

Regulatory Frameworks for Urban Services

Background discussion paper to inform the
Regulatory Reform Review of China

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Executive Summary

This discussion paper has briefly surveyed current practices in OECD countries for the delivery of essential urban public services. The empirical experience of OECD countries suggests that general rules for regulatory design were few and far between. The business of regulating essential urban services is now carried out at several levels of government, and numerous models can apply. A broad continuum exists in terms of the regulatory models available - from the institutional to the contractual – and modes can also be combined. All models have strengths and weaknesses, however. The majority of ownership structures for OECD urban services is public at present, and whilst competitive tendering is the dominant form of regulating waste services, most OECD countries regulate the supply of water through public utilities, and urban public transport through planned public systems. Many systems make some use of competition, either for a market or in a market. Competition between public and private firms is common in waste services, rarer and weaker in the supply of water, and although some OECD public transport systems use franchising, many do not, and adopt more traditional regulatory structures. High profile regulatory regimes such as those governing privatised water services in the UK or public-private partnerships in France were outliers rather than common OECD practices.

Observations around the OECD also suggest that the progressive and limited introduction of rigorous competitive tendering systems for works, and services would seem to offer some advantages to government in terms of the delivery of urban services. Public-Private Partnerships remain a controversial service delivery option, being weakest on matters of governance and with their effectiveness dependent on a ‘deal-by-deal’ assessment.

The increased use of independent regulators where urban services such as electricity provision or telecommunications have been privatized or corporatized has enabled a new source of professional power and accountability to be harnessed for the good of citizens in western liberal democracies. Such independent regulatory schemes spread power, and also rely on multiple accountability systems including ministerial accountability, judicial (legal) accountability, bureaucratic (managerial) accountability, constituent accountability, market accountability, professional accountability and public accountability. These characteristics contrast a traditional command and control culture, however.

We therefore now face a major intellectual challenge in terms of better understanding how countries review, learn, revise and improve their regulatory systems as experience is gained. Articulating regulatory solutions, whether copycatted or ‘home grown’, will require care. One aspect of this will involve explicitly acknowledging the fundamental role of national political governance over technical or economic regulatory arrangements, particularly given our own OECD history is largely built on home-grown regulatory solutions. A further crucial matter little discussed this far is the dual role which governments such as China have as both a developer as well as a regulator. Most governments around the world have used the state in its traditional form as a primary development mechanism. In transferring regulatory models, crucial assumptions such as the power and legitimacy of a democratic polity are also often taken for granted. These include a rule of law underpinning commercial contracts; an independent judiciary upholding regulatory decisions; consumer voices giving feedback on essential services; and a wide range of transparency and accountability mechanisms. Caution and learning is thus needed overall in articulating regulatory reform options rather than haste towards idealistic reform models. The extent to which regulatory regimes from other jurisdictions can be usefully adapted to existing governance systems in countries such as China, or perhaps existing regulatory schemes can successfully be improved through ‘home-grown’ solutions, therefore both remain open questions.

Further issues are also crucial in determining regulatory options for China. Our understanding of the 'regulatory state' notion itself is currently modest for even OECD countries, and greater consideration is presently needed to improve our knowledge of components such as 'regulation inside government'. The regulatory state model may even have limited direct relevance and utility for states such as China. Likewise, the difficulties of achieving independence outside of the political-bureaucratic elite mean that the possibility of independent regulatory judgement and action may be nonexistent. Moreover, the notion of regulatory agencies outside the influence of politics seems remote, given the deeply political nature of regulatory policy making and the broader domination of politics in regulatory governance. Western analyses of performance of regulatory state components are also often not as strong as our advocacy. And as well as the professionalism required in the new regulators, the biggest call of all may be the underlying sense of trust required from both citizens and institutions as to the legitimacy of the new rules of the game.

So, greater experimentation with aspects of regulatory systems may be required of China in its path forward, along with an improved knowledge base of both Chinese regulatory systems and what works in reality. Whether it is competitive tendering systems, financial records or regulatory capture, there are real shortfalls in practice. Suggestions for relevant regulatory reforms in China will therefore need to ensure that there is a greater likelihood of the public interest being met in practice than private interests. Reforms may also usefully focus on improving regulatory relationships and efficiency inside government, as well as looking carefully at the cultural, historical and political parameters built within traditional Chinese regulatory and governance systems. Better regulation through indirect means may also be possible. Increasing the transparency of public sector institutions and government decision making and activities will no doubt provide progressive incentives for changed behaviour. Similarly, improvements in real transparency and strengthened accountabilities to citizens may provide as much regulatory leverage as institutional reforms in future.

1 Introduction

The OECD is undertaking a country review of China and preparing a regulatory reform review. One chapter of this review is on regulating urban services and as part of this, this discussion paper aims to take stock from some of the experiences of OECD member countries. Urban services around the globe have been progressively improved over centuries. Learning some of the lessons from this past experience, and gaining a clearer understanding of regulatory frameworks through which urban services are being provided will assist in both defining options for regulatory improvements in China and implementing reforms. The focus here is therefore on ‘what China can learn from OECD member countries’ experiences’ and with the aim of discussing regulatory frameworks which are ‘neutral in respect of the delivery mode’ – whether by government, through public private partnerships (PPPs) or through regulated private providers. This paper is therefore a resource.

