defined over satellite and intercontinental cable transmission means. It supplies intercontinental telephone services to residential and business customers all over the country through the two other operators.

In April 1992 the government created a holding company, "Comunicações de Portugal" (CN), to manage its participation on the three operators and to restructure the sector.

It must be noticed that the existence of three basic telephony suppliers does not imply, and was never meant to imply any kind of competition on the provision of telecommunications services. Each of the operators has a legal monopoly regionally or functionally defined, that the government seems determined to reinforce at least in the short run.

Since the end of the 60's the general perspective for this industry was that it should be transformed into a state monopoly. The changes that took place in the late 60s and early 70s clearly show this conception. Hence, besides the transformation of Telecom into a public company, the government nationalised APT and created TLP, also a public company, as was mentioned above. In order

²By this time the company was broken into two companies, one for postal services which kept the old name, and another for telecommunications under the name of Telecom.

to integrate both companies in a sole supplier, it decided to submit TLP to the Board of CTT/Telecom. This integration was strongly opposed by the workers of both companies, and this fact, together with the instability and uncertainties brought about by the regime change of 1974, stopped further movements in this direction. Hence the submission of both operators to the same board was not accompanied by other measures toward integration, creating a rather peculiar industry structure, which prevailed until 1989, when the two operators were completely separated.

In 1972, the Government decided that Marconi should also become a dominantly Portuguese Company. Although it remained nominally a private company, the state bought 51% of the company stock. Most of the remaining equity was bought by Portuguese private investors.

At the time, the reasons invoked for the advantages of monopolisation of the industry were the presumption of the existence of a natural monopoly, together with the need of universal service provision. There were other arguments, like the secrecy requirements of the supply of telecommunications, clearly inherited from the supply of postal services, to which telecommunications were connected.

Nationalisation of the industry was defended on political grounds: it was thought that the strategic nature of telecommunications required that, for security reasons, these services should not be dependent on private and specially foreign interests. As will be seen below, this position is still defended by the Portuguese government.

In 1989, after the separation of TLP and Telecom, the Government announced for the first time that these companies would be partially privatised. This operation was postponed for some years and in February 1994 the first steps toward the reorganisation of the sector were finally taken: the government decided to merge the two suppliers in a sole monopolist and announced that the merger of Marconi into the newly created structure will follow. The details of this merger have not been disclosed³. However it is known that a monopolist responsible for all the basic telephone services, international traffic included, will be created. Once this reorganization is concluded, 49% of the company will be privatised. Although it was announced that privatisation would take place before the end of 1994, it seems clear now that this operation will, once again, be postponed.

³There is still much uncertainty about the details of the operation, particularly in what concerns the integration of Marconi. The fact that a significant part of Marconi is already in private hands is a possible source of problems in such a rearrangement.

2.2. Short history of the regulatory process

As in most European countries, the regulation of telecommunications was a responsibility of the Ministry of Transports and Communications which delegated it in one of the public operators, CTT/Telecom. The operator was responsible for the allocation of the radio spectrum and the normalization and approval of equipments, while the regulation of prices was kept under the Ministry. Changes in prices were always established by the Government and issued in governmental decrees.

During the 1980s general public attitudes toward monopolies and state-held companies began to change in Portugal, as in most western countries. The specificities of the technological progress in telecommunications were, of course, an important factor in this change in attitudes. For instance it became more and more difficult to defend telecommunications monopolies (at least in long-distance and international telecommunications) based on economic arguments about the existence of subadditive cost functions. These changes in attitudes were partially reflected in a law approved by the Portuguese Parliament about the "General Guidelines for the Telecommunications Industry" in 1989.

Following the issue of the EC Green Book on Telecommunications, this law specifies services that should be provided in a monopolistic framework, and services that should be provided competitively. According to it, the State should keep a monopoly over telecommunications infrastructures and over the provision of "basic" telecommunications services: fixed telephony, telex and packet-switched data transmission. Complementary services, (fixed and mobile) and value-added services could be provided by private companies as well as by the public operators.⁴ Competition on the provision of these services and in particular on the access conditions to public network should be assured. The sale of terminal equipments was liberalised. Finally, operational responsibilities were separated from regulatory ones: the regulatory role of CTT/Telecom was terminated and a new regulatory institution, independent of the operators, was activated.

