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**FEG-WP Nº 5/09**

**THE CYCLICAL TREND OF LOCAL PUBLIC SERVICE  
GOVERNANCE: EVIDENCE FROM URBAN WATER MANAGEMENT  
IN SPAIN**

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**THE CYCLICAL TREND OF LOCAL PUBLIC SERVICE GOVERNANCE:  
EVIDENCE FROM URBAN WATER MANAGEMENT IN SPAIN**

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## **ABSTRACT**

The level of public and private involvement in economic activity in societies has changed over time. One may talk about the existence of a cyclical trend in which the most important periods of public governance are replaced by periods in which private management dominates the situation. This phenomenon may also be observed in local areas. Some authors have pointed out the existence of an alternation in the provision of municipal services, resulting in periods dominated by governance compared to other stages dominated by private management. In order to illustrate this cyclical trend at local level, this paper intends to analyze the evolution of the governance of the Spanish water supply since the mid-nineteenth century to the present day. Recent evidence from the industry suggests the possibility that we may currently be witnessing a further change in the trend.

**KEYWORDS:** Local Government, urban water supply, privatization, municipalization.

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Local government obligations have increased over time. Councils are currently responsible for the provision of a wide range of services in their municipalities, ranging from core activities to the proper functioning of cities, such as refuse collection, traffic control or water distribution, as well as activities with social purposes, such as the care of the elderly or the development of leisure activities.

Regarding the provision of public services, the choice of an appropriate management, either public or private, is a recurring debate. The existence of opposing arguments and the absence of conclusive empirical evidence in favour of one kind of management or the other, have prompted several studies since the mid-80s to explain what factors influence the choice of management for local public utilities. Recent surveys suggest

that local governments make the decision considering economic, financial, ideological and political factors<sup>1</sup>.

Research explaining the decisions of local governments using econometric techniques analyze what happened in the last quarter of the twentieth century, although these decisions were made much earlier. In the absence of data, only historical studies enable us to approach the motivations of local politicians in their past decisions. One important conclusion reached in studies from a historical perspective is the existence of a cyclical trend in decision-making based on governance and private management alternating. Gómez-Ibáñez (2003) associates this cyclical trend mainly to those services based on network infrastructures which suffer from significant failures in free competition<sup>2</sup>. This situation has been detected, for example, in the case of transport services<sup>3</sup> or the water supply<sup>4</sup>. In this same line of reasoning, some authors suggest that we are witnessing a new trend in services provided by local governments in the last decade<sup>5</sup>.

To illustrate the cyclical trend in local government decisions, including the possible change in trend noted by some authors in recent years, this paper analyzes the evolution of the governance of the Spanish urban water supply. Despite the lack of data that makes it impossible for us to apply econometric techniques to past periods, this paper presents economic, political and institutional arguments which serve to explain the decisions made by local governments in each period (see table 1). The start of the study period is determined by the development of the *Modern System of Water Supply* in Spanish cities<sup>6</sup>. This issue is addressed in the second section. The factors that explain the decisions of local governments in each historical period are explained in the third, fourth and fifth sections. Finally, to conclude, the sixth section raises the possibility that we may be witnessing a new change of trend.

*INSERT TABLE 1 ABOUT HERE*

## THE NEED TO MODERNIZE THE URBAN WATER SUPPLY

The 18<sup>th</sup> and 19<sup>th</sup> centuries witnessed the recurring collapse of traditional water supply and sanitation systems in many European cities. The causes must be sought in the sharp increase in water demand and in the growth of urban agglomerations.

New and growing industrial needs led to a sharp increase in water demand. People initially attempted to solve this problem by strengthening the *Classic System of Water Supply*<sup>7</sup>. For instance, more wells and water sources were constructed and the service of vendors providing water were increased\*. All these solutions were costly and inadequate and, needless to say, they did not prevent a decline in the available flow in wells and the consequent problems with the water supply.

The strong growth of cities and excessive urban concentration, with the emergence of large diseconomies of concentration that were not present in rural areas, ended up collapsing the sanitation system and creating a true classic situation of environmental neglect<sup>8</sup>. Contamination of drinking water and the occurrence of severe unsanitary conditions resulted in increased mortality due to epidemics of typhoid fever, cholera and dysentery<sup>9</sup>.

Overcoming this situation was only going to be possible by modernizing water supply and sanitation services. From a technical point of view, this involved the construction of large dams and aqueducts for storage and transport of water over long distances; the establishment of distribution networks and sanitation; the introduction of new systems for water filtration and disinfection (*i.e.*, chlorination); the settlement of pressurized piping; the diffusion of steam engines to raise water, or the use of valves to regulate the flow of water.

In Spain, it took a long time to adopt this necessary process of modernization in all matters relating to treatment, water supply and sanitation. Not only was this a technical challenge, but also a financial and organizational one. Dealing with gaps in supply and sanitation infrastructure entailed a large investment in fixed capital, and all in a context in which policy-makers –the city councils– were under severe financial constraints inherited from the Old Regime crisis.

Consequently, those services that did not require a large investment, such as health or education, continued to be managed directly by the councils themselves. In contrast, the water supply and sanitation services, as well as street lighting and the tram service, gradually began to be managed indirectly by private companies, usually under concession or lease contracts. However, despite privatization, the legislation created for this purpose did not allow local corporations to be entirely relieved of the control over these services<sup>10</sup>.

In Spain, some authors have come to distinguish three stages according to the unequal importance of private enterprises in the management of the urban water supply<sup>11</sup>. The first stage (1840-1938) witnessed the start of entrepreneurship in industry. However, it was not until the early twentieth century when this management strategy became consolidated. The second stage (1939-1984) is characterized by a strong process of municipalization due to both social and political reasons. The third stage (from 1985 onwards) has brought further growth in private participation in management, justified on the grounds of efficiency (see table 1).

