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**Reform of New Zealand's Water Utilities  
The Snail's Pace of Progress**

**Roger Kerr  
EXECUTIVE DIRECTOR  
NEW ZEALAND BUSINESS ROUNDTABLE**

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## **REFORM OF NEW ZEALAND'S WATER UTILITIES THE SNAIL'S PACE OF PROGRESS**

The focus of this paper is on options for greater private sector involvement in the water and wastewater sector. This is not to suggest that I think privatisation is the only option for reform. To the contrary, I believe that substantial gains can be achieved by steps such as metering of water, efficient pricing, establishing LATEs, reorganising bulk and retail supply arrangements, and improving institutional arrangements for water allocation, particularly by introducing clear property rights and tradable permits. These topics were the primary focus of the 1995 Business Roundtable report Reform of the Water Industry. Only five pages of that 150 page study were devoted to consideration of the benefits of privatisation - although inevitably they attracted the most attention.

My impression is that the arguments presented in that report on general commercialisation and structural reform issues are now fairly well accepted among water industry managers. Opposition to these concepts comes mainly from organised interest groups and politicians. But there is a large gap between conceptual thinking and implementation. Actual reform in the industry is still proceeding at a snail's pace, and opportunities to achieve both economic efficiency and environmental goals are not being taken.

Steps short of full privatisation should probably be the first priority in a reform programme. However, given the state of professional thinking, a discussion of the possible additional gains from privatisation may be of greater interest than a general rehearsal of the benefits of commercialisation. Although privatisation is perceived by many in New Zealand as a controversial issue, I would be surprised if most industry professionals did not also see advantages in various forms of private sector involvement in the water industry. Already substantial efficiency gains have been achieved by most councils through contracting out council services to the private sector (e.g. refuse collection, road maintenance, pipeline repair and so on). There is every reason to suppose that many aspects of the supply of water services offer the same potential.

This paper begins by reviewing the general case for privatisation, with emphasis on the local government level. I then discuss the variety of ways in which overseas countries are privatising their water and wastewater

industries. In the final section I review the progress that is being made in New Zealand in reforming the industry and examine some of the arguments that continue to be raised against corporatisation and privatisation.

### **The case for privatisation**

The conversion of government trading departments to state-owned enterprises (SOEs) and the exposure of their markets to competition have brought large efficiency gains, as even former critics of these reforms now acknowledge. But the further issue of public or private ownership also matters. There is now a large body of evidence that, on average and over time, privately owned businesses perform more efficiently than state enterprises. Around the world the first wave of privatisation of state businesses has been followed by privatisation of various utilities (e.g. ports, airports, telecommunications, electricity, water and roading) and the current wave is seeing an extension into social services such as health and education. The inescapable fact is that businesses exposed to the disciplines of capital markets and monitoring by interested owners have stronger incentives to perform than those merely subject to political oversight.

Other options for private sector involvement in infrastructure provision short of full privatisation can also bring significant efficiency benefits. However, because none of them entirely severs the relationship with government, the fundamental incentive problems of government ownership will remain. In addition, these arrangements all require an ongoing contractual relationship between the private sector and the government. The complexities of managing such a relationship should not be underestimated, and governments are often influenced by political rather than economic priorities.

Increased involvement of the private sector can bring skills and know-how that is not otherwise available to governments. The private sector can mobilise finance for new investments when governments are hard-pressed to raise funds for the large outlays required for infrastructure investments in particular, and it is better placed to manage business risk. Businesses can be set free to develop long-term business strategies, which may include an international dimension. Privately owned water utilities in France and England, for example, are a new source of competitive advantage for those economies and they are marketing

their services worldwide. Taxpayers' and ratepayers' equity in such publicly owned businesses cannot responsibly be put at risk in such activities.