⁴ It should be noted that this law is previous to the 1990 EC directives. this justifies the adoption of non-standard terminology concerning competitive services, and in particular the distinction between complementary services and value-added.

It should be noted that the first steps toward this separation of operational responsibilities from regulatory functions had already been stated in 1981, when the government formally created a regulatory body, independent of the operator. Nevertheless this body, named "Instituto das Comunicações de Portugal (ICP)", was not activated until 1989.

As a consequence of the aforementioned "General Guidelines Law" and the adoption of the EC Open Network Provision Directive on the liberalisation of telecommunications markets, Portuguese authorities opened to competition some segments of the industry.

2.3. Markets opened to competition

Value-Added Services (VAS) were totally liberalised in 1990 and there are now approximately 20 companies supplying these services. The participation of foreign capital in these services has not been legally limited and therefore most of them integrate foreign partners which in some cases are expected to supply technology and marketing expertise. The three telephony suppliers own VAS companies.

In data transmission services, which were since 1987 supplied jointly by a consortium of Telecom de Portugal and TLP, called "Telepac", a second company, "Comnexo", entered the market in 1992. This new provider is completely owned by a Portuguese private company, and has established some commercial agreements with BT. It must be stressed that the European Commission allowed several countries to postpone the liberalisation of this market until 1996, a prerogative that the Portuguese authorities chose not to use.

GSM mobile services were launched and opened to competition in 1991⁵. Two licences for the supply of these services were issued. One was attributed to an existing analogic mobile telephone company owned by the public operators, TMN, and the other licence was subject to public tender. This tender was very disputed by Portuguese firms and almost every major national group participated. The Portuguese regulator set a limit of 25% on the capital that could be owned by non-EC companies and in the winning consortium, Telecel, the participation of American companies has been set at the limit, with Pacific Telesis having 23% and LCC 2%. The remaining 75% belong to several Portuguese private groups.

⁵Analogic mobile telephony services have been provided since 1989.

In spite of the enthusiasm with which these licences were disputed by national companies, European operators did not participate. Formally, the limit on the participation of capital established for foreign companies was not applicable to EC companies but it is difficult to predict what would have happened if any European operator had tried to have a dominant position in a firm bidding for a licence.

Marconi, the intercontinental telephony supplier, intended to participate in one of the consortia applying for the second GSM licence, but such participation was not allowed by the Ministry. Government then forced the sale to Marconi of 1/3 of the companies jointly owned by TLP and Telecom to supply data transmission services and mobile communications.

Four licences for the supply of radiopaging services were issued in 1992. Once again, the Government set a limit of 25% on the share of the capital that could be owned by non-EC companies. One of the licences was given to a joint-venture of the three public operators, "Telemensagem", and the remaining three were subject to a public tender. This time, the public operators were allowed to apply for one of the private licences. One of the radiopaging licences was given to the private consortium that won the licence for the GSM telephone service under the name of "Telechamada". The other winning companies are "Contactel", 51% owned by Marconi (which in this way has participations on two competing companies), 15% by Telefonica de Espana, 10% by Matrix Telecommunications, (an Australian firm) and the remaining 24% by other private Portuguese firms. The last licence was given to "Finacom", a consortium of Portuguese firms, Hutchinson (Hong-Kong), and Cofira, a French firm owned by Compagnie Financière des Eaux.

A public tender for the supply of trunking systems was also opened in 1992. There were two licences available and the tender had three participants. However only one licence was issued to "Rádio Móvel", a private operator owned by Finacom, one of the owners of a radiopaging licence. A tender for the second licence took place in October 1993, and there was only one applicant, which won the licence. This new provider is also a Portuguese private company.