## **FIRST STAGE. THE INITIATION AND CONSOLIDATION OF PRIVATE COMPANIES IN THE WATER SECTOR (1840-1938)**

In the late 19<sup>th</sup> century, Spanish cities still had to perform tasks such as the construction of water supply networks and resolving technical problems, the establishment of an efficient and stable organizational model, as well as the stabilization of users and the spread of the water supply<sup>12</sup>. The complexity and magnitude of the investments required to modernize urban water utilities placed nineteenth-century Spanish politicians in the dilemma of choosing between continuing to manage the service directly or to delegate management to private companies.

Even though some private business initiatives had been detected in the sector as early as 1841<sup>\*2</sup>, a more determined push from private initiatives did not occur until 1865-1872. From that moment until the end of the century, 83 private companies were established in Spain (see Table 2), located mainly in medium-sized and large cities. However, there were also some cases of private initiatives in small cities and, conversely, in some important cities –Almeria, Bilbao, Zaragoza, Malaga, Las Palmas, Palma de Mallorca and San Sebastian– private companies were not present until 1900<sup>13</sup>.

*INSERT TABLE 2 ABOUT HERE*

Nonetheless, private participation in the management of urban water during these years was weak and supported significantly by foreign investment (see Table 3). It was normal to see companies with both domestic and foreign capital. On the one hand, we must consider that Spanish entrepreneurs did not make a firm commitment by investing in an emerging sector in development. In addition, the small and medium-sized enterprises that were established at the beginning in the sector often proved to be unsustainable. On the other hand, British, French and Belgian entrepreneurs already had

a thorough knowledge of the sector as well as major builders, managers and investors who were able to recognize the potential of economies of scale in the sector<sup>14</sup>.

*INSERT TABLE 3 ABOUT HERE*

This management strategy consolidated during the first third of the 20<sup>th</sup> century. By 1938, 166 private companies responsible for managing water utilities had already been established in Spain (see Table 2), many of which were large scale operations. In this period, the development of the water supply in Spain was strongly associated to the great public urban projects of the time –docks, urban enlargements, renewals of buildings, etc.– Furthermore, the extension of the water supply network to new urban areas provoked the immediate re-evaluation of sites and properties<sup>15</sup>.

However, what were the reasons behind delegating the management of a service traditionally provided by city councils to private companies during this period? The literature suggests three explanatory factors which are detailed below.

*1) Budgetary imbalances and inadequate financial resources*

Since the early 19<sup>th</sup> century, the impoverished state of Spanish municipal finances was reflected in the financial diversity, heavy indebtedness and the guardianship of a State interested in Local Revenue<sup>16</sup>. There are several possible reasons for this situation. Firstly, the sale of municipal assets, which had begun during the Peninsular War (1808-1814), continued in subsequent decades and escalated during the Carlist War years (1833-1876). Secondly, although the 1845 tax reform achieved an increase of municipal revenues, the needs generated by the large influx of people into cities resulted in these financial resources remaining inadequate. Finally, the subordination of Local Finances to the State was consolidated<sup>17</sup>. During the 19<sup>th</sup> century, the increase in municipal



responsibilities –primary education, charity, local public works, landscaping, etc.– was not accompanied by a corresponding transfer of state taxes. Thus, the financial capacity of municipalities was even further restricted.

Moreover, the necessary investments to establish the service of urban water supplies were disproportionate to the resources in local government coffers<sup>18</sup>.

Between 1900 and 1905, the construction of water supply networks required an average investment of 2.31 million “pesetas”<sup>\*3</sup> per project, or an investment of 41.5 “pesetas” per inhabitant, which were amounts at times well in excess of the annual municipal budget<sup>19</sup>.

As a result, Spanish councils only directly managed those municipal services that did not require hefty investments, and when public works could be undertaken over several years (*e.g.*, the case of the cemeteries). In contrast, the water supply service required substantial investments which could not be spread over several years. Also, more complex industrial and commercial organization was required, so councils ended up delegating services under concession contract to private companies<sup>20</sup>.

## *2) Political instability*

19<sup>th</sup> century Spanish policy was characterized by The Peninsular War, the Carlist conflict and the continuous alternation between Progressive and Moderate ideologies in power. These circumstances greatly hindered the necessary reform of local government finances. The financing of the foregoing wars demanded incomes from anywhere and the Local Revenue resources were increasingly utilized for this purpose. Furthermore, a common practice was to reduce municipal taxes in times of peace, as they were considered an obstacle to the recovery of the State. Arguably, the growing indebtedness

resulting from the centralization of State Finances eventually put an end to the autonomy of Local Revenue<sup>21</sup>.

The arrival of the Liberals to power did not lead to changes in the structure of municipal expenditures. Unlike private companies, which had their own capital and funds, Local Governments issued debt to fund public works. The main item of expenditure was made up of debt interest, which in cities like Madrid and Valladolid was as high as 30%. In the “Ecclesiastical Confiscations of Madoz (1855)”<sup>24</sup>, the State ended up bankrupting municipalities, as the State did not respect its commitments to repaying the public debt which it had forced them to issue. The centralization imposed left Local Governments without their own resources and without the possibility of levying taxes. This led them to surviving on the surcharges they imposed on State taxes, especially since the Restoration<sup>22</sup>.

Finally, irregularities were widespread at the time. Fraud was considered normal in the management of assets and real income and interest and interference in local coffers was more commonplace than desired<sup>23</sup>.

