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Managing globalisation in public utilities:
public service transnational corporations and the case of the global water industry

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Introduction

How to manage trade in public services and utilities in a globalising world? As part of this larger question, this essay will look at an increasingly important aspect of managing trade, namely the area of privatised public services and the corresponding growth of so-called "public services TNCs". More precisely, the essay will take the water industry as a paradigmatic case for such emerging challenges to managing global trade.

In a first section, we will thus introduce the context of globalisation increasingly leading to liberalisation and the delegation of public services and utilities to the private sector in favour of large TNCs operating in such field. Interest for this challenging process is to be found in the ensuing imbalance between the proposed aim to accomplish an economic activity in the public good and the conflicting conduct of private operators utterly dictated by market rules and profit seeking considerations.

In the second section, we will develop the above subject, with reference to water supply and sewerage and the conduct of major TNCs in this critical sector of world trade. In particular, tendency to concentration through horizontal and vertical integration, restrictive practices to competition and abuse of corporate power will be presented as determinants of restricted and discriminatory access to water as well as reasons for regulating corporate misconduct.

In the third section, the existing regulatory framework in which large water TNCs operate at national and international level will be examined. As for national regulation, the two paradigmatic cases of the French and British systems, both inspired by the neo-liberal doctrine, will be criticised in their theoretical and practical functioning. Relevant international rules treating TNCs' conduct and international competition in public procurement will also be considered, altogether with the crucial issue of product and production standards in the water industry.

In the fourth and final section, all considerations previously raised will be summed up in proposed alternative policies to the prevailing neo-liberal approach in operating water utilities. All proposed policies will address both TNCs and public enterprises and their relative roles, in the attempt to indicate innovative solutions oriented to sustainable development and a "level playing field" for suppliers and consumers.

1. The context: globalisation, privatisation of public utilities and TNCs' growth

Since their relatively recent appearance, widely recognised as taking place in the second half of the nineteenth century, modern transnational corporations (TNCs) have fostered the international division of production (Muchlinski, 1995: 19-33). Comparative advantages assured by the production and distribution of factor inputs and finished goods on a global scale are said to be the main reason for the success of TNCs (Salvatore, 1992: 464-466; Pottier, 1991: 61-63), which have hence indissolubly linked their fortune to the consolidation and expansion of globalisation[1].

Globalisation is characterised by an extremely high, continuously growing degree of interdependence among national economies. Two fundamental indicators of one country's involvement in the global economic system are the scope and extent to which this country tends to rely on inward/outward foreign direct investment (FDI) and the depth of integration with other economies. Globalisation thus appear to be accompanied by the graual though unstoppable elimination of boundaries to local, national markets becoming increasingly integrated.

The latter process appears to be driven by large TNCs, whose strategies pursue higher degrees of efficiency in response to mounting competition and increasingly lead to the integration of markets in consequence of growing flows of production factors across national boundaries (UNCTAD, 1994: 117-146; OECD, 1994b: 3-5). In this regard, after the increase in FDI registered in the 1980s, respectively from 1979 to 1981 and from 1986 to 1990, a new dramatic rise is being currently witnessed with record inflows totalling US$ 349 billion in 1996, corresponding to a 10 percent growth in relation to the preceding year. As a result, the stock of FDI amounted to some US$ 3.1 trillion in 1996, as compared to US$ 2 trillion in 1993 and US$ 1 trillion in 1987 (UNCTAD, 1997: 3-28)[2]. Expansion strategies of leading TNCs in the light of the perceived in-

[1] To this extent, it is significant that executives of the leading industrial TNCs perceive their firm's degree of transnationality as the source of a substantial part of the enjoyed competitive advantages (Dunning, 1996). On the nature of globalisation, see OECD (1994b); UNCTAD (1994: 117-160).

[2] In particular, FDI flows are to be distinguished between inflows and outflows, the latter accounting for US$ 347 billion in 1996 due to a 2 percent increase. The difference between FDI inflows and outflows can be explained with the reinvestment of profits and revenues generated by FDI, which are calculated as inflows. It should also be noted that from 1982 to 1994 FDI stock grew twofold as a percentage of global GDP (Gross

ternational economic conditions constitute the principal determinant for this upcoming surge in the transfer of productive resources to foreign markets (UNCTAD, 1996a: 36-37)[3]. A demonstration of the highlighted trend lies on the fact that FDI is mainly emanating from large TNCs[4], not to consider other forms of capital allocation in international markets such as portfolio investment[5]. Another indicator of the aggressive expansion of TNCs is given by the fact that sales and assets owned by such firms are growing more rapidly than world GDP, so that significant shares of global wealth will predictably be more and more concentrated in the hands of transnationally organised enterprises, namely the largest TNCs.

This also suggests that TNCs are imposing themselves as the prevailing model of corporate structure, being adopted by a growing number of undertakings based in developing and transitional countries under the encouragement of the attained performance (UNCTAD, 1997: 3-28)[6]. Yet, the "transnational corporate" model is more and more affecting the organisational structure and the behaviour of publicly owned enterprises, respectively turning to "corporatisation" as well as to the internationalisation of their activities so as to achieve enhanced competitiveness (Hall, 1998a: 67-68, 75-77). The above outcomes can indeed be explained by referring to two major components of the globalisation process. First, in a globalising world, the marketplace tends to be accepted as the most efficient allocator of all kinds of resources irrespective of their private

Domestic Product), while in 1996 the increase in FDI inflows was superior to the 6.6 percent rise in the nominal value of the world GDP as well as to the 4.5 percent rise in international trade.

3 A few observations are necessary in order to assess the scope of FDI in the overall process of growing global trade. FDI can be considered as a substitute for, or a complement to, arm's length trade. In a protectionist world, transplants allows the elusion of trade barriers such as tariffs and quotas on imported goods while, in a liberalised world, FDI facilitates control of a given market thanks to an easier adaptation to consumer preferences and a close location to consumers. Being the world not fully protectionist nor liberalised, firms' decisions on whether to resort to FDI or arm's length trade are commonly taken after the evaluation of costs and benefits related to the two options, including also transport costs of traded goods. For a comprehensive analysis of the present interlinkages between FDI and trade, see UNCTAD (1996: 73-93).

4 "The world's largest 100 TNCs (not including those in banking and finance) ... are estimated to account for about one-third of the combined outward FDI of their countries of origin", where the countries in question are all developed (UNCTAD, 1994: 3-9).

5 As far as the financing of economic development is concerned, in recent years funds from financial markets to private sector investments exceeded public sources of capital. Transfers of private capital are now estimated to represent four-fifths of the total flows of resources to developing and transitional economies (MIGA, 1997: 12).

6 TNCs operating worldwide are approximately 44,000 with some 280,000 foreign affiliates. On the increasingly important role played by TNCs originated in developing countries, see UNCTAD (1997: 28-38), (1996: 29-36). On the emergence of TNCs in newly industrialised countries, see Muchlinski (1995: 28-32).

or public ownership. Second, in a globalising world, the market tends to be the world itself. The pervading presence of TNCs in today's economy is therefore producing an acceleration in the restructuring of the penetrated industries and markets as well as in the change of the competitors' behaviour.

1.1. Preliminary definitions and clarifications

Before proceeding to observe the impact of globalisation on a number of economic sectors traditionally reserved to the intervention of the public hand and the consequent restructuring of those industries, some preliminary definitions and clarifications may be necessary. These will regard the economic and institutional processes deriving from or related to the apparently unstoppable path of globalisation, the main actors involved in the entailing changes and their fields of operation.

One of the foremost features of globalisation, liberalisation of international economic transactions consists of the progressive removal by governments of regulatory barriers to the free transfer of resources and thus to market access (UNCTAD, 1994: 279-312; OECD, 1994b: 4-7). A comparable though more specific concept, deregulation is conceived as the abatement by national or supranational governmental authorities of rules and monitoring programmes apt to control the conduct of all subjects active in a definite industry (Paddon, 1998: 60). The growing importance of the supranational origin of deregulation is clearly demonstrated by the example of the European Union (EU) imposing to member governments the deregulation of key sectors, such as telecommunications and predictably electricity, within the internal market. For the purposes of this essay, we define privatisation as the complete or partial transfer to the private sector of ownership of or control over publicly owned enterprises or assets, after payment of a price or other forms of compensation. This notion encompasses the involvement of private actors in the contracting out of public services through concession or licensing agreements as well as contractual relationships falling within the category of BOT (Build, Operate and Transfer) agreements (Sader, 1995: 2)[7]. It is hence intended that the "corporatisation" of public enterpris-

[7] Under BOT agreements, the concession to construct and operate a public infrastructure or utility is awarded to a private company, the project company, for a long-term period. The concession period is calculated so as to allow the investor to achieve full cost recovery for the construction and operation of the facilities, for the financing of the project as well as a return on the basis of the agreed percentage. At the end of the concession period, the project company transfers the operated infrastructure or utility to the local government, so that the cycle – build, operate and transfer – is complete. According to the introduction of varying elements, the BOT framework can change in BLOT (Build, Lease, Operate and Transfer), BOO (Build, Own, Operate) and TOT

es, namely the change of legal status from administrative department to independent company, does not necessarily correspond to the transfer of ownership to private subjects, albeit it often precedes privatisation (Hall, 1998a: 67-68)[8].

As for the main actors in the scenario of globalisation, a TNC is defined as a company owning or controlling production, services or facilities in at least two countries. It is intended that we will mainly refer to TNCs as to the so-called "public service TNCs", or those large TNC offering public services and utilities to local communities. Due to their increasing participation to international trade, public enterprises will also be considered. In its more updated conception, a public enterprise is "broadly defined as including any undertaking which has its own accounts, has income derived from services provided (unlike defence, tax collection, social security), and is owned wholly or partly by central, regional or local government" (Hall, 1998a: 63).

The activities performed by private and public enterprises herein taken into account coincide with the provision of a series of public services and utilities generally related to as network or infrastructural services. Those sectors include electricity and gas, telecommunications, ports and airports, transport, postal services, waste management, to end with water supply and sanitation. However, it should be noted that the list is not exhaustive of all public services in which public and private operators are jointly involved, as other relevant areas as health care are not comprised. Public utilities are recognised to cover an essential function not only for the economy, but also for the whole society, so to be considered of general interest. In a recent Communication, the EU Commission has asserted that such services "play an important role as social cement over and above practical considerations ... This implies certain basic operating principles: continuity, equal access, universality and openness"[9]. While the first three operating principles appear as preconditions to the public purpose of the provived services, openness seems to address operators in order to allow the maximum efficiency and effectiveness of the overall industry. In fact, the low contestability of the market is a matter of concern over natural monopoly and the ensuing social costs due to the monopolistic behaviour of public utility operators.

(Transfer Of a Transfer) agreements. For the practice of BOT agreements and such other instruments functional to the private financing of infrastructure, see IFC, 1994.

8 For a different view, see Paddon (1998: 59-60).

9 Communication from the EU Commission: Services of general interest (Brussels, Commission of the European Union, 11 Sep. 1996), p. 3. As cited in De Luca, L. (1998) *Labour and social dimensions of privatization and restructuring (public utilities:water, gas, electricity)*, Geneva (Published for the International Labour Organization), *vii*.

Finally, market contestability is the openness of a given market or the degree of entry for emerging competitors and exit for undertakings already operating in the market concerned. The ongoing liberalisation of FDIs is generally believed to foster the contestability of markets entered and to thus increase competition, unless entering TNCs exercise their market and corporate power in the form of restrictive practices (UNCTAD, 1997: 133-163). In most public utilities, the low contestability of the market, grounded on high barriers to entry in terms of start-up capital, critical firm dimensions and developed technology, furthered by horizontal consolidation of incumbent undertakings, notably reduces incentives to competition while granting perspectively enduring oligopoly positions at international level. Tendency to extremely low contestability is a cause of natural monopoly market structure, given by under-additive cost functions implying that the cost of the factors used in the production cycle are minimised when only one enterprise is operating in the market (Plane, 1998: 38). Both low market contestability and natural monopoly justify public intervention, as they prove to be a threat of monopolistic or quasi- monopolistic behaviour resulting in excessive pricing, extra profits, low quality of or limited access to the service provided.

1.2. The stream of public utility privatisations and its sources

Policies reflecting the trend towards enhanced liberalisation and aimed to face mounting public debt burdens have inspired the massive privatisation of state owned enterprises (SOEs) and other publicly owned enterprises, i.e. municipal, at universal level. In this sense, partial or complete divestiture of public enterprises is the most visible manifestation of the contemporary crisis affecting the state and its role in assuring continuous, equal and universal services to the citizenship. Since the early 1980s, this has occurred with different timing and dynamics in developed[10] as well as developing countries and, after the collapse of the socialist bloc together with the model of command economy, also in Central and Eastern European (CEE) countries[11]. Although the determinants of such a shift in public policies may vary from developed to developing and transitional countries, budgetary limitations are closely related to the ideological and political pressures exerted on decision-makers.

[10] In particular, the surge in the privatisation of public services and utilities has begun in some developed countries traditionally favourable to market, such as the USA, the UK and New Zealand.

[11] For the purposes of this essay, we consider CEE countries as all the borrowing members of the European Bank for Reconstruction and Development.

1. The context: globalisation, privatisation of public utilities and TNCs' growth

In general, financial constraints have modified public expenditures in nature and extent, often leading to underinvestment which paved the way to the delegation of public utilities to the private sector, in the search of efficient management. In developed countries, the fall of public spending results of endeavours and commitments to produce a more internationally competitive environment. A clear example of this are the convergence criteria required to be met by the Maastricht Treaty as a precondition to the European Monetary Union (EMU). On the other hand, in most developing and transitional countries, the curb on interventionist policies primarily derives from the urge to contain intolerable external debt or deficit (Plane, 1998:12-13; Saravia, 1998: 177-179). Moreover, in the absence of alternative incomes, revenues generated from infrastructure divestiture are functional to restore public finances, thus explaining the significant extension of private sector involvement in the operation of public utilities among developing countries. Because of the serious debt crisis reaching its peak from 1982 and 1984 and the controversial implications in the official development assistance (ODA)[12], the dearth of financial resources impelled those latter countries to considerably intensify the efforts to attract foreign investments through the adoption of permissive legislation. So that in 1992 the overall amount from public enterprises and assets divestiture exceeded that in developed countries for the first time (UNCTAD, 1994: 24-26)[13].

Choices for privatisation of public utilities are thus respondent to financial limitations to public action, but cannot be entirely explained without contemplating the ideological and political pressures abundantly exerted by some national governments, international financial institutions and lobbies representing the principal beneficiaries of this massive transfer of resources, namely the largest TNCs. Since the election of Ronald Reagan and Margareth Tatcher respectively as President of the USA and Prime Minister of the UK, those two countries have unceasingly promoted the idea of a reduced public role in the economy in favour of private capital (Saravia, 1998: 177-179). The prospective outcomes of the exported neo-liberal pattern are patent when considered the situation of the UK, with its relative lack of public enterprises due to legislation discouraging municipal enterprises and large scale privatisation programmes. In particular, the restrictive provisions of the PSBR to the borrowing of publicly owned enterprises happen to be a major restraint to make the necessary investment, thus encouraging privatisation as the only solution to the lack of public finance (Hall, 1998a: 77-78)[14].

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[12] On the debt crisis and ODA respectively, see HOGENDORN (1990: 188-224; 149-158). While FDI inflows to developing countries and transitional economies increased from US$ 25 billion in 1990 to US$ 100 billion in 1996, in the same period ODA ranged between US$ 40 and 50 billion per year (MIGA, 1997: 12).

[13] The total sales volume from privatisations from 1988 to 1992 amounts to US$ 185 billion.

