European Business History Association Conference
Copenhague, Agosto de 2006

REGULATION AND OWNERSHIP OF PUBLIC UTILITIES. WATER SUPPLY SERVICE IN A MEDIUM-SIZED SPANISH CITY DURING THE FRANCO YEARS

Jesús Mirás-Araujo• and Carlos Piñeiro-Sánchez••

The relationship between a firm's performance and institutional environment has filled a growing space in business historians' research. Several legal and political regulatory frameworks have operated throughout history, which have influenced, in different ways, over business success or failure, in such a way that setting up the effects of each environment in specific firms or economic sectors constitutes one of the issues of economic and business history.

This dialectic is similar to other extended discussions such as the dichotomy between public and private enterprise,[1] particularly in those activities where efficiency and the interest and welfare of the population are merged.[2] After the advent of modern state governments, the problem of supply of certain services had arisen and, therefore, what would be the most efficient manner of guaranteeing an adequate provision to citizens. The dilemma was worsened as a consequence of the beginning of the second industrial revolution, which arose in parallel with the development of several networked services. The latter had some technological requirements, but also infrastructural, investment, management, etc., which had influence on the systems of supply and on services provision.[3]

One of those services was water supply, a sector in which there exists a growing concern about what is the system of property and management that guarantees a higher efficiency of provisioning, that is, public (municipal) or private ownership.[4] In sum, the

• Associate Professor of Economic History at the Faculty of Economics of the University of La Coruña (Spain).
•• Permanent lecturer of Financial Economics and Information Systems at the Faculty of Economics of the University of La Coruña (Spain).

background of the debate depends upon the policies of privatization or nationalization of water services.[5]

The objective of the article is to examine the factors determining the changes in the systems of management of water supply in Spain during the Franco dictatorship (1939-1975). Therefore, our aim is to determine the impact of a specific – anomalous – institutional framework upon business success or failure, through a case study. The unit of analysis is a water supply firm situated in a Spanish medium-sized city, in which the management of the service at the beginning of the twentieth century was commended to private enterprise, under a municipal franchise (concession) system. Nevertheless, with the advent of the new political regime after the Civil War (1936-39), the regulatory environment underwent a gradual transformation, exhibiting dramatic effects in the change in attitude of public authorities with respect to collective services. We attempt to put the research into context, attempting to compare this case with the experiences of other countries in the management of water supply.

The argument of the paper can be summarized as follows. The management of water supply by a private firm suffered an increasing pressure during the dictatorship, with the objective of reverting the control to public authorities, specifically to local – municipal – authorities. In fact, over the long term, this strategy was partially successful, given that it gradually transformed the systems of management of public services in Spain, to such an extent that municipal management became dominant by the 1960s. As a consequence of the tensions that arose during those years, the private company had to face numerous difficulties, which conditioned a more efficient management. Although it is necessary to admit that the latter was negatively restricted by the prevailing autarkic context (which made the purchase of machinery, inputs, technology, etc., very difficult), the transformation of the institutional framework (increasingly interventionist), was probably the decisive factor that restricted the

possibilities of expansion of the firm. This process of transition might serve as a platform to enrich recent debates about the systems of management of modern urban services in Europe.

The text is divided into three main parts. First, a recapitulation on the relationship between water supply and the institutional frameworks in which is has been developed is carried out. We start with the characterization of the most outstanding features of this service, which in the past conditioned the type of supplier and, later on, the most important strategies applied by the developed countries are examined. Second, the antecedents of regulation of water provision in Spain are specified, as well as the parameters of the new institutional framework carried out during Franco's dictatorship. Finally, we have adopted as a laboratory the analysis of the water supply Company of the city of La Coruña, mainly through the study of the financial information of the firm.

I. INSTITUTIONAL FRAMEWORK AND WATER SUPPLY

Until recently, water has been considered a renewable natural resource. Nevertheless, the verification of the fact that the world is suffering a serious water crisis has modified the conception of this asset. As a result, it is perceived at the present time as a finite and limited resource, which is seriously affected by the increasing demands of population.[6] For this reason, the legislation in the industrialized nations has gradually recorded its economic and social importance.

Modern water supply possesses a series of characteristics, which determined that from the nineteenth century onwards its provision has acquired the category of public service,[7] although the transfer of management to private companies and the institution of a tariff also gave it a nature of private asset.[8] This is a type of provision that is offered by way of networked infrastructures. These networks underwent an extraordinary growth from the mid-nineteenth century onwards, as a consequence of the emergence of the new hygienist postulates that arose with modern urbanism, as well as the development that went with the

second industrial revolution.[9] Accordingly, the development and organization of networked infrastructures constituted a fundamental mechanism of urban growth.

From supply side, certain particular features characterize infrastructure of water provision. This has led to the consideration of this service as a classic case of natural monopoly, as it is more economical to meet the needs of an area by a unique firm, instead of several suppliers, as is the case of several other public utilities.[10]

Firstly, water supply requires a complex network, although it is generally more efficient to have unique water mains. During the nineteenth century this favoured that networks that, in the beginning, were competitive, rapidly turned into monopolies in the majority of Western countries.[11] These networks usually cover long distances and provide a long-term service, which at the same time requires a considerable sum of capital invested, and also generates high sunk costs, as the costs derived from the building of the infrastructure are hardly transferable to other economic activities.[12] Besides, the networks provide significant scale economies, as well as positive and negative externalities that cannot be captured by market mechanisms.[13] Other meaningful characteristics are the indivisibility of water provision, the capital-intensive nature of water supply and of such a complex distribution system,[14] and the fact that the fixed costs are usually higher than variable costs.[15] Taken all together, these attributes have led to consider water supply as a classic example of a natural monopoly.[16]

But, in practice, in a situation of a natural monopoly, one unique supplier firm might be tempted to abuse its privileged position in the market. There is a risk that the companies lay themselves open to under-provision of services to certain groups or areas,[17] and an inadequate provisioning can initiate important spill over effects in health and environment.[18] As there are few substitutes for these necessities, the potential for monopoly profits is therefore increasing.[19] For these reasons, these type of situations creates spaces for public

intervention and regulation, although this does not strictly come from the property of the service, but from the lack of competition.[20]

As a consequence, natural monopolies have often been regulated, through the establishment by public authorities of controls on prices, quality, benefits, subsidies, etc.[21] The regulator acts then as substitute for the market, by adopting some of the roles and functions of competitors, in an attempt to force the regulated firm to behave differently, that is, as it would do if it was subject only to market competition.[22] Sometimes public sector goes further, intervening directly on management, sheltered by diverse arguments that arise from market failures.[23]

On the other hand, publicly owned or managed water utilities frequently lack the necessary market discipline to maintain efficient investment programs. As a result, they may incur high building and operation costs, in a overcapitalization and an excessive use of debt streams, in a minor tendency to innovation, and in a certain inclination to favour certain economic groups,[24] which would act even against the public welfare.[25]

There are several possible alternative approaches to manage modern water supply. The first consists in leaving the service totally in the hands of private initiative. The second alternative is public manage and property of water utilities (which include both supply and infrastructure), generally under municipal control. The third option is public property of infrastructures, but under concession system to a private company. This is usually flanked by state guarantees of bond interest or profit sharing, depending on the attitudes of state governments towards the management of the service.[26] Each of these options has advantages and disadvantages.