Long-term local government ownership and operation of water and wastewater assets is not a desirable option. With continued public ownership we are likely to see:

- ongoing politicisation of decision making;
- lack of clarity as to objectives;
- rent seeking and political grandstanding over issues such as metering, pricing and ownership;
- poor information about the condition of assets;
- poor investment decisions and decisions not made in a timely fashion; and
- weak incentives to control costs.

These difficulties will be particularly severe if councils fail to establish LATEs. However, experience suggests that the gains from corporatisation become eroded over time as political interference re-emerges. One of the additional benefits of privatisation is that it locks in the gains of corporatisation.

Three recent reviews of privatisation experience provide empirical support for the general case for private ownership, including of utility businesses.

The first study, conducted by the World Bank, looked at the post-privatisation performance of twelve companies (mostly airlines and regulated utilities) in Britain, Chile, Malaysia and Mexico.<sup>1</sup> It carefully separated the impact of privatisation from other influences in comparing the performance of the companies before and after privatisation. The study concluded that net welfare gains resulted from privatisation in eleven out of the twelve former state enterprises.

A second report by the World Bank reviewed a much larger sample of companies - 61 companies in 18 countries (six developing and 12 industrial)

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<sup>1</sup> Galal, A, Jones, L, Tandon, P and Vogelsang, I (1994), *Welfare Consequences of Selling Public Enterprises*, New York: Oxford University Press.

and 32 industries - that had been privatised through outright sale.<sup>2</sup> The study found that following privatisation, efficiency improved on average by 11 percent; investment increased by 44 percent; output increased by 27 percent; employment was up by six percent; and profitability and dividends were significantly higher.

The third study, conducted by the Reason Foundation, compared privately owned and government-owned water systems in California.<sup>3</sup> This study is particularly interesting because it focuses specifically on water, and for two other reasons. The first is that private water companies in California are heavily regulated and there is no *a priori* reason to assume that in such an environment they would consistently outperform government-owned firms, given the poor incentives to increase efficiency. Secondly, the government-owned companies received special treatment in the form of tax subsidies, excess cash balances and investment income. Yet despite these factors the study found that because they were substantially more efficient the privately owned companies provided water services to consumers at the same price as government-owned water companies without subsidies or tax exemptions. For example, the government-owned water companies had 3.49 employees on average per 1000 connections, more than twice the level of private companies, and salaries were much more inflated in the public agencies - over 37 percent of operating revenues in the public sector companies against 13.4 percent in the private ones. The study concluded that government provision should be terminated, with the financial savings being applied to tax reductions or higher priority government programmes.

The evidence on the general benefits of privatisation is now decisive. As the World Bank put it in the 1996 *World Development Report*, there is little doubt that private ownership is a significant determinant of economic performance in established market economies. Opposition to privatisation can now only be based on ideology, not logic and evidence.

### **Water privatisation in Britain**

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<sup>2</sup> Megginson, W L, Nash, R C and van Randenborgh, M (1996), *The Privatisation Dividend: A Worldwide Analysis of the Financial and Operating Performance of Newly Privatised Firms*, World Bank.

<sup>3</sup> Neal, K, Maloney, J, Marson, J and Francis, T (1996), *Restructuring America's Water Industry: Comparing Investor-Owned and Government-Owned Water Systems*, Reason Foundation.

The British experience with water industry privatisation is often criticised. Indeed it seems to be the only example of water privatisation known to Alliance politicians and many journalists, and they seem to think it demonstrates the failure of privatisation.

The heavily regulated approach adopted by the British government is certainly not a model that commends itself. In many ways the industry swapped a government owner for a government controller and regulator. However, it is important not to overlook the context of privatisation in Britain. Substantial investment was required to enable the water companies to catch up on maintenance which was neglected when they were under political control, to meet strict EU environmental standards (whether justified or not), and to improve the quality of drinking water. Funding this investment meant that regardless of privatisation prices would rise and consumers who did not value such quality improvements would be dissatisfied. In fact, charges have risen in all EU countries, in part as a result of the need to finance investment needed to meet higher quality standards.<sup>4</sup>

Furthermore, a rise in prices following corporatisation or privatisation is not necessarily an indicator of policy failure. If prices were previously held down artificially - for example through failure to undertake adequate maintenance of assets, or for political reasons - over-consumption and other distortions would occur causing resource misallocation and environmental damage. Artificially low prices are as harmful to society as artificially high prices - the goal should be to promote efficient pricing.