This background report therefore aims to;

- 1) survey current practices in public service delivery in several OECD countries with particular attention to public and private modes of service delivery, the arrangements for these and the degree of competition applied
- 2) survey regulatory frameworks indicating how such frameworks were initiated within specific institutional and historic contexts
- 3) survey the literature aiming to establish how well particular systems function, and
- 4) prepare a short list of key issues for further study and focus in this arena such as the potential existence of independent regulatory agencies and their operation (See Appendix 1 for the full terms of reference).

This discussion paper will, by definition, spend some time investigating the regulatory frameworks of essential services for OECD countries. In pursuit of these tasks, the paper will firstly define key terms in the arena and develop some of the important dimensions of regulatory frameworks on which subsequent discussions will be built. Having built these foundations, it will then present three areas in which case study information will be presented; in waste management, water supply and public transport. Additional urban services case studies deemed as useful examples on which to define the terrain of regulatory arrangements will then be presented. Lastly, the discussion paper will examine what learnings are available from these regulatory frameworks throughout the OECD and develop themes potentially useful in terms of application to urban services in China.

Overall, this discussion paper will broadly make several arguments:

1. The empirical experience of OECD countries suggests that general rules for regulatory design were few and far between. Observations suggest that a broad continuum exists in terms of the regulatory models available - from the institutional to the contractual – and modes can also be combined. All models have strengths and weaknesses, however. In terms of ownership, the private provision of urban services is feasible, but the majority of ownership structures for OECD urban services is nonetheless public at present. A further observation is that newer ‘responsive’ regulatory regimes having a much stronger focus on codes, guidelines and soft regulation modes now usually co-exist with traditional regimes of command and control arrangements and are thought to be more effective.
2. Observations around the OECD also suggest that the progressive and limited introduction of rigorous competitive tendering systems for works, and services would seem to offer some advantages to government in terms of the delivery of urban services. Private Finance Initiative style PPPs remain a controversial service delivery option given that they have been criticized as being weakest on matters of governance and regulation, with their effectiveness dependent on a

- ‘deal-by-deal’ assessment. They are nonetheless technically applicable and can facilitate both public infrastructure delivery and public service provision.
3. The rise of the independent regulator has enabled a new source of professional power and accountability to be harnessed for the good of citizens in many western liberal democracies. Such independent regulatory schemes spread power, and also rely on multiple accountability systems including ministerial accountability, judicial (legal) accountability, bureaucratic (managerial) accountability, constituent accountability, market accountability, professional accountability and public accountability. Both the power of independent regulators in the ‘regulatory state’ and the evolution of multiple accountability systems contrast a traditional command and control culture.
 4. A major intellectual challenge now facing us is to better understand how countries review, learn, revise and improve their regulatory systems as experience is gained. Part of this learning will involve assessing the degree to which China might take on ideas from other countries by way of copycatting, emulating, harmonising or adapting, as distinct from ‘home growing’ regulatory solutions. And where ideas are gleaned from the international experience, should reformers be relying on the most common (and probably reliable) practices of governments or those outliers most visible on a ‘best-practice frontier’ and popular amongst the international epistemic communities selling and advocating regulatory ideas? In translating regulatory models, crucial assumptions such as the power and legitimacy of a democratic polity are often taken for granted. These include a rule of law underpinning commercial contracts; an independent judiciary upholding regulatory decisions; consumer voices giving feedback on essential services; and a wide range of transparency and accountability mechanisms. The extreme position of transferring the regulatory state model from western liberal democracies into China may even be a ‘fatal remedy’. Such a transplant risks the criticism of naïvity in the attempt to remove politics from the institutions of regulation, and an overly anxious preoccupation with the notion of independence.
 5. Acknowledging the dual roles of government as both a developer as well as a regulator is crucial. From the perspective of development history, (rather than the regulation of say, already built infrastructure), it appears that with the exception of the United States, most other governments around the world have used the state as a primary development mechanism, rather than private markets. If regulatory reforms were to include ‘home-grown’ options based on public ownership and existing regulatory institutions, a detailed knowledge of the strengths and weaknesses of existing regulatory frameworks, institutional practices and capacities, and regulatory cultures and the political relationships between government institutions along with their legitimacy would be required. As well, such judgements would require the contribution of multiple disciplines as the success of such regulatory regimes is subjective and personal.
 6. Caution and learning is thus needed overall in articulating regulatory reform options rather than haste towards simple reform models. As well, the extent to which regulatory regimes from other jurisdictions can be usefully adapted to existing governance systems in countries such as China, or perhaps existing regulatory schemes can successfully be improved through ‘home-grown’ solutions, both remain open questions.

2 Regulatory Framework Concepts

2.1 Some Concepts and Definitions

It is useful upfront to carefully define key terminology in this paper, including the meanings of ‘regulation’, ‘frameworks’ and ‘urban services’. Each of these terms will be now outlined.