The history of water control and supply has been complex, as it touches upon many important historical issues and processes,[27] but was similar to other public utilities,[28] although it was the most likely to be publicly owned and managed.[29] The concession system

unquestionably holds positive elements, as it facilitates taking advantages of scale economies, creates incentives to cost minimization, and might have interesting effects in terms of social equity, as it is able to satisfy market needs at competitive prices.[30] In turn, an adequate monitoring by public administration seems indispensable through the control over the fees charged to users.[31] But a concession system also suffers from negative effects, which deal with concepts of efficiency and high transaction costs.[32]

During the nineteenth century, municipalities had neither the financial nor the technical capacity to provide water supply, for which private entrepreneurs obtained many concessions. By the beginning of the century, 'private enterprise was seen as the proper institutional form',[33] such that property remained in the hands of private operators in countries like the United Kingdom, France, Germany, Italy and Spain.[34]

However, private management presented several serious shortcomings, which created the convenience of acting municipally owned companies, that is, the municipalization of water utilities.[35] As a result, from the late nineteenth century on and during the twentieth century the large majority of European and North American cities built large waterworks, which in many cases remained under local government control, through municipal authorities.[36] Although some state governments opted for the regulation of private firms, others, from many important countries, created state or municipal enterprises.[37] In Europe, state governments often instituted public monopolies instead of trusting the regulation of utilities, even though the motivations to control the market were similar.

By the early 1900s, governments everywhere were involved in regulation of prices, rates of return, conditions of franchises, lengths of leases or direct ownership, but there were big differences between countries in the detail.[38] By World War I these systems had fallen under municipal control and property,[39] as the large-scale schemes for taking water supplies in

major conurbations involved levels of finance and a degree of planning beyond the scope of private enterprise.[40]

Each country has set up its own regulatory framework. Therefore, some similarities and differences in the management of water utilities can be appreciated at the international level, particularly during the nineteenth century and the early twentieth century.[41] By the end of the nineteenth century, there was a dual system: the United States model of state regulation,[42] and the continental model of big government (excluding the United Kingdom). The institutional environment, the different levels of industrial development, and the national interventionist economic policies can explain the differences among countries.[43] Probably, the level of urbanization was also a critical variable, in the sense that municipally owned enterprises seemed to have more common in the expanding industrial cities of Western Europe, whilst in countries characterized by slow urbanization rates, and with small or weak local government units, it was the concession system rather than municipalization which dominated the nineteenth century.[44]

II. INSTITUTIONAL FRAMEWORK IN SPAIN DURING THE FRANCO DICTATORSHIP

In Spain, public services have been managed in several ways, that can be summarized basically into two types: the regime of direct management (through a local entity or a public society), and the indirect management, through concession, concert, leasing arrangements, mixed firms, consortia or formal agreements.[45] Between the mid-nineteenth century and the Civil War management was carried out mostly by means of private firms, under concession.[46] This regulatory system was based on the economic weaknesses of local councils.

The regulatory framework was supported by the legislation of local administrations. The Municipal Law of 1877 rested in liberal principles that made the actions of the municipalities very difficult in terms of undertaking certain basic industrial and commercial

activities. One of the services that were performed by some city councils was water supply, as it was considered to be part of public hygiene, because the previously mentioned law gave attributions to municipalities to provide it.[47] However, the Water Law of 1879 limited the particular availability of this resource, and reinforced the role of state government as the function for looking after, and taking care of, the use of public water resources rested on the councils.[48]

Although there were some profitable private firms, the tendency was towards municipalization.[49] The turning point was marked by the passing of the Municipal Statute of 1924, which defined more clearly the responsibilities of the councils, gave new powers to carry out the direct management of services, and established a new judicial framework, as water provision was considered obligatory.[50] The legislative change of the 1920s had its roots in the transformation of the institutional framework introduced by the military dictatorship of Primo de Rivera (1923-1930).

The inter-war period was accompanied by the first wave of municipalizations, although it was not completely successful. The new legal framework increased the pressure on private firms, attempting to transfer the service to municipalities. The growing state interventionism drowned the probability of survival of many firms, and led some of them to municipalization or dissolving.[51] However, the inability of city councils to reach a more efficient management, their limited access to external financial resources, and the real inefficiency of the government regulatory framework limited the full success of this first attempt. Therefore, in many cities, the former private management remained in force up until the Civil War.

The period 1940-1974 was characterized by an increasingly interventionist activity of state governments.[52] After World War II, the majority of the European democracies adopted a model of economic regulation based on public companies that provided networked services,

as a reflection of the welfare state and the peak of modern public enterprises.[53] This trend was linked to other long-range issues, the nationalization of water management and ownership, and the change of control of urban water services from municipalities to central state governments, which has its roots in the late nineteenth century.[54]

Nevertheless, in those countries that experienced long dictatorships, such as Greece, Portugal and Spain, there was a failure to develop either a strong welfare state or significant networks of public enterprises in public services and network utilities.[55] Although during those years Spain shared some common features with other nations, the background was different, as the country suffered a political, social, and economical involution. The ideology and the economic policy of the Franco dictatorship were predominantly interventionist and centralist. This represents a break with the previous period, although the forty years of military state were not a homogeneous era. We can distinguish three stages: 1. The autarkic post-war (1940-1959), in which the attempts to industrialize the country and the interventionist policy led to the creation of many public enterprises; 2. The stage that spans from the regional development policies (1964 to 1970), which was characterized by a leading role of private firms; 3. The phase that begins in 1970-75, which extends to democracy and goes even further, up to the mid-1980s.[56]

In sum, the period after the Civil War in Spain witnessed a new stage for water supply. This period was lengthened up to the 1970s, and was characterized by an increasingly interventionism and municipalization, in line with the majority of Western countries.[57] Given the inability of private sector, state government recovered the management of this sector, though using the former waterworks and experience of the private firms.[58]

III. THE FIRST OFFENSIVE TO MUNICIPALIZE WATER UTILITIES, WITHIN THE CONTEXT OF AUTARKIC ECONOMIC POLICY, 1939-1956

Accordingly to what occurred in other Spanish towns and cities, at the end of the nineteenth century, La Coruña's City council delivered the building and management of water supply to a private firm, under concession, due to the limited financial capacity of the municipality to face the large amount of capital investment required by the new waterworks.[59] The result was the constitution of *Aguas de La Coruña S.A*. in 1903.[60]

At the institutional level, the years before the Civil War were ruled by a deterioration of the relationship between the firm and the City council, basically due to the debt accumulation provoked by non-payment of water supply.[61] The fear from the consequences of a monopolistic private management caused a change in the attitude of the municipality. We observed a progressive acceleration of the municipal intentions to control tariffs as well as the firm strategy of expansion.

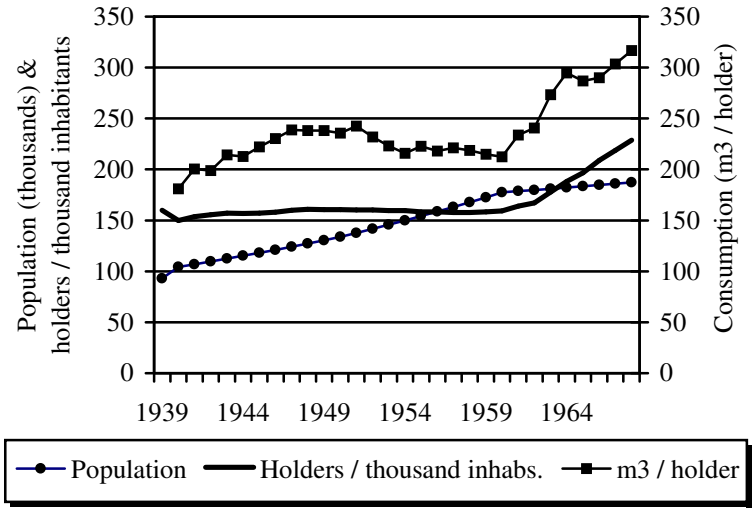
After the war, the idea of municipalizing the service gradually germinated, although maintaining always the idea of a monopolistic service, but publicly rather than privately owned. La Coruña, like other Spanish cities, underwent a considerable demographic growth during the 1930s and the 1940s, which forced the firm to face a continuous enlargement of the water supply network of the city, and consequently to undertake new projects of water provision (Figure 1).[62] For this purpose, it was necessary that the internal (capital) and external (debt, grants, etc.) sources of funding of the firm were open and healthy.[63] The problem was that during the 1940s the company still could appeal to these means of financing, but during the 1950s and, above all, during the 1960s some of them started to fail. In addition, the autarkic economic policy of early the Franco dictatorship was an obstacle to the normal evolution of the firm and the service. Consequently, the City council found

sufficient arguments to support their forthcoming attempts of municipalization, founded in collective interest considerations.