In respect of pricing, it should also be mentioned that the lack of metering in Britain has restricted the efficiency gains that might have been expected from privatisation - only 7 percent of domestic households have meters. Ninety-three percent of households still pay on the basis of rateable value (property values previously used by local authorities for raising revenue).<sup>5</sup>

It is sometimes suggested that the rate of investment being undertaken by the private British water companies is sub-optimal. However, determining the optimal rate of investment is not straightforward. In an unregulated market, private owners have strong incentives to optimise the extent and timing of their

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<sup>4</sup> Smith, J (March 1996), *Directions in Water Pricing: A UK-European Focus*, paper presented to 1996 AIC New Zealand Water Supply Conference, p. 2.

<sup>5</sup> *ibid*, p. 1.

investments. Firms maximise their profits by investing in projects to provide services which customers are prepared to pay for. It is possible that the regulatory regime in Britain is distorting the investment incentives of the private water companies. If the private utilities fear that the regulator will not allow them to set prices that cover the costs of future investments, they may indeed be reluctant to commit to capital projects.

Despite these significant weaknesses in the implementation of water industry privatisation in Britain, the balance sheet of the results is clearly positive. Real improvements in drinking and bathing water quality have been achieved, and efficiency gains made. For example, Anglian Water reports that compliance with drinking water standards has increased from 98 percent in 1989 to 99.6 percent in 1995; compliance with wastewater standards has increased from 80 percent to 98.7 percent; and the loss rate from the distribution system has been reduced from 16 to 13 percent. Customer service has also improved.<sup>6</sup> Importantly, Anglian Water has estimated that (as at 1993/94) prices were 13 percent lower than they would have been if the company had remained in government ownership.<sup>7</sup> Whatever the merits of the debates about issues such as the salaries of managers in the water industry, such cost factors have been swamped by these efficiency gains.

### **Water privatisation around the world**

Many governments are proceeding with privatisation, because they are convinced of its benefits. Robert Poole of the Reason Foundation noted in an address in New Zealand last year that the sale of state-owned enterprises around the world totalled US\$66 billion in 1995, bringing the 10-year total of such sales to US\$535 billion.

The worldwide trend towards increased private involvement in infrastructure assets has extended to the management, operation and ownership of water and sanitation assets. Increased private sector involvement has been achieved through management contracts, leases, concessions, build-operate-transfer (BOT) schemes, and, of course, divestiture.<sup>8</sup>

<sup>6</sup> Latham, D (1996), *UK Water Experience - What Can New Zealand Gain?*, paper presented to the 1996 AIC New Zealand Water Supply Conference, p. 19.

<sup>7</sup> Matthews, P (February 1994), *Anglian Water: A Successful Example of Privatisation*, paper prepared for publication in Brazil, Ref: Elaine Santos Vega Sopave, p. 3.

<sup>8</sup> The discussion below draws on the World Bank (November 1996), *Toolkits for Private Sector Participation in Water and Sanitation*, Second Discussion Draft, pp. 6-12.

**Management contracts** transfer responsibility for the operations and maintenance of government-owned businesses to the private sector for a relatively short period (three to five years typically). Such contracts leave responsibility for all investment with the government owner of the assets. Management contracting is likely to be most useful where the primary objective is to enhance the technical ability of a utility to perform specific tasks. Management contracts can be used as a first step towards private involvement where current conditions make it difficult for the government to contemplate other forms of privatisation or where it is difficult to induce the private sector to commit capital or take commercial or political risks.