The concept of regulation is itself contested, and there are a wide variety of different definitions for regulation. These range from, at the one end, viewing regulation as a strict legal concept in which laws and regulations are determined in black and white through to a more fluid behavioural concept in which regulation is seen as a focused attempt at controlling the behaviour of others. Thus at the first extreme we are presented with a narrow, top down command and control view of regulation, whilst at the other an extraordinarily broad view of regulation that includes everything including the ability of parents ‘regulate’ the behaviour of their children! Whilst Baldwin, Scott and Hood (1998:4) explain that regulation includes mechanisms of social control or influence effecting behaviour whether intentional or not, a slightly narrower definition of regulation will be adopted in this discussion paper.

The definition cited by Freiberg (2006 p.2) based on the work of Black (2002) will be adopted. Under this notion, regulation is

‘...the sustained and focused attempt to alter the behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome or outcomes...’

As Freiberg notes, this definition reminds us that regulation is intentional and systematic, that it is purposive and intended to solve problems and bring about desired social outcomes, that regulation can be affected by all levels of communities whether profit oriented, civil society or government and that regulation may also be both positively facilitative as well as restrictive. This view of regulation also implies, as Minogue and Carino (2006, 4) note, that regulation has moved from being rules-based, focused on institutions, and principally about compliance and accountability towards a view that regulation is equally about broader analyses of political institutions and administrative practices as well as being a distinctive mode of public policy making.

Urban services are the demands expected by most citizens of governments as a result of communities living in close proximity with the objective of improving the health and welfare of community members. Examples of such ‘essential’ services include urban infrastructure, clean water, sewerage, health services, telecommunications, post, transport network services (public transport) and electricity supply.

2.2 Some Frameworks

In terms of frameworks, it is easy to see regulatory frameworks in terms of legislative terrain. Indeed, many view regulation as a predominantly legal concept, with legislation passed through a Parliament, and regulations both closely linked to this legislation and forming the basis for much of the work of public agencies. But today’s ‘regulatory state’ is much broader than this. And there are numerous additional frameworks relevant to the regulatory arrangements underpinning urban services. We ought make several points here.

Firstly, the place of both history and culture in any region is critical. These dimensions are intimately tied to past power structures and social behaviours and have underpinned any ordering or regulation which has evolved over time to become part of today’s political economy for urban services. Whether it is the plague in Europe after 1349 as an incentive for better sanitation, the English Parliament’s banning of waste

disposal in public water courses in 1388, the establishment of the London Bridge Waterworks company in 1581 to supply water or the provision of private railways services in the 19th century, the message is clear. History is fundamental to today's regulatory frameworks. And today's legal, political and institutional arrangements are to a degree dependent on past dynamics. Also clear here is the importance of the political dimension to regulation and the observation that any attempt to conceptually remove political considerations from regulatory analysis is ill conceived.

Second, assuming that we adopt Black's definition of regulation as focused attempts to alter behaviour according to purpose in order to produce identified outcomes, there are still numerous ways of cutting the regulatory cake. Ayers and Braithwaite (1992), for example, suggest that regulation in practice comprises a pyramid of mechanisms ranging at the top with hard law regulatory strategies to soft law self regulatory strategies at the bottom. At the top, non discretionary punishment occurs whilst further down discretionary punishment and enforced self regulation exists. This pyramid¹ is shown in figure 1.

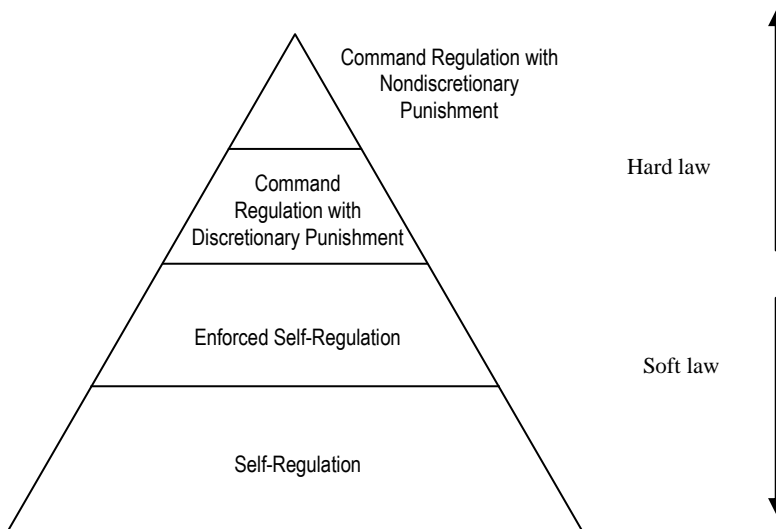


Figure 1 Example of Ayres and Braithwaite's (1992) Enforcement Pyramid

Notably, the middle regions of the pyramid include many non-law mechanisms such as guidelines, codes of conduct and best practices. Importantly, this enforcement pyramid has formed the basis of much regulatory thinking and development over the past decade or so and has now been widely accepted as a fundamental challenge to traditional views of 'command and control' regulation through rule. This change, too, reminds us that regulation is initiated in all sectors of society - in the business sector, in civil society as well as by government.