In 1939 Aguas de La Coruña obtained from the national hydrological authorities a second concession license to drift a new tap water, with a flood of 100 l/s, which widened the initial concession. This request was based on the need to extend the infrastructure of tap water, cleansing and distribution, which were operating at the limit of their capacity, due to the urban demographic growth, and the increase in the number of holders and consumption (Figure 1). However, the negotiation of the project underwent innumerable difficulties,[64] and the prevailing institutional framework began to be unfavourable to the firm. The 1940s witnessed an increasing municipalization orientation by the Spanish councils,[65] which was accelerated during the 1950s and the 1960s, owing to the impulse provided by the municipal regulation law of 1955.[66]

Figure 1

Water Consumption, Number of Holders and Population in the City of La Coruña, 1939-1968



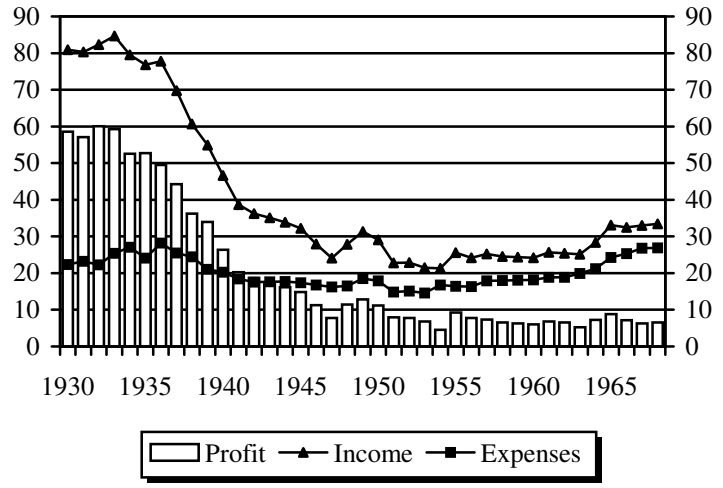
Source: Aguas de La Coruña Annual Reports and Population Censuses

The process of municipalization of the service in La Coruña followed a long path, from the early initiatives taken by the city council, at the beginning of the 1940s, up to 1968, when the process culminated. The first impulse dates back to 1944, although this offensive apparently remained latent during the rest of the decade.

At the end of the 1940s a new municipalization push was re-opened. In 1948 the engineers of the company wrote a new project of enlargement of water supply to the city, which contemplated the application for a third concession license of 375 l/s of water (approximately 32,400 m^3 per day), and which was added to the two former concessions (with a total flood of 17,280 m^3). The obstacle that immediately rose was the lack of consensus between the firm, the city council, and the state government at the time of calculating the tariffs of the service, in a sufficiently remunerative level that financially compensated the investments, and that guaranteed the economic viability of the project.[67]

Figure 2

Profits per Holder (1930-1968), in Real Terms (1935 pesetas)



Source: Aguas de La Coruña Annual Reports

Thus, tariffs were a continuous subject of disagreement between state administration and the concessionaires of public services after the Civil War. In the case of Aguas de La

Coruña, the freezing of tariffs caused a dramatic fall in average income per holder, which between 1930 and 1940 decreased 42 per cent in real terms (1935 pesetas) (Figure 2). The average expenses per holder also decreased, in part as a result of the growth of productivity and efficiency of the firm, but the total effect was a diminution of more than 55 per cent in average profit per customer. The deterioration of the profitability of the business was evident, just at time when the firm intended to face a necessary enlargement of supply capacity and infrastructure. Anyway, before the state government authorized the new tariffs applied by the firm with the new concession license several years passed. This delay caused the tariffs initially calculated to become outdated, due to the high inflation that Spanish economy experienced between 1939 and 1951.[68]

The general behaviour of prices, together with the congealing of tariffs, drastically reduced the real value of the firm's income. However, expenses exhibited a different behaviour, due to the inflation of costs and the lack of inputs, spares and supplies, which was strengthened by the international economic isolation and the weaknesses of GDP. The expenses/income relation worsened continuously until surpassing 80 per cent at the end of the 1960s, even though EBIT remained stable, in absolute terms (Figure 3).

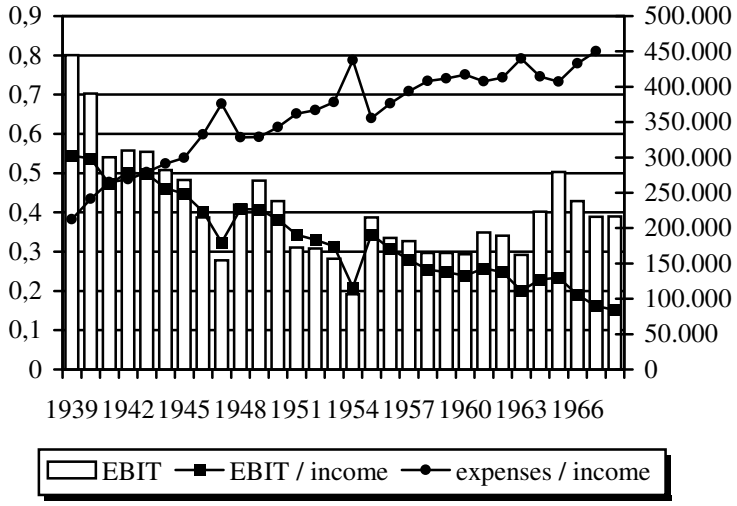
In sum, profit margin in constant pesetas decreased significantly from 1936, both in absolute terms and in unit values.[69] Between 1939 and 1950 the real value of the profit per holder decreased 40 per cent and the operating ratio increased in similar proportion. Thus, the urgent necessity of the firm to achieve sufficiently high tariffs to compensate increase in prices, guaranteeing a minimum firm profitability for the large projected investment,[70] approximately 41 million current pesetas.[71]

In 1948 the assets profitability was 9.65 per cent, with an average capital cost of 6.17 per cent. However, shareholders' profitability had oscillated around 9.7 per cent (Figure 4). For a total investment of 52.56 million pesetas, the target would be a net profit of 3.96 million

real pesetas, which *ceteris paribus* capital structure and financial costs (interests), would correspond to an EBIT of 4.7 million pesetas. The project implied quadrupling the active and the overall business (turnover).

Figure 3

EBIT, Income and Expenses in *Aguas de La Coruña* in Real Terms (1935 Pesetas), 1939-1968

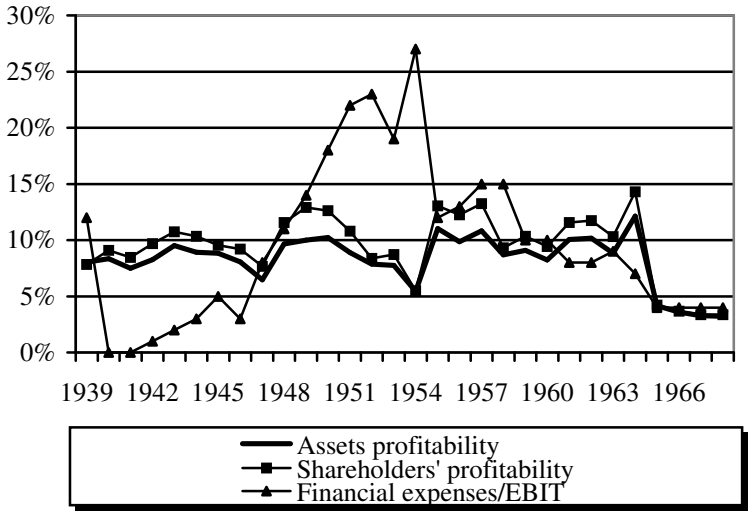


Source: Aguas de La Coruña Annual Reports

The city council started to exhibit contradictory positions. The municipal law in force included the possibility of intervention in the concession expedients as one of the councils' competencies. Initially, La Coruña's city council gave support to the project prepared by the firm in 1948, based in an estimated population of 115,920 inhabitants for that year. The reality, however, showed that in 1948 the city had reached more than 125,000 inhabitants (Figure 1). Therefore, it could be possible that the city did not receive a sufficient flood of water within the forecast horizon of the project (late 1970s).[72] As a consequence, in 1949 the council decided to municipalize the water utility.