[14] This seems to be particularly the case of London Underground, as compared to public enterprises in EU

As for telecommunications, subsequent to the introduction of domestic market deregulation, the US government devoted generous efforts to influence its counterparts in the course of negotiations and debates taking place within multilateral frameworks as the International Telecommunications Union (ITU) and the General Agreement on Tariffs and Trade (GATT). Supplementary strains came from TNCs, organised in the so called "user communities" to augment the respective bargaining power in order to obtain enlarged business opportunities, with the purpose of expanding economies of scale and consolidating market control by means of the developed technology. As a result, an increasing number of developed and developing countries are adopting liberalisation policies leading to the privatisation of national telecommunication utilities, thus widening the playing field for major private operators (Martin, 1993: 106-114). While the UK privatised in the early 1980s, the other member states of the European Community altogether with Switzerland and Norway have deregulated the sector in question since 1 January 1998. Again, in other sectors as electricity, inducement to open up is to mainly ascribe to US initiatives, at bilateral level through the action of the United States Agency for International Development (USAID) and within international forums such as the North American Free Trade Agreement (NAFTA) and the Asia-Pacific Economic Co-operation (APEC)[15]. Moreover, both the International Monetary Fund (IMF) and the World Bank have impelled outnumbered developing countries to adopt privatisation measures by means of Structural Adjustment Programmes imposing cost cutting in government (PSRC, 1996: 5-9).

countries. The author stresses that the convergence criteria set in the Maastricht Treaty are only constraining general government financial deficit, with the exclusion of commercial operations. So that public enterprises resorting to financial markets to finance investments are subjected to the same conditions as private undertakings. See also Hall (1998b: 130-131).

[15] APEC member countries are 18: Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; the Philippines; Singapore; Chinese Taipei; the USA.

Table 1. Infrastructure privatisations in developing countries, 1988-1995
(Millions of US dollars and percentage)

Industry	Total revenues	Foreign investment	Foreign investment as a share of total revenues
Utilities	11,130	3,994	35.9
Power/gas/electricity	10,903	3,905	35.9
Water and sanitation	227	89	39.4
Telecommunications	21,293	14,253	66.9
Transport	7,518	2,178	29.0
Airlines	6,106	1,739	28.5
Railroads	453	99	21.8
Road transportation	431	64	14.8
Ports and shipping	528	276	52.3
Total	39,941	20,425	51.1

Source: UNCTAD (1996a: 25) from the World Bank, privatisation database.
Note: Preliminary estimates.

Accordingly, TNCs have benefited from augmented opportunities to expand their activities, not only due to the extension of existing markets but also for the opening of sectors previously believed to represent public natural monopolies, which therefore tended to exclusively fall within the competence of public enterprises[16]. The above statement holds particularly true for public services and utilities whose critical importance for the national welfare had long induced central governments to protect publicly owned or controlled operators against private competition. In order to perceive the volume of the business in question, it should be noted that approximately one fifth of capital formation in OECD countries happens to be in infrastructure (OECD, 1994a: 3)[17]. Furthermore, table 1 above shows that revenues generated from infrastructure privatisa-

[16] As for such industries as oil, air transport, telecommunications and utilities, in 1994 the scheduled sale of SOEs in Western European countries only was estimated as generate the transfer of US$ 150 billion to the private sector by 1998 (UNCTAD, 1994: 24-26).

[17] The Organisation for the Economic Co-operation and Development (OECD) is a regional organisation, whose

tions in developing countries from 1988 to 1995 amount to some US$ 40 billion, variably distributed among public utilities, including power, gas and electricity as well as water and sanitation, and other public services such as telecommunications and transport (UNCTAD, 1996a: 25)[18].

Privatisation of public services and utilities proves to be a lucrative business especially for TNCs, as it is indicated by figures and shares of foreign investors' participation to public enterprises' divestiture[19]. This is not only due to the acquisition of extremely rentable positions after payment of a one-off price, but also to the initiatives introduced by governments in order to attract potential private investors. For instance, the price paid for French, UK and Spanish water utilities has been estimated as inferior to the market value. In addition, previous to the privatisation of public enterprises, the British government has repeatedly followed the practice to annul significant shares of the suffered debt (Hall, 1998b: 130). Similar findings suggest that privatisation implies a substantial transfer of resources from the public to private operators and induce to concentrate on the resulting industrial restructuring and the consequences for the public interest.

main purpose is to promote the principle of market economy. The 26 member countries are Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, the UK and the USA.

[18] Several indicators show the current trend in increased volumes of business from the contracting out of public services and utilities. First, revenues generated from public utility sales in developing countries from 1988 to 1993 accounted for US$ 32 billion, corresponding to one third of total revenues from privatisation programmes. In detail, US$ 15.5 billion sales were in telecommunications, US$ 9.6 billion related to energy supply, while sales of national airlines alone were worth US$ 5.4 billion. In a regional perspective, a remarkably intensive activity of governmental authorities in privatising SOEs providing public services is to be noticed in Latin America & Caribbean and in East Asia & Pacific. Infrastrucure divestment in those areas generated nearly 50% of all revenues from privatisations, respectively totalling US$ 55.2 billion and US$ 16.2 billion (Sader, 1995: 9-11). Second, as far as the coverage of political risks affecting FDI in developing countries is concerned, the share of infrastructure in MIGA's portfolio by industry has grown from 4 per cent in fiscal year 1994 to 17 per cent in 1997 (MIGA, 1997: 18; 1996: 16).

[19] On the lucrative aspect of privatisations, see Martin (1993: 95-105).

1.3. International restructuring of public utilities, repercussions and related concerns

Entry of large TNCs in the provision of public services has led to a considerable restructuring of the respective industries, generally attributable to different approaches adopted in the operation of utilities[20]. Industrial restructuring is made possible by technological innovations restricting the scope for the traditional natural monopolies, according to the neo-liberal belief of unique efficiency gains due to international competition. However, the "revolutionary" conduct of private corporations in the management and provision of public services and utilities has not only affected the structure and functioning of the respective industries, but also the behaviour of publicly owned competitors and their attitude towards their public and social mandate. As previously stated, the reason for public natural monopolies in public services and utilities can be identified in the non contestability of market, in the strategic importance of the industry for the whole society as well as in the public ownership of input resources and/or infrastructure in the core production cycle. Conversely, technological and organisational innovations introduced in the 1980s have modified under-additive cost functions in many sectors of operations, so to maximise the efficiency of the overall industry in presence of more than one enterprise competing internationally (Plane, 1998: 13-14). In particular, the neo-liberal doctrine has stressed the potential advantages of full liberalisation and pricing at cost for producers and operators as well as for consumers, benefiting from cheaper and higher standard services provided in entirely flexible markets. Table 2 displays the structure of some utility industries as emerging from the above mentioned innovations.

Table 2. Structure of utility industries

Sector	Infrastructure (natural monopoly)	Production/services (open to competition)
Electricity	Interconnection and distribution	Power stations
Gas	Gas pipelines and distribution	Gas wells
Water	Distribution and sewerage	Water treatment
Railways	Rails	Trains and transport services
Air transport	Airports and airspace	Aircraft and transport services
Telecommunications	Cables, satellites, frequencies	Value-added services

Source: Plane (1998: 14) as reproduced from Bouttes and Haag (1993).

[20] For a summary of the forces and considerations leading to the process of infrastructure restructuring, see Conklin and Lecraw, 1997: 1-30).

However, technological and organisational changes represent only a partial explanation of the undergone restructuring, if not considered the commercial motivations driving public service TNCs. Unlike public enterprises, private companies participating to the globalisation process determine market fragmentation in that, while seeking scale economy dimensions, they also move towards enhanced specialisation so as to control specific market segments (Pottier, 1991: 61-63). For instance, in the gas and electricity sector there is an evident shift to separating activities related to energy generation, transmission and distribution, although the disposal of electricity grids or gas pipeline networks by SOEs was commonly deemed as creating natural monopolies (Hemming and Mansoor, 1988: 14-15)[21]. A comparable case is offered by the British and Swedish railway system, where ownership and operation were split subsequent to privatisation. Similarly, the fragmentation of a sector, such as for example the postal service market, allows competitors, such as DHL and FedEx, to seek out highly specific segments, allowing them to establish themselves in extremely profitable niches.

Unbundling, as the separation of the various activities carries out by the divested public enterprises is called, is generally a step that precedes privatisation. This aims to reduce the proposed price of the operating units to be transferred to the private sector, as even the largest corporations or consortia seldom dispose of the necessary means to the whole purchase of major public enterprises, especially if SOEs, or cannot afford to bear the related financial risks[22]. On the other hand, separate auctions for the unbundled undertakings allow owning authorities to increase the aggregate revenues obtained from the divestiture of public enterprises, so that unbundling can also be functional to alleviate public debt or budget deficit as the case might be.

Having said that, it is highly questionable whether liberalisation, deregulation and privatisation have produced the alleged efficiency gains of open international competition in public utilities. Evidently contradictory, the concrete effects of restructuring have to be cautiously assessed. First, table 2 shows that, given the present level of technology, relevant sectors of public utilities are still subject to a natural monopoly market structure so that public intervention is essential,

[21] Such a separation of activities is provided for in the European Community by the legislation regulating liberalisation in the sector, but the rationale is the prevention of excessive concentration due to vertical integration rather than the adaptation of the regulatory framework to the market led conduct of economic actors (Heerings, 1994: 5-6). As for concentration and vertical integration in particular, see pp. ??? (specify where in the chapter).

[22] When public entities are deliberately excluded from tendering procedures, the fragmentation of a large public enterprise in several operating units therefore allows a wider participation of private undertakings to the auction.

especially in case of "private" natural monopolies when operations are delegated to private subjects. In the presence of natural monopoly, some form of competition may be introduced through periodic bidding procedures, but the effectiveness of the so called Demsetz competition is usually limited by the typical practice of long term agreements in contracting out. Regulation therefore appears as a response to the threat of monopolistic behaviour, although its functioning may be altered by the asymmetry of information between the regulator and the operator[23]. The situation in which the monopoly holder faces no regulation is however characterised by the "deadweight" loss, so termed to describe the ensuing loss of welfare (Plane, 1998: 38). Second, even in the sectors open to competition, market contestability tends to remain low due to the required capital, technology and critical firm dimensions. Information is also crucial and the relatively limited number of competitors facilitates oligopolistic conduct; whereas the absence of appropriate regulation is followed by moves towards concentration and the entrenchment of new monopolies.

In this sense, the Telecommunications Deregulation Act of 1996 providing for full deregulation in the US seems to have unleashed monopolisation rather than open competition. As a matter of fact, corporations in which AT&T had been unbundled have by now shown a remarkable attitude towards merging in a giant conglomerate with no regulation of competition nor service supervision. Indeed, the alleged collusive conduct of those firms has led to an increase in rates contrary to the expected tariff cuts (Lowry, 1997; Mills, 1997). Similar processes are being acknowledged world-wide, with very few major operators reckoned to remain on the global market in the next years due to concentration. Despite the more consistent though declining technical difficulties in trading electricity across national boundaries, the pattern of pretended liberalisation in telecommunications is being reproduced in other sectors, as it is proved by deregulation, privatisation and concentration also occurring in the electricity industry. As in the telecommunications sector, privatisation of electricity utilities and the pursuit of profitable rate structures by operators have led to significant price increases for small consumers and to concurrent reductions for large consumers as TNCs happen to be. Although the overall prices have been reduced as a consequence of competition, there is evidence of an unbalanced distribution of benefits as the bargaining power of consumers is proportional to the purchased amount (Martin and White, 1998: 221-226). As it has been pointed out (Martin, 1993: 106-114), this clearly corresponds to the reversal of cross-subsidies, deployed by public enterprises, in favour of the better-off and of the entities which have long been demanding for such a transnational shift of policies in the provision of public services. It now appears that privatisation and the international restructuring of

[23] The asymmetry-of-information problem is due to the fact that the regulator has rarely access to the complete information possessed by the operator.

public utilities does not only correspond to a substantial transfer of resources from the public to private operators, but also to an undue subtraction of welfare.

Yet, concerns for the outcomes of public utility restructuring are not only limited to direct but also to indirect repercussions on the public good, due to the induced variations in the conduct of public enterprises. In theory, as a consequence of the international industrial restructuring, the most competitive enterprises are expected to edge out of the most appealing market segments all those which do not enjoy equivalent comparative advantages. This implies that, in the absence of a comprehensive and effective international competition policy, deregulation or inadequate regulation at national level will offer TNCs opportunities to restrain public enterprises' competence to segments of low or none profitability. Under the menace of the so called "cream skimming" effect (Kerf, 1995), public enterprises have in several cases adapted their organisational structure and their behaviour to respond to market signals and therefore compete on the basis of comparative advantages. Until recently, the most diffused legal status of public enterprises used in fact to be that of departments or divisions within public administrations, as in the case of the British DSOs at local level (Hall, 1998a: 67-68). In a liberalised environment, such organisational structure hardly enables public enterprises to compete with large TNCs on a "level playing field", due to clear disadvantages suffered in attaining commercial objectives. First, due to their national or local range of action, public enterprises do not dispose of the required experience to operate on an international basis so as to benefit from adequate economies of scale. Second, the purpose to accomplish a social function by providing a service to the public on equitable and non-discriminatory conditions does not correspond to the pursuit of profit as the only indicator of performance. Finally, far more than large TNCs, public enterprises happen to be subjected to political interference which can distort the economic and occasonally the social efficiency of their actions. Accordingly, corporatisation or the passage from the previous legal form to that of independent undertaking with retained public ownership, altogether with the adoption of commercial management and accounting practices, have generally facilitated the competition between the public and the private sector (Paddon, 1998: 59).
In an increasing number of public utility sectors and markets, public enterprises are competing successfully with their privately owned opponents, spreading their operations both nationally and internationally although many of them still have to abide by regulatory restrictions (Hall, 1998a: 71-78). A remarkable though not unique example, the French SOE Electricité de France (EDF) is in a position to periodically pay dividends to the state. Furthermore, empirical evidence from several industries, i.e. electricity and water, indicates that public enterprises attain no inferior standards of economic efficiency and cost-effectiveness than privatised companies (Hall, 1998b: 127-129). It is hence possible to infer that the reforms undergone by modern public en-

terprises have undermined the major neo-liberal argument in favour of privatisation, that is to say the enhanced operating efficiency. Notwithstanding, many profitable public enterprises have been and are in the process to be sold, as in the paradigmatic case of the municipal electricity, gas and water utilities of Berlin (Hall, 1998a: 79-80). The observed trend manifestly strengthens the conviction that the real motivations of public utility delegation to the private sector are of budgetary and financial rather than functional nature. As in many instances the increased efficiency and cost-effectiveness attributable to the corporatisation and commercialisation in the management of public enterprises are not valued enough to elude the transfer of ownership or contracting out to the private sector, considerable opportunities are lost for the correct operation of utilities in the public interest. Even after the introduction of commercial considerations in the performance of their activities, public enterprises appear to retain a more pronounced attitude to contribute to the accomplishment of social and environmental policies than private corporations. The diversion of resources to non profitable destinations explains how the costs related to the adjustment of commercial strategies may be rewarded with some form of compensation (Hall, 1998a: 80-81). In effect, modern public enterprises respond to market rules as well as to diffuse expectations of intervention in the common good. However, it is predictable that in the absence of comparable compensatory mechanisms the trade-off between commercial and social considerations would inevitably hinder the fulfilment of public enterprises' mandate, with a consequent prejudice against their nature and existence as such.

As shown above, the introduction of market-led considerations in the management of public services and utilities involves the risk of frustrating the legitimate interest of citizenship to be assured minimum standards of life regardless from the ability to pay prices imposed by private monopolists or oligopolists. In other words, the persistence of private natural monopolies and the tendency to concentration in the field of public utilities bears the threat of market failure, potentially evading the liberal argument of privatisation as a catalyst for reduced costs and increased productive and allocative efficiency (Hemming and Mansoor, 1988: 12-15). A challenge for policy-makers to manage the globalisation process, the possibility of conflicts between private and public interests affecting the domain of public utilities calls for renewed attention to the conduct of TNCs. In addition, the redistributive unbalance produced by the international industrial restructuring necessitates the implementation of alternative policies to the neo-liberal approach in the operation of public utilities.