Third, if we were to focus solely on the regulatory functions of government, another way of cutting the regulatory cake might be to look at the various tools available to the government; Freiberg (2006). He argues that when thinking about the actions of 'government', states can act in many ways as regulators. These all constitute particular categories of regulatory 'tools' (Freiberg 2006). These tools include governmental activities as an *economic actor* (such as taxing or through quotas), a *party* (where governments influence behaviour through contractual conditions for minimum wages for example), as a

¹ Whilst this figure outlines an 'enforcement' pyramid, a wide range of regulatory pyramids has now been proposed. These all follow the general idea that regulatory efforts cover a vast set of behavioural possibilities rather than one set of traditional 'command and control' assumptions and activities.

facilitator (through markets or say, licensing), as an *information provider* (through product labelling or disclosing interest rates for example), or through the more traditional and familiar *legislator* role (where laws, rules and regulation are made). These categories of regulatory tools available to the state are shown in Table 1, below.

Regulatory Tool	Explanation and Examples
Economic Actor	As an <i>economic actor</i> the state can use taxes and charges, bounties, quotas or even permit trading.
Party	The state as a <i>party</i> uses the governments party to a contract to influence behaviour so that contract parties may for example pay minimum wages, institute environmental controls or undertake particular industrial relations approaches, report specific information or adhere to various government guidelines. Alternatively governments may use their party to a grant as a mechanism for regulating the behaviour of another party).
Facilitator	As a <i>facilitator</i> , governments may choose to use markets as a regulatory mechanisms, or may license, register, certify or accredit other parties and control behaviour through this mechanism. Alternatively, governments may litigate and through rule of law ensure particular behaviours occur. Alternatively, environmental design and physical control can form one mechanism of regulation, an example of which is an overpass built for a road which regulates behaviour of pedestrians crossing.
Information Provider	The state may act as an <i>information provider</i> . Under this category, information as a resource is used, and education and training can be adopted as a mechanism for regulation. Product labeling and disclosure laws attempt to encourage the provision of information along with date stamping, disclosing interest rates, fuel consumption and so on.
Legislator	The state as <i>legislator</i> is the most well known and familiar regulatory tool. Traditionally it provides law, rules and regulation as a formal responsibility. Primary legislation through parliament is central to this as well as delegated legislation or regulations which are of course a more narrow detailed technical legal form. Quasi legislation in which standards, codes, rulings, instruments, other rules and guidelines also exist. These have been termed ‘grey law’ and are some what more ambiguous as well as ubiquitous.

Table 1: Regulatory Tools of Government (Source: Freiberg, 2006)

What is evident here is that there are several regulatory tools available to the government and that traditional command and control legal tools are only one part of this. Indeed, the state acting as a legislator is only one tool of five.

Fourth, yet another framework which may assist as we debate how to interpret regulatory frameworks for urban services may be in terms of ownership and competition concepts. One example here is the framework of Hodge (2000:244). Adapting from earlier work in the UK he argues that he presents a framework which has 3 dimensions to a conceptual cube. The first is the dimension of ownership, whether public or private. The second is the degree of competition whether ranging from monopoly at one end to full market at the other. The third is the veracity of state initiated regulation whether ‘light touch’ regulation at one extreme to ‘strong regulation’ at the other.

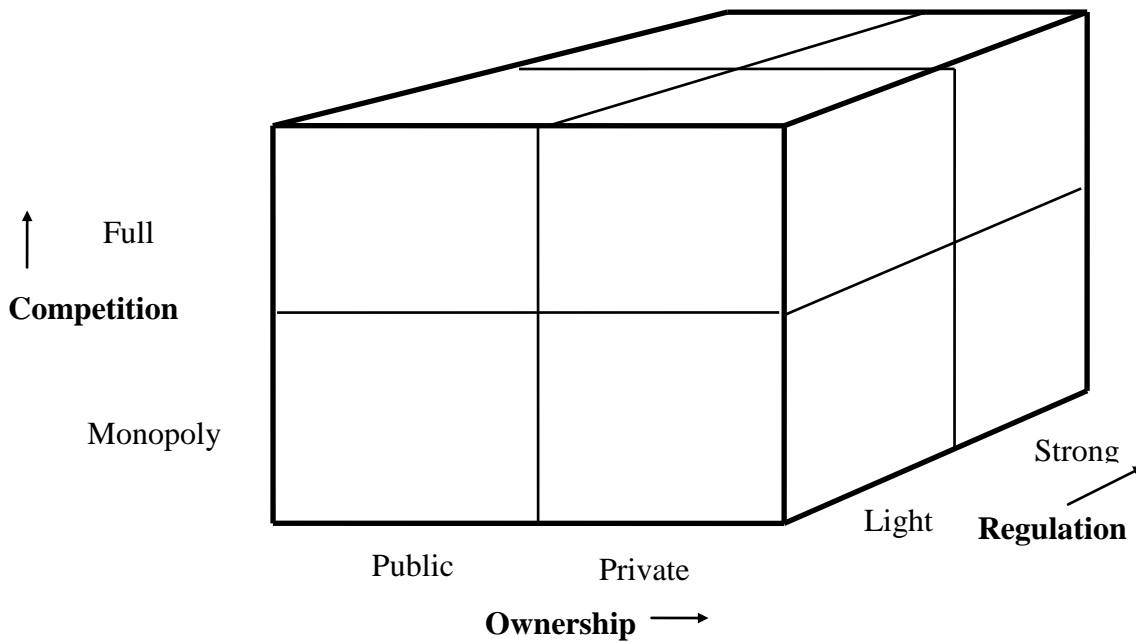


Figure 2 Ownership, Competition and Regulation Cube
 (Source: Hodge 2000; 244. Adapted from Hartley and Parker 1991.)