2.4. Aims of the regulatory process

The explicit or implicit aims of the regulatory process have obviously changed in the last few years. For a long time, a monopoly on telecommunications (in spite of there being three operators, each had a well defined regional or functional

monopoly) was thought to be the best industry structure, given the stated objectives of the State: generalization of access to network and its progressive modernization required heavy investments. It was thought that only a monopoly could generate enough money to achieve such endeavors. The need for compatible equipments also suggested the need for centralised management. Furthermore, public monopolies were commonly seen as pursuing the stated objectives of the State.

The need for direct state intervention only emerged in the cases in which the aim of developing telecommunications (which no one doubted the operators pursued) negatively affected the global goals of government policy, like keeping inflation low or financing public expenditures. Hence the government always kept for itself the regulation of price changes. In fact, prices of telecommunications services were several times used as a macroeconomic policy instrument.

As of now the aims of the regulatory process are not yet explicit. In accordance with EC directives, the establishment of competition in value-added and mobile services have been emphasized. Simultaneously, the maintenance of a public monopoly in basic services is obviously seen by Portugal as a major policy⁶ objective. This insistence on a public monopoly structure for voice services seems to stem from an implicit aim to keep the control of the industry in Portuguese hands. It is felt that the public operators are not prepared to face competition from international companies, and it is expected that the preservation of current monopoly position will allow the operators to strengthen their position and thus reinforce their international competitiveness.

This purpose of keeping foreign capital away from the telecommunications sector has been reflected in the continued postponement of voice operators privatisation. Announced in 1989 for the near future, the sale of part of the shares of the public operators has not taken place yet. In fact the government seemed to expect the creation and strengthening of Portuguese groups with enough know-how and interest in telecommunications to be able to acquire the telecommunications suppliers when these operators are privatised.⁷

⁶ Portugal negotiated with Brussels a derogation until 2003 of the liberalization of international voice services.

⁷ The chances of success of this government's strategy did not seem to be very large; presently there are only three Portuguese private groups operating in the telecommunications services business: Grupo Espírito Santo and Amorim in GSM and paging, and Interfina in paging. In spite of the great interest shown by Portuguese private firms in the public tender for the GSM license it is not clear to anyone (themselves included) whether these investments in

A second reason why privatisation has been postponed has to do with the decision to start by reorganizing the sector. In fact, after private interests are brought in, any restructuring becomes much more complicated.

As referred to above, the uncertainties about the reorganization and partial privatisation of the public operators have been cleared recently and at the beginning of 1994 the government announced that until December 1994 a sole basic telecommunications supplier would have been created and that 49% of this company would be sold to the public by then⁸. Foreign operators, and in particular some of the European ones will probably acquire shares of this company. Nevertheless the government emphasizes that the control of the company will be kept in its hands.

2.5. The "Instituto das Comunicações de Portugal", (ICP)

Regulation of telecommunications is legally kept under the Ministry of Transports and Communications. In 1989, a body was activated to assist the ministry in its regulatory function, the ICP.⁹ This is a public Institute (similar in legal status to a state-owned corporation) under the Ministry of Transports and Communications.

The government created the regulatory body but did not delegate to it the really relevant regulatory functions. In fact, until recently its responsibilities concerned mainly the approval of equipment and the allocation of the radio spectrum, functions that are currently little more than simple administrative decisions. It is also responsible for the representation of Portuguese telecommunications in every international body. In turn, the regulatory functions that remained under the direct responsibility of the government -the issue of licences for mobile services and tariff approval- are the ones that really determine the competitiveness of the sector.

It should be stressed that independent regulation is a totally new concept in Portugal: tradition works strongly in favor of the direct intervention of the State

telecommunications are anything more than a temporary financial application. Telecommunications is an unknown area of business, requiring very large investments with a very delayed return and it is possible that they do not become interested in the privatization of the public operators. If this happens, the postponement of the privatization may not bring the desired outcome.

⁸At the moment this paper is being revised it is already clear that this privatization has been, once again, postponed and it seems rather improbable that it could take place before 1996.