2. International restructuring and concentration in water supply and sewerage

In this chapter, we consider the case of the global water industry as paradigmatic for the public interest at stake rather than for the scale of the restructuring processes. However, a few historical remarks reveal the striking endurance of private operators' efforts to determine a similar global restructuring to that experienced in other public utilities. In particular, concentration in the water industry takes the form of a territorially fragmented though enlarged diffusion, simultaneously fostered by and laying the ground for typically monopolistic behaviour and collusive practices. Finally, the conduct of large TNCs and the ensuing distortion of the proposed purposes of such public utility are enabled by the legal framework at national and supranational level.

2.1. The rationale for treating the water sector: water as an essential resource

Table 1 suggests that, at global level, the aggregate amount of revenues from the privatisation of water utilities is minimal as compared to the transfer of capital involved in other infrastructure sectors[24]. Nevertheless, keen attention to the analogue trend of international restructuring of water provision at global level is indispensable. Such a focus is urged in the light of the tremendous impact of water supply and sewerage on living conditions for rural and urban communities, not to neglect the function of water as a precondition to economic and social development (EBRD, 1996: 30).

The strategic importance of water supply and sewerage for the whole society is given by the considerable extent to which the continuous, equal and universal access to the above service affects the subsistence and quality of life, not to mention the social stability, of local communities. Clean water is in fact used for drinking as well as for sanitary purposes, as its pureness plays a fundamental role in protecting the public health, i.e. in the prevention of epidemic diseases. In the latter sense, the demand for improved sanitation after protracted underinvestment in infrastructure is largely growing in outnumbered countries, not excluded the most advanced economies. Furthermore, mainly due to industrialisation and pollution, newly acknowledged microorganisms are becoming resistant to water treatment. This was shown by the case of the water-borne virus cryptosporidiosis infecting more than 400,000 people and causing the death

[24] See Table 1 above, page 10.

of more than 100 in Milwaukee in 1993, together with the observed increase in infections caused by opportunistic pathogens. Concerns are also related to the inadequacy or unhealthy conditions of water supplies in developing countries[25].

On the other hand, water intervenes as a basic input in the production cycle ranging from agriculture to electricity and power generation to end up with the heavy industry (WIUC, 1985: 6-7)[26]. Principally as a result of the industrial use of water, overuse, misuse and pollution are the major causes of scarcity for this hardly, and thus costly, renewable natural resource[27]. Whether in Russia the use of water per person may reach 500 liters per day, including industrial uses, in the USA the average amount is 1,300 liters per person, per day, excluded industrial uses. While the use of renewable water, namely rain and snow, is currently limited to 10 percent surface water, characterised for being not renewable, is more and more contaminated from industrial pollution. As the consumption of surface water is faster than its replacement, recycling and desalinisation are likely to become relatively soon the remaining technological solutions, indeed as high-priced as sophisticated[28].

It now appears that the water sector requires drastic measures at universal level in order to face the emergencies of the next century. In conclusion, heavy investments are expected as a response to the rising demand for increased sanitary standards of water supplies, whilst the severe rationalisation of the uses of water has by this time become indispensable. The global demand for water is in fact spiralling upward, consequently to the proliferation of the world population and to its employment in steadily larger production cycles. A tentative answer, adapting the social and more general objectives to commercial considerations, has been so far furnished by the neo-liberal theory influencing the international restructuring and privatisation of the water industry.

[25] *Source*: Kelley, M. "For Tim Ford, Water Runs in the Family" on Internet. Tim Ford is Associate Professor and Director of the Program in Water and Health at the Harvard School of Public Health.

[26] WIUC stands for the Water Industry Unions Committee.

[27] On the scarcity of water, see Serageldin (1995: 1-2) and Winpenny (1994: 2-5).

[28] *Source*: Kelley, M. "For Tim Ford, Water Runs in the Family" on Internet. See note 26.

2.2. The neo-liberal approach in the operation of water utilities and related concerns

Stemming from the above considerations, the neo-liberal doctrine has asserted the necessity for managing water exclusively as an economic, namely tradable, resource to allocate by means of full pricing at cost. According to this approach, tariffs have not only to reflect production costs, but also to encompass opportunity costs due to the value of alternative uses of the traded good. The abolishment of public subsidies and reliance on demand, in order to assess the effective value of supplied water, would allow the functioning of flexible markets reducing waste, pollution and prices in consequence of the enhanced efficiency (Winpenny, 1994: 9-11).

In reality, privatisation programmes underpinned by the diffusion of neo-liberal tenets have in most cases substituted a public with a private natural monopoly, without tempering market imperfections as in theory it is supposed. Conversely, following privatisation of water utilities in developed and developing countries, households and small firms repeatedly had to face increased barriers to water access as a result of marked rises in tariffs. Subsequent to 1989 privatisation in the UK, for instance, consumers disconnected from water provision for failing to pay rates augmented by 200 percent from 1991 to 1992. If considered the removal of public subsidies financed by taxation and the increase in prices, it appears that privatisation corresponds to a transfer of welfare from small to large consumers, namely from the poor to the better-off. Under full pricing at cost in the absence of competition, as in the case of local monopolies granted to water operators, tariffs are in fact marked-up also to cover dividends to be distributed to shareholders and multiplied stipends for management (Martin, 1993: 116-125)[29].

Precluded access to such an essential service has drastic effects in many developing countries and particularly in Africa. In Côte d'Ivoire where water provision is delegated to Société de Distribution d'Eau de la Côte d'Ivoire (SODECI), an affiliate to the French TNC SAUR/Bouygues, the share of people connected to a water supply in the capital city Abidjan fell from 57 percent in 1977 to 47 percent in 1983[30]. In other African countries having resorted to privatisation, the difference in price between piped water, concentrated in urban districts, and water distributed by

[29] As it will be shown later, prices are often fixed by companies so as to cover bribes to local authorities aimed at being awarded the concession of water utilities operation.

[30] In 1990, sales of SODECI amounted to US$ 90.3 million. *Source*: UNCTAD (1996b: 109). In 1993, SODECI's income was about US$ 40 million. *Source*: *Best Practice in Urban Water Supply Côte d'Ivoire's SODECI – Capacity Building for Better Service* on Internet.

private vendors in non connected areas is astonishing, as vendors can afford imposing ten to thirty-fold charges. This is a lucrative business turned into exploitation, as the elderly have to spend a significant part of their low income in order to attain minimal quantities of water. Such exaggerated rates are set on the assumption that, whatever the burden, people cannot renounce buying water below survival threshold[31]. Which generally occurs, unless unsustainable pricing drives to re-use of the purchased water therefore facilitating epidemics as the cholera infection plaguing Peru in 1991. On the other hand, due to the costs and economic risks of constructing and operating treatment plants and pipelines, private contractors do not see connecting areas out of the profitable urban districts as a worthwhile investment. As a result, the contracting out of water provision seems to hamper development rather than promote national welfare and a preferable distribution of resources between local *élites* and disadvantaged masses.

Moreover, the purported efficiencies linked to private involvement in water utilities operation have not been realised in practice, as full pricing at cost does not necessarily constitute a deterrent to waste and over-use. Conversely, the decreasing costs of extracting larger amounts of water from natural sources induce to irresponsible conduct on behalf of market-led subjects as private operators. In 5 years since privatisation of UK utilities, more than 20 courses accordingly dried up, with invaluable damages to the environment and local communities (Martin, 1993: 116-125).

It now appears that concern for the activity of large TNCs in the water industry is justified by high risks of market failure with adverse implications for the public good. In particular, those consist of significant impediments to the continuous, equal and universal access to water supply. Market failure itself is undoubtedly determined by conflicting interests between the private sector and the public as well as by market imperfections, such as natural monopoly structure and tendency to concentration of undertakings at global level. Concentration in the water industry has reached a considerable extent with the control of the world market in the hands of nine firms only, constituting two large groups headed by the French corporations Lyonnaise des Eaux and Générale des Eaux and three smaller undertakings (PSPRU, 1996: 8). Predominance of French-based TNCs might look surprising, if considered the presence of SAUR/Bouygues[32] also, but there are clear historical reasons to explain the ascertained success. Concentration is one of the major issues to take into account so as to reconcile the operation of water utilities with public purposes. Excessive market power and the resulting corporate power enlarge in fact

[31] In this last respect, it can be easily assumed that the percentage of total income spent for water by the elderly does not change relevantly despite the rise in tariffs.

[32] SAUR stands for Société d'Aménagement Urbain et Rural.

the scope for transnational firms' unaccountability, so that the excluded openness represent an obstacle to managing this area of global trade through democratisation. However, before proceeding to examine the determinants of international concentration in the water industry, it is advisable to treat the historical reasons of the largest water TNCs' market dominance and to observe the magnitude of privatisation at international level.

2.3. Some mentions on the history of the water industry: the origins of French-based TNCs' market dominance

In all ancient civilizations, water supply seems to have been a public sector activity due to the strategic relevance of water, especially in times of war (Roth, 1987: 251-259). Entrepreneurial initiative has therefore been excluded from such field until modern times. The history of the principal private operators in the global water industry shows that the long ago acquired leadership can be explained in the light of their ability to expand without facing real competition, rather than their early establishment. Which partially explicates the entrenchment of their monopolistic attitude.

Since 1782, the brothers Perrier pioneered private supply of piped water in France laying the ground for a flourishing national industry. While in the second half of the nineteenth century French private companies started to enter foreign markets on a global scale, yet concentrating their operations in Spain and the African part of the colonial empire, in the twentieth century they became the undisputed leaders at both national and international levels (Roth, 1987: 251-259). The availability of such a favourable environment as colonial territories was of great importance to the growth of French enterprises, in that the acquired critical size to enjoy scale economies granted a pervasive business expansion throughout developing and developed markets[33]. Furthermore, the oligopoly structure of the domestic market and the enduring absence of appreciable competition abroad were the grounds of the aggressive strategies of international growth designed and implemented by French firms.

Yet, the predominance of French companies is not primarily due to their role as precursors in water provision, as the initiative of the brothers Perrier had been preceded by the example of private operation in London. Indeed, English competitors were the first to be granted concession in other countries, that is to say in Berlin in 1856 and in Cannes in 1866 (Roth, 1987: 251-259),

[33] A similar role was played by the British colonial empire in the emergence of TNCs in the telecommunications sector (Martin, 1993: 113).

but were soon submitted to nationalisation by the British government. With the water industry predominantly in private hands, water-related desease and contamination were widespread, so that the recognition of the connection between water quality and public health was the main reason for the shift to public ownership and control. More precisely, by the 1870s, preference for a collectivist solution was the result of the recent failure of the British industry to respond to the needs of the consumer (WIUC, 1985: 16-19). Public ownership of water utilities was maintened until recently, when in 1989 the contracting out of English and Welsh water authorities led to the emergence of UK TNCs Northumbrian, North West, Severn-Trent, Thames and Welsh Water. In that occasion, French companies benefited from compulsory competitive tendering to acquire half of the divested SOEs (Martin, 1993: 116-125). So that they succeeded in extending their presence in a profitable foreign market and, at the same time, in restricting business opportunities for the newly privatised British rivals.

The consolidation of market power has also been favoured by French government's protectionist attitude towards domestic-based TNCs. This was clearly demonstrated by the opposition of France to the introduction of substantial competition and publicity rules applicable to water concessions in the EC Council Directive regulating procurement procedures in the water, energy, telecommunications and transport sectors (Kerf, 1995: 87-89)[34]. As it will also be shown below, direct and indirect public support to French firms is relevant to the flourishing of national water industry[35].

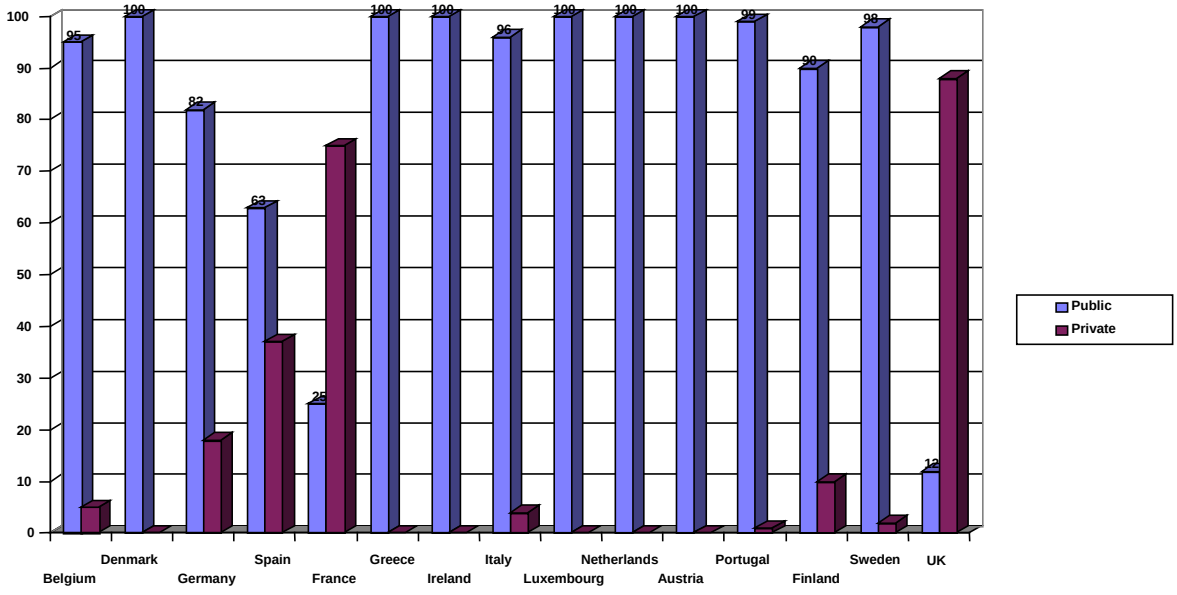
2.4. The international scale of privatised water utilities

As anticipated, the world market in water supply and sewerage is limited when compared to that of other utilities. The reason can generally be found in the public nature of water provision, which renders water a less tradable resource than electricity and gas or other services such as telecommunications. Notwithstanding, pressures for private sector involvement are mounting and the trend towards enhanced privatisation is marked. The international scale of privatised water utilities has thus to be interpreted within such continuous process.

[34] For the European Council Directive 90/531/EEC of 17 September, see the Official Journal of the European Communities: OJ 1990 L 297/1. The 1990 Directive was subsequently amended, although without significant changes in matters relevant to our study, by European Council Directive 93/38/EEC of 14 June 1993. See OJ 1993 L 199/84.

[35] See paragraph 3.1, page 44, "The domestic regulatory framewor: the French model system".

Figure 1. Water supply in EU: public or private/mixed
(percentage of population supplied by each type)



Source: Hall (1998b: 122) from Eureau: Management Systems of Drinking Water Production and Distribution Services in the EU Member states, 1996.

Figure 1 shows that in most EU member countries, public provision of water is prevailing, often under the competence of municipal enterprises, whilst only France and the UK have almost entirely privatised the sector. Also, an appreciable presence of private operators is observed in Spain. However, it should be noted that liberalisation is in the process of being introduced in Italy, eventually opening the way for a profitable market. Moreover, the imminent sale of Berliner Wasser Betriebe, the municipal utility of Berlin, should draw the attention to the potential dynamism of the European market.

In other developed countries, such as the USA and Canada, private sector involvement is on the increase by means of contracting out rather than divestiture. About 71 percent of the nearly 22,000 American utilities is publicly owned, mainly by municipalities, many of which opt for in-

ternal restructuring of the enterprise as an alternative to privatisation (Martin and White, 1998: 227-230).