Of course, whilst this framework is presented as conceptually simple, it is not so in practice. For example, the ownership dimension in reality is not simply ‘public’ or ‘private’ but a continuum between one and the other; ranging from government department, through government agency or commission, public enterprise, corporation or public limited company, to finally a fully private company. Likewise, in terms of competition, another continuum is possible ranging from a fully competitive market at one extreme, through partly competitive market structures, to oligopoly, duopoly and monopoly at the other. We will return to these issues later.

Fifth, it is important to view developments in the field of regulating urban services against a broader background of what scholars have called ‘the rise of the regulatory state’. Majone (1989), for instance, articulated some time ago that there had been a fundamental re-ordering of the state over the past three or four decades, and that as a result, a spectacular questioning of both the role of government itself and the role of markets in ‘producing wealth’ and of the need for a more sophisticated understanding of regulation and its structures. The progressive trend towards privatisation and contracting-out government services has been a major part of this. But as Gilardi, Jordana and Levi-Faur (2006: 127) note, “the era of privatisation is also the era of regulation”. One key characteristic of this rise, has therefore been the establishment of independent regulatory bodies. Indeed, Gilardi et al (2006) observe that there has been a spectacular explosion in regulatory agencies around the globe. They note that for 36 countries (including 17 European countries) the number of regulatory agencies grew steadily from a dozen or so to around 50 in the three decades after 1960, but that in the single decade of the 1990s, numbers more than tripled up to 174 by 2002 (Hodge 2006, 184). This is shown in Figure 1, below.

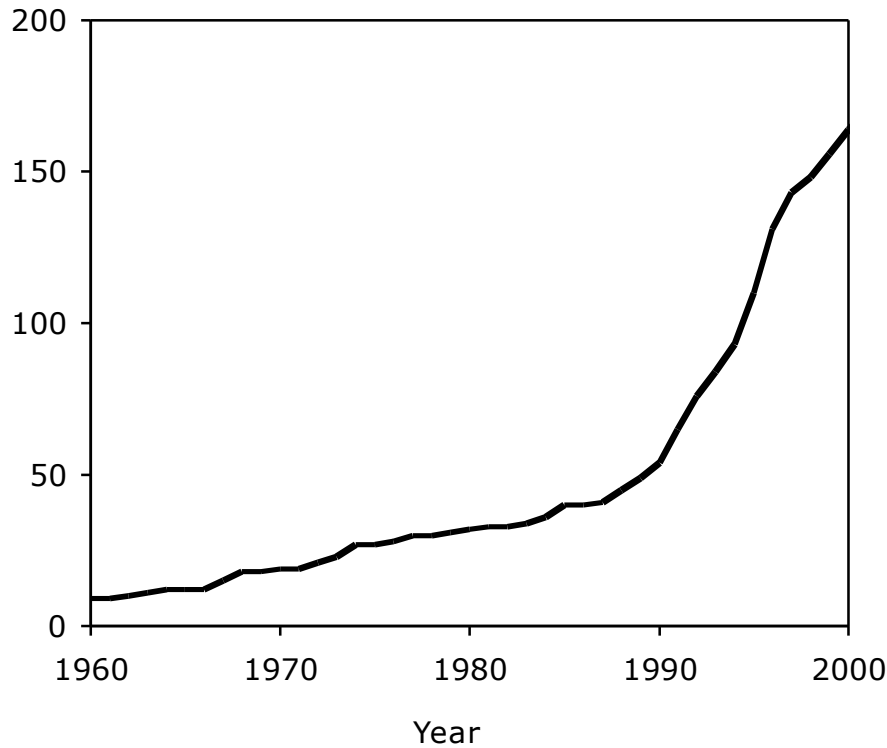


Figure 3 The diffusion of regulatory agencies in 36 countries and 7 sectors
 (Source: Gilardi, Jordana and Levi-Faur, 2006, 130)

What is crucial here is to understand that this explosion has accompanied a wide array of other public sector reform activities, and that it has been driven by an international epistemic community of professional experts, predominantly western based and predominantly economics based, advancing the major ideas of market instruments as the basis for national wealth creation within a capitalist society.

Having said this, point number six is that we ought not fall into the trap of assuming that today’s ‘regulatory state’ consists principally of independent regulators. The stream of regulatory reforms have incorporated a range of new regulatory practices including; ‘regulation inside government, outside government, across national government boundaries, in hybrid institutions that cross the private-public divide, and mechanisms of self-regulation’ as Minogue (2006, 69) puts it. All five of these mechanisms matter, and are shown in Figure 1. We shall return to this theme later.