⁹Formally this regulatory institution was created in 1981, well before the pressures from the EC to separate operational and regulatory functions were felt. Nevertheless it was not activated until 1989.

in the economy, and in telecommunications in particular. In fact this sector has been the first to have a regulatory body, and there is a lot of ambiguity as to its exact role. This ambiguity is clearly reflected in the legal status of ICP and on its actual relations with the government and the operators.

Furthermore, ICP was created and activated before the issue of the EC directives of 1990. Hence, this institute has a much smaller degree of independence and a narrower role in regulation than what is common in other regulatory institutions of more recent extraction. Formally, ICP is completely dependent from the Ministry. The board is appointed by the Ministry, and the duration of the mandate is three years, which is less than each legislature. There are no explicit rules on who can be appointed, i.e., the nominations are individual. Besides, the Minister can at any time dismiss the Institute Board of Directors.

Nevertheless, in practice, the ICP has now a more relevant role on the regulation of telecommunications than what we could infer from its legal status, as will be seen below.

As to its relations with the public operators, the ICP has been, from the beginning, completely independent. Obviously, the specificity of the telecommunications industry and the small dimension of the Portuguese market created a situation in which the links between the regulator and the regulated companies, and in particular Telecom, were quite strong at the beginning. First, because most ICP employees were previously connected to this operator. Second, because ICP was basically financed by the public operators, who in turn are members of its Consultative Council, a body which advises the Minister regarding ICP's budget and accounts. These factors created a clear potential for capture of the regulators by the public operators.

This situation has changed since 1990. In fact, in the decree that created the regulatory body it was said that the ICP had a period of three years to generate receipts equal to at least two thirds of its expenditures. This goal was achieved because the institute had the capacity to keep for itself the receipts of the radioelectric spectrum¹⁰. Hence, ICP is now financially independent from both the Ministry and the operators. This is a very peculiar characteristic in European

¹⁰In some countries, like the UK, the regulatory body does not have as one of its responsibilities the management of the spectrum. In other countries, although managing the spectrum, the regulator has to transfer the receipts of this management to the state. Finally in several situations the regulator manages the spectrum, is entitled to its receipts, but has not been able until now to charge prices high enough to cover its expenditures. In this sense the financial autonomy of the Portuguese regulator is rather peculiar.

terms. Financial autonomy is not a substitute for political independence, but is surely a step in this direction.

The recent creation of more competitive market structures, namely in GSM and radiopaging services provision is also contributing to increase the relevance of the regulatory body, as it is becoming responsible for the regulation of competitive conditions in these markets. ICP's actual role on the regulation of tariffs has also increased in recent years. Hence, although the Minister continues to be the formal regulator, ICP is recognized by the European Commission and the Portuguese operators as the regulator of telecommunications.

Nevertheless it should be noticed that the restructuring of the sector which is taking place now is being designed without ICP's participation. In spite of its formal role of adviser of the Ministry in telecommunications policy, it seems that in practice the State holding, CN, is the body with responsibilities in this area. Once again, the general suspicion of Portuguese authorities as to the advantages of independent regulation is clearly shown.

2.6. Location of the different regulatory functions

As mentioned above, ICP's function is basically to assist and help the Ministry on the design and regulation of the telecommunications services industry. It represents the sector in Portugal and all international institutions. It is also completely responsible for the management of the radio spectrum and the normalization and homologation of equipments.

2.6.1. Price Regulation

Until 1990 prices of monopolised telecommunications services were administratively set. Basic telephone rates -monthly rental rate, connection fee and impulse- had to be approved by the Ministers of Transports and Communications, of Trade and of Finance. The remaining prices were fixed by the Minister of Transports and Communications.

When prices came under revision the operators usually wanted to increase the prices of local traffic, which is still very low in Portugal, and to decrease long-distance and international tariffs. Since local call prices were the most controversial item of tariff structure and, in addition, the one with a clearer impact on inflation, its increase was strongly opposed by the government, in particular by the Ministers of Finance and Trade. As these prices did not

increase, other prices did not decrease and adjustments of the tariff structure were always postponed.