Also in developing countries, the advancement of privatisation generally excludes the bare sale of water utilities, as the most recurrent contractual arrangements vary from management and operation contracting out to leasing, concession, BOT and BOO agreements. In the Asia Pacific region, India is the only country seemingly impermeable to private sector participation in water supply and sewerage, as well as water treatment (Paddon, 1998: 61-62). Examples of privatisation in Latin America are conspicuous: Buenos Aires, Cordoba, Rosario and Santa Fe in Argentina; Cancun in Mexico; Baranquilla, Florencia, Cartagena and Tunja in Colombia; Santiago in Chile and Campos in Brazil (Saravia, 1998: 185-191). As for Africa, table 3 provides the details of major cases.Table 3. Main privatisations of water uitlities in Africa, as of June 1996

Country	Company and legal status	Type of contract	International operator
Côte d'Ivoire	Public ownership of facilities and private operating company (SODECI)	From 1960, leasing contract, then concession renewed every 15 years on negotiated basis	SAUR
Guinea	Public asset-owing company (SONEG)	Leasing contract signed end-1989 for a 10-year term, awarded after international tendering	SAUR-CGE (Compagnie Générale des Eaux)
Guinea-Bissau*	Public enterprise (EAGB) + private management partners	Management contract (private partner's remuneration 75% fixed, 25% performance-linked)	EDF-Lyonnaise des Eaux
Gabon*	64% public company + indirect shareholding (SEEG) private partner (SOCAGI)	Management contract signed in 1993 after tendering Development towards a concession under way with the reduced state share in SEEG capital	EDF-GQ1-Lyonnaise des Eaux
Mali*	Public enterprise (EDM) Private management partner (SHEC)	4-year overall management contract	SAUR-EDF-HQ1-SOGEMA
Senegal	Public asset-owing company (SONES) Private operating company (SDE)	10-year leasing contract from 1995 after international tendering	SAUR
Central African Republic	Public asset-owing company (SNE) Private operating company (SODECA)	15-year leasing contract from 1991 after international tendering	SAUR
Morocco* (Casablanca)	Public company (RAD) Private concessionaire (Maghrébienne des Eaux)	30-year distribution concession after tendering	Lyonnaise des Eaux-EDF-ENDESA-Aguas de Barcelona

Note: (*) = company also involved in electricity. *Source*: Plane (1998: 21).

Finally, in CEE countries, privatisation has mainly taken place in the Czech Republic and Hungary, with some cases in Poland. In respect of the responsibility of regional state agencies under the former regimes, the restructuring of the industry has occured through decentralisation at municipal level. Ironically, the lost opportunity to benefit from economies of scale in the operation of utilities has caused a loss in terms of efficiency and cost-effectiveness (Hall, 1998b: 122-123).

Table 4. Privatised water concessions in CEE, as of May 1997

Country	Location	Company	Multinational	Per cent owned
Czech Republic	Brno	Brno VaK	Lyonnaise des Eaux	47
	Ostrava	Severomoravske VaK	Lyonnaise des Eaux	34
	Karlsbad	Vodarny Karlovy Vary	Lyonnaise des Eaux	44
	North Bohemia	SCVK	Hyder	35.6
	Southern Bohemia	VAKJC	Anglian Water	34
	Pilsen	Vodarna Pilsen	Generale des Eaux	98
Hungary	Kaposvar	Eaux de Kaspovar	Lyonnaise des Eaux	35
	Szeged	Szegedi Vizmu	Generale des Eaux	49
	Pecs	Pecsi Vizmu	Lyonnaise des Eaux	48
	Budapest	Budapest Water	Lyonnaise des Eaux/RWE	25
Poland	Gdansk	SAUR Neptun Gdansk	SAUR	51
	Poznan	-	Lyonnaise des Eaux	?

Source: Hall (1998b: 123) from PSPRU database.

It is hereby possible to formulate two commentaries on the above set of information. Despite its relatively limited magnitude in respect of other industries, privatisation of water utilities at global level cannot be neglected due to the pronounced tendency to increase. On the other hand, the persistence of large areas of public competence in water supply and sewerage encourages to explore alternatives to neo-liberal policies.

2.5. TNCs' conduct and the dynamics of international concentration in the water sector

A product of the ongoing international restructuring of the water industry, concentration is one of the crucial issues in the debate on private involvement in water provision. In this respect, the striking importance of an effective regulation in the water and wastewater sector is given by a strong tendency to monopolistic supply, so that its rationale is to identify in the protection of consumers from unfair tariffs and poor quality service (World Bank, 1996: 61). As a matter of fact, the domestic and supranational regulatory framework in which the major water TNCs act seem to provide an enabling environment for unfair practices. Consequently, concentration deserves to be cautiously explored in all its determinants before proposing alternative approaches in managing global trade in the water industry, which prove more adequate to encounter the legitimate interests of the should-be ultimate beneficiaries.

2.5.1. Integration and concentration in the water industry

Before analysing growth and concentration determinants of French water TNCs, some preliminary remarks on corporations' behaviour causing market dominance are necessary. Firms tend to reach the critical size to enjoy economies of scale integrating the activities of operating units in a vertical or in a horinzontal direction. On the one hand, vertical integration corresponds to the location of different parts of the value added chain in different places and therefore in different markets, also requiring the central co-ordination of all different activities implemented in the production process. Vertical integration gives rise, for instance, to intra-firm trade increasingly occurring within TNCs, so that it constitutes a major component of global trade. Depending on the country observed, intra-firm trade has been estimated as ranging around 24 and 38 percent of total exports, while varying from 14 to 43 percent of total imports. In addition, significant intra-firm flows of goods and even more of services escape measurement, so that figures should be notably higher (UNCTAD, 1996: 103). It is important not to restrict vertical integration to the production of intermediate goods only, as also services like research and development (R&D)

are to be considered as factor inputs which tend to be internalised by the firm. Finally, internalisation of production activities is due to uncertainties related to tariffs and technical barriers to trade and, more generally, to the costs of arm's length trade with third parties.

On the other hand, horizontal integration leads an enterprise to produce the same good or service in different locations, chosen in response to the specific markets targeted, as well as co-ordinate the activities performed in different places according to a single marketing strategy. Unlike vertical integration, which can be seen as an attempt to gain full control of the entire process leading to the finished product, horizontal integration is rather dictated by the urge to cyclically enlarge the enjoyed economies of scale. The extension of the range of activities carried out by the firm further results in a network of synergies referring to the mother company, with concurrent elements of both vertical and horizontal integration. Techniques adopted in order to expand the firm's volume of business comprehend take-overs of private or public competitors, mergers and the launching of new ventures. Take-overs are acquisitions of ownership of, or control on, competing entities with all their endowments, inclusive of the relative market shares. Which implies that the expanding enterprise, establishing a new subsidiary, diminishes the competition limiting its operations in a given market. When deciding whether to opt for a take-over or a new venture, investors rely on a cost-benefit analysis of time and capital required by a greenfield investment as compared to the price for gaining direct access to an introduced activity. So that acquisitions are likely to be preferred, but if the investor is willing to enter a market where he has not the necessary level of knowledge then he might choose to partner with an other investor, sharing both ownership rights and risks of the new venture.

Major French water companies pursue vertical integration through the ownership of specialist engineering subsidiaries, like OTV for Générale des Eaux and Degremont depending from Lyonnaise des Eaux. These subsidiaries often obtain contracts to carry out capital works for the operating subsidiaries of their own group. For instance, in 1992 the operation of the water system of Rostock, eastern Germany, was contracted out for 25 years to Eurawasser, a venture jointly owned by the German firm Thyssen and Lyonnaise des Eaux, while the concession for the new sewage treatment plant was awarded to Degremont[36].
Horizontal integration of French companies has historically taken place by take-overs of private competitors, although the massive divestitures of SOEs have recently allowed to target public competitors as well, and by the creation of new ventures to win concessions from local authorities. The latest take-over of a private firm is the acquisition of CISE by SAUR, concluded at the

[36] *Source*: Public Services Privatisation Research Unit (PSPRU).

beginning of January 1997. Apart from joint ventures with foreign undertakings, as in the case of Eurawasser, French enterprises establish joint ventures among themselves represented by the example of Stéphanoise des Eaux in St Étienne, with joint ownership of Générale des Eaux and Lyonnaise des Eaux. The same two practices are also followed abroad. Wherever the target company is well established, as in the USA, UK, Spain and Italy, preference is given to gaining control through the purchase of shares. Where such conditions are not met, as in the Philippines or Argentina, they opt instead for setting up new ventures to win concessions. In other circumstances, as it occurred in the Czech and Hungarian towns of Karlovy Vary vak and Pecsi Vizmu respectively, the purchase of shares in the municipal companies implies the effective creation of new joint ventures which automatically hold the concessions evading competitive tendering procedures[37]. As far as mergers are concerned, a good example is the investment of Lyonnaise des Eaux in the acquisition of the total shares of Northumbrian Water to merge it with the already owned, smaller company North East Water. The UK regulator and monopolies commission found no restriction to competition, but required a reduction in prices as a condition of allowing the merger.

2.5.2. Collusive conduct and concentration

Instead of by exclusive means of investment, horizontal concentration in a given industry can also take place through collusive behaviour involving restrictive agreements between potential rivals at the same stage of production. Collusion therefore includes the constitution of combines and cartels, whose members unite the reciprocal market power by co-ordination, in order to impose the desired oligopoly market structure and thus restrain the action of other competitors. As it has been demonstrated by the theory of games, with particular reference to the prisoner's game, collusion tends to be difficult to enforce between the parties to the restrictive agreement, due to the lack of trust in each other and the subsequent induction to cheat. In this respect, it has been interestingly said that merger is equivalent to internalising collusion by bringing the facilities under common ownership and control (Casson, 1993: 374-377). Accordingly, mergers are functional to impose market power to competitors strengthening collusive practices. All those practices are extremely deceptive as they distort the correct allocation of resources within the market resulting in the emergence of a horizontally integrated monopolistic TNC. It is possible to infer that TNCs' attitude towards competition is a threat of market failure as it hinders the achievement of all the proposed benefits of fair competition.

[37] *Source*: Public Services Privatisation Research Unit (PSPRU).

The practice of French TNCs concerning arrangements restrictive of competition in the water industry is abundant and ranges from joint ventures for specific investment projects to more lasting strategic alliances between firms assembled in pools. As mentioned, companies active on the global water and sewerage market happen to have gathered in two large groups headed by French enterprises, Lyonnaise des Eaux/Aguas de Barcelona and Générale des Eaux/Thames, with SAUR/Bouygues, Severn-Trent and North West Water as minor though non negligible actors (PSPRU, 1996: 7-9)[38]. Not only competition is practically non existent within large groups, but collusive agreements are also entered between groups and single enterprises so as to occasionally form *ad hoc* transversal consortia apt to succeed in tendering. For instance, in 1993 bid for Aguas de Argentina the Lyonnaise des Eaux, Générale des Eaux, Aguas de Barcelona and Anglian Water combine easily prevailed over the only opposition of Thames Water. Yet, 1995 bid in South Australia was adjudicated by the alliance between Thames Water and Générale des Eaux. In 1995, it was the time of Générale des Eaux and SAUR/Bouygues to enter an alliance with the purpose of concurrently bidding for the small British water company Mid Kent Holdings (PSPRU, 1996: 8). Moreover, as shown by Table 2 below, water TNCs establish a number of links to TNCs mainly operating in sectors other than water supply, varying from simple financial support to joint ventures.

[38] Welsh Water is not included among global competitors, as it prefers to limit its operations to the UK and Czech markets rather than participate to competition world-wide.

Table 5. Collaboration and joint ventures involving water TNCs

Company		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
Partner	Country										
Aguas de Barcelona	E		●	●	●	●					
Alcatel	F				●						
Anglian Water	UK	●			●	●					
AT&T	USA				●						
Bechtel	USA							●			
Canal de Isabel II	E	●									
Eléctricité de France	F				●	●		●			
Endesa	E	●		●		●		●			
GdF	F	●									
Générale des Eaux	F	●	●			●				●	
Hidrocantabrico	E	●			●						
Hydro-Quebec	C							●			
Italgas	I				●						
Italmmobiliare	I					●					
Lurgi Bamag	D										●
Lyonnaise des Eaux	F	●	●		●						
Mitsubishi	J					●					
Pirelli	I				●						
RWE	D				●						
Thames Water	UK				●						
Thyssen	D					●					
Total	F					●					
Tractebel	B										●
Wessex Water	UK	●									

Companies: C1=Aguas de Barcelona; C2=Anglian Water; C3=Canal de Isabel II; C4=Générale des Eaux; C5=Lyonnaise des Eaux; C6=North West Water; C7=SAUR/Bouygues; C8=Severn Trent; C9=Thames Water; C10=WMX Technologies. Countries: B=Belgium; C=Canada; D=Germany; E=Spain; F=France; I=Italy; J=Japan; UK=United Kingdom; USA=United States of America

Source: PSPRU (1996)

Among the most effective reasons for collusive practices as cartels and combines are the avoidance of costs associated with competitive tendering and profits ensured to the winning bidder, due to the granted monopoly position. Another common practice to elude competition is the use of deliberate loss leaders in tendering: a subsidiary to a TNC takes part to an auction eliminating competition, despite financial losses which are compensated by transfers from the mother company. Expected profits from the obtained monopoly are in fact deemed worth such a temporary deficit (PSPRU, 1996: 10-14). There is evidence that the practice of loss leaders is a distortion of the correct functioning of tendering procedures as the concession is awarded on the ground of falsified information. At the pre-entry level, this suggests that when a private monopoly holder substitutes a public one the former tends to reproduce the latter's behaviour as is the case of anti-competitive cross-subsidisation. However, the transfer of financial resources from the mother company to its subsidiary not only occurs in contrast with market signals. It also pursues a private interest as profit maximisation which does not necessarily correspond to the essential objective of cross-subsidies in the public sector: granting indiscriminate access to softened water in the public good. On the other hand, at the post-entry level, loss leaders may be tempted to compensate the losses suffered by increasing prices[39] or, in the absence of any profit regulation, by maximising profits thanks to cost cuts affecting the quality of the service provided. In such a perspective, the practice of loss leaders would result in a substantial and unfair transfer of welfare from consumers to the operators of utilities equivalent to the public subsidisation of private profits. In conclusion, the mere respect of procedural rules regulating the delegation of public services to private operators is insufficient to avoid serious restrictions to competition and misconduct on behalf of incumbent undertakings. It has also to be noted that considerable difficulties are faced by national competition authorities acting with insufficient or non-existent co-operation, due to the impediments in collecting the necessary evidence to identify alleged predatory behaviours as the practice of loss leaders.

[39] Such practice could reveal particularly adverse in case of weak control of prices by local authorities or even worse in the absence of any regulation of prices. If water rates are increased on the ground of recovering losses incurred by the incumbent undertaking to drive-out rivals of the bidding procedure, the practice of loss leaders has to be considered also as a predatory behaviour. In particular, the voluntary underestimation of pricing in the winning bid has the strategic purpose of excluding competitors from the auction, which in the water sector usually represents the only occasion of competition. On predatory behaviour and predatory pricing, see UNCTAD (1997: 158).

2.5.3. Expansion to sectors other than water supply and sewerage

Having said this, it is important to note that horizontal expansion of water companies' activity not only occurs under the form of horizontal integration within the water industry, but also encompasses several sectors in public services and utilities. Entry in such sectors may seem contradictory to TNCs' tendency to specialisation leading to market fragmentation, although knowledge based production characteristic of globalisation deserves a less simplistic approach. In the attempt to explain the international expansion of the firm as a component of corporate growth, business theory has assumed the existence of a trade-off between multinationality and industrial diversification. In other words, while TNCs will naturally tend to specialise in a single industry, corporate conglomerates will tend to limit their activities within a single national market (Casson, 1993: 369-371). The case of French water companies represents an evident exception to this general statement, in consequence of the extreme versatility of the technical know-how acquired. As a matter of fact, all French water TNCs are today firmly present in all continents providing an impressive range of public services in addition to water supply and sewerage, including catering, telecommunications, construction, energy, environmental services, health, housing, security & prisons and transport (PSPRU, 1996: 1-7).