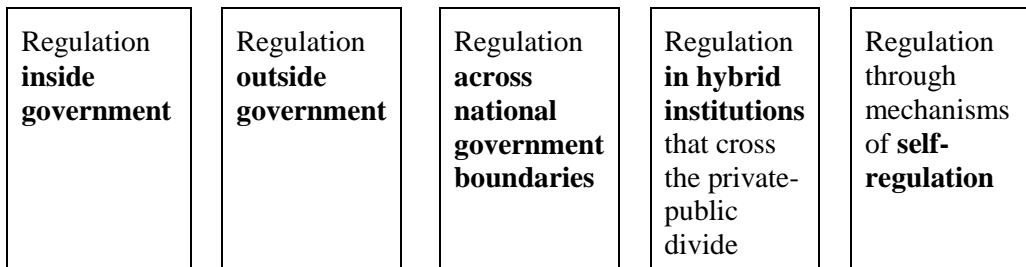


Figure 4: New Regulatory Practices in Today’s ‘Regulatory State’
 (Source: adapted from Minogue, 2006, 69)

Before closing this section, it is also useful to consider how regulatory models or frameworks might be judged in terms of effectiveness. On this score, there are as many frameworks for assessment as there are analysts interested in the question. Each of the previously mentioned dimensions of history, politics, economics or law each provide one frame or lens through which an assessment of regulatory system effectiveness could be conducted. We might observe, however, that whilst each would be useful they would, by themselves also be narrow and incomplete.

Three ‘frameworks’ are worthy of note, however. The first one is the most open, and begins by adopting instrumental values and seeks to ascertain the degree to which explicit regulatory objectives are met in practice. This traditional academic concern has been for evaluations to ascertain the degree to which regulatory objectives are indeed being met, with what efficiency and with what unintended impacts, as well as learning which regulatory tools produce the most cost-effective results is fundamental. But it has also been the most difficult, as well as resource intensive and openly contestable. Measuring regulatory outcomes and establishing cause and effects with any degree of rigour is difficult and complex. Such efforts have in time also been supplemented through analyses using non-instrumental values. Using this lens, analyses and commentaries have been produced evaluating regulatory regimes more on the basis of clarity, proportionality, legitimacy, predictability, flexibility and accountability; Freiberg (2006)².

A narrower, second, framework for commentary is presented by Ballance and Taylor (2005: 20). They suggest three families of criteria when assessing the strengths and weaknesses of different regulatory regimes as follows:

- a) *Sector performance criteria* – in which the regulatory regime is assessed in terms of its impact on industry performance including measures such as efficiency service levels and quality.
- b) *The regulatory process performance criteria* (this includes criteria such as legislative authority, accountability, fair accessible and open decision making processes and expertise as suggested by Baldwin and Cave, 1999) – which look at the strengths and weaknesses of a regime in terms of the regulatory process.
- c) *Institutional criteria* – which focus on ‘the compatibility of a regulatory regime with the broader institutional endowment of a country’.

This framework for evaluation seems to provide a more direct structure for expert commentaries in the epistemic community of regulation. A weakness, however, may be its lack of explicit connection to the politico-historical culture underpinning regulatory regimes. The risk is that analytical dimensions of regulatory analysis such as politics and history may be placed below dimensions such as managerial performance and institutional appearance.

Last, we might opt for a far narrower framework still, and seek out a single measure which could be a proxy for regulatory success. One example here could be the evaluation of a regulatory regime on the basis of the degree to which ‘regulatory capture’ has been avoided. On this score, Minogue (2006, 71) reminds us that the notion of capture is broader than usually put. Firms can be captured and become the victims of the ‘grabbing hand’ of the state. In this instance, public officials use their regulatory positions to extract bribes, leading to extensive systems of administrative corruption. Second, firms can attempt to shape the legal and regulatory framework to their own advantage and capture the state. Third, firms, or any powerful interest groups for that matter, may simply exert influence without any rent seeking. Minogue notes research aiming to assess regulatory governance from the perspective of these notions of capture through the construction of a ‘capture index’.

² An alternative version of these values are presented in the Better Regulation Task Force (BTRF, 2003) as follows; transparency, consistency, proportionality, targeting and accountability.

Conceptual assessment frameworks aside, much commentary exists on the effectiveness of regulatory systems. In concept, analysts can be guided by the phrase ‘what matters in regulation is what works’ and continue to search for ‘*what works, for whom, in what circumstances and why?*’. But the reality in terms of empirical experience and analytical rigor in regulatory research is far more sober. Few comprehensive or comparative examples exist using these evaluation frameworks, and in any event, such examples as do exist tend again to be Western based and economics dominated. They too often also typically carry with them huge underlying assumptions regarding the political, social and legal systems – often assumed to be similar to those of the author’s home country.

Overall, then, it is apparent that regulation is a broad construct; that independent regulation outside of government is one important part of today’s regulatory terrain; and that the traditional command and control legislative role is only one of many regulatory tools now available to governments. The range of potential regulatory mechanisms and systems available would seem extensive in today’s regulatory state.