### *3) Ideological Attitudes*

Since the early 19<sup>th</sup> century, in view of the visible relationship between capitalist development and urbanization, liberal politicians tried to direct private investment towards urban centers. The aim was to reduce the limitations and restrictions imposed on Local Governments so that they could implement certain urban services<sup>24</sup>. However, in the first half of the 19<sup>th</sup> century, the private initiative encountered serious difficulties to make large investments. Consequently, the slow modernization of the water supply was not an exceptional case. The same happened to services such as transportation or

street lighting. However, not until the late 19<sup>th</sup> century did the largest entrepreneurship in the water sector begin.

Moreover, the ideological principles of economic liberalism were compatible with the transfer of public service management to private companies. In that context, private companies were considered more efficient due to not having to go through as much red tape as public companies. Furthermore, private companies were not subject to such rigid budgetary control. In contrast, government agencies lacked flexibility and did not have the management capacity or the financial, technical and human resources to undertake the necessary investments. For the liberal politicians of the time, services which did not have a *sovereign* status and, moreover, were of an economic nature, should be managed by private agents, subject only to general laws and free agreement contracts<sup>25</sup>.

## **SECOND STAGE. THE MUNICIPALIZATION OF THE WATER SUPPLY (1939-1984)**

While during the 19<sup>th</sup> century concession and lease arrangements were considered the most appropriate form of urban service management, this began to be questioned on a widespread basis in the first third of the 20<sup>th</sup> century<sup>26</sup>. But while the municipalization of water utilities became more popular in theoretical terms, there were two important obstacles in practice. Firstly, the legislative principles advocated for a liberal conception in the organization of urban services. And secondly, the serious financial problems of municipalities limited any action in this direction.

As the 20<sup>th</sup> century wore on, a strong debate emerged over whether or not to municipalize public services and more specifically, the urban water supply. The offer made by private companies was considered unstable, expensive and inadequate and

potentially contrary to the general interests of the Nation. This controversy was even greater in large cities, where there were major supply problems.

Local services managed by concessionaire companies often suffered major dysfunctions: fraud against Local Finances, breach of contract or lack of renovation and improvement in the quality of service provision. Moreover, in the cases where the end of the concession approached, concessionaires were reluctant to make investments in maintenance and improve the service, as there were more difficulties in the short-term to recover the investment. In addition to this, the lack of supervision and control on behalf of city councils degenerated into situations of shortages, supply cuts and frequent leakages due to aging pipes, leaving a clear picture of efficiency loss by concessionary companies. The fact that private companies monopolized the service showed that efficiency was more a question of market structure than a question of public or private management<sup>27</sup>.

In a legal context, the establishment of the “Estatuto Municipal de 1924” (*i.e.*, a Municipal Law), during the dictatorship of Primo de Rivera marked an important shift in trend. This Municipal Law gave more power to local governments and more control over municipal activities. In other respects, state aids and subsidies to carry out implementation works and improvements in the service began to be granted, which is why the first municipalizations in the urban water supply were observed at this time<sup>28</sup>.

However, this local authority process was intensified during the Franco dictatorship. From 1940, County Councils, Public Utility Commissions, The Ministry of Public Works and some other public bodies began to subsidize the works of the water supply in a higher percentage of the budgets of each work. Besides, the “Reglamento de Servicios de la Corporaciones Locales de 1956” (*i.e.*, Local Authority Service Regulations) was passed, which further increased autonomy and local powers and also caused a sharp

contraction of private capital in the sector and the gradual withdrawal of concessionary companies<sup>27</sup>. As a result, the obstacles which prevented the municipalization of these services were reduced.

Between 1939 and 1969, only 22 companies were established in the private sector, 8.12% of total companies established between 1841 and 1969 (see Table 2). In 1950 private companies accounted for just over 32% of the water supply sector, a total of 1,168 entities for water supply. And in 1970 only 7% of water supply services were managed by private companies, which accounted for 25% of the total Spanish population supplied<sup>28</sup>. However, some private companies established before the Civil War managed to survive the interventionist onslaught (see Table 4) and also staged implementation and improvement works, albeit to a much lesser extent.

*INSERT TABLE 4 ABOUT HERE*

In view of these facts, what factors explain increased public intervention and the return to direct management of the urban water supply in this period?

### *1) Market failures*

The character of natural monopoly in the urban water supply was a common argument to justify government intervention. The lack of interest from private companies to extend their activities beyond densely populated urban areas, obviously due to the lack of profitability, led to an underprovision of the water supply.

Although the problems of water supply in large cities were never entirely solved, the situation in small cities was even worse. On the one hand, private companies were unwilling to settle in these cities because they were unable to exploit economies of scale. On the other hand, city councils put strong pressure on private companies through

tight controls on water rates. Finally, the Councils in smaller cities did not have sufficient resources to carry out the extension and improvement works required. Thus, investments by small municipalities were reduced to the installation of some public drinking fountains and water holes, or the construction of a public washhouse.

To address the backlog in the water supply in small cities, the *National Supply Plan of 1966* estimated an investment required of 120,000 million “pesetas” between 1966-1981. The overall situation was not very propitious. Out of the 1,500 surveyed population centers –header counties and areas of expansion– 32% did not have drinking water supplied to their homes, 48% had no distribution network and 75% had no purification plant. Average water consumption was 102 litres per inhabitant and per day, whereas 60% of the population lacked sewage services and 78% had no sewage treatment plant<sup>29</sup>. In these circumstances, private companies were unable to participate in the benefits of improving this service, so they would not have the same incentives as local public bodies would to invest in expanding and improving the service.

## *2) Incomplete contracts and transaction costs*

Throughout the modernization of water utilities, dominated by the private sector, not only were regulations relatively lax, but City Councils were also unconcerned about whether or not concessionarie companies complied with the terms of the contracts they had signed. However, greater control and supervision of the service would have meant an increase in transaction costs making the provision of the service less efficient. In addition, the financial situation of city councils was not at its best to carry out such practices. It is also very likely that municipalities were not aware of the limitations of

competition in network services, especially for the urban water supply, which is reflected in long concession contracts of up to 99 years.