In 1992 the regulation of prices became less political: prices of regulated services begun to be agreed upon by a Convention between the operators, the government represented by the Secretary of Competition and Prices and the ICP. The role of ICP in this Convention is to assure that the resulting prices are in accordance with the general guidelines set up by the European Commission, namely that prices are transparent, non-discriminatory and aligned with costs. Nevertheless, the prices agreed by the convention must still be formally authorized by the government. This system became operational in 1993, and at the beginning of 1994 the Convention was established for the following three years.

If the Convention is unable to reach an agreement on the allowed price increases, the prices of services will stay at the level they had in the preceding year. In an environment of increasing prices this situation gives a clear incentive to the operators to reach an agreement: the regulator has, in practice, veto capacity. However, the incentives for the agreement are absent if prices are to decrease in real terms, a situation that neither the operators nor ICP seem to face as probable, in spite of the high level of most telecommunications prices in Portugal¹¹.

In the Convention that was negotiated in February 1994 and which was expected to remain operational until 1997, the regulator tried to settle price increases on a price-cap type basis.¹² The purpose was to promote the required realignment in prices, together with giving the companies the incentives to promote internal efficiency. This type of price-cap had the specificity of admitting established variation margins around the agreed values.

Although being established for the following three years, the stability of this scheme is mitigated, since any of the contracting parts can denounce the Convention whenever it wants. If this situation arises, prices will be immediately settled at the levels prevailing in the preceding year.

2.6.2. Entry Regulation

¹¹In 1994 the Government did not accept the tariffs agreed upon by the convention, and settled a new tariff. The details of the proposal were not disclosed but it seems that the increase in local tariffs proposed by the convention was too high in Government eyes.

¹²These informations were supplied to us by Dr. Ferrari Careto, the ICP representative in the Convention. The exact price-cap that is being negotiated has not been revealed.

VAS have to register with ICP. The process is merely administrative and there are no restrictions upon the establishment of these suppliers.

Fixed-link competitive services have to be licenced by the Institute. The regulator has imposed some financial requirements on the firms applying for these licences. These requirements seem to be rather soft, but the European Commission has been questioning ICP about these, on the basis that they restrain entry and compromise free competition in these markets. Once the licences are issued, ICP remains responsible for the monitoring of the quality of supplied services and for the observance of the contractual conditions established in the licences.

Licences for mobile services have been subject to public tenders and are formally issued by the Government. The Minister has nominated an independent Commission to judge the proposals, whose general terms have been worked out by the regulator. Once the Commission decides the winners, the Government issues the licence, but the precise terms of these licences have been, once more, defined by ICP.

The Institute is responsible for the observance of the contractual conditions defined on the licences, and in particular it monitors services quality and competitiveness in the markets. Theoretically, if any signs of abuse of market power are devised, ICP should complain to the Minister of Trade, the Anti-trust authority in Portugal. Nevertheless, the Institute has some instruments other than penalty charges to keep the operators from collusion or any other anti-competitive practices like for instance, the threat of the issue of a third licence for GSM. To be credible there must of course be enough spectrum.

Prices are free in competitive services.

2.6.3 Foreign Investment

An important regulatory issue is the position of the government toward Foreign Direct Investment in Portugal. According to the "General Guidelines for the Telecommunications Services Sector" foreign companies cannot be allowed to own more than 25% of the country's telecommunications providers. A company is considered as foreign if more than 50% of its capital is held by foreigners. Formally, EC companies are exempt from this type of restriction. Nevertheless, this exemption is probably one of the reasons why the privatisation of Portuguese operators has been delayed.

It has been announced that in the sale of 49% of the public operators that will take place there will be no restrictions on foreign Investment. In fact, there could not be, as the government thinks that national groups have neither the money nor the interest in the operation. However, voting rights will probably be restricted.

2.7. Conclusions

Telecommunications services in Portugal have always been supplied by three operators with clearly defined regional and functional monopolies. The State's participations in these operators (100% for the two largest suppliers and 51% for Marconi) are since 1992 held by a holding company, CN¹³, completely owned by the State.