In the remainder of this paper, we outline a range of practices in regulating urban service delivery for waste management, water and public transport. The sections for each of these three essential services are structured in terms of an initial introduction to the service, a description of case studies across two countries, comments on the historical context and decision making frameworks, and finally discussion on how well these regulatory systems appear to function. Information for these three essential services is drawn from literature across multiple sources, and cover the academic disciplines of public policy and public administration, economics, regulation, planning, engineering, and history.

3 Current Practices in Regulating Urban Waste Management Services

3.1 Introduction

Waste management in urban areas has a long history and covers a multitude of different arenas. Solid waste, for instance, may be divided into domestic, commercial and industrial and the logistics of managing these arenas may encompass collection, transporting and disposal. This report will mainly focus on domestic garbage collection whilst making relevant comments on commercial and industrial waste as we proceed.

In historical terms, city dwellers have been putting up with ‘defective common often quite vial, sanitary arrangements, wallowing in rubbish and filth they certainly had the power to remove...’ (Melosi, 2005:2) for centuries. Waste thrown on the floors was simply thrown out into the street, often. Despite some exceptions, such as sewage systems in ancient Avalon, Greece and Mesopotamia for instance, these were not the norm. The high culture of Athens in the 5th Century BC for example was plagued by refuse problems, and well before the fall of Rome the city had already ‘become incredibly unhealthy and dirty’ (Melosi, 2005:4). In 1388 the English parliament banned waste disposal in public watercourses and ditches. Most people continued to discard rubbish ‘helter skelter’ however and it was only the plague that invaded Europe between 1349 and 1750 that provided incentives for better sanitation. Overcrowding during the industrial revolution exacerbated the pressures to better manage urban garbage. But by the mid to late 19th Century, the growth of urban services along with emergence of modern public health as a science both combined to see the more recent ‘age of sanitation’ (Melosi, 2005:9). The early days of this new age saw waste management being seen as essentially an engineering logistics issue, but this was to be superseded later by the view that waste management was an aesthetic problem.

Jumping to the present day, what are the current practices in managing urban waste, and how are these practices governed around the OECD?

3.2 General OECD Insights

Thankfully, OECD (2000) has begun the task of investigating this question, and provides a series of insights on which we can build. It firstly noted the collective size of local government organisations as ‘sizeable’ and commented that apart from US local governments maintaining a balanced budget or local governments organisations such as those in the UK being required to conduct competitive tendering, the incentives for local governments to organise competitive waste management services were ‘often weak’. Second, it noted that competition ‘in the market’ was widespread for industrial and commercial waste, but not so for household waste³ with few countries relying on such competition. One example provided as an exception was that of Finland where competition for domestic waste collection had been a long tradition (OECD 2000:7). It noted however that a recent Finish study found that collection costs were some 20-25 percent higher in those regions using market competition compared to those regions where a local monopoly supplier was chosen through competitive tendering (ie competition ‘for the market’). Third, this OECD report comments on the effectiveness of competitive tendering systems for waste management – a theme we will build on later.

OECD (2000:17) notes explicitly ‘in virtually all OECD Countries, the business of regulating is carried out at several levels of government. Although CLP/WP2 has primarily focused on regulation implemented and enforced through national legislation and institutions, the basic machinery of government - legislation and the means for creating and enforcing it – occurs at both supra-national (such as the WTO or the EC)

³ The terminology of solid waste management in urban areas involves multiple grammars with solid waste being seen as similar terms to ‘garbage’, ‘refuse’, ‘rubbish’ and ‘trash’.

and sub-national (the State, lander or regional and local, town or city) levels. Each of these levels of government can create legislation, regulation and institutions, which have a profound effect on the operation of business...'

It reports that in many OECD countries 'competitive tendering is the dominant form of regulation of solid waste services' (OECD, 2000:18). Of course the precise details of powers and legal relationships between layers of government differ dramatically across the OECD and only broad common characteristics can be discerned. It articulates a range of possible local government interventions in terms of;

- Taxes and subsidies
- Controls and licensing
- Entry and exit
- Controls on prices, output and quality of service
- Controls on forms of business organisations
- Controls on specific business activities, procurement, franchising and government activities.

Importantly, it notes that the waste management sector is a classic candidate for regulation at the local level because it properly addresses public hygiene concerns (which exist mostly at a local level) and exhibits only minor spillover effects with neighbouring regions.⁴ OECD (2000:24), notes in passing the soft regulation of budget constraints enforced on US local government, although it does not emphasize that these budget constraints are one of governments regulatory tools per se (as noted earlier by Freiberg). It also notes the legislative control placed on UK local governments after 1988 through compulsory competitive tendering requirements for services such as waste collection, street cleaning, cleaning of buildings, vehicle maintenance, grounds maintenance and catering services. Furthermore, it notes the existence of a bill before the Italian parliament imposing similar compulsory contracting arrangements for local Italian bodies.

So, how effective were these regulatory arrangements seen to be? OECD (2000:8) argues that competitive tendering in strong markets results in lower costs than in-house production, but that the effectiveness of competitive tendering studies does depend on close attention to the level of competition in the bidding process, competitive neutrality between bidders, prevention of 'hold up' problems and insuring incentives are maintained throughout the contract life for investment quality and efficient price adjustment. It also notes that a level playing field between potential bidders and any local government owned bidders must be carefully maintained. Furthermore, there is a need for contractual terms and conditions and a selection of service providers to be clear and for bid rigging to be actively punished. OECD (2000) explicitly acknowledges the risk of corruption amongst local officials and states that in France, for example, bids are opened by an independent commission to enhance transparency and eliminate the risk of collusion between bidders and local officials. The early work of Stevens (1978) is also cited in (OECD, 2000:25) as showing that in the market competition in the US results in costs which are '26-48 percent higher than an equivalent market with a regulated private monopoly'.