Furthermore, irregularities were quite common in this period: missed deadlines, few bidders in public auctions, suspiciously easy conditions for contract negotiation, together with a large presence of local politicians in this type of business and no apparent interest in defending the rights of citizens<sup>30</sup>. In short, there was hardly any public control of contract compliance, so private companies, both domestic and foreign, had total freedom to develop their own business policies<sup>31</sup>.

Consequently, not only was there a lack of investment in maintenance and improvement of the service. Municipal governments were incapable of regulating and controlling concessionaires, which meant that many city councils eventually ended up managing the municipal urban water supply themselves.

### *3) Political Processes and Ideological Attitudes*

The process of intense urbanization and industrialization continued in Spain in the 20<sup>th</sup> century. This process had always been associated with a strong increase in water demand for both domestic and industrial uses. Urban water utilities were often confronted with severe systemic problems. To meet this rising demand, large investments were needed in works related to the water supply, such as new projects for dams and long aqueducts. However, the country had chosen a more intense economic nationalism since Primo de Rivera's dictatorship and especially during Franco's regime<sup>32</sup>, regardless of whether or not concessionaire companies could handle these investments<sup>33</sup>.

The "Confederaciones Hidrográficas", *i.e.* Regional Water Authorities, whose mission was to ensure the availability and quality of water for different demands, were created

during the second decade of the 20th century. As a result, the control of the urban water supply was left in the hands of a group of state officials who dictated the policies to be followed. This new situation caused the displacement of private enterprises when making important decisions concerning this sector.

Moreover, in the mid-20<sup>th</sup> century, there was a strong controversy over water rates. Water supply companies argued that the cost of the service should be borne by users<sup>34</sup>. However, during Franco's regime, rates were frozen due to, among other reasons, the need to establish anti-inflationary policies. This move led to a loss of corporate profitability in the sector and also hindered the technological renovation and expansion of supply networks. Both factors were behind the reasons for less concession contracts being signed, as well as the subsequent municipalization of the urban water supply during this period. Finally, concession contracts were due to end in the second half of the 20<sup>th</sup> century, especially for those concessionaire companies which had started their activity in the last third of the 19<sup>th</sup> century. In most cases concessions were not extended. Nevertheless, as water rates could not be updated, the service was sometimes returned to local councils before contracts had expired<sup>35</sup>.

### **THIRD STAGE. THE RETURN TO OUTSOURCING MANAGEMENT**

**(SINCE 1985)**

Since 1985, although more rapidly since the 90s, Spanish city councils have returned to outsourcing the management of the urban water supply, a situation to which the new legal framework has undoubtedly contributed. After the implementation of the law 7/1985 of April 2, which regulated local government, the responsibility for this service was maintained in the hands of city councils. This allowed them to choose between



different forms of governance, mainly, direct management or delegating this task to either a public company, a private company, or a public-private partnership.

Unlike previous periods, we have more and better statistical information on the incidence of different forms of management in Spanish municipalities at this stage.

All this information is based on the design of surveys, although none of these are censuses. This explains why the results obtained from various sources do not coincide entirely.

Figure 1 shows the evolution of different forms of ownership in management during the period of 1998-2004. Data were collected from the biennial survey of the Spanish Association of Water Supply and Sanitation<sup>35</sup>. Of all the available surveys, this one uses the largest sample, making it the most frequently used in the literature<sup>36</sup>, although not without certain problems. For instance, the earliest surveys –from 1992, 1994 and 1996– show erratic results regarding the percentages of people who were served by different forms of ownership in management. This is probably due to the significant bias that these early surveys showed because of the low level of response to questionnaires.

*INSERT FIGURE 1 ABOUT HERE*

Once again the question of what factors explain this upward trend in privatist positions arises. In recent years there have been several empirical studies that have addressed this same issue for the Spanish case<sup>37</sup>. Although the debate is not closed, some of the most frequently cited causes are summarized below.

### *1) Fiscal Restrictions*

The previous phase (1939-1969) is characterized by an economically strong state intervention. As regards the water sector, these interventions resulted in strong control of activity and in a firm policy of state aid. However, despite the activity of the General Management of Water Resources, the processing, construction and operation of works related to the urban water supply was largely insufficient<sup>38</sup>.

In the late '70s. political instability caused by the change of regime, the economic crisis and inflation, eventually determined a major tax reform. The main objectives of this reform were to reduce public debt and curb inflation. This new context was a major constraint on government subsidies to municipalities and city councils were subjected to two important financial constraints. On one hand, a limited capacity to generate their own resources and, on the other hand, a drastic reduction in government subsidies aimed at maintaining and improving the water supply.

Thus, many city councils were in need of approximating the price of service to its real value. Otherwise, simply maintaining the service would have made municipal budgets significantly unstable. From that time onwards, local politicians began to reconsider outsourcing the governance of water utilities as an attractive option. The privatization of the governance of water has often been seen as a low cost option to carry out a direct policy of increases in water rates<sup>39</sup>.

### *2) Cost reduction*

There has been a steady increase in the salaries of government employees since the late 80's. This trend can be attributed to the need to attract a more skilled workforce from

the private sector, but especially to increased trade union pressure in public employment. This situation, along with the financial difficulties suffered by local governments of the time, required facing a cost reduction, and privatization might be the answer to this problem. Especially since the late 70's, the first econometric studies were made in the USA, aimed at trying to link the costs of providing the water utility and how the service is managed, either by the public or private sector. These studies seemed to offer evidence that outsourcing to private companies was associated to lower costs of service provision<sup>40</sup>.