Figure 4

Profitability (1939-1968)



Source: Aguas de La Coruña Annual Reports

This rule was received with hostility by the firm, starting then a legal struggle between both institutions. The points argued by the firm were concentrated in the efficiency, quality and economic profitability of the service (Figure 3, Figure 4). But the latter was suffering a gradual weakening. The firm's profits were reaching critical values, because even taking into account eventual revisions of tariffs, income could vary in the short and in the long term at a slower rate than expenses. The new collection and cleansing infrastructure implied the existence of high fixed costs, and the growth of the city could raise maintenance and exploitation costs, as it would bring continuous extensions of the distribution network to areas located further from the inner city. On the other hand, the council should face an indemnity or recovery price for the company, even though it did not have enough financial resources to tackle that disbursement. Therefore, the council should apply for a loan, and given that the firm returns would not predictably increase, the council would have difficulties to improve the business profitability.

In conclusion: 1. Shortcomings of the service would not be solved, and besides, the firm was about to face new waterworks projects, with the purpose of serving the growing needs of the city. 2. The necessary amplification would be hindered and delayed. 3. The city council would not obtain economic returns from this operation, but it could suffer losses. 4. The council would not have scope to reduce the tariffs of the service, but it probably would have to increase them, in order to wipe out eventual losses.[73]

The operation reached a deadlock, which damaged the firm, as it blocked the normal transaction of the project of water infrastructure enlargement. During 1949-1951 the municipal technical commissions elaborated several reports that, in general, advised against the change of ownership, as it would be harmful from both a technical and an economic point of view.[74] For this reason, in 1951 the city council desisted from moving towards municipalization, although it did not imply either an agreement with water pricing reform, nor with the conditions demanded by the firm in the new concession license.[75]

Apparently this decision unblocked the concession expedient. However, between 1951 and 1953 it continued in transaction, and this progressively deteriorated the economic viability of the project.[76] The tariffs demanded in 1948 were calculated on the base of the estimate budget for the works foreseen in that moment. But from the writing of the project, all the aspects of cost and general expenses underwent considerable growth, in such a way that in 1952 the initial budget had increased up to 67 million pesetas. This disturbed the calculation of the tariffs initially projected.[77]

Nevertheless, the most remarkable difficulty for the firm had its origin in the substantial transformation that the institutional framework experienced. The agent of change was the passing of the Decree of 1 February 1952,[78] which relied on the old idea that state government should assist modest councils to solve their problems of water supply.[79] This regulation concealed the new approaches of the national economic policy, which pursued a

rapid industrial growth of the country, and this take-off required acceleration in the adaptation of urban infrastructures[80]. The most significant innovation of the decree relied on the fact that it established and regulated state relief to populations, founded on the extraordinary increase in the costs of waterworks.[81]

On 4 December 1952 the ministerial order that regulated the concession with the original tariffs was passed, although inflation made the project non-viable. Therefore, as a result of the above mentioned modifications, the firm began to seriously consider not rejecting the municipalization, displaying a disposition to transfer the new concession gratuitously to the council, as it could facilitate the benefits of the aforementioned decree.[82] At the end of 1954 the council resolved to take charge of the concession license and solicit the state government assistance for waterworks. On 21 February 1956, the Ministry of Public Works passed a new project of enlargement of water supply to the city, increasing to 525 l/s, and authorized the application of the benefits of the decree of 1952. The transfer finally took place on 1 September 1956.

IV. THE SLOW WAY TO MUNICIPALIZATION OF THE SERVICE DURING THE 1960S

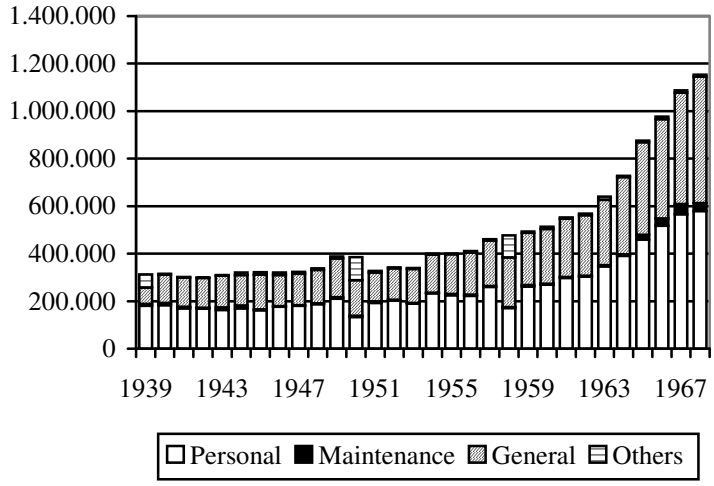
However, the growth of the city continued rapidly. This increased the pressure on water supply, turning it into a critical situation.[83] In 1957 the city municipality urged the Ministry of Public Works to make the assistance contemplated in the decree of 1952 effective immediately. The subsidies offered to cities such as La Coruña rose to 50 per cent of the final estimated budget. The reason for this urgency was the necessity of the council to get a loan, which would be indispensable to carry out the project.

The waterworks program to be built by the council came to 133.6 million pesetas. Given this amount, applied as warranty of a loan at 5.25 per cent, the council would have had at its disposal approximately 74.4 million pesetas, that is, around 55.7 per cent of the total

waterworks budget. This would justify state government to contribute the remaining 44.3 per cent. But, owing to budgetary restrictions, state assistance could only reach 40 per cent of the budget. Besides, there were no definitively approved projects but those corresponding to ground works, cleansing and water supply enlargement, which came to 47.6 million pesetas. As a consequence, the immediate state contribution could only be around 40 per cent, that is, little more than 19 million pesetas. On 13 January 1961 the Ministry passed a reformed project of water supply enlargement, with a contracting budget of 51.9 million pesetas. The state contribution was 19 million pesetas and the municipal contribution, 32.9 million. Finally, at the end of 1962 the new provision began to function. From now on the question of the real ownership of water supply network in the city arose for the first time in more than sixty years of service.

Figure 5

Operating Expenses (1939-1968), in Real Terms (1935 Pesetas)



Source: Aguas de La Coruña Annual Reports

The reversion to public hands carried on quickly in the following years. In 1963 the council elaborated the first official proposal to purchase the firm, although the final agreement still needed a maturation process and, besides, the ministerial approval. On 15 April 1966 the

Ministry of the Interior authorized the city council to acquire the investments of the firm, to the value of 23.9 million pesetas. This operation was seen as the previous step before the municipalization.[84]

In practice, there were two different owners of the service, each one possessing a part of the water infrastructure. However, the company was unable to purchase legally the new waterworks that the council had undertaken to build and, at the same time, it was almost impossible to face any future enlargement of the infrastructure, as the firm lacked funds. For this reason, in 1967 Aguas solicited authorization to increase the tariffs. This request was founded on the continuous growth of general expenses (Figure 5), and the need to set aside larger amounts of money for investment securities, with the purpose of improving the service provided to several neighbourhoods, and financing the investments required by continuous enlargement of the network. But the Ministry rejected this demand.

Throughout the second half of the 1950s and the 1960s the most remarkable segment of cost were personnel expenses, which represented around 60 per cent of all costs, followed by general expenses (around 30 per cent). The latter was also the category that experienced the most significant variation during these fifteen years, with annual average growths around 18 per cent. On the other hand, maintenance costs had a marginal role until well into the 1960s.