Table 6. Presence of TNCs in public sector – worldwide

Parent	Home Country	A1	A2	A3	A4	A5	A6	A7
AES	USA	♦			♦			
Aguas de Barcelona	E			♦				
Anglian Water	UK		♦	♦		♦	♦	♦
ET	UK	♦	♦		♦			♦
British Gas	UK			♦	♦		♦	♦
Camuzzi	I			♦				♦
Eléctricité de France	F	♦	♦	♦	♦		♦	♦
EDS/General Motors	USA		♦	♦	♦	♦	♦	♦
Endesa	E	♦		♦				♦
Enron	USA		♦	♦	♦			
Gazprom	R						♦	♦
GdF	F			♦	♦		♦	♦
Générale des Eaux	F	♦	♦	♦	♦	♦	♦	♦
Houston Industries	USA			♦	♦			
ISS Servisystem	DK		♦	♦			♦	♦
Lyonnaise des Eaux	F	♦	♦	♦	♦	♦	♦	♦
National Grid	UK			♦	♦			
National Power	UK		♦		♦			♦
North West Water	UK		♦	♦	♦	♦		♦
Powergen	UK				♦		♦	♦
Ruhrgas	D						♦	♦
RWE	D	♦			♦		♦	♦
SAUR/Bouygues	F	♦	♦	♦	♦	♦	♦	♦
Serco	UK			♦	♦	♦		♦
Severn Trent	UK			♦				♦
Sodexho	F	♦	♦	♦	♦		♦	♦
Southern Company	USA		♦		♦		♦	
Thames Water	UK	♦		♦	♦	♦	♦	♦
Tractebel	B		♦	♦	♦		♦	♦
Veba	D	♦	♦	♦	♦		♦	♦
Viag	D		♦				♦	♦
Welsh Water	UK		♦		♦	♦	♦	♦
WMX	USA		♦	♦	♦	♦		♦

Regions: A1=Africa; A2= North America; A3=South & Central America; A4=Asia; A5=Australasia; A6=Central & Eastern Europe; A7=Western Europe. Home Countries: B=Belgium; D=Germany; DK=Denmark; E=Spain; F=France; I=Italy; R=Russia; UK=United Kingdom; USA=United States of America. *Source*: PSPRU (1996)

Table 7. Synergies – TNCs operating across a number of public services

Company	Main Business	Home Country	Ca	Cl	Co	Cp	Cs	Ed	En	Ev	He	Hg	M	P	SP	T	W
Aguas de Barcelona	Water	E					♦		♦		♦						♦
BET	Cleaning	UK	♦	♦			♦							♦	♦		
Eléctricité de France	Energy	F							♦	♦							♦
Endesa	Energy	E			♦				♦	♦							♦
Enron	Energy	USA							♦				♦				
Générale des Eaux	Water	F	♦		♦		♦	♦	♦	♦	♦	♦		♦		♦	♦
Lyonnaise des Eaux	Water	F	♦		♦		♦		♦	♦	♦		♦		♦		♦
North West Water	Water	UK	♦	♦	♦	♦											♦
P&O	Shipping	UK	♦	♦			♦							♦	♦		♦
RWE	Energy	D			♦		♦		♦	♦							
SAUR/ Bouygues	Water	F			♦		♦		♦	♦							♦
Serco	Defence	UK				♦	♦	♦		♦		♦		♦	♦		
Severn Trent	Water	UK								♦							♦
Sodexho	Catering	F	♦												♦		
Southern Company	Energy	USA			♦				♦								
Thames Water	Water	UK								♦			♦				♦
Tractebel	Energy	B	♦	♦	♦												
Veba	Energy	D			♦				♦								
Viag	Energy	D			♦				♦								
Welsh Water	Water	UK						♦									♦
WMX	Environment	USA							♦	♦							♦

Sectors: Ca=Catering; Cl=Cleaning; Co=Communications; Cp=Computers; Cs=Construction; Ed=Education; Er=Energy; Ev=Environmental; He=Health; Hg=Housing; M=Manufacturing; P=Property; SP=Security & Prisons; T=Transport; W=Water.
Home Countries: B=Belgium; D=Germany; DK=Denmark; E=Spain; F=France; I=Italy; UK=United Kingdom; USA=United States of America.
Source: PSPRU (1996)

In the sectors entered consequently to the increasing efforts to diversify the offer in the field of public utilities, such corporations reproduce their attitude towards concentration as well as collusive conduct. For instance, the European market of construction is dominated by three groups respectively referring to SAUR/Bouygues, Lyonnaise des Eaux and Générale des Eaux as major shareholders. From 1985 to 1989, those groups have impressed an acceleration to concentration within the French market, with the number of competitors being reduced from eight to six (Royon, 1991: 43-56). The three groups have recently been fined in France for operating illegal cartels for construction contracts. They also tend to collude with the national government, demonstrating the public role in sustaining private domestic operators. The European Commission is in fact prosecuting the French government for breaking EU competition law when it awarded the contract to build a football stadium to a joint venture which is 33% owned by each of the three groups[40]. In other sectors where they establish new ventures, like in communications, water corporations sometimes join electricity companies (PSPRU, 1996: 1-7), as partners to share with risks related to entry in a new sector.

There is evidence that investment strategies of French water TNCs are determined by the desire to enlarge the holding's size and to diversify the business undergone thanks to a certain adaptability of the know-how developed in the sector of origin to a wider range of public services. However, know-how and expertise interchangeability can furnish an acceptable explanation only for such fields as environmental services, construction and energy, while in others the mere diversification of financial risks seems more convincing. Also the decision to establish a network of synergies expanding the original competency through a number of sectors is to be considered. This strategy, leading to the creation of horizontal industrial empires, is designed both to allow future growth along several lines of business development and in particular to offer an integrated package of public services in occasion of competitive bids (PSPRU, 1996: 1-7). Such an enterprise as Lyonnaise des Eaux is in fact preparing to contend with Générale des Eaux for the world leadership in the provision of public services to local communities. In addition to diversification, the expansion of business opportunities through synergies has its rationale in the furtherance of vertical and horizontal integration at the same time. In 1992, in fact, two subsidiaries to Générale des Eaux, Onyx and Générale de Chauffe, joined to form a new venture to transport clinical waste to an incineration plant whose construction had been awarded to Générale de Chauffe itself. Générale des Eaux had previously acquired American Medical International (AMI), owning the largest share of private hospitals in the UK, so to connect several rings in the vertical chain of the health care sector (Martin, 1993: 123).

[40] *Source*: Public Services Privatisation Research Unit (PSPRU).

The overall expansion of the three French groups has been fuelled by the sustained wave of privatisation initiatives of public services world-wide. In the only year 1990, Générale des Eaux expanded by more than a third. On the other hand, in 1992, Lyonnaise des Eaux ranked as the 32nd TNC by foreign assets as a result of a high growth rate of more than 10 percent in the period 1990-1992 (UNCTAD, 1994: 3-18). However, objective difficulties in extending the size of the groups at such a pace are reflected in the absence of both French corporations among the top 100 TNCs by foreign assets as classified in the following years. Accordingly, pressures for cost reductions have since 1996 induced furthered regionalisation and rationalisation of their operations with ensuing staff cuts of up to 20% and a greater degree of integration[41]. Hence, it is possible to infer that French water TNCs will increasingly try to exert their substantial corporate power, even to the limits of abuse, in order to enlarge the respective market power.

2.5.4. Abuse of corporate power and the need to regulate TNCs' conduct

The abuse of corporate power is one of the most serious forms of misconduct, attempting at a fair and equitable management of global trade in public services. The incontestable need to regulate major global utilities is thus to take into account, trying to evaluate the instruments presently available for such purpose.

As market power produces concentration, concentration leads to augmented market power and inevitably to abuse of corporate power, including corruption. Historically, TNCs have proved their inclination towards influencing the social and political environment in which they operate, so as to maximise the profitability of their actions. In such a perspective, all conditions affecting the performance of the firm, not excluded the presence of a public interest opposing aspirations to business consolidation and expansion, are susceptible to be considered as economic factors to internalise in a growth strategy. Attempts to buy public officials' favour are therefore consequential to a cost-benefit analysis of bribery, evaluating the proposed advantages as compared to the low risks of prosecution and condemnation. The achievement of public objectives is hindered by corruption in that such a practice, not only distorts the rationale for decisions aimed at the achievement of the common welfare, but also substantially increases the costs of public services provision.

41 *Source*: Public Services Privatisation Research Unit (PSPRU).

Corruption in the water industry can be described by a few examples. In 1995 the French city of Grenoble demanded the equivalent of US$ 85 million in damages from the cabinet minister and former major Alain Carignon, his staff and Jean-Jaques Prompsey, executive of Lyonnaise des Eaux. After the trial on corruption charges, both Alain Carignon and Jean-Jaques Prompsey received prison sentences for respectively accepting and giving bribes to award the water contract to a subsidiary of Lyonnaise des Eaux[42]. Consequently, the new administration decided to regain ownership of the operation of water, also in the light of the three-fold rise of prices suffered by local consumers in the six years since privatisation. In a different instance, convictions have regarded two executives of Générale des Eaux, pleaded guilty of corruptly bribing the mayor of St-Denis, Ile de Reunion, to attain the water concession. As stressed by the *Cour de Comptes* in its report, corruption emerges from the whole system[43]. Similar cases are in fact frequent in the water industry as well as in other public utilities, in which major TNCs were accused or condemned for corruption of public officials in developed, developing and transitional countries[44].

Policy makers' efforts to come to a satisfactory solution to the issue do not coincide in the elaboration of a competition regulating set of rules, as corruption is not necessarily related to collusive behaviour. In reality, the two aspects cannot be completely separated as fair competition and transparency in public procurement and public services provision would restrict the scope for abuse of corporate power. Such an approach seems to be by this time neglected, despite the evident connection between restricted or negotiated procedures and irregularities. Rather, solutions are sought by means of reduced benefits deriving from bribery in consequence of loss of future business opportunities and, to a lesser extent, by means of augmenting the cost of bribery in terms of more severe penalties. An interesting response is provided for by Article 29 of the European Directive on Public Service contracts (EC 92/50) stating that: "Any service provider may be excluded from participation in a contract who: ..... c) has been convicted of an offence concerning his professional conduct by a judgement which has the force of *res judicata*; d) has been guilty of grave professional misconduct proven by any means which the contracting authorities can justify .....". National and local representatives are more and more considering the exclusion from participation in a public contract of enterprises involved in unprofessional conduct or criminal offences as a powerful deterrent to bribery (PSPRU, 1996: 21-22). Yet, this

42 *Source*: Public Services Privatisation Research Unit (PSPRU).

43 Investigations for further possible cases of corruption continue in France, including Martin Bouygues himself and the chief executive of SAUR, as well as further investigations of Générale des Eaux over alleged bribes in Normandy and Lyonnaise des Eaux, being now prosecuted by a consumers group in Bordeaux alleging bribery now to win the local water contract. *Source*: Public Services Privatisation Research Unit (PSPRU).

44 For full details, see PSPRU (1996: 21-27).

appreciable approach risks to be limited in scope and partial in respect of the magnitude of the phenomenon in question. The French *Cour de Comptes* has in fact denounced the isolation of local authorities left alone to bargain with TNCs, real conglomerates of power, in a context of remarkable disparity (PSI, 1997). The European Community experience in matter of regulation of public service concessions suggests that even a consolidated international organisation at regional level can prove inadequate to resist immense lobbying pressures.

Having said that, it is possible to anticipate that the need is perceived for a comprehensive multilateral policy, in order to restrain such a transnational organisation of anti-competitive practices and a global distribution of corruption by transnational conglomerates of power. However, it can be assumed that private operators' misconduct is attributable to the inadequacy of national and international regulation in the domain considered. Re-regulation, or the reform of the existing regulatory frameworks, appears fundamental to the development of socially and environmentally sustainable strategies in the area of public utilities, with particular reference to water supply and sewerage

3. TNCs' conduct in the water industry and the enabling regulatory framework

As regards national regulation in the water sector, the French and the British systems are to be considered as those characterised by the outmost significance of private involvement. Also, the two frameworks are often referred to as models by foreign policy-makers, as is demonstrated by the reform of the Italian legislation which represents a compromise between the two systems[45]. The observation of the relative experiences can thus suggest how the liberalisation and re-structuring of the water industry is likely to develop in other countries. It is anticipated that both the French and the UK frameworks are characterised by a neo-liberal approach in market regulation, so that none provides for the limitation of profits while regulation is in either cases vague or permissive. As regards international law, there is a patent lack of influence on the conduct of the largest public service TNCs due to the difficulties of internationally agreed rules to address non state subjects as well as to the limitation in scope and ideological inspiration of the existing legal instruments. At both national and supranational levels, a momentous redefinition of rules and policies is necessary in order to manage trade in the global water industry.

3.1. The domestic regulatory framework: the French model system

Broadly regarded as a model for foreign legislators, the French system allows private participation by means of local competitive bidding although retaining significant control on tariffs and standards in the hands of public authorities, such as municipalities or regional agencies. On the one hand, successful companies or entities are granted local monopoly on a long term basis of usually thirty years, calculated so as to permit full cost recovery. On the other hand, public authorities play a remarkable role in the overall process, in that they are in some cases responsible also for constructing and operating the needed infrastructure such as pipelines and sanitation plants (Roth, 1987: 251-256). The French regulatory system thus owes its popularity among policy-makers to the mix of public and private involvement in managing water utilities, deemed to result in an appreciable balance between potentially contrasting interests. Nevertheless, the political will has proved insufficient or reluctant to control the private conduct in the public good and therefore to ensure the well functioning of the model system. It can be further

[45] The reform of the Italian water sector regulation was enacted in 1994 (act of 5 January 1994, n° 36; so called "Legge Galli), but it has not been implemented yet.

assumed that the acknowledged deficiencies in the overall system are due to its peculiar institutional features and to the ensuing democratic deficit in the regulation of utility operators.

The French model system is currently based on the two Water Acts of 1964 and 1992, respectively fixing quality and pollution control objectives as well as adapting national legislation to EC Directives (Serageldin, 1995: 19)[46]. At central level, the prevailing principle is that of interministerial coordination. There is not a single authority holding responsibility for the water sector and each ministry intervenes in the light of its specific competence, although the Environment ministry has the relevant role of coordinating all central administrative bodies. In order to attain an integrated "river basin management", regional agencies also known as Water Boards contribute to investment, R&D and information, in line with the deliberations of Basin Committees (Nicolazo, 1997: 77-80). It should be noted that Water Boards devote consistent shares of the sustained expenditures to research and development, averaging 14 percent of budgets approved in the period from 1992 to 1996[47], while in 1996 they were allotted 17 percent of the collected tariffs[48]. However, as in other services, municipalities have full responsibility for the organisation and management of water provision and, for this purpose, can opt between the public management and the delegation of water utilities to the private sector (Lorraine, 1997: 210-214).

From the contractual point of view, employment of water suppliers in the French model system occurs under the scheme of three principal arrangements, *gérance*, *concession* and *affermage*. *Gérance* corresponds to a management agreement according to which the private contractor undertakes the obligation to perform such ancillary services to the operation and maintenance of water and sewerage facilities as provision of technical assistance and collection of charges, on behalf of the public authority (Roth, 1987: 251-256)[49]. Both the *concession* and *affermage* agreements provide for the obligation of the contractor, respectively the *concessionnaire* and the *fermier*, to operate local utilities *à ses risques et périls*, whilst the municipality retains full ownership of the existing infrastructure and the works performed in the life of the contract. The difference lies in that, under *concession*, the financing of the required investment is the duty of the *concessionnaire* while, under *affermage*, such onus is on municipalities (Rossi, 1997: 162-164; Roth, 1987: 251-256). In practice, *affermage* is the prevailing arrangement, although a

[46] The two Water Acts are respectively of 16th December 1964 and 3rd January 1992.