Management contracts have been adopted in Colombia, Malaysia, Trinidad and Tobago and Turkey for water services, and in the United States for both water and sanitation services. In Mexico City, management contracts have been used as an interim step to improve information about the state of the system prior to seeking investment commitments from the private sector. Management contracts are being considered in Angola and Albania.

Another option involves leasing infrastructure assets to the private sector. Under a lease arrangement, a private sector company takes responsibility for operating and maintaining the assets. In a well-structured contract, the private sector partner accepts a significant share of the commercial risks. For example, the contract may allow the private sector party to increase its profits by cutting its costs. Leases have been used where there is scope for gains in operational efficiency but only limited need or scope for new investment. The responsibility for financing new investments remains with the government owner.

Leases have been used extensively in France and Spain and are currently in place in Guinea and Senegal.

One of the preferred approaches to increasing private sector involvement has been the use of **franchising concessions**. Under a concession, the private company takes on full responsibility for the operation and maintenance of the asset, as well as for investments. Asset ownership remains with government. The concession approach passes full responsibility for operations and for raising finance and investment to the private sector for a period typically of 25-

30 years. A concession arrangement can harness private sector incentives for efficiency across a range of the utility's assets. Administration of the concession by the government is, however, complex.

Concessions have long been used in France. This approach has now been adopted by a number of developing countries. In a recent report the Global Environment Fund identified more than 150 recently completed, ongoing and soon-to-be awarded projects, involving more than US\$25 billion in private investment. Most of the projects involve private concessions in water and wastewater management. Examples include a US\$4 billion concession awarded in 1994 to a private sector consortium for operation of the Buenos Aires water and wastewater operations and a US\$1.2 billion concession awarded for Santa Fe's water and wastewater system in 1995. Concessions have also been granted in Brazil, Colombia and Mexico, and are under consideration (or in the process of being tendered) in Bolivia and Ecuador. A US\$2.2 billion concession for the operation of the Casablanca (Morocco) municipal water, wastewater and electric operations was negotiated in 1996. Malaysia awarded a US\$2.8 billion country-wide wastewater concession in 1993 to a private consortium. A US\$1.3 billion water concession has been granted in Thailand. The Philippines government recently announced the US\$7.5 billion privatisation of the Manila water supply through a concession arrangement.

**Build-operate-transfer (BOT)** arrangements are similar to concessions, but are generally used for greenfields projects. The primary advantage of this approach is that it can mobilise private sector incentives and finance for costly new investment projects. Variations on this approach include BOT arrangements in which ownership remains with the private sector.

BOTs are being used to develop the major new treatment facilities for Sydney's water supply, and proposals for sewage collection and treatment are being considered. A BOT has been adopted by Wellington City Council for its wastewater treatment plant. BOT concessions have been granted in Colombia, Shanghai, Turkey and Oman. Future BOT wastewater and/or water concessions have been announced in Brazil, Chile and India.

The final option, that of **divestment** of water or wastewater assets, transfers to the private sector full responsibility for operations, maintenance and

investment. Probably the greatest benefits, including the minimisation of the risks of political interference, are available under this option.

Asset sales have been used widely for the privatisation of non-water infrastructure assets. In the water industry, by contrast, large-scale asset sales have to date been confined to the privatisations in England and Wales. Private water companies have, however, operated for a long time in the United States, and some privatisation of water and wastewater assets has occurred there. Chile is considering asset sales (or a concession). A tender of a 25 percent stake in Budapest's municipal water company is proposed for 1997/98.

### **Arguments against corporatisation and privatisation**

Compared with the momentum of reform of water utilities around the world, progress in New Zealand has on the whole been extremely slow. Debate seems to have foundered on the same hoary arguments that were raised against earlier corporatisation and privatisation proposals.