During this stage, the evolution of the firm was not damaged by the macroeconomic environment, which in Spain went through a more accelerated rate than during the 1940s, particularly after a new economic policy was approved in 1959. However, business efficiency was damaged by the increasing leadership of expenses, particularly through the pressure of personnel and general costs. But the real value of income also worsened, giving rise to a deterioration of economic and financial profitability (Figure 4).[85]

In 1968, the council had purchased practically all the firm shares, taking charge then of the management, through the designation of a new board of directors. This was a transitory solution until reaching the definitive municipalization, after which the new business structure as municipal enterprise would come into operation.[86] Therefore, after that date the company entered into a new period of transience, which lasted several years. During this time, the firm's juridical configuration entered into an interregnum of institutional confusion, as it did not fit into any of the models envisaged by the law. It had a private form and a public 'essence', and this meant serious inconveniences.

The only alternative was the definitive reversion of the service to public hands. On the one hand, due to the impossibility of it being managed by a private company, and on the other hand, due to the need for the council to take charge of water provision. For this reason, municipalization was seen as the only viable solution to regularize the juridical situation of the firm, and to implement a method of exploitation that was considered more suitable in that historical context.[87]

Municipalization could have several advantages. First, because the city council should have as priority (due to legal imposition) proper provision of the service, not taking care, in theory, of the profit maximization objective. Thus, the dilemma of the difficult reconciliation of profit appropriation by the firm with public interest would be obviated. On the other hand, the firm would have to support an excessive increase of expenses, owing to amortizations, depreciation allowance, provisions for investment, several types of municipal and state taxes, etc. With municipalization instead the service would enjoy the fiscal benefits settled by the municipal law of 1955. And, in the cases of deficit in water provision, the state law recognized the principle of state subsidiary arrangement with respect to municipalities, ensuring economic resources for the performance of their scope.[88]

Before the formal municipalization, by the mid-1970s, the service presented paradoxical situations. Whenever water infrastructure was extended to areas of the city that had no service, financing of waterworks was carried out through allowances for investment, which came from the profits or from the results of exploitation. Accordingly, expenses generated by this concept fell on all the users, in such a way that the oldest user financed dramatically any enlargement of water supply network in the municipality. Once the service was municipalized, the extension of the network would be partially financed by the beneficiaries of the new service, through the possibility of thrusting special taxes for waterworks.[89]

Owing to this set of factors, the city council initiated in 1974 an expedient to proceed to the final municipalization of the service under monopoly regime. There was a remaining issue, the choice of the method of management, and the firm organization structure. The direct simple management was initially rejected, due to the complexity that the service had reached. Public foundation of the service and the methods that implied the participation of citizens (mixed enterprise, concession, etc.) were not considered suitable to the council either. The final decision turned to private municipal enterprise.[90] Thus, on June 1975 the council approved the project of tariffs for the expedient of municipalization, which was finally passed on 16 September 1974.

V. CONCLUSIONS

The years of the immediate post-war marked a turning point in public services in Spain. The new institutional framework increased the pressure to reverse water utilities to public hands, as part of the new orientation of the state economic policy and the dominant ideology among political authorities. The new tendency towards municipalization chronologically links with the nationalization impulse that emerged in Western countries after World War II, although the underlying motives were different.

On the other hand, the management of Spanish companies passed through many vicissitudes. Water supply in La Coruña fits into the profile of the majority of Spanish cities, and serves to illustrate the evolution of water provision as well as the pressures to which it was subject during the second third of the twentieth century. The service was managed by a private firm, as had been the case from the end of the nineteenth century. The context of autarky subsequent to the Civil War ended in a very unfavourable conjuncture for the methods of private management. The frequent shortages that both the management and the service had to face in La Coruña and in other Spanish cities, as a result of the autarkic context prevailing in the early Franco dictatorship, demonstrate that. The frequent obstacles that impeded a normal provision of inputs, materials, energy, etc., conditioned a regular supply to the city during the 1940s and 1950s. Besides, management was hindered by cost increases, and by wage increases that attempted to compensate for the losses of purchasing power of the firm employees.

The scenario was, besides, increasingly hampered by the policy of the city council, which was based on the ideology and the interventionist legislation prevailing during the dictatorship, and which attempted to get hold of water supply management from the end of the Civil War. The unique obstacle on the path of the municipality was its financial incapacity to face an integral management of the service. However, the hesitant attitude of the council blocked (although maybe unconsciously) a more efficient modernization of the service.

The examination of the firm's outcomes, as well as the financial and efficiency indicators reveals that the management could have remained solid for a while some time, as soon as the urban demographic growth did not require large investments in infrastructure. But from the examination of municipal documents and from the archive of the company one cannot infer that the later change of ownership was determined by water supply shortages. In the last analysis, financial bottlenecks and insufficient tariffs were the factors that forced the

company to accept the municipalization proposed by the city council. Therefore, this asphyxiation was the result of a legal framework that narrowed the margin of operation, as it established political prices that did not compensate for the large investments necessary, and reduced the possibilities of state financing.

Finally, the access to state subsidies, to which private firms could not approach, facilitated the reversion to public ownership, in such a way that the municipal enterprise created *ex novo* could effectively carry out the projects of extension of water provision. In conclusion, the paper permits us to discern that the influence of the institutional environment was the decisive variable that determined the transformation of the method of management in the case analysed, an inference that is extensible – with logical differences in rhythm – to the majority of Spanish cities during the Franco dictatorship.

NOTES

1. C. Rotondi, 'Scienza Economica e Municipalizzazioni, tra Teoria e Prassi', in G. Bigatti, A. Giuntini, A. Mantegazza e C. Rotondi (eds.), *L'Acqua e il Gas in Italia* (Milano, 1997), pp.259-349.
2. R.M. Stein, 'Privatization and the Arrangement of City Services', *Estudios de Economía*, Vol.23 (1996), pp.1-23.
3. H. Capel, 'El agua como servicio público. A propósito del Seminario Internacional "Faire parler les réseaux: L'eau, Europe-Amérique Latine"', *Biblio 3W. Revista Bibliográfica de Geografía y Ciencias Sociales Universidad de Barcelona*, No.218 (2000).
4. S. Renzetti, 'Municipal Water Supply and Sewage Treatment: Costs, Prices and Distortions', *Canadian Journal of Economics*, Vol.32 (1999), pp. 688-704. N. Spulber and A. Sabbaghi, *Economics of Water Resources: From Regulation to Privatization* (Boston, 1998). K.W. Easter, G. Feder, G. Le Moigne and A.M. Duda, *Water Resources Management* (Washington, 1993).
5. W. Megginson and J. Netter, 'From State to Market: A survey of empirical studies on Privatization', *Journal of Economic Literature*, Vol.39 (2001), pp.321-89. G.A. Hodge, *Privatization: An International Review of Performance* (Boulder, 2000). J. Vickers and G. Yarrow, *Privatization: An Economic Analysis* (Cambridge, MA, 1989).
6. T.R. Lee, *Water Management in the Twenty-first Century. The Allocation Imperative: New Horizons in Environmental Economics* (Cheltenham, 1999). J. Winpenny, *Managing Water as an Economic Resource* (London, 1994).
7. R.A. Kraemer, 'Public and Private Management of Water Services', in *Semana Internacional de Estudos sobre Gestão de Recursos Hídricos* (Foz do Iguaçu, 1999), p.1. The concept of public service, as is considered nowadays, comes from France, as a mean created by Administration to satisfy certain needs of citizens that private initiative could not meet. A. Arregui, 'Internacionalización de las empresas de servicios público', *Información Comercial Española*, Vol.735 (1994), p.131. In the past, one of the arguments to provide water was that this service was equivalent to public goods. I. Fauconnier, 'The Privatization of Residential Water Supply and Sanitation Services: Social Equity Issues in the California and International Contexts', *Berkeley Planning Journal*, Vol.13 (1999), p.41. Public goods are characterized by non-excludability and non-rivalry; on the contrary, private goods area characterized by excludability and once

they have been used up, others cannot use them. P.A. Samuelson, 'The Pure Theory of Public Expenditure', *Review of Economics and Statistics*, Vol.36 (1954), pp.387-89.