The sector is now under a deep restructuring and a sole monopolist for basic voice and data services has been created at the beginning of 1994. The government announced, at the same time that 49% of this new company would be privatised before the end of 1994, but it seems already clear that privatisation will be delayed once again.

The first regulatory body independent from the operators was formally created in 1981, but it was not activated until 1989. This regulator, ICP, has a somewhat ambiguous role in the telecommunications sector. Although being recognized by the European Commission as *the* regulator of Portuguese telecommunications, it is completely dependent from the Minister of Transports and Communications. In fact, the Minister of Transports and Communications is formally responsible for regulation of telecommunications, and ICP's function is *to assist* the minister in this role. It should be stressed that Portuguese authorities have a long tradition of direct intervention in the Economy: telecommunications has been the first sector (and until now the only one) to have a regulatory body.

In spite of the formal weakness of its responsibilities and liabilities, ICP is becoming increasingly relevant in the industry. It plays an important part on the regulation of prices of monopolised services, on the monitoring of the quality of competitive services, on the observance of the maintenance of competitive conditions in value-added and mobile markets. Nevertheless, the old tradition of suspicion from Portuguese authorities relative to the benefits of independent

¹³This holding also owns the public shares (100%) of the company which supplies postal services.

regulation are still clearly observable in this sector: the recent restructuring of the industry has been designed without ICP's participation.

Being completely dependent on the government, this regulatory body has, however, acquired in this short period a large independence from the operators, which it did not have at the moment of its creation. This independence stems in part from its complete financial autonomy, from both the operators and the government. Having as one of its responsibilities the management of the radio spectrum, ICP has been able to raise enough receipts on this resource to finance its activities completely. Financial autonomy from the government can also be seen as a step in the direction of political independence.

3. The design of regulatory institutions in electricity

3.1. Short history of the regulatory process

After the 1974 Revolution all private companies in electricity production and distribution were nationalised. After a brief transitional period, the government created a vertically integrated company - EDP, Electricidade de Portugal, E.P. - which became a monopolist in electricity production, transportation and distribution. The government provided its board of directors with broad directives regarding company targets (namely in terms of production, quality of service and expected profitability). The government appointed the company board of directors and as its sole shareholder had power to substitute them whenever felt appropriate. Each year the company presented its prospective budget and plan of activities to the government, justifying *ex ante* not only its prospective output but also the number of required employees, debt and financial management and any new investment deemed necessary to comply with its expected level of production and service quality. Prices were also subject to the direct control of government and any tariff changes required government approval.

Today's situation is pretty much the one broadly described above. EDP remains a vertically integrated monopolist, except regarding electricity production. EDP has recently sold a major power plant to a private consortium (*Pego Power Plant*) and since 1989 that the government allows for small independent suppliers which have been producing either through mini-dams or through co-generation. These independent producers, which

currently represent roughly 6 per cent of total capacity, are allowed to directly use their own production but the state monopolist is by law the sole buyer of all of their non-used production. The prices charged to the state monopolist are pre-established by government decree.

New candidates to electricity production through co-generation have to submit a technical proposal to the Directorate-General of Energy. In the case of mini-dams potential candidates also need to submit their proposals to the Ministry of the Environment. The government has been actively promoting the emergence of independent suppliers, especially in the case of co-generation, through a web of incentives. Currently, there is a price incentive, direct subsidies to investment in co-generation by independent suppliers (through the SIURE - *Sistema de Utilização Racional de Energia* - and the PEDIP - general support plan to industry, which allocates Community funds to individual projects) and a reduction in the specific tax applying on fuel.¹⁴ Currently, it is estimated that the price incentive amounts to roughly 20 per cent, the investment incentive to 20 per cent and the tax incentive to the remaining 60 per cent.

Electricity prices to both domestic and industrial customers are set each year by agreement between EDP and the Directorate-General of Prices and Competition (*Convenção*). Access charges are not part of this general agreement. For each type of client, tariffs set in the agreement are universal in the sense that they apply to all customers regardless of their location and cost differences for the supplier. There is no pre-specified rule determining the form and substance of the aforementioned tariff convention. In the absence of any rules and since EDP is a state-owned company, tariff changes in each year are essentially the result of government goals and targets regarding this sector, whatever they may be. Quality of service regulation is attributed to the Ministry of Industry and Energy, who has published several regulations regarding this issue. In other words, the Ministry of Industry and Energy simultaneously represents the sole shareholder, and acts as the regulator and the supervisor of (most of) electricity production, electricity transportation and its distribution.