The explanation of this fact is provided by the public choice theory. According to this approach, when the production of public services is monopolized by politicians and bureaucrats, the result is an oversupply of public services and, therefore, a clear situation of inefficiency. The solution put forward in this context is to introduce competition into the market of public services through tenders and auctions to award the running of the service. Nevertheless, the question is whether or not outsourcing a local service through public tenders introduces real competition in the sector<sup>41</sup>.

Another way of reducing costs is to exploit the economies of scale in the sector. The optimal scale in the urban water supply oftentimes tends to be higher than in the municipal district. Therefore a more efficient way would be to extend the service to other municipalities in order to aggregate demand and increase the scale of operations. Thus, a useful strategy to achieve this optimal operational scale could be to contract out the service to a private company.

However, when compared to the previous argument, outsourcing services does not seem to be the only possible way of aggregating demand. Intermunicipal cooperation –*i.e.*, through a consortium– may achieve the same results. A more efficient scale could be achieved through cooperation among smaller municipalities, even though it is true that

intermunicipal cooperation is compatible with both public governance and private management of a service<sup>42</sup>.

### *3) Political Processes and Ideological Attitudes*

Local politicians do not make decisions concerning the management of public services based solely on economic grounds. In the analysis of the motivations that underlie policy decisions in a democratic system, from the *citizen-candidate* approach<sup>43</sup>, the importance of two factors is highlighted. Firstly, political interest, understood as the priority of winning the elections and gaining access to or remaining in power. Secondly, politicians will tend to prefer a series of policies over others in accordance with their ideology of society.

If a politician pursues electoral success, the presence of interest groups may be an important factor in the decision making process. Thus, in those municipalities where the level of trade union membership is high, direct management or outsourcing to a public company will be the most popular choice. In contrast, in those municipalities where there is a well-articulated business network with influential business groups, other privatization options will be more present.

Finally, the ideological orientation of the party that governs the municipality may determine the predominant mode of management. Right-wing political parties are initially expected to promote the outsourcing of water utilities, while left-wing parties would back direct management or delegating management to a public company.

## ARE WE FACING A NEW CHANGE OF TREND?

Throughout this paper a cyclical trend in the management of water utilities in Spain has been proved, similar to that observed in other countries. Since the modernization of water utilities began in the mid-nineteenth century, there have been periods in which the weight of private participation and public management of the service have alternated. Even though a significant volume of the Spanish population is supplied water by a private company since the last cycle of privatizations, there are signs that this form of management is no longer expanding (see Figure 1). Firstly, civil society is becoming increasingly reluctant to new announcements of privatization in the industry. Secondly, the decisions of local governments at the beginning of the century point to new forms of management. In some cities, the expectations for private enterprises have not been met, whereas in other cases the private sector has not achieved the expected profitability of their business.

In this context we wonder whether we are at the beginning of a new phase of the cycle. The beginning of this possibly new cycle sees the trend to privatize being bucked. On the one hand, the number of full privatizations appears to be decreasing in recent years. On the other hand, there are cases of reversion reported by other authors in other places of the world. Some city councils are changing their initial decision to privatize and water utilities are now being contracted back to the Public Sector<sup>44</sup>.

Faced with the option of privatizing, other governance arrangements attractive to local governments are also emerging at the beginning of this new phase<sup>45</sup>:

- Some public companies, such as EMASESA, are showing that it is possible to introduce certain improvements stemming from private management in public companies. The announced increased efficiency of

private over public management in the '70s has not been demonstrated to occur systematically in the management of water utilities<sup>46</sup>.

- The public-private company is acquiring a more prominent role. In this legal form, the capital is shared between a private partner and a public partner, usually the city council. This formula allows leveraging the know-how of the private company in day-to-day running of the service, without losing the more direct control of the social interests of citizens exercised by the public partner. Another advantage of this type of company is that it reduces transaction costs as it decreases the cost of monitoring the performance of private operators.
- Another option that is becoming more popular is the possibility of integrating the management of the water supply into a legal type of consortium. This formula is especially recommended for small municipalities. This cooperation between municipalities allows them to expand the service area and therefore take advantage of the significant economies of scale in industry<sup>47</sup>.

It is undoubtedly still too early to confirm that we are in a new phase of the cycle, but there are already signs that are worth researchers looking into. Not enough time has passed as yet, a more accurate picture of this possible change more likely to be available within a decade, along with more evidence of the factors that are seen as harbingers of change.

## FOOTNOTES

\*<sup>1</sup> **Footnote:** The water boy or vendor providing water (*i.e.*, “aguador” in Spanish), was a profession in Spain that existed well into the 20<sup>th</sup> century. This job consisted of carrying clay jars of water, often with the help of a mule, to the city squares or the higher areas of the city where access to water was more difficult. Ultimately, it was street selling of water permitted by the municipal authorities.

\*<sup>2</sup> **Footnote:** *E.g.* the company “Mina Pública de Aguas de Tarrasa S.A.” was established in 1841.

\*<sup>3</sup> **Footnote:** The “peseta” was the official Spanish currency when performing these calculations.

\*<sup>4</sup> **Footnote:** The Ecclesiastical Confiscations of Madoz recorded a much higher level of sales than all of the above. However, historians have traditionally written much more about the Ecclesiastical Confiscations of Mendizabal. Overall, around 30% of assets were sold to the church, 20% to charity and 50% became city-owned property, mostly from villages.

\*<sup>5</sup> **Footnote:** *E.g.*, the water supply was municipalized in Cadiz in 1927 and in Cordoba in 1938.