8. G. Núñez, 'Servicios urbanos colectivos en España durante la segunda industrialización: entre la empresa privada y la gestión pública', in F. Comín and P. Martín (eds.), *La empresa en la Historia de España* (Madrid, 1996), p.408.
9. Network industries are defined as those in which a fixed infrastructure is needed to deliver the goods or services to end users, e.g. gas and water pipelines, and telephone and electricity cables and wires.
10. R. Millward, 'European Governments and the Infrastructure Industries, c. 1840-1914', *European Review of Economic History*, Vol.8 (2004), p.3. A. Kahn, *The Economics of Regulation: Principles and Institutions* (Boston, 1988). W.W. Sharkey, *The Theory of Natural Monopolies* (Cambridge, MA, 1982). W.J. Baumol, J.C. Panzar and R.D. Willig, *Contestable Markets and the Theory of Industry Structure* (New York, 1982). Private ownership does not solve the problem of natural monopoly. A. Jouravlev, *Regulación de la industria de agua potable. Volumen I: Necesidades de información y regulación estructural* (Santiago de Chile, 2001), p. 6. In practice, the decision between public or private monopoly should not have significant consequences in terms of improving efficiency, as 'a monopoly is a monopoly, whatever public or private, and it tends to behave as such'. G. Bel, 'Privatización y desregulación: cuando la liberalización no basta para aumentar la competencia', in G. Bel (ed.), *Privatización, desregulación y ¿competencia?* (Madrid, 1996), p.22.
11. R. Millward, 'The 1940s Nationalizations in Britain: Means to an End or the Means of Production?', *The Economic History Review*, Vol.50 (1997), pp.209-34. M. Klein, *Economic Regulation of Water Companies* (Washington, 1996). M. Klein and T. Irwin, *Regulating Water Companies* (Washington, 1996). R. Swartwout, 'Current Utility Regulatory Practice from a Historical Perspective', *Natural Resources Journal*, Vol.32 (1992), pp.300-08. C.D. Foster, *Privatization, Public Ownership and the Regulation of Natural Monopoly* (Cambridge and Oxford, 1992).
12. J.A. Tarr and J.W. Konvitz, 'Patterns in the Development of the Urban Infrastructure', in H. Gillette and Z. L. Miller (eds.), *American Urbanism: A Historiographical Review* (Westport, Conn., 1987), pp.195-226. J.A. Tarr, 'Building the Urban Infrastructure in the Nineteenth Century: An introduction', *Infrastructure and Urban Growth in the Nineteenth Century, Essays in Public Works History*, Vol.14 (1985), pp.61-85. J.A. Tarr, 'The Evolution of the Urban Infrastructure in the Nineteenth and Twentieth Centuries', in R. Hanson (ed.), *Perspectives on Urban Infrastructure* (Washington, 1984), pp.4-66. J.A. Tarr *et al*., 'Water and Wastes: A Retrospective Assessment of Wastewater Technology in the United States, 1800-1932', *Technology and Culture*, Vol.25 (1984), pp.226-63. The existence of a network does not constitute itself a barrier to competition, as firms could compete for water provision, provided that they share that network. S. Cowan, 'Regulation of Several Market Failures: The Water Industry in England and Wales', *Oxford Review of Economic Policy*, Vol.9 (1993), p.16. In fact, competition may be unsustainable and even undesirable, since *ceteris paribus* costs will be minimized if the non-competitive activity is operated as a monopoly. R. Gonenc, M. Maher and G. Nicoletti, *The Implementation and the Effects of Regulatory Reform: Past Experience and Current Issues* (Paris, 2000), p.15.
13. 'Water deficient in quality and quantity imposes costs on agents other than the immediate consumers and producers'. R. Millward, 'The Market Behaviour of Local Utilities in Pre-World War I Britain: the Case of Gas', *The Economic History Review*, Vol.44 (1991), p.216. Externalities relating to urban water services were associated, in the past, with public health. Kraemer, 'Public and Private Management', p.1. C.D. Jacobson and J.A. Tarr, 'No Single Path: Ownership and Financing of Infrastructure in the 19th and 20th Centuries', in A. Mody (ed.), *Infrastructure Delivery: Private Initiative and the Public Good* (Washington, 1996), pp.1-36. Millward, 'Urban Water Supplies', p.3. These externalities increased from the nineteenth century onwards, when rapid urbanization polluted many water sources. R. Millward, 'State Enterprise in Britain in the Twentieth Century', in P. A. Toninelli (ed.), *The Rise and Fall of State-Owned Enterprise in the Western World* (Cambridge, 2000), p.160.
14. Cowan, 'Regulation of Several Market Failures', pp.15-16.
15. R. Millward, 'The Political Economy of Urban Utilities', in M. Daunton (ed.), *The Cambridge Urban History of Britain, vol.III. 1840-1950* (Cambridge, 2001), p.339.
16. S.V. Berg and J. Tschirhart, *Natural Monopoly Regulation. Principles and Practice* (Cambridge, MA, 1988).
17. D. Rondinelli and J. Kasarda, 'Privatization of Urban Services and Infrastructure in Developing Countries: An Assessment of Experience', in J. Kasarda and A M. Parnell (eds.), *Third World Cities, Problems, Policies and Prospects* (Newbury Park, 1993), pp.134-60.
18. R. Millward, 'Nationalization and Privatization', in J. Mokyr (ed.), *The Oxford Encyclopedia of Economic History* (Oxford, 2003), Vol.4, p.56.