[47] Serageldin, 1995: 19.

[48] Nguyen (1997: 81-84). As for the remaining share, 43 percent was paid to distribution, 35 percent to sewerage, 55 percent as VAT and 1 percent to the National Fund for the Provision of Drinking Water.

[49] In the proper conception, *gérance* implies the contracting out of the whole operation and can also comprehend elements of profit-sharing between the employer and the contractor (Roth, 1987: 251-256).

whole range of arrangements assembling different elements of the traditional classifications has been developed by usage[50].

The success of the French model system is emphasised by the adoption of *affermage* in Central and Eastern Europe, with 12 cases of water utilities privatisation in Poland, Hungary and the Czech Republic[51]. In developing countries, on the other hand, concessions in the form of BOT(Build, Operate and Transfer) or similar agreements are in effect more frequent[52]. This occurs as such sophisticated forms of project financing, despite the usual lack of public finance, allow the contractors to mobilise the required amounts of capital from credit institutions[53]. However, as in France, there are variations on the basis of the extent left for public ownership of the water systems. A good example is the recent privatisation of the Manila Metropolitan Water Sewage System (MWSS). In that case, after splitting the metropolitan territory in two areas, the national government decided to delegate the operation of the utilities to two private consortia for a period of 25 years, while retaining full ownership of MWSS assets (UNCTAD, 1997: 186-187).

3.1.1. Supposed strengths and manifest weaknesses of the French model system

In order to assess the functioning of the French model system, it must be observed that despite such a complex network of competences and delegated responsibilities there is no national regulator to assist local authorities or monitor their conduct, as the case might be. In this respect, there is a broad consensus of opinion that the French system would induce domestic firms to abstain from monopolistic and unfair practices, notwithstanding the entrenched oligopoly market structure at national level. The above conviction is generally supported by three arguments: the purportedly contained 6 percent profits of the two major domestic water companies, as compared to the average 10 percent of the 10 privatised British water authorities; the high degree of competition and the dynamism of corporate growth strategies; the satisfactory level of tariffs and the irrelevance of customers' complaints. The oligopoly market structure, combined with the territorial fragmentation of operations and the ensuing atomic structure of local authorities responsible for ensuring water provision, would entail a diffuse, though indirect, regulation at both

50 *Source*: Public Services Privatisation Research Unit (PSPRU).

51 See table 4. Privatised water concessions in CEE, as of May 1997, page 28

52 *Source*: Public Services Privatisation Research Unit (PSPRU).

53 On BOT/BOO agreements, see note 8. It is then important to note that the magnitude of the works in question induces the concessionaire, a single private entity, to regularly resort to subcontracting, enlarging the number of subjects involved.

economic and political level (Lorraine, 1997: 210-214). In this sense, regulation would not derive from an apposite authority acting as regulator but from customers themselves through the political control of the mayor in charge and, in particular, through the deterrent of contrary voting at next elections. This sort of benchmark or yardstick competition mechanism would originate from the comparison of the tariffs and the quality of service provided in the bordering municipalities and that of domicile as well as from the indirect judgement of the mayor's choice in the delegation of utilities. The French system would hence conciliate corporate efficiency and the interest of local communities of customers, due to the enduring endeavours of the competing operators to protect their reputation in front of the mayors of the whole nation, which is the relevant market. In reality, in the absence of a strong, central competent authority, the effectivness of such a vague regulatory framework could only be granted occasionally.

As a matter of fact, in its January 1997 report on the French water industry, the *Cour des Comptes*, France's national audit body, has denounced the adverse effects produced on the public by the lack of control and transparency in operations added to excessive pricing. Firstly, competition seems to be organised rather than open, with frequent concerted and other restrictive practices. Although consistent with EU legislation, systematic resort by local authorities to negotiated procedures with a restricted number of undertakings, thus eluding the evaluation of tenders according to published, objective and non-discriminatory criteria, is far from being satisfactory as competition and transparency are concerned (PSPRU, 1997; Kerf, 1995). So that the oligopoly structure of the domestic and international market continue by this time to be preserved. The aggressive behaviour abroad of French-based TNCs is in fact attributable to the quasi-monopoly at home. In addition, it is true that control by water boards at regional level is not as severe as should be required. Local authorities are responsible for the yearly approval of prices proposed by private operators but, as it occurs under the UK legal framework[54], profits are not subject to regulation. Which encourages companies to compress costs so as to maximise profits for a given price, despite the unavoidable sacrifice of the service quality and of the safety of consumers.

Second, profit margins appear to be more substantial than admitted due to the excessive duration of contracts, sometimes exceeding 30 years, not seldom associated with the extension of

[54] The UK system is run under statute by a regulator appointed by, and given terms of reference by, the government. The UK regulator's remit emphasises that he must ensure that the companies are financially profitable enough to be safe from bankruptcy, and he has certainly achieved this object. Within these terms of reference, he sets down limits on price levels - not profits - which take account of investment plans etc. *Source*: Public Services Privatisation Research Unit (PSPRU).

contracts without the submission to tendering procedures. The deriving profit margins for incumbent undertakings are therefore the result of a substantial restriction of competition. In Dinard, Ile-et-Vilaine, France, for instance, CISE was awarded the right to run local water utilities in 1929 and subsequently obtained the renewal of the concession up to 2005, without having to face competition (PSPRU, 1997). In addition, profits would result even higher if the return from subcontracting to subsidiaries without competitive bidding was valued.

Furthermore, since 1992, water prices have risen at an average rate of 10 percent per year, mostly where water has been privatised, corresponding to 75 percent of the French network. Finally, the *Cour des Comptes* rejected the companies' argument of heavy investments requiring such price rises as inconsistent in many of the cases considered. For instance, in Engleton, Correze, prices have doubled in three years of private management despite investments were utterly procured by the municipality. This is obvious as *affermage* is the prevailing form of public-private partnership in France.

Finally, the low quality standards imposed on consumers to augment profit margins for a given price represent a serious risk for the public health. A recent case involving one the two French "majors" is of relevance. "Générale des Eaux was successfully prosecuted in July 1994 for supplying poor quality water to a community in France (at Trégeux, in Côtes d'Armor). The company was prosecuted by local inhabitants, supported by consumer and environmental groups, for supplying water which was unfit for consumption due to excessive nitrates and pesticides on 476 days between 1990 and 1993. Générale des Eaux was plead guilty although it responded by denying responsibility for standards" (PSPRU, 1996: 31-32). The argument was that improvement in water quality comes from the provision of new installations, pretended to be the responsibility of the municipality. The company's duty rather consisted of operating the installations for producing and distributing water which had been delegated to it by the local administration. According to the French enterprise, if water sources get polluted the installation may not be able to cope and thus the responsibility of the company should be limited to informing the council of the situation. Such a precedent spreads evidence on the need to insert performance clauses in the public contract, binding the private contractor to provide the service required at a certain quality level excepted *force majeure*[55].

[55] *Force majeure* is an accepted principle of international trade law, recognised by national legislations with various distinctions. In general, *force majeure* excuses one party to a contractual relationship from performance of an obligation, which was rendered impossible due to an unforeseen and unforeseeable, irresistible and extraordinary event, falling out of the obligee's control. In case that the performance in question is not objectively impossible, but the equilibrium of the contract has been fundamentally altered, as it could be for a substantial

The absence of an authoritative regulator is a major deficiency in the French system, as there is no compensatory element to the unbalance of bargaining power, in terms of knowledge and resources, between local authorities and large public service TNCs. As observed yet, such unbalance clearly favours the diffusion of corruption which occurs so frequently to deem that it is internalised in corporate growth strategies. Consequently, the above benchmark competition mechanism is likely to fail as mayors would be deprived of the function to control private operators' conduct in the interest of customers-voters. Moreover, also in the eventuality that consumers disposed of the required information to evaluate the behaviour of the local supplier, the national oligopoly market structure would impair any yardstick comparison. In fact, strict oligopoly itself, as it is in presence of three enterprises only, and concerted practices determine the homogenisation of the conditions and quality of the service provided within te internal market. Finally, the fact that the report of the *Cour des Comptes* was solicited by the harsh complaints of consumers and environmental associations[56] suggests that a reform supplementary or complementary to the institution of a national regulator would be the institution of a national body representative of consumers.

3.2. The domestic regulatory framework: the British model and price-cap regulation

The 1997 report of the French *Cour des Comptes* provides indications which prove of interest for all countries where the involvement of private operators in the water sector is or is likely to be verified, especially the UK. Although more recently implemented, the present British system of water supply and sewerage is the result of a profound restructuring begun with the 1973 Water Act (WIUC, 1985: 8-10)[57] and whose outcome has been the privatisation of the 10 English and Welsh regional water authorities in 1989. The regional coverage of the undertakings allows them to achieve critical firm dimensions and the ensuing economies of scale, which explains the higher profits in respect of other markets only in part. Among the various privatisation pro-

increase in the price of providing a service in the agreed terms and conditions, an other principle of modern international *lex mercatoria*, hardship, appears more appropriate. Rather than objective impossibility, hardship therefore implies the economic impossibility of performance. When hardship arises the obligee is entitled to request the re-negotiation of the contract so as to reflect the changed circumstances, rather than to terminate the contract as in *force majeure*. On *force majeure*, see Draetta (1996).

56 *Source*: Public Services Privatisation Research Unit (PSPRU).

57 Following the 1973 Water Act, the new water authorities, publicly owned until 1989, took over the responsibilities of 157 water undertakings, 29 river authorities and 1393 sewage disposal authorities.

grammes implemented in the UK, that of water provision is by far the most unpopular in consequence of the astonishingly marked price increases (Newbery, 1998). Particularly in the water industry, the ideological approach of the British government in the conduction of privatisation has been by no means irrelevant. The UK experience of market testing has, for instance, produced a concentration comparable to that of France. The three French water TNCs have been adjudicated 50 percent of the concessions awarded, while only two private contractors concluded more than 100 contracts in New Hampshire. This was due to the extreme recourse to negotiated procedures, as encouraged by the Private Finance Initiative (PFI) excluding all bids from the public sector[58]. As regards the excessive duration of contracts, despite the fact that concessions in the UK commonly last 25 years, the PFI has introduced the practice of long-term extensions without sufficient measures ensuring post-entry competition (PSPRU, 1997).

From the institutional point of view, the UK regulatory system is run under statute by the Ofwat, namely the national regulator, appointed by and given terms of reference by the government. Provided that there are no limitations to profits by water utilities, the responsibility of the regulator is to ensure the financial viability of the operating companies, by fixing limits on price levels on the base of the investment plans developed by the regulated firms[59]. In theory, the advantages of the so-called price-cap regulation are given by that: the attention of the regulator is concentrated on the amount to be paid by consumers, allowing to obtain all the relevant information on the operations; limits on prices are directly related to the quality and objectives of the service provided; the efficiency of the operator is enhanced, as companies can benefit from cost reductions for the planned levels of service (Caselli and Peruzzi, 1998: 14-15). In reality, price cap regulation seems to tolerate monopolistic behaviour rather than stimulate productivity and improvement in the service, as demonstrated by several examples.

As a matter of fact, being based on the agreed projections of the required investment on a 5-year period, such a price based regulation leaves substantial extra-profits in the hands of the companies. This was patent when Ofwat agreed with North West Water and Thames Water on price increases due to a forecast of UK£ 500 million investments necessary to raise capital efficiency. In the relevant period, the two operators only invested UK£ 400 million so to achieve a net gain of UK£ 100 million. In 1995, prices imposed by South Water to the inhabitants of the Isle of Wight were augmented to permit the construction of 12 new plants whose works had not even started by the agreed date of accomplishment[60]. There is evidence that the price cap

58 *Source*: Public Services Privatisation Research Unit (PSPRU). See also PSPRU (1996: 16-20).

59 *Source*: Public Services Privatisation Research Unit (PSPRU).

60 *Source*: Public Services Privatisation Research Unit (PSPRU).

mechanism of price increases reflecting uncertain investments on behalf of the contractor is an incentive to underinvestment rather than ameliorated service quality. Moreover, such situation can be described as typical moral hazard, in that the absence of profit cap implies that no effective penalties are imposable on non compliant operators. The only sanction provided for by statute is the price-cap reduction for the subsequent period, which does not preclude the extra profits obtained[61]. Rather than a sanction against companies, the price-cap reduction appears as an undue penalty for consumers as it further discourages immoral operators from making the necessary investment.

Similarly, many cases in the UK experience highlight the argument of stricter quality requirements in water supply. The above statement holds particularly true in cases where the profitability of the business was the only concern of the contractors, despite the legitimate interest of local communities in receiving minimum quality services. Water companies in the British market "have been extremely successful at making profits, paying dividends to shareholders and fees to directors". Conversely, "the year 1995 highlighted how the companies' financial objectives are indifferent to, or conflict with, technical standards of service. Virtually all the water companies found themselves unable to cope with two months of drought. Hose-pipe bans, standpipes and cut-offs were widespread, but profits and dividends continued to rise" (PSPRU, 1996: 32). As far as pollution of rivers and drinking water is concerned, the most recent major case in the UK was in 1997 when Three Valleys Water, a subsidiary to Générale des Eaux, allowed their water to be contaminated with a bacterium which made it poisonous and unfit to drink[62].

One more deficiency in the UK regulatory framework is that, once an acquisition takes place, the Ofwat does not dispose of instruments to separate the respective accounts of the parent company and its subsidiary. The ensuing fluid accounting boundaries cause major difficulties in assessing the soundness of the proposed price increases, especially when subcontracting is directly allotted to vertically integrated subsidiaries without competitive tendering. The cost of works and operations performed in the vertical integration chain of water provision, which is to say not directly related to water supply and sewerage, tend in fact to be loaded into water prices so to induce undue augmentation. In such cases, the regulator is constrained by the suffered asymmetry of information, as it is extremely difficult to ascertain where a company begins and ends[63].

61 *Source*: Public Services Privatisation Research Unit (PSPRU).
62 *Source*: Public Services Privatisation Research Unit (PSPRU).
63 *Source*: Public Services Privatisation Research Unit (PSPRU).

The UK experience suggests that the presence of a national regulator is not sufficient by itself to provide adequate regulation. In particular, price-cap or price-based regulation manifestly allows significant opportunities for private operators to impose their monopolistic behaviour to consumers. An alternative approach shifting the regulator's attention from the proposed projections on the investment required to the successive assessment of corporate conduct and providing for effectual deterrent sanctions would hence be preferable. Having said that, it should be noted that the same distorsions present in the French system are acknowledged in the UK system, i.e. excessive pricing and profits added to low quality service, not to mention inadequate control of and transparency in operations, despite the different attitude towards market regulation. Accordingly, it can be inferred that no appreciable answer can be provided by national legislations only. This also demonstrates that more flexible mechanisms than neo-liberal policies are to implement in regulating water provision, so as to responsively encounter the basic needs of local communities.

3.3. International regulation of TNCs' conduct and anti-competitive practices

Current international instruments directly addressing TNCs and their conduct include the OECD Declaration on International Investment and Multinational Enterprises, of 21 June 1976, and the United Nations Draft Code of Conduct of Transnational Corporations, not yet adopted in its final version. While the Declaration relates to the member governments of OECD, a regional organisation whose action is inspired by pro-market considerations[64], the Code would address all member governments of the United Nations at universal level. The heterogeneous composition of UN membership and the ensuing conflicting interests between capital exporting and capital importing countries explain the long and difficult elaboration of the Code of Conduct since its inclusion in the United Nations Commission on Transnational Corporations (UNCTC) agenda in 1977[65]. Both legal instruments contain general provisions in the form of Guidelines or recommendations on competition and abstention from corrupt practices for the recipient governments to observe in regulating TNCs (Di Blase, 1996a; 1996b). In consequence of their "soft law" na-

[64] See above note 11.