\*<sup>6</sup> **Footnote:** One example of a reversion to the local council before contract expiry was the English company Seville Water Work Co. Ltd., which supplied water to Seville and Alcalá de Guadaira.

## NOTES

1. See Germà Bel, and Xavier Fageda.. "Why do local governments privatise public services? A survey of empirical studies" *Local Government Studies* 33 (2007): 517- 534; Germà Bel, and Xavier Fageda.. "Factors explaining local privatization: a meta-regression analysis" *Public Choice*: 139 (2009):105-119.

2. See Jose A. Gómez-Ibáñez. *Regulating infrastructure: Monopoly, contracts, and discretion*. (Cambridge and London: Harvard University Press, 2003): 157-243

3. See José A. Gómez-Ibáñez, and John R. Meyer. *Going Private: The International Experience with Transport Privatization*. (Washington: The Brookings Institution, 1993).

4. R. Andreas Kraemer. *Public and private management. Models and trends, en EC, ed. (2001) Co-operation models for environmental infrastructure projects*. (Brussels: European Commission, 2001): 7-39.

5. Mildred E. Warner. "Reversing privatization, rebalancing government reform: Markets, deliberation and planning" *Policy and Society* 27 (2008): 163-174; Chung-An Chen. "Antecedents of Contracting-Back-In: A View Beyond the Economic Paradigm". *Administration Society* 41 (2009): 101-126.

6. See Juan Manuel Matés Barco. *La conquista del agua: historia económica del abastecimiento urbano*. (Jaén: Universidad de Jaén. Servicio de Publicaciones e intercambio científico, 1999): 41-49

7. See Matés Barco. *La conquista del agua: historia económica del abastecimiento urbano*: 37-40.

8. See Juan Manuel Matés Barco. "The development of water supplies in Spain. 19<sup>th</sup> and 20<sup>th</sup> Centuries" in *The urban growth on two continents in the 19<sup>th</sup> and 20<sup>th</sup> Centuries...edited by Andrea Giuntini; Peter Hertner; Gregorio Núñez*. Granada:



Comares, 2004: 165-177; Simone Neri Seneri. The Construction of the Modern City and the Management of Water Resources in Italy, 1880-1920. *Journal of Urban History* 33 (2007): 813-827.

9. Jean-Pierre Goubert. "Paralelo entre la fecundidad legítima y la mortalidad infantil en Francia en el siglo XVIII" in *Población y cambio social. (Estudios de demografía histórica/ coord. D. V. Glass y R. Revelle, 1978): 321-330*; Thomas F. Glick. "Ciencia, tecnología y medio ambiente urbano: La crisis del saneamiento en el Londres medieval y victoriano". *Ciudad y Territorio*, (1987): 23-33; Werner Troesken. Water and Urban Development. *Journal of Urban History* 32 (2006): 619-630.

10. Francisco Comín Comín. *Historia de la hacienda pública*. (Barcelona: Crítica, 1996).

11. Some authors distinguish three key historical periods in the management of the water supply, see, for example, Juan Manuel Matés Barco. *The development of water supplies in Spain. 19<sup>th</sup> and 20<sup>th</sup> Centuries*: 165-177.

12. See Juan Manuel Matés Barco. *Cambio institucional y servicios municipales*. (Granada: Comares, 1998).

13. See Juan Manuel Matés Barco. "Las empresas de abastecimiento de agua en España: Una aproximación histórico-económica (1840-1970)" (PhD diss. University of Granada, 1997).

14. José Antonio Linatti Bosch. "Las empresas de abastecimiento de agua en España" *Revista de Obras Públicas* 114 (1966): 651-662.

15. A clear example of what is said is found in the relationship between the construction of the port of "Las Palmas de Gran Canaria" and the companies interested in managing the water supply in the city. See, for example, José Miguel Pérez García, and María Teresa Noreña Salto. "Imperialismo europeo, despegue portuario y

*crecimiento económico en Las Palmas de Gran Canaria, 1882-1931" in Las ciudades en la modernización de España: los decenios interseculares: VIII Coloquio de Historia Contemporánea de España" ed. José Luis García Delgado (1992): 461-474.*

16. See Francisco Comín Comín. *Historia de la hacienda pública* (Barcelona: Crítica, 1996).

17. Carmen García García, and Francisco Comín Comín. "Reforma liberal, centralismo y haciendas municipales en el siglo XIX" *Hacienda Pública Española* 133 (1995): 81-106.

18. Ramiro Reig Armero. "El caso valenciano: un proceso de modernización involutivo" in *Las ciudades en la modernización de España: los decenios interseculares: VIII Coloquio de Historia Contemporánea de España" ed. José Luis García Delgado (1992): 461-474.*

19. See Gregorio Núñez Romero-Balmas. "Servicios urbanos colectivos en España durante la segunda industrialización: entre la empresa privada y la gestión pública" in *La empresa en la historia de España. ed. Comín, F. y Martín Aceña, P.* (Madrid: Civitas, 1996): 408.

20. Francisco Comín Comín. *Historia de la hacienda pública.* (Barcelona: Crítica, 1996).

21. Carmen García García, and Francisco Comín Comín. "Reforma liberal, centralismo y haciendas municipales en el siglo XIX" *Hacienda Pública Española* 133 (1995): 81-106.

22. Francisco Comín Comín. *Historia de la hacienda pública.* (Barcelona: Crítica, 1996).

23. Miguel Angel Martorell Linares. "La reforma pendiente: La hacienda municipal en la crisis de la Restauración: el fracaso de la Ley de Supresión del Impuesto de Consumos" *Hacienda Pública Española*. 132 (1995): 143-152.