19. Millward, 'The Political Economy', p.320.
20. D. Bös, 'Regulation: Theory and Concepts', in D. Parker and D. Saal (eds.), *International Handbook on Privatization* (Cheltenham, 2002), p.477. Kraemer, 'Public and Private Management', p.2. Fauconnier, 'The Privatization'. R. Boyer, *Le théorie de la régulation: Une analyse critique* (Paris, 1986). A.B. Atkinson and J. Stiglitz, *Lectures on Public Economics* (London, 1980). For an opposite view, see Demsetz, who pointed out that the existence of a natural monopoly, as a mechanism to justify the regulation was a fallacy. H. Demsetz, 'Why Regulate Utilities?', *Journal of Law and Economics*, Vol.11 (1968), pp.55-66.
21. Ogus distinguishes two ways of intervention: 'economic' regulation, that is, the regulation of prices and quality of services supplied in a market characterised by monopoly conditions; and 'social' regulation, that is, those areas of state intervention, for example, environmental and health and safety regulation and consumer protection, generally justified by reference to externalities and information asymmetries. A. Ogus, 'Comparing Regulatory Systems', in D. Parker (ed.), *International Handbook on Privatization* (Cheltenham, 2005), pp.514-36. A. Ogus, *Regulation: Legal Form and Economic Theory* (Oxford, 1994).
22. Millward, 'Nationalization', p.56. Gonenc, Maher and Nicoletti, *The Implementation*. D. Helm, 'British Utility Regulation: Theory, Practice, and Reform', *Oxford Review of Economic Policy*, Vol.10 (1994), pp.17-39. J.C. Rietveld, 'Is Privatization in the Future for US Water Suppliers?', *Journal AWWA*, Vol.86 (1994). R. Morin and L.T. Hillman, *Regulatory Finance: Utilities' Cost of Capital* (Arlington, 1994). A literature review on the economics of regulation literature in Parker, although it is turned to institutions and experiences of developed economies, particularly the United States and the United Kingdom. D. Parker, *Economic Regulation: A Preliminary Literature Review and Summary of Research Questions Arising* (Manchester, 2001), Working Paper No.6.
23. J. Roumasset, *Privatizing Public Services with Externalities: Water and Wastewater Systems* (Hawaii, 2000), Working Paper No.00-8. Kraemer, 'Public and Private Management'. Fauconnier, 'The Privatization'. D.J. Kucera, 'Privatization of Water and Wastewater Utilities: A Very Public Affair', *Water Engineering & Management*, Vol.142 (1995), pp.15-7. S. Cowan, 'Market and Regulatory Failure in the Water Sector', in U. Collier (ed.), *Deregulation in the European Union: Environmental Perspectives* (London, 1997), pp.131-44. However, the literature on market failures is more abundant than the la literature on public sector failures. Public choice theory analyses some of the deficiencies of the modern state government. See D.C. Müeller, *Perspectives on Public Choice* (Cambridge, 1997). D.C. Müeller, *Public Choice* (Cambridge, 1979). J.M. Buchanan, *Liberty, Market, and State. Political Economy in the 1980s* (New York, 1986). J.M. Buchanan and R.E. Wagner, *Democracy in Deficit: The Political Legacy of Lord Keynes* (New York, 1977). G. Tullock, *Private Wants, Public Means: An Economic Analysis of the Desirable Scope of Government* (New York and London, 1970). J.M. Buchanan and G. Tullock, *The Calculus of Consent* (Ann Arbor, 1962).
24. J.A. Beecher, 'Privatization, Monopoly, and Structured Competition in the Water Industry: Is There a Role for Regulation?', in *UCOWR Proceedings, Water: Lessons of World Development* (Kamuela, 1999), pp.103-10.
25. A. Shleifer and R.W. Vishny, 'Politicians and Firms', *Quarterly Journal of Economics*, Vol.109 (1994), pp.995-1025. In contrast, some scholars point out that public enterprises diminish – although do not eradicate – corruption in services provision, or at least that is what has occurred in the United States. E.L. Glaeser, *Public Ownership in the American City*, NBER, 2001.
26. Millward, 'European Governments'.
27. R. Coopey and A. Jones, 'The Boundaries of Water History: The Case of Britain', in *Water in History: Global Perspectives. An International Historical Conference* (Aberystwyth, 1999).
28. T. Prosser, 'Public Service Law: Privatization's Unexpected Offspring', *Law and Contemporary Problems*, Vol.63 (2000), pp.63-82. J. Ernst, *Whose Utility? The Social Impact of Public Utility Privatization and Regulation in Britain* (Buckingham, 1994).
29. G.L. Priest, 'The Origins of Utility Regulation and the "Theories of Regulation" Debate', *Journal of Law and Economics*, Vol.36 (1993), pp.289-323.
30. R.A. Posner, 'Natural Monopoly and its Regulation', *Stanford Law Review*, Vol.21 (1969), pp.548-643. Demsetz, 'Why Regulate Utilities?'.
31. Jacobson and Tarr, 'No Single Path'.
32. M.A. Crew and P.R. Kleindorfer, *The Economics of Public Utility Regulation* (Cambridge, MA, 1986). O.E. Williamson, 'Franchise Bidding for Natural Monopolies-In General and with Respect to CATV', *Bell Journal of Economics*, Vol.7 (1976), pp.233-62.
33. Millward, 'The Market Behaviour', p.99. M. Falkus, 'The Development of Municipal Trading in the Nineteenth Century', *Business History*, Vol.19 (1977), p.140.

34. R. Millward, 'La regolamentazione e la proprietà dei servizi pubblici in Europa: una prospettiva storica dal 1830 al 1950', *Economia Pubblica*, Vol.XXXIV (2004), p.28.
35. Capel, 'El agua como servicio público'.
36. R. Coopey, 'Politics or Engineering? Motives and Connections in the Construction of Victorian Water Systems', in *Water and Civilization. Fourth Conference of the International Water History Association* (Paris, 2005). Millward, 'Nationalization', p.55. Millward, 'The Market Behaviour', p.324. T. Katko, P. Juuti and P. Pietilä, 'Historical Perspectives of Public-Private Co-operation in Water Services', in *The International Water History Association (IWHA) 3rd conference* (Egypt, 2003). K.J. Crocker and S.E. Masten, 'Prospects for Private Water Provision in Developing Countries: Lessons from 19th Century America', in M.M. Shirley (ed.), *Thirsting for Efficiency: The Economics and Politics of Urban Water Systems Reform* (London, 2002), p.317.
37. 'The policy implication was regulation of fares, tariffs, freight rates, and profit rates. Again, the experience with the regulation was often perceived in the late nineteenth century and the early twentieth as unsatisfactory, so public ownership followed, suggesting that other factors were involved'. Millward, 'Nationalization', pp.55-6.
38. R. Millward, 'Regulation and Ownership of Public Services in Europe: an Historical Perspective c. 1830-1950)', in *Milan State University Workshop on Public Services in Europe* (Milan, 2003), p.1.
39. R. Millward, 'Urban Water Supplies c. 1820-1950: The Dilemma of the Private Companies', *Histoire, Economie, Société* (forthcoming), p.2.
40. J.A. Hassan, 'The Growth and Impact of the British Water Industry in the Nineteenth Century', *The Economic History Review*, Vol.38 (1985), pp.531-47.
41. Millward, 'La regolamentazione', p.26. Millward, 'European Governments', p.4. O. Hyldtoft, 'Modern Theories of Regulation: an Old Story. Danish Gasworks in the Nineteenth Century', *Scandinavian Economic History Review*, Vol.42 (1994), p.30.
42. At the beginning of the nineteenth century, private water companies served 94 per cent of the United States market. J.A. Beecher, G.R. Dreese and J.D. Stanford, *Regulatory Implications of Water and Wastewater Utility Privatization* (Columbus, 1995), p.21. By the end of the century, their share had fallen to 47 per cent. However, this did not occur with the rest of public services, which relied on private capital. J.A. Tarr, *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective* (Akron, 1996), p.118.
43. J. Clifton, F. Comín and D. Díaz, *Privatization in the European Union. Public Enterprises and Integration* (Dordrecht, 2003).
44. And 'whose councils, faced with mounting programmes for public health and other services, were desperate for new revenue sources'. Millward, 'Institutional Change', p.6.
45. F. Sosa, *La gestión de los servicios públicos locales* (Madrid, 1997).
46. J.M. Matés, 'Evolución y cambio en el abastecimiento urbano: del sistema clásico al moderno', in *VII Congreso de la Asociación de Historia Económica* (Zaragoza, 2001), p.13. F. Antolín, 'Las empresas de servicios públicos municipales', in F. Comín and P. Martín (dirs.), *Historia de la empresa pública en España* (Madrid, 1991), p.284. However, there were other options, as in Madrid a state company was in operation, in Barcelona a private corporation subsisted, whilst in Cadiz, Seville or Valladolid there were early municipalizations. J.M. Matés, 'La conquista del agua: importancia urbana y económica', *Boletín de Estudios Giennenses*, Vol.174 (2000), p.38.
47. E. Galván, *El abastecimiento de agua potable a Las Palmas de Gran Canaria: 1800-1946* (Las Palmas, 1996), p.26. The nineteenth Spanish state had a markedly centralist nature. For this reason, municipalities only could assume certain services characterized by a small investment level and by the simplicity of management. Núñez, 'Servicios urbanos colectivos en España'.
48. J. Melgarejo, 'De la política hidráulica a la planificación hidrológica. Un siglo de intervención del Estado', in C. Barciela and J. Melgarejo (eds.), *El agua en la historia de España* (Alicante, 2000), p.279. Maestu points out that in Spanish legislation the owner of water rights is the state government, which, in turn, grants concessions, down certain conditions, to different users. These may be temporal, in precariousness or definitive. The state delegates its rights to individuals, for an economic use or to develop a public service. In this sense, concessionaires have rights of use but not property rights. J. Maestu, 'Dificultades y oportunidades de una gestión razonable del agua en España: la flexibilización del régimen concesional', in J.M. Naredo (ed.), *La economía del agua en España* (Madrid, 1997), p.123.
49. J.M. Matés, 'El servicio público de aguas potables en España: Un sector entre la confluencia de los intereses públicos y privados', in *III Congreso Ibérico sobre Gestión y Planificación del Agua* (Sevilla, 2002).