[65] Among the vast literature on the subject, see Tschofen (1992), Migliorino (1989: 14 ff.) and Treves (1987). Once adopted, the UN Code of Conduct would be comparable, for the effect of its provisions, to the Declarations of Principles of the UN General Assembly. Such Declarations are in general not mandatory while preserving the lawfulness of actions taken by recipient member countries in accordance to the expressed recommendations.

ture, in fact, the rules set by the OECD Declaration and the UN Draft Code of Conduct respectively are not and would not be binding for the governments in question nor for the corporations concerned.

All the limitations of international law, not directly applicable to enterprises which are not international subjects, arise in this context and the political interests of industrialised countries to protect domestic firms and capitals have certainly influenced the attitude of the international community. Interestingly, however, an international organisation constituted in a homogeneous region as Western Europe, namely the European Union (EU), is empowered to directly submit individuals and undertakings to the rule of EU anti-trust policy. The EU has also proved particularly active in promoting co-operation agreements on competition issues with its major trading partners, as other European countries than the current 15 EU member states and the US, while less formal steps have been taken towards a number of countries in different regions. The fact that co-ordination of competition policies is enhanced by economic integration shows the possible developments of parallel efforts displayed by international economic institutions as the OECD to enable the convergence of competition policies. It is likely that an international competition forum will be provided by the World Trade Organisation (WTO), whether on the form of an authority entitled to enforce the rules set in an international code or whether on the form of a panel mechanism (Lesguillons, 1995)[66].

However, it is largely disputable that a general international competition regime designed to foster the free circulation of goods and services could be extended to such a crucial and peculiar field as the public utilities sector. Indeed, a differentiated approach should be adopted to protect the largest public interests in obtaining essential services as water supply and sanitation, which would be inevitably dismissed by the prevailing neo-liberal approach. Anti-competitive practices and diversion of welfare from the public accompanying liberalisation and deregulation of public utilities world-wide are in fact to be tempered in a pragmatic and flexible rather than ideological approach. The preferable solution seems to be found in the correct balance between public and private involvement in the operation of utilities, which could guarantee the satisfaction of the broadest needs and a more efficient use of the available economic resources at the same time. Thus, SOEs and public enterprises in general should not be penalised by a homogeneous set of rules, but treated in light of their differentiated role. Increasing demand for inter-

[66] A recent development in the mentioned direction has taken place under the initiative of the European Trade Commissioner, addressing the WTO to explore all possibilities of an international agreement on competition-related issues and of enhanced co-operation between national competition authorities. See UNCTAD (1997: 76-81).

national devices regulating practices restrictive of competition and corporate misconduct in the context of globalisation is a signal of how a competition regime in the water industry and other public utilities is not an unrealistic objective. However, the provisions of a universal legal framework have to adequately reflect developing countries' expectations of a "development friendly" competition policy. Developing countries not only happen to be concerned with limiting large TNCs' abuses of market power but also with favouring "level playing fields" for domestic firms whose consolidation would in most cases be conditioned by an aggressive foreign competition (South Centre, 1997: 76-81)[67]. Frustrating such requests would conflict with the moral imperative of managing global trade in a way conducive to economic and social development. Moreover, it would hinder the prospective adoption of an effective multilateral competition policy, which would be geographically restricted to a club of industrialised countries or would result limited in scope and normative clarity.

3.4. The WTO and GATT agreements following the Uruguay Round

After the replacement by WTO of the General Agreement on Tariffs and Trade (GATT) as an institutional seat for the negotiation and implementation of trade related measures, significant changes have been introduced affecting the management of global trade. Existing international rules applicable to public services and utilities are now available within the WTO framework, with particular reference to the agreements adopted after the Uruguay Round with the Marrakesh Declaration of 15 April 1994. The General Agreement on Trade in Services (GATS) applies to a wide range of services, from telecommunications to transport, tourism as well as financial and professional services (Beviglia Zampetti, 1996: 24-26), with the clear exclusion of water provision. In fact, Article I.3b) states that GATS applies to measures affecting trade in services "in any sector except services supplied in the exercise of governmental authority", intended as "any service which is supplied neither on a commercial basis, nor in competition with one or more service suppliers"[68]. As we have seen, the natural monopoly structure of market in water supply and sewerage is given by concessions being awarded locally, which thus denies the applicability of GATS rules but is not sufficient to elude the question of competition.

[67] The "level playing fields" issue is similar to that of permitting limitations to the principle of national treatment in the context of a Possible Multilateral Framework on Investment (PMFI) alternative to the proposed OECD Multilateral Agreement on Investment (MAI). Both aim at adapting the ongoing liberalisation of global trade and investment to unmet developmental objectives. See South Centre (1997: 4-7).

[68] Article I.3c) GATS.

The issue is dealt with by Article XIII.2 requiring "multilateral negotiations on government procurement in services under this Agreement within two years from the date of entry into force of the WTO Agreement". Such negotiations have given rise to a contradictory result, represented by the Agreement on Government Procurement (AGP) superseding and extending the coverage of the former Tokyo Round Agreement (Reich, 1997). The AGP covers procurement in public utilities as water, energy and transport, but does not encompass telecommunications for the difficulties of the negotiating parties in reaching consensus. The aim of the AGP is to enhance the opening up of procurement in public utilities to international competition and it thus provides for mandatory bid challenge procedures, allowing aggrieved suppliers to challenge alleged infringments of the Agreement before a court or an independent judicial body. If recognised ground to the complaint, the tribunal is empowered to correct the breach by re-establishing the situation preceding the tender. This will eventually imply the termination of the contract whose concession has been proven irregular according to the AGP rules. This is an innovative feature of AGP as compared to EC law, which does not provides for such a deterrent (Reich, 1997; Kerf, 1995). In alternative to the annulment of the contract concluded in wrong, the plaintiff will be awarded compensation in the form of damages.

However, potential restrictions to the powers of the court to intervene in the post-award or post-entry phase suggest that the only regulation of tendering procedures is insufficient to exclude the systematic violation of antitrust rules. Such powers should in fact be strengthened and enlarged in the perspective of an international body responsible for the restraint of practices restrictive of competition as well as of other forms of corporate misconduct. Moreover, the AGP seems extremely limited in its geographical scope, as the signatory countries are only 23 including the 15 EU member states, Canada, South Korea, Aruba, Japan, Israel, Norway, the US and Switzerland. Accession of non signatory countries to the AGP will be submitted to the approval of a Committee representing all parties on the basis of the business opportunities offered by the candidate (Kerf, 1997). This impairs a possible extension of the Agreement to a large number of developing countries, as the Committee will decide in the light of the economic interests of developed and newly industrialised members.

Furthermore, the overall content of the Agreement seems to follow too closely the neo-liberal pattern, without recognising a specific role for public enterprises which might participate to a bid. Although European legislation recognises the principle of non discrimination among bidding entities on grounds of ownership, the UK government has deliberately excluded in-house bids in the water sector through compulsory competitive tendering and as an accomplishment of its

Private Finance Initiative (PSPRU, 1996: 16-20). The same might occur under the AGP, regardless of the requirement of "non-discriminatory, timely, transparent and effective" tendering procedures. Under the liberalising pressure of the most influential states, TNCs could therefore take advantage of tenders regulated by the AGP to impose once again their market power. Such risk calls for the introduction of specific rules on competition in public utilities as well as more effective enforcement devices, going beyond the mere procedural phase. The AGP is not eligible to regulate the fairness and transparency of the global market in the water sector also because it does not take a crucial issue as product and production standards in sufficient account. Limited as it is to define the conditions for launching bidding procedures, it requires that international product and production standards be complied with, when existing, preoccupied that national standards could be a source of discrimination towards foreign suppliers (Reich, 1997). It is true that such a concern is justified, but no mechanism for preventing attempts of TNCs to "capture" the international regulator, namely the International Standards Organisation (ISO) defining standards to be adopted by WTO, are considered.

3.5. Regulating standards in the global water industry

Under the threat of passively witnessing the re-regulation of monopolies and cartels at global level, water TNCs may in fact effort to influence the decisions of bodies setting international standards in the same way as they exert such pressures on governmental and local authorities. In this last respect, a dangerous trend encouraged by cuts in public budgets leads to the progressive deregulation of consumers' safety and environmental protection as well as to the contracting out of monitoring programmes. The dismantling of governmental or administrative assessment bodies is usually accompanied by the elimination of existing regulation and the replacement of former rules with non compulsory codes of good practices, as well as by the privatisation of monitoring operations (National Union, 1997). In the absence of specific impediments to the acquisition of ownership of or control on the private actors to which the responsibility for assessing the social and environmental soundness of corporate behaviour is delegated, the need is perceived for redundantly regulating the regulator. Moreover, it is without saying that such an open way to corporate " voluntary compliance " and " self-reliance " certainly boosts the growth of firms as a consequence of the abatement of production costs, to the direct detriment of the quality of life of local communities. Such issues reactivate the debate on the role of official standard bodies and on the desirability of standards setting by official authority or market forces (Grindley, 1995: 1-3), but most of all urge for discussing the role of standards in enhancing market concentration and affecting public safety.

Success of water TNCs in "capturing" the international regulator would result in the power of such free-riders to enjoy self-imposition of product and production standards. This is a threat to prevent long before it could be realised, as "self-defined" standards are potential vehicles of furthered rather than restrained concentration. They could increase vertical integration through setting barriers to potential competitors in auctions for the provision of required facilities, sanitation plants and pipelines. In such case, the definition of too high standards could represent a restriction to entry of new operators, especially if originating from developing countries. "Self-imposed" standards would also foster horizontal integration in that the monopoly holder would be in a position to control the service quality in order to maximise the profitability of the venture. In a monopolistic situation, higher profits are expected to be distributed to shareholders as dividends or reinvested in the horizontal expansion of the holding's business. The risk in question is therefore that of a consequent irreversibility of the oligopoly structure of the water industry at global level. Moreover, the quality of water and the consequent health of consumers tend to be affected by low product standards, not to mention the damages that water operators could cause in the absence of appropriate environmental standards. In this respect, responsibility for controls on environmental safety cannot be substantially delegated to the private sector which, if not compelled, will tend to compress costs related to avoid pollution in the production chain. As previously observed, several cases in the global water industry indicate the magnitude of the standards issue.

Once acknowledged the potential effects of the "self-definition" of standards by TNCs, measures devoted at avoiding the "capture" of the international regulator become necessary. It is now clear that corporate influence on the body empowered to establish standards for water would result in the self-regulation of such conglomerates of power, thus enhancing concentration, monopolistic behaviour, corruption and bribery. Such an outcome could be facilitated by the inaccessible content of technical standards, which elude the general comprehension and hence discourage an active interest in the masses. Sophisticated debates on appropriate technical standards tend in fact to exclude the participation of the public, lacking sufficient knowledge. This is emphasised by the degree of unaccountability in international economic institutions as WTO, depending on the will of member governments but not directly responsible to citizens affected by its decisions. Finally, there is evidence of the need to comprehend the standards issue in a future international competition policy designed in order to provide solutions to existing or possible impediments to manage global trade in public services. In addition, the reform of the organisational structure of the international bodies delegated to investigate alleged violations of standards regulation, as well as related restrictions to competition and damages to the public interest, should also be addressed. The proposed reform should lead to a more democratic de-

cision-making process, thanks to the participation of representatives of all the categories concerned: employers, contractors and consumers, the ultimate recipient of public services and utilities. A tri- or multi-partite structure, modelled on the pattern of the International Labour Organisation, would not only allow transparency in the marketplace but also in the adoption of resolutions falling within the scope of the broadest public interests.

4. Designing alternative policies in the global water industry: towards a sustainable transnational re-regulation of monopolies?

The absence of a comprehensive international policy to manage transnational trade in strategic public services and utilities, such as water supply and sewerage, is to consider as a lost opportunity. It is patent that, especially under the prevailing neo-liberal approach, local and national authorities do not dispose of the necessary power to guide the process of globalisation in essential public utilities towards sustainable development and the promotion of public and common interests. In the trade-off between commercial considerations and social and environmental purposes, the latter should be regarded as the veritable *raison d'être* of public utilities provision. Accordingly, the redefinition of policies to implement in the area in question is an objective to pursue in order to ensure continuous, equal and universal access to these services.

Having said that, the re-regulation of public utilities at national level is a necessary though insufficient precondition to the design and implementation of innovative, alternative policies to the distortive neo-liberal dogma of full pricing at cost. At a first stage, such re-regulation might be envisaged as a contribution to the diffusion of international consensus, while in a second phase the developed international framework might provide a solution to those countries experiencing difficulties in the reform of their institutional structure. Generally, alternative policies should aim to a redefinition of the role of public enterprises and of the instituional environment in which they operate and compete.

4.1. Alternative policies strengthening the role of public enterprises

There is evidence that, contrary to common belief, publicly owned enterprises appear no less efficient than privatised companies on costs, personnel ratios, technical performance and financial comparisons (Hall, 1998b: 127-129). This is not only attributable to the corporatisation and management commercialisation of modern "independent" public enterprises, as inefficiencies of private operators are also acknowledged especially as far as costs and technical performance are concerned. Also from the financial point of view, state guarantees on income and profitability commonly requested by private corporations undermine the concept of entrepreneurial risk, corresponding to the public subsidisation of private operation of utilities and thus to an undue

transfer of public funds to private profits[69]. Moreover, public water enterprises show a stronger attitude towards socially oriented performance as is the case of the German system, with a remarkable commitment to maximise environmental quality (Hall, 1998b: 127-129). Stemming from the ability of publicly run water operators to conciliate commercial considerations, efficiency gains and public objectives, their role in the provision of water should be promoted within an appropriate regulatory framework, protecting consumers from the risks of the "cream skimming" effect, among which the homogeneous conduct of private and public operators. In such a way to encourage corporate performance according to sound practices, "benchmark" or "yard-stick" public-private competition should be envisaged on the base of the financial viability and economic efficiency, as well as of supplementary indicators as the hygienic-sanitary, social and environmental impact determined. In other words, such comparison would allow to maximise the virtuous conduct of competitors.

More generally, it is advisable that public enterprises be recognised equal access to tendering procedures, without being denied participation because of their non-private ownership. Prejudicial exclusion of bids from the public sector corresponds to the introduction of more significant market distortions than those intended to elude. Not allowing in-house bids, the market dominance of TNCs is in fact enlarged contributing to the consolidation of excessive corporate power. Conversely, in-house bids could restrain contradictory results of the mentioned mechanisms when only private entities participate to the auction. What usually happens is that the territory for which the concession is awarded is split in at least two areas, with the allowed consortia bidding for both or all districts although not entitled to win the concession for more than one.

In the Manila MWSS case, the concession for the Eastern area was won by Ayala, including Bechtel of the US and United Utilities of the UK, with a bid of 26 percent the current water rates. The Western area of the city was won by Benpres, including Lyonnaise des Eaux, with an offer of 56 percent despite the bid of the other concessionaire was 28 percent. In order to discourage collusion, the subcontracting of the losing consortia by the concessionaires was forbidden by the bidding rules (UNCTAD, 1997: 186-187). Yet, such an appreciable measure appears insufficient to exclude all attempts of concerted restrictive practices, which would be further restrained by a public offer. In-house bids could also decrease the number of cases where, as in Manila, bordering communities receive such a differentiated treatment from the incumbent operators. It is true that the Philippine governmental agency previously operating the MWSS utilities was not in a position to participate to the auction, but even in similar events the public offer could serve

[69] *Source*: Public Services Privatisation Research Unit (PSPRU). For the equivalent practice of revenues guarantees outside France, see PSPRU (1996: 40-41).

to assess the soundness of the private tenders. Not to mention that information on costs collected to estimate future tariff rises would be more complete.