24. Josep Sorribes Monrabal. "*Las ciudades en la modernización de España: los decenios interseculares*" in *Las ciudades en la modernización de España: los decenios interseculares: VIII Coloquio de Historia Contemporánea de España*" ed. José Luis García Delgado (1992): 461-474.

25. See Juan Manuel Matés Barco. "*Las empresas de abastecimiento de agua en España: Una aproximación histórico-económica (1840-1970)*" (PhD diss. University of Granada, 1997).

26. Evidence of this is found in the second decade of the 20th century, when there is an attempt to municipalize Aguas de Barcelona and the company Aguas Subterráneas del Río Llobregat, which finally did not take place due to the financial inability of the City Council. See, for example, Juan Manuel Matés Barco. *Cambio institucional y servicios municipales*. (Granada: Comares, 1998).

26. Francisco Comín Comín. *Historia de la hacienda pública*. (Barcelona: Crítica, 1996).

27. Francisco Comín Comín. *La empresa pública en la España contemporánea: formas históricas de organización y gestión, 1770-1995*. (Madrid: Fundación Empresa Pública, 1995. Documento de trabajo 9505).

28. Juan Manuel Matés Barco. *Cambio institucional y servicios municipales*. (Granada: Comares, 1998).

29. Matés Barco. *Cambio institucional y servicios municipales*.

30. See Francesca Antolín. "Las empresas de servicios públicos municipales" in *Historia de la empresa pública en España*, ed. Comín, F. and Martín-Aceña, P., (Madrid: Espasa-Calpe, 1991): 283-330.

31. Francisco Comín Comín. *La empresa pública en la España contemporánea: formas históricas de organización y gestión, 1770-1995*. (Madrid: Fundación Empresa Pública, 1995) Documento de trabajo 9505.

32. Some signs of this *economic nationalism* are found in the "Ley de 24 de enero de 1941" (State law), which normalized standard gauge railways and proceeded to create RENFE (The State Railway Company); In May 1945 the State purchased most of the shares of Telefonica (The State Telephone Company) from ITT (an international private company of Telephone and Telegraph) and later the Bank of Spain was nationalized. See Gregorio Núñez Romero-Balmas, and Luciano Segreto. *Introducción a la Historia de la Empresa en España*. (Madrid: Abacus, 1994): 116.

33. See Matés Barco. *Cambio institucional y servicios municipales*.

34. See José Antonio Linatti Bosch. "Las empresas de abastecimiento de agua en España" *Revista de Obras Públicas* 114 (1966): 651-662.

35. See statistical information at Encuesta Nacional de Abastecimiento, Saneamiento y Depuración. Asociación Española de Abastecimientos de Agua y Saneamiento -AEAS- (2000, 2002, 2004, 2006). *Suministro de Agua Potable y Saneamiento en España*. Madrid, Spain.

36. Manuel A. Soler Manuel. "Water Privatization in Spain" *International Journal of Public Administration* 26 (2003): 213-246; Daniel V. Fernández Pérez. "Los ocho mil monopolios del agua urbana" *Revista de Obras Públicas* 149 (2002): 93-102.

37. Germá Bel, and Antonio Miralles. "Factors Influencing the Privatisation of Urban Solid Waste Collection in Spain" *Urban Studies Journal* 40 (2003): 1323-1334;

Germá Bel, and Xavier Fageda. "Reforming the local public sector: economics and politics in privatization of water and solid waste" *Journal of Economic Policy Reform* 11 (2008): 45-65; Germà Bel, and Mildred Warner. "Does privatization of solid waste and water services reduce costs? A review of empirical studies" *Resources, Conservation and Recycling* 52 (2008): 1337-1348; Francisco González-Gómez, and Jorge Guardiola. "A Duration Model for the Estimation of the Contracting Out of Urban Water Management in Southern Spain" *Urban Affairs Review* 44 (2009): 886-906; Antonio Miralles Asensio. "A duration model analysis of privatization of municipal water services" *Revista de Economía Aplicada XVII* (2009): 47-75.

38. Matés Barco. *Cambio institucional y servicios municipales*.

39. Germá Bel and Antonio Miralles. "Factors Influencing the Privatisation of Urban Solid Waste Collection in Spain" *Urban Studies Journal* 40 (2003): 1323-1334.

40. W. Douglas Morgan. "Investor owned vs. publicly owned water agencies: An evaluation of the property rights theory of the firm" *Journal of the American Water Resources Association* 13 (1977): 775-781; W. Mark Crain, and Asghar Zardkoohi. "A Test of the Property-Rights Theory of the Firm: Water Utilities in the United States" *The Journal of Law and Economics* 21 (1978): 395.

41. Germà Bel, and Mildred Warner. "Does privatization of solid waste and water services reduce costs? A review of empirical studies" *Resources, Conservation and Recycling* 52 (2008): 1337-1348.

42. Germá Bel, and Xavier Fageda. "Why do local governments privatise public services? A survey of empirical studies" *Local Government Studies* 33 (2007): 517-534.

43. Martin. J. Osborne, and Al Slivinski. "A model of political competition with citizen-candidates". *Quarterly Journal of Economics* 111 (1996): 65-96.

44. Amir Hefetz, and Mildred Warner. "Privatization and Its Reverse: Explaining the Dynamics of the Government Contracting Process" *Journal of Public Administration Research and Theory* 14 (2004): 171-190; Amir Hefetz, and Mildred Warner. "Beyond the market versus planning dichotomy: Understanding privatisation and its reverse in US cities" *Local Government Studies* 33 (2007): 555-572; Mildred E. Warner. "Reversing privatization, rebalancing government reform: Markets, deliberation and planning" *Policy and Society* 27 (2008):163-174; Chung-An Chen. "Antecedents of Contracting-Back-In: A View Beyond the Economic Paradigm" *Administration Society* 41 (2009): 101-126.