¹⁴ The specificities of this combined scheme has prompted the government to mandate the breaking up of each producer through co-generation into two separate entities: the energy producing part - who can apply to these subsidies - and the remainder of the firm.

Any litigation between EDP and industrial or domestic customers can be presented to a special court (litigation court for electricity) or at the main judicial system. Individual customers can also apply for a special legal entity, the *Provedor da Republica*.

3. 2. Future Developments

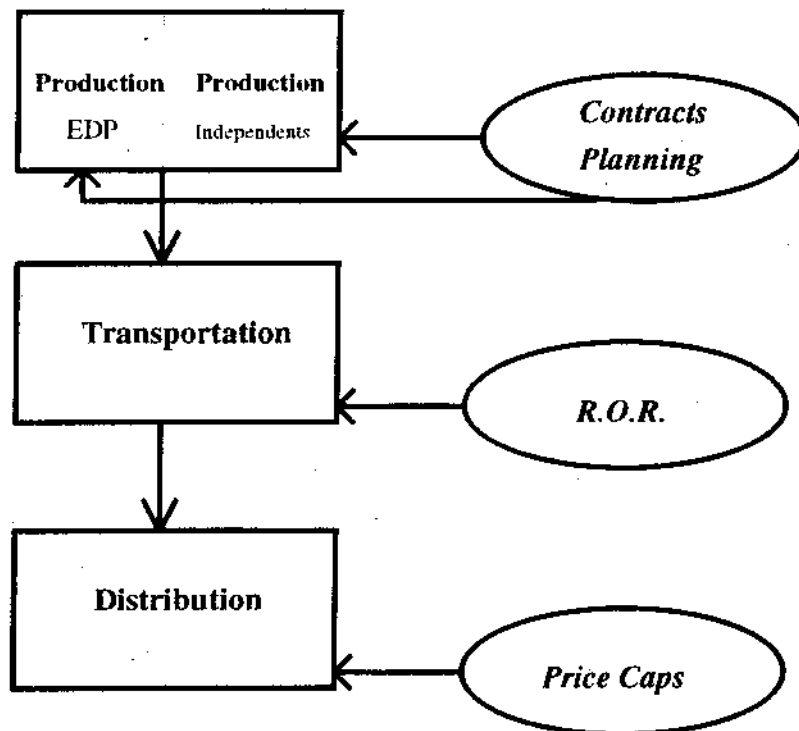
There is a consensus in the industry that the current *status quo* is bound to change within the next few years. As we have mentioned above, there is already some degree of liberalisation in electricity production with the joint operation of EDP power plants, mini-dams, co-generation units and one privately owned major power plant. It is expected that the government will take steps to break up the current vertically integrated monopoly and concomitantly change its regulatory stance through the creation of new regulatory bodies and the establishment of rules for regulating the sector.

EDP is supposed to be broken up into an electricity production company, a transportation company and four regional distribution companies (see figure 1). The production company is intended to compete with already existing production alternatives and possibly with new privately owned power plants. It is expected that, regarding production, two systems will develop in the future: a "closed system" with all power plants (EDP owned or private) connected to the single transportation company, and an "open system" to whoever intends to produce and sell electricity without using the main transportation and distribution networks. The "closed system" will be subject to centralised planning by an autonomous planning unit, which will probably be set as a public institute, and will have no further competencies. Any possible relation between these two systems will be regulated by the future Regulator for Electricity, which will have broad powers and competencies regarding this industry.

This is expected to be set as a truly independent regulator. Current proposals indicate that the government will nominate its president and other board members, for terms longer than each legislature but will not be able to replace the president or any other board member. The regulator will not be under the political or technical dependence of both the government and companies. It will have broad powers to regulate and supervise production,

transportation and distribution. However, it is expected that the regulatory rules will differ in each segment of industry.