For example, Stuart Macaskill, chairman of the Wellington Regional Council and former president of the then Local Government Association, has repeatedly come up with spurious arguments against privatisation and contracting out. Recently, he opposed the decision by the Wellington City Council to tender out maintenance of its water supply and argued that his council should be given a regional monopoly. Fortunately, the replies by the mayor and other Wellington City councillors were robust: the regional council had been slow to fix leaking pipes, it had done a "lousy job" and "he is trying to protect his patch".

It is sometimes suggested that because water businesses have some 'natural monopoly' characteristics they cannot be privatised for fear they will abuse a market position. However, if monopoly pricing is a concern with private ownership, it is equally a concern with LATEs which also have commercial goals. Thus the issue of monopoly pricing must be considered at the time LATEs are established, and no additional issues are raised by privatisation. In my view, a light-handed regulatory regime, involving reliance on information disclosure and the provisions of the Commerce Act, appears likely to interfere least with commercial decision making while providing a constraint on any market power that suppliers of water and wastewater services might have.

Experience has shown clearly that cost padding and monopoly pricing were far greater problems in utilities such as ports and electricity supply authorities when they were under political control, and the same is almost certain to be true of water.

Another objection to the commercialisation of water businesses and charging for consumption is that poorer households would be harmed. This argument cannot be sustained. Low income households are often low users of water compared with those with swimming pools and large gardens which are subsidised by the rest of the community in the absence of metering. A study of the impact of changes to water tariffs on householders undertaken by the Wellington Regional Council concluded that "of those houses that would be worse off [from a change to usage-based charging], an assessment of the relationship to household expenditure suggests that for most households the cost increase would be affordable".<sup>9</sup> This study did not take into account the efficiency benefits likely to be achieved by commercialisation. A recent editorial in a Chilean newspaper criticised a political party for opposing privatisation, warning that the common people of Chile would be the losers, "above all, those sectors with the smallest incomes".<sup>10</sup>

If there are remaining concerns about the ability of some families to pay for water, these should be addressed directly through income support, rather than through sacrificing the cost saving and environmental benefits achievable by metering. However, the cost of water needs to be kept in perspective - the average weekly cost of water to a New Zealand household amounts to less than it spends on lotto and other forms of gaming. It is interesting to note that *The Australian Financial Review* stated in an editorial last year that "the politics of paying for water ... has never been a significant issue" in Australia. This may say something about the quality of the political leadership of some New Zealand councils.

An objection raised in the recent debate on the corporatisation of the Auckland City Council's water business was that "an essential commodity should not be treated as a profit-making business". However, water is an economic good like any other. People derive benefits from its consumption and, if it is priced correctly, will trade off the benefits of using additional water against other

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<sup>9</sup> Brunson Cathie Ltd (1993), *Wellington Metropolitan Water Supply Universal Metering Study Consolidated Report*, December Update, p. 13.

<sup>10</sup> *La Tercera*, 16 December 1996.

goods or services they might prefer. In any case, the Council must generate sufficient revenue to pay for the water services it provides. At issue therefore is how the revenue is raised, not whether it is raised. Most other essential commodities are provided by the private sector. Food, for example, is as essential to life as the small proportion of water use that is genuinely in this category, yet not even the Alliance would suggest that the production and distribution of food should be turned over to local government.

In opposing the establishment of a LATE, Auckland mayor Les Mills said that "he could not quite grasp the correctness of the principle of a wastewater user-charge as wastewater disposal was a public good". While it is true that there are some 'public good' benefits from wastewater disposal (there are health benefits to neighbours from a household's safe disposal of waste), there are substantial private benefits as well. Levying a charge for the disposal of effluent would tend to reduce effluent and associated pollution. However, it is likely to be excessively costly to measure the discharge of effluent from residential and smaller commercial properties. Instead, it may be efficient to base sewerage charges on water consumption given the correlation between water use and effluent discharged into sewers. For industrial customers it would be efficient to levy charges based on the volume and concentration of effluent.