45. Francisco González-Gómez, Jorge Guardiola, and Alberto Ruiz-Villaverde. "Reconsidering privatisation in the governance of water in Spain" *Municipal Engineer* 162 (2009): 159-164

46. Francisco González-Gómez, and Miguel A. García-Rubio. "Efficiency in the management of urban water services" What have we learned after four decades of research?" *Hacienda Pública Española* 185 (2008): 39-67; Germà Bel, and Mildred Warner. "Does privatization of solid waste and water services reduce costs? A review of empirical studies" *Resources, Conservation and Recycling* 52 (2008): 1337-1348.

47. Francisco González-Gómez, and Miguel A. García-Rubio. "Efficiency in the management of urban water services" What have we learned after four decades of research?" *Hacienda Pública Española* 185 (2008): 39-67.

**Table 1.** Water Supply Governance in Spain

	<b>1<sup>st</sup> Stage. The incursion and consolidation of entrepreneurship (1840-1938)</b>	<b>2<sup>nd</sup> Stage. The reversal in the management of the service (1939-1984)</b>	<b>3<sup>th</sup> Stage. Return to outsourcing (Since 1985)</b>
<b>Explanatory factors</b>	<ul style="list-style-type: none"> <li>- <i>Budgetary imbalances and lack of funding</i></li> <li>- <i>Political instability</i></li> <li>- <i>Ideological attitudes</i></li> </ul>	<ul style="list-style-type: none"> <li>- <i>Market failures</i></li> <li>- <i>Incomplete contracts and transaction costs</i></li> <li>- <i>Political Processes and Ideological Attitudes</i></li> </ul>	<ul style="list-style-type: none"> <li>- <i>Fiscal Restrictions</i></li> <li>- <i>Cost reduction</i></li> <li>- <i>Political Processes and Ideological Attitudes</i></li> </ul>

**Source:** The authors

**Table 2.** Urban water supply companies established in Spain (1841-1969)

<i>Period</i>	<i>Number of companies Established</i>	<i>Percentage of companies established</i>
1841-1900	83	30.63
1900-1938	166	61.25
1939-1969	22	8.12
TOTAL	271	100

**Source:** Compiled from Matés Barco (1997).

**Table 3.** Estimation of foreign investment  
in the water sector, 19<sup>th</sup> century Spain

<i>Country</i>	<i>Total investments (in pesetas at the time)</i>	<i>Percent of total foreign investment</i>
France	19,768,750	48.60
England	14,059,900	34.57
Belgium	6,843,750	16.83
<b>TOTAL</b>	<b>40,672,400</b>	<b>100.00</b>

**Source:** Adapted from Costa Campi (1981, p. 83).

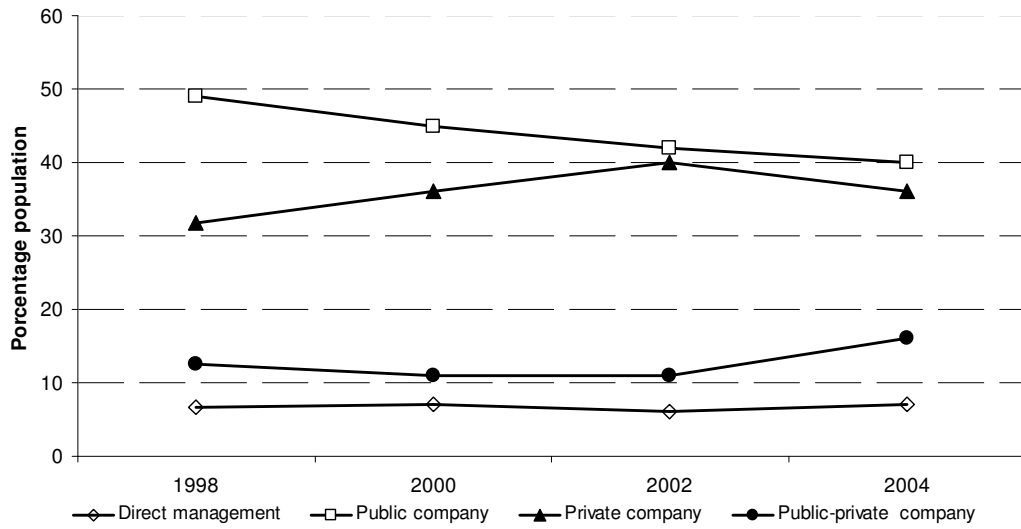
**Table 4.** Survivor companies in 1985

<i>Company</i>	<i>Year</i>	<i>Municipality</i>
Mina Pública de Aguas de Tarrasa	1841	Tarrasa
Aguas de Barcelona	1882	Barcelona
Aguas de Burgos	1889	Burgos
Aguas Potables y Mejoras de Valencia	1890	Valencia
Aguas de Alicante	1898	Alicante
Omnium Ibérico	1902	Alcira
Aguas de la Coruña	1903	La Coruña
Aguas Potables de Palamós	1903	Palamós
Aguas Potables de Barbastro	1905	Barbastro
Aguas Potables de Alcázar de San Juan	1908	Alcázar de San Juan
Aguas y Alcantarillado de Manzanares	1918	Manzanares
Sociedad Española de Abastecimientos	1918	Valencia
Agua de Rigat	1923	Igualada
Gran Acueducto	1928	Villanueva y Geltrú
Aguas del Rio Besós	1934	Barcelona

**Source:** Anuario Financiero y de Empresas en España (1985, pp. 65-73).



**Figure 1.** Importance of different types of water utility management in Spain, 1998-2004 (data in percentage of population)



**Source:** Compiled from database AEAS (Asociación Española de Abastecimientos de Agua y Saneamiento), several years.