50. J.M. Matés, *Cambio institucional y servicios municipales. Una historia del servicio público de abastecimiento de agua* (Granada, 1998), p.2. The municipal law of 1935 and the municipal regulation laws of 17 July 1945 and 3 December 1953 later ratified this circumstance, which were revised by the Decree of 24 June 1955.
51. Matés, 'La conquista', pp.30-2.
52. F. Comín, *La empresa pública en la España contemporánea: formas históricas de organización y gestión (1770-1995)* (Madrid, 1995), p.9.
53. J. Clifton, F. Comín and D. Díaz, 'Transforming Public Enterprises: Inward and Outward FDI in the Manufacturing and Network Industries. "From Ugly Ducklings to Swans". Globalisation - NPA -SPA - Spain is Different', in *VIII Congreso de la Asociación Española de Historia Económica* (Santiago de Compostela, 2005), p.2. K. Bakker, 'From State to Market? Water Mercantilisation in Spain', *Environment and Planning A*, Vol.34 (2002), pp.767-90. Millward, 'The 1940s Nationalizations'.
54. Clifton, Comín and Díaz, *Privatization in the European Union*. E. Swyngedouw, M. Kaïka and E. Castro, 'Urban Water: a Political Ecological Perspective', *Built Enviroment*, Vol.28 (2002), pp.124-37. In the United Kingdom, between the 1940s and the 1980s public service enterprises were public monopolies. J. Singleton, 'Labour, the Conservatives and Nationalisation', in R. Millward and J. Singleton (eds.), *The Political Economy of Nationalisation in Britain, 1920-1950* (Cambridge, 2004), pp.13-33. Foster, *Privatization*. In the United States up to the 1970s a large proportion of waterworks were publicly operated. S. Feigenbaum and R. Teeples, 'Public versus Private Water Delivery: A Hedonic Cost Approach', *Review of Economics and Statistic*, Vol.65 (1983), pp.672-78. W.M. Crain and A. Zardkoohi, 'A Test of the Property Theory of the Firm: Water Utilities in the United States', *Journal of Law and Economics*, Vol.21 (1978), pp.395-408.
55. Clifton, Comín and Díaz, 'Transforming Public Enterprises', p.4.
56. Comín, *La empresa pública*, p.13.
57. J.M. Matés, *La conquista del agua: Historia económica del abastecimiento urbano* (Jaén, 1999).
58. S. Martín, 'Reflexiones sobre las privatizaciones', *Revista de Administración Pública* 144 (1997), pp.7-43.
59. A. Martínez *et al.*, *Aguas de La Coruña: 1903-2003. Cien años al servicio de la ciudad* (Madrid, 2004).
60. In the early twentieth century a large increase in the number of water supply companies in Spain. This tendency continued in an upward curve up to the Civil War, with two outstanding peaks in 1910-14 and 1925-29. J.M. Matés, 'El abastecimiento de agua de Barcelona: de las tentativas municipalizadoras al predominio de la empresa privada', *Revista de la Facultad de Humanidades de Jaén*, Vol.II (1994), p.113.
61. A. Martínez, 'Administración local e dotación de servicios: a longa xénese do abastecemento de auga na Coruña', *Revista da Escola Galega de Administración Pública*, Vol.27 (2001), pp.111-26.
62. J. Mirás, 'La empresa "Aguas de La Coruña, S.A.". La prestación de un servicio público básico en una ciudad de tipo medio entre 1939 y 1968', *TST. Transportes, Servicios y Telecomunicaciones*, Vol.3-4 (2002), p.103. The city population increased from 74,132 inhabitants in 1930 to 104,220 in 1940.
63. J. Mirás and C. Piñeiro, 'El abastecimiento de aguas en la ciudad de A Coruña durante el franquismo', *Revista Galega de Economía*, Vol.12 (2003), p.209.
64. Mirás, 'La empresa', p.104.
65. Several Spanish cities municipalized the service, following the steps initiated in other cities in the 1920s and the 1930s: Malaga, Huelva, Santa Cruz de Tenerife, Las Palmas, etc. J. Mirás, 'Intervención y regulación del abastecimiento de agua en el franquismo: A Coruña, 1939-1975', *Revista de História Económica e Social*, Vol.5 (2003), p.42. Matés, 'La conquista'.
66. Matés, *Cambio institucional*, p.150.
67. Aguas de La Coruña Annual Report (hereafter AC Report), 1948, pp.2-3.
68. In Spain the tariffs arranged in concession sheets became obsolete due to the inflation, which provoked that many private firms were municipalized with relative facility, and at low price, once they fell away financially exhausted. Matés, 'La conquista', pp.38-9. According to Matés, in Spanish legislation unilateral and unconditioned power of state Administration in public utilities tariff fixing was imposed. The article 12 of the Decree of the Ministry of Public Works of 17 May 1940, about rules to perform water provision, established that assistance and subsidies granted had the purpose of improving public hygiene, and not to create a flow of income for the councils. For this reason, the authors of the projects should carefully calculate tariffs presented to the passing of the Ministry. During the post-war, firms that had limited revenues, and that could not cover cost of personnel, energy, repairing, etc., attempted to get tariffs increases. Matés, *Cambio institucional*, pp.112-18.
69. Mirás, 'La empresa', p.115.

70. Private companies found considerable difficulties to obtain a rapid profitability, and that is the reason that explains their inhibition to investment, and the growing leadership of municipal institutions. Matés, 'El servicio público', p.2.
71. Mirás, 'La empresa', p.106.
72. La Coruña Municipal Archive (hereafter LCMA). Folder 2745.
73. Aguas de La Coruña Archive (hereafter ALCA). Folder 227. 'Municipalización'.
74. ALCA. Folder 227. 'Municipalización'.
75. LCMA. Folder 2745.
76. ALCA. Folder 227. 'Municipalización'.
77. The average tariff was at 1.4354 pesetas, with a maximum tariff at 2.45 for household services. But on December 1952 the firm estimated that the average tariff should increase up to 2.34 pesetas, and the maximum tariff to 4.00 pesetas. Records of the Board of Directors of Aguas de La Coruña (hereafter RBDAC), 16 April 1952. LCMA. Folder 2745.
78. Together with the Decree of 11 September 1953, which modified the Decree of 17 May 1940
79. S. Canals, 'Construcción de abastecimientos de agua y saneamiento de poblaciones con auxilio del Estado', *Revista de Obras Públicas*, Vol.2772 (1946), p.159.
80. A. Jiménez, 'Regímenes de explotación, su evolución y causas de la misma', in *Explotación de abastecimientos de agua* (Madrid, 1974), pp.31-53.
81. C. Torres, 'Financiación. Régimen de auxilio del Estado', in *Explotación de abastecimientos de agua* (Madrid, 1974), pp.173-79. The benefits reached all the towns and cities with an average water supply less than 200 litres/per head/per day. Subsidies established by the state could reach as much as 50 per cent of the budget without recovering.
82. AC Report, 1953. RBDAC, 12 January 1954.
83. From 104,220 inhabitants in 1940 to 133,844 in 1950, and 177,502 in 1960.
84. ALCA. Credit balance of amortization in 1968 was 2,070,000 pesetas.
85. AC Report, 1967, p.5.
86. ALCA. Folder 227. 'Municipalización'.
87. Report, January 1975. ALCA. Folder 227. 'Municipalización'.
88. Mirás, 'Intervención y regulación', pp.53-5.
89. Report, January 1975. ALCA. Folder 227. 'Municipalización'.
90. Report, January 1975. ALCA. Folder 227. 'Municipalización'.