When a single public enterprise is not endowed with the necessary financial and technical means to run the plants, the participation to the bidding procedure of transnational public consortia, including national and foreign public enterprises, beside that of transnational private consortia could be alternatively envisaged. The lesson of corporatisation and management commercialisation contributing to the efficiency gains registered by public enterprises should thus be transferred also to the domain of critical firm dimensions and economies of scale, so to augment the range of action of socially and environmentally oriented operators. It is clear that this would require the abolition of all the existing territorial restrictions to the trading initiatives of public enterprises.

As transitory measures, the public interest to a proper operation of water utilities has to be protected by subjecting the public or private monopoly holder to provisions deterring abuses and unfair conduct as well as to some degree of competition. First, incumbent undertakings whose concession was granted in wrong should lose the acquired rights in favour of the excluded bidders once the alleged violations were proven. Bid challenge procedures allowing the competent tribunal to restore excluded bidders from the suffered wrong should hence be introduced to the largest extent possible. As far as post-entry competition is concerned, the French *Cour des Comptes* has suggested that 30 year concessions should be considerably reduced and the renewal of exclusive rights of operation should not be automatic. Similarly, the performance of monopolists should be periodically reviewed in order to assess whether market power has been abused as well as whether the agreed performance criteria have been respected and the performance objectives have been met. In case of unsatisfactory findings, the concession could be assigned through re-bidding or other adequate measures could be taken (UNCTAD, 1997: 185-189).

4.2. Towards an innovative international competition policy?

The above general proposals cannot be directly extended at universal level and their compatibility with the critical situation of the less advanced countries has to be carefully estimated. Most developing countries do not dispose of satisfactory sets of competition rules[70] and technical as-

[70] At present, only more than 70 countries worldwide have adopted competition laws, among which less than 40 are developing countries. *Source*: UNCTAD (1997: 189).

sistance provided to fill this gap has to avoid legal transplants from the most advanced economic systems, which would hardly be apt to promote development (South Centre, 1997: 76-81). The absence of a domestic regulation of competition in the majority of developing countries does augment rather than preclude the desirability of both an international competition authority and an international competition law.

There is evidence that abuses of market power and misconduct of corporations performing globally would otherwise be far more difficult to restrain without a multilateral discipline providing appropriate legal and administrative instruments[71]. A special regime for developing and least developed countries is indeed required to enable domestic participation, whether public, private or both, to the provision of basic services to local communities. So as to allow new operators to emerge in non industrialised economies, national governments should be entitled to adopt compatible restrictions to competition, irrespective of the national treatment principle, preferably in the form of flexible incentives to domestic entities for a limited duration. Similar and other measures are to be included in an overall strategy to prevent the disadvantages susceptible to derive from "infant industry" policies while attaining the positive outcomes potentially arising from the protection of greenfield sectors of the national economy. The experience of countries as Japan and the Four Tigers has evidenced that restrictions to competition aimed at protecting "infant industries" can, if properly managed as a complement to domestic industrial policies, be conducive to development (Hogendorn, 1990: 70-78).

This calls for allowing a certain degree of discretion to national competition authorities of developing countries, so that the implementation of both domestic and international competition policies can be entirely functional to the achievement of developmental objectives. By contrast, the industrialised group, mainly consisting of OECD member countries, favours the elaboration of a neo-liberal international competition regime with general provisions applicable to all parties irrespective of their economic and social conditions. Had this idea to prevail, the WTO/GATT pattern of rules fostering trade liberalisation world-wide, with developing countries being only allowed to adapt national legislations in a longer period, would be applied to competition (South Centre, 1997: 76-81). In such a scenario, the signatories to an agreement on competi-

[71] The problem exists, although to a different extent, for the most advanced systems as well. Major impediments to restricting anti-competitive practices of large TNCs are the difficulties of national competition authorities in having access to information, limited co-operation to the enforcement of national laws and differences in competition laws, potentially leading to conflicts between national jurisdictions. See UNCTAD (1997: 218-220).

tion-related issues would presumably coincide to the AGP parties with a serious prejudice of the global scope of the prospective transnational framework. In view of the economic interests involved, it is foreseeable that the excluded countries would subsequently be subject to considerable pressures to accept the established discipline after negotiating the conditions of access but with no opportunity to discuss the merit of existing provisions, as it is going to occur under the Multilateral Agreement on Investment (MAI).

In order to restrain a transnational organisation of anti-competitive practices and a global distribution of corruption by transnational conglomerates of power, the need is rather perceived for a multilateral agency responsible for monitoring the correct functioning of the world market and enforcing repressive measures of the most significant abuses. So that abuses can be objectively evaluated and punished, the proposed multilateral agency should act within the framework of widely accepted and recognised international rules. In other words, in the absence of applicable international customary rules, this supranational body should enforce the provisions of the multilateral, universal convention establishing the agency itself. The institution of an international anti-trust authority acting over national agencies' jurisdiction or co-operating with national agencies represents a first best objective but its political feasibility appears questionable, due to the interests at stake and the will of single countries to proceed in this direction (Lesguillons, 1995). Whatever the chances of a concrete realisation of such a goal in the short term, it is necessary to identify the preferable responses to the challenges deriving from the liberalisation of public services, namely restrictive practices and misconduct of TNCs. Equivalent comments could pertain to a multilateral set of rules dealing with corruption as well as competition, more likely to originate from an international initiative aimed at the harmonisation of national and regional legislations. Preliminary to discuss the content of the desired international legal instrument, it is advisable to consider existing or foreseen regulations of related matters in the international regime.

Despite the uncertainty on the immediate political feasibility of the above proposals, the necessity to counterbalance the democratic deficit in managing economic globalisation appears by this time uncontested.

References

Beviglia Zampetti, A. (1996) "Dall'accordo generale sulle tariffe ed il commercio all'Organizzazione Mondiale per il Commercio", in Giardina, A. and G. L. Tosato (eds.) *Diritto del Commercio Internazionale – Testi di base e note introduttive*, Milano: Giuffrè Editore.

Bouttes, J. P. and D. Haag (1993) "L'électricité, l'intégration européenne d'une industrie de réseau", *Economie et Statistique*, n° 266, 1993.

Caselli, R. and P. Peruzzi (1998) "Servizi idrici tra regolazione e mercato", in *I servizi tecnologici locali tra regolazione e mercato* (seminar), 25-26 June 1998, Florence, Italy (Organised by IRPET, PROAQUA and the University of Florence).

Casson, M. (1993) "Internalization Theory and Beyond", in G. Hedlund (ed.) *Organization of Transnational Corporations*, United Nations Library on Transnational Corporations, Volume 6, London and New York: Routledge.

Conklin, D. and Lecraw, D. (1997) "Restrictions on foreign ownership during 1984-1994: developments and alternative policies", *Transnational Corporations*, Vol. 6 n° 1, 1997 (Published for the United Nations).

Di Blase, A. (1996a) "La dichiarazione OCSE sugli investimenti e le imprese internazionali", in Giardina, A. and G. L. Tosato (eds.) *Diritto del Commercio Internazionale – Testi di base e note introduttive*, Milano: Giuffrè Editore.

Di Blase, A. (1996b) "Il progetto NU di codice di condotta per le società internazionali", in Giardina, A. and G. L. Tosato (eds.) *Diritto del Commercio Internazionale – Testi di base e note introduttive*, Milano: Giuffrè Editore.

Draetta, U. (1996) "Force Majeure Clauses in International Trade Practice", *International Business Law Journal*, n° 5, 1996.

Dunning, J. H. (1996) "The geographical sources of the competitiveness of firms: some results of a new survey", *Transnational Corporations*, Vol. 5 n° 3, 1996 (Published for the United Nations).

EBRD (1996) *Annual Report*, London (European Bank for Reconstruction and Development).

Grindley, P. (1995) *Standards Strategy and Policy - Cases and Stories*, New York: Oxford University Press.

Hall, D. (1998a) "Public Enterprise in Europe", in Holtham, G. (ed.) *Freedom with Responsibility - Can we unshackle public enterprise?*, London (Published for the Institute for Public Policy Research).

Hall, D. (1998b) “Restructuring and privatization in the public utilities - Europe”, in De Luca, L. (ed.) *Labour and social dimensions of privatization and restrucuring (publc utilities: water, gas and electricity)*, Geneva (Published for the International Labour Organization).

Heerings, H. (1994) *Internationalisation and restructuring of European gas and electricity utilities*, Amsterdam (Published for SOMO, Centre for Research on Multi-National Corporations).

Hemming, R. and Mansoor, A. M. (1988) *Privatization and Public Enterprises*, IMF Occasional Paper n° 56, Washington, D.C. (IMF). (Reprinted 1992).

Hogendorn, J. H. (1990) *Lo sviluppo economico*, Bologna: Zanichelli - translated from the same author (1987) *Economic Development*, Harper & Row, Publishers, Inc.

IFC (1996) *Financing Private Infrastructure*, Lessons from Experience n° 4, Washington, D.C. (Published for the World Bank).

Kerf, M. (1995) “The Impact of EC Law on Public Service Concessions – A Legal and Economic Analysis”, *World Competition*, Vol. 18 n° 4, June 1995.

Lesguillons, H. (1995) “Towards an International Competition Policy?”, *International Business Law Journal*, n° 8, 1995.

Lorraine, D. (1997) “Francia: la regolazione senza regolatore”, in Guffanti, L. and M. Merelli (eds.) *La riforma dei servizi idrici in Italia - Riflessioni e spunti comparativi*, Milano: EGEA SpA.

Lowry, T. (1997) "Telecom deals signal deregulation's failure", *USA Today*: May 29, 1997.

Martin, B. (1993) *In the Public Interest? - Privatisation and Public Sector Reform*, London: Zed Books Ltd.

Martin, B. and. N. White (1998) “Privatization and restructuring of electricity, gas and water utilities in the United States and Canada - Social and employment impact, and participatory approaches”, in De Luca, L. (ed.) *Labour and social dimensions of privatization and restrucuring (publc utilities: water, gas and electricity)*, Geneva (Published for the International Labour Organization).

MIGA (1996) *Annual Report*, Washington, D.C. (Multilateral Investment Guarantee Agency).

MIGA (1997) *Annual Report*, Washington, D.C. (Multilateral Investment Guarantee Agency).

Migliorino, L. (1989) *Gli accordi internazionali sugli investimenti*, Milano: Giuffrè Editore.

Mills, M. (1997) "AT&T contemplating huge merger with SBC" *Washington Post*: May 28, 1997.

Muchlinski, P. (1995) *Multinational Enterprises and the Law*, Oxford UK and Cambridge USA: Blackwell.

National Union (1997) *Who’s Protecting Your Interests Now ? - The Hidden Agenda Behind Deregulation*, Ottawa (National Union).

Newbery, D. M. (1998) “Public utility regulation in England - Strengths and weaknesses”, in *I servizi tecnologici locali tra regolazione e mercato* (seminar), 25-26 June 1998, Florence, Italy (Organised by IRPET, PROAQUA and the University of Florence).

Nguyen, T. D. (1997) “Il ruolo delle Agenzie dell’acqua in Francia”, in Guffanti, L. and M. Merelli (eds.) *La riforma dei servizi idrici in Italia - Riflessioni e spunti comparativi*, Milano: EGEA SpA.

Nicolazo, J. L. (1997) “La gestione delle risorse idriche in Francia dal punto di vista istituzionale”, in Guffanti, L. and M. Merelli (eds.) *La riforma dei servizi idrici in Italia - Riflessioni e spunti comparativi*, Milano: EGEA SpA.

OECD (1994a) *New Ways of Managing Infrastructure Provision*, Public Management Occasional Papers n° 6, Paris (OECD).

OECD (1994b) *Globalisation of Industrial Activities*, Working Papers n° 48, Paris (OECD).

Paddon, M. (1998) “Restructuring and privatization of utilities in the Asia Pacific region”, in De Luca, L. (ed.) *Labour and social dimensions of privatization and restrucuring (public utilities: water, gas and electricity)*, Geneva (Published for the International Labour Organization).

Plane, P. (1998) “Privatization of water and electricity in Africa - Initial constraints, methods of implementation and evaluation of processes”, in De Luca, L. (ed.) *Labour and social dimensions of privatization and restrucuring (publc utilities: water, gas and electricity)*, Geneva (Published for the International Labour Organization).

Pottier, C. (1991) “Les groupes européens à la recherche d’une taille mondiale”, in J. P. Gilly (ed.) *L’Europe industrielle horizon 1993 - 1. Les groupes et l’intégration européenne*, Paris: La Documentation française.

Public Sector Research Centre (1996) *Privatisation of Electricity in the Asia-Pacific Region*, Sidney (Published for Public Services International).

Public Services Privatisation Research Unit (1996) *The Privatisation Network - the multinationals’ bid for public services*, London (Published for Public Services International).

Public Services Privatisation Research Unit (1997) “Private finance: troubled French water”, *Privatisation News*, n° 44, February 1997 (Published for Public Services International).

Reich, A. (1997) “The New GATT Agreement on Government Procurement – The Pitfalls of Plurilateralism and Strict Reciprocity”, *Journal of World Trade*, Vol. 31 n° 2, April 1997.

Rossi, J. (1997) “Le principali caratteristiche del sistema francese di gestione dei servizi idrici”, in Guffanti, L. and M. Merelli (eds.) *La riforma dei servizi idrici in Italia - Riflessioni e spunti comparativi*, Milano: EGEA SpA.

Roth, G. (1987) *The Private Provision of Public Services in Developing Countries*, New York: Oxford University Press (Published for the Economic Development Institute, World Bank).

Royon, M. (1991) "Le BTP: stratégies d'internationalisation et d'externalisation", in A. Alcoffe (ed.) *L'Europe industrielle horizon 1993 - 2. Stratégies sectorielles des groupes*, Paris: La Documentation française.

Sader, F. (1995) *Privatizing Public Enterprises and Foreign Investment in Developing Countries, 1988-93*, Foreign Investment Advisory Service Occasional Paper n° 5, Washington, D.C. (Published for the World Bank).

Salvatore, D. (1992) *Economia internazionale*, Rome: La Nuova Italia Scientifica - translated from the same author (1993) *International Economics*, Macmillan Publishing Company.

Saravia, E. (1998) "Privatization in Latin America: Private sector participation in water, gas and electricity utilities - Impact on labour and utility company performance", in De Luca, L. (ed.) *Labour and social dimensions of privatization and restrucuring (publc utilities: water, gas and electricity)*, Geneva (Published for the International Labour Organization).

Serageldin, I. (1995) *Toward Sustainable Management of Water Resources*, Washington, D.C. (Published for the World Bank).

South Centre (1997) *Foreign Direct Investment, Development and the New Global Economic Order – A Policy Brief for the South*, Geneva (Published for Atar).

Treves, (1987) "La Convenzione istitutiva della MIGA come codice di condotta in tema di investimenti", *Rivista di Diritto Internazionale Privato e Processuale*, 1987 (*reference to be checked)

UNCTAD (1994) *World Investment Report - Transnational Corporations, Employment and the Workplace*, New York and Geneva (United Nations).

UNCTAD (1996a) *World Investment Report - Investment, Trade and International Policy Arrangements*, New York and Geneva (United Nations).

UNCTAD (1996b) *World Investment Directory. Volume V, Africa - Foreign Direct Investment, Legal Framework and Corporate Data*, New York and Geneva (United Nations).

UNCTAD (1997) *World Investment Report - Transnational Corporations, Market Structure and Competition Policy*, New York and Geneva (United Nations).

Water Industry Unions Committee (1985) *Public Ownership: A Watertight Case*, London (Published for the Water Industry Unions Committee).

Winpenny, J. T. (1994) *Managing Water as an Economic Resource*, London and New York: Routledge.

World Bank (1996) *Private Sector Participation in the Water Supply and Wastewater Sector: Lessons from Six Developing Countries*, Washington, D.C. (World Bank)

References