In the Auckland City Council debate, some councillors argued that corporatisation should be opposed because it might lead to privatisation. This is a bizarre form of logic. Privatisation might follow corporatisation if councils were satisfied that it would lead to further efficiency gains. However, the view that corporatisation must lead to privatisation seems to reflect an extraordinary lack of faith in democratic decision making. Privatisation only follows if council approval is given.

Another criticism of privatisation has been made by Wanganui Mayor Chas Poynter. He suggested that "when you privatise, the person who takes over wants a return and the ratepayer will end up paying more". This argument is also spurious. Government organisations, like private ones, must cover the full economic cost of all resources including the cost of labour and a return on capital employed. There is nothing intrinsic to a government organisation which means it faces lower capital costs than private firms. The difference is rather who pays and under what conditions. Thus, while council-owned

entities may receive a capital subsidy from the council (and ultimately ratepayers), this does not mean that they produce output at a lower cost to society. Instead, it means that ratepayers providing the subsidies bear part of the cost of production. For example, the cost of equity to the council organisation is the opportunity cost of the invested capital. The cost is borne in part by ratepayers who forgo any return to their capital contributions. In addition, privatised business such as Telecom have dramatically lowered the cost of a bundle of services to consumers despite paying taxes and dividends because of the massive efficiency gains they have achieved.

### **The state of play with water industry reform in New Zealand**

Some progress in reforming water and wastewater businesses is being made. Many councils have reviewed the option of setting up LATEs or stand-alone business units for their water operations and some have opted for corporatisation.

The Far North District Council is one which is going ahead with establishing LATEs for its water and wastewater operations. Wellington City has adopted voluntary metering and, as noted, is tendering out the maintenance of its water supply. It has also contracted with a private company to convert the solid residual from sewage treatment into compost. The Lower Hutt and Upper Hutt councils have announced that they will be calling for tenders to design, build and operate a sewage treatment plant. Papakura District Council is one of the few councils that has opted for more extensive private sector involvement in its operations - it has decided to franchise its entire water supply and sewage disposal services to a private operator and has received four bids, three of which are from private companies and one from Watercare Services. Private forms of water supply have been in place for many years in Oamaru and on Waiheke Island.

However, despite the progress by some councils, overall the reform of the water and wastewater businesses is occurring at a glacial pace. It is extraordinary that Wellington City Council seems likely to opt to charge for water services on the basis of the rateable value of properties. Despite a great deal of work by industry professionals, many councils in Auckland and elsewhere are still debating whether or not to form their water operations into LATEs or business units. Decisions about future water supplies in Auckland remain mired in local politics. Central government is dragging the chain on

removing obstacles to water industry reorganisation and more efficient pricing. Stuart Macaskill has even urged central government to put greater obstacles in the way of water privatisation. Businesses and residents should simply not be putting up with this totally unsatisfactory state of affairs.

While New Zealand is spinning its wheels, governments elsewhere are moving on, not just around the world as noted earlier but closer to home as well. The Victorian government has corporatised its water businesses and privatisation may not be far down the track. In South Australia, a \$1.5 billion contract has been entered into with British and French companies to supply Adelaide's water, and partial privatisation is underway in New South Wales. With moves afoot in other states, it is galling to see Australia, not known as a leader in microeconomic reform, moving well ahead of New Zealand.

The Business Roundtable study put the accumulated investment by local government in water supply and wastewater assets at around \$6 billion in 1995. This is larger than the investment in Telecom's national network. Since the corporatisation of Telecom, the annual gains to the New Zealand economy have been estimated in a Victoria University study to be of the order of half a billion dollars, and the gains since privatisation have been at least as large as those in the SOE period. This could be the order of magnitude of the gains New Zealand is sacrificing by not pressing ahead vigorously with water industry reform. Councils and central government need a wake-up call, and they need it now.