Figure 1
Regulating electricity in the future



Production will be regulated through the establishment of long-term contracts (power purchase agreements) with each producing plant. They will apply to both already existing plants and new power plants. These contracts will be designed taking into account the cost and other operating specificities of each plant.¹⁵ Each contract, although based on historical cost data, is supposed to comprise enough incentives to promote efficient production. They are supposed to promote efficiency by benefiting efficiency gains and

¹⁵ Portugal is not supposed to adopt a pooling system to regulate electricity production. It is claimed that such a system would be inadequate to a country where dams represent an important share of total production and where cost differences between thermic power plants are very substantial. It would be difficult for such a system to cope with the irregularities associated with hydroelectric production. In addition, one would expect that prices for the most efficient plants would be more in line with the costs of older plants than with their own levels of efficiency.

penalizing efficiency losses and, on the other hand, are supposed to promote the regularity of supply by punishing irregular suppliers.

The future transportation company is supposed to remain in state control in the sense that it is not expected to be privatised in the foreseeable future. Nevertheless it will be subject to independent regulation under the form of rate of return regulation (R.O.R.).¹⁶ This company will not be allowed to sell directly to any final consumer (regardless of size) and will have to charge the same prices to all distributing companies. Presently, the government does not have any intentions to grant free access to this transportation company.

The distribution end of the current business is supposed to be broken into four regional distribution companies: North, Centre, Lisbon and South. Each company will be subject to price cap regulation, and current proposals do not rule out the possibility of partial or total privatisation.

4. The design of regulatory institutions in the gas industry

Natural gas is supposed to be introduced for both domestic and industrial users within the next few years. Currently there is a State-owned city gas distribution company for Lisbon, which is directly controlled by the government. Its prices are regulated through a mechanism similar to the one adopted in the electricity sector. In the future this company will also distribute natural gas to both domestic customers and small businesses.

The future structure for the industry is supposed to consist of a transmission monopolist (*Transgás*) in which the government already has a majority stake and four distribution companies: the one for Lisbon and three other regional firms. The transmission monopolist is supposed to sell a major part of its expected production to electricity power plants.

The government has never announced any plans to establish an independent regulator for the gas industry. The transmission monopolist will be regulated through the dispositions in the contract establishing the concession rights to

¹⁶ The argument for R.O.R. is based on the governments current intention to keep the transportation company in state hands. It is argued that, in such a case, the Averch-Johnson effect would not be likely.

Transgás. It has been announced that distribution monopolists will be regulated in the same way.

5. Conclusions

Telecommunications, electricity and gas industries are far from being stabilised at the present moment. The general trend in these sectors seems to be in the direction of less direct government intervention, introduction of competition in some segments of the markets and privatisation of at least some of the public suppliers. Nevertheless, the process of change in these sectors has been slow, denoting a timid approach toward liberalisation which has often resulted in hesitations and contradictions. In the telecommunications sector, in particular, where pressure from the Commission in the direction of the unified market have been stronger, steps forward and backward were repeatedly seen. The clearest example is the continued postponement of privatisations.

Particularly in what concerns regulation, the government attitude seems to be somewhat ambiguous. In telecommunications a regulatory body independent from the operators was effectively created, but its independence relative to the Ministry is nil in every important decision. In electricity supply a regulator is expected to be created in the near future, and some people in the industry think that it should be implemented with a much larger political independence. However, in face of the telecommunications sector experience, it seems doubtful that this position will prevail. Regarding gas, the only certainty at this stage is that the government has not yet expressed a clear model for sector regulation.

The consequences of these ambiguities are hard to predict. In telecommunications, where technological innovations and the European Commission are pushing competition every day, the effects of the continued postponements of real restructuring could be, we think, quite harmful. International alliances are being decided at this moment, and the fact that Portuguese operators are absent from every important decision concerning the configuration of European telecommunications in the following 10 or more years can have negative consequences lasting for a long period.

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