In terms of broader evaluation insights for urban waste management regulatory arrangements, (OECD, 2000:26) presents a framework including four dimensions, and comments on each. The first relates to competition 'in the market'. They observe that different US cities have chosen different approaches:

'in cities in Oregon such as Eugene, or in unincorporated areas in Los Angeles County, ... collectors are required only to obtain a licence to operate. No limits are set on the number of licences issued, nor are prices or service specifications publicly controlled. ... In some cities, such

⁴ (OECD, 2000:21) also suggests that the 'efficient scale of solid waste collection firms is no larger than small municipalities'. This observation is not necessarily supported in practice, however, as waste collection firms can in their own right be large corporations today.

as Los Angeles and Washington, D.C., commercial collection is freely competitive while residential collection is not. ... Frequently, franchises to private collectors are granted on an exclusive basis. Under this system, other private firms are barred from operating in an area where an explicitly franchised firm holds a certificate.’

The second dimension noted relates to competition for a market segment. Here, selection is typically through a competitive bidding process with the US city of Seattle being cited as a classic example. In this instance, waste collection tenders for a 5 year period are let:

‘Seattle ... contracts the northern half of the city to one firm and the southern half to another. Contract specifications are drawn up by the city...and are let out to bid on a 5 year basis. Revenues are collected by the city and distributed to the contractors according to the population-based formula specified in the contract.’

The third dimension discusses sources of revenue. On this note, it is argued that whilst higher charges to users help provide an incentive to economise on waste production and encourage production, higher charges also induce households to dump waste illegally which itself raises health and public nuisance concerns.

The fourth dimension relates to the price and quality of the service. On this matter, the (OECD, 2000:30) report also noted that competitive tendering for waste collection services is widespread in many OECD countries. Denmark, for example, reported 85 percent of local authorities as relying on private companies for waste collection and disposal at this time - an extraordinary increase from only 27 percent in 1991. In Norway, use is made of private companies for waste collection/disposal in 73 percent of municipalities, whilst in Sweden the proportion was reported as 63 percent.

On the matter of commercial and residential waste collection, OECD (2000) cites a 1997 study by Nelson which reported 83 percent of US cities as using private providers for disposing of hazardous materials, 72 percent were disposing of solid waste (domestic), 69 percent for collecting commercial waste and 44 percent for residential waste.

3.3 United Kingdom

In this section we look briefly at the arrangements for the United Kingdom as reported in OECD (2000:153). Local government in the UK is generally responsible for strategic planning, highways, traffic, social services, education, libraries, fire services, consumer protection and refuse disposal. The regulation of urban waste services are not strictly a local authority function itself, but according to OECD (2000: 153) is ‘carried out by the Environment Agency, which is an agency of central government’. Local government grants are provided for services and individual residents and businesses are levied funds as well. Councillors are directly elected. The *Local Government Act* 1998 and 1992 (UK) require that the local authorities place tenders out to tender through the compulsory competitive tendering (CCT) policy. Such procurement is regulated through EC legislation⁵.

Whilst selection of the successful tenderer was initially based initially on the lowest tender, more recent government policies since 2000 have been based around the notion of ‘Best Value’ in the UK. In terms of political governance, the Secretary of State has powers to act against local authorities not complying with such CCT rules and complaints can also be made by private contractors as well as the public, trade associations and opposition councillors. There are no regulatory controls on who may bid and may

⁵ OECD(2000:154) note procurement rules as *Public Works Contracts Regulations* 1991 (UK), the *Public Services Contracts Regulation* 1993 (UK), *Public Supply Contracts Regulations* 1995 (UK)

therefore win these tenders, nor are there regulatory controls on the ownership, domestic or otherwise, of the firms according to OECD (2000:155). Also noted is the fact that there is no regulation of prices in this market and neither is there strictly any requirement for licensing for waste companies per say. However, waste management licences regulated by the Environment Agency are needed for waste disposal.

As well as being responsible for insuring the collection of all domestic waste, some commercial and some industrial waste is collected by the local authority as part of its statutory duty. It is noted that the companies who are now bidding for these tasks are 'mainly large multinationals' although there had not, as at the year 2000, been any cases raising significant issues under competition legislation (OECD, 2000: 157).

3.4 United States

The US has four layers of government comprising federal, state, county and local. There are some 3,043 counties and 35,962 local general government areas. Local Governments have the responsibility for most local services including inter-alia education, fire protection, public buildings, highways, hospitals, public housing, libraries, public parks, refuse collection, public transit and water. OECD (2000:159) notes that the nature of local control of these services varies a great deal and in many cases, county, state or federal funds help pay for the services. The use of not-for-profit organisations is common in areas such as schools, hospitals and fire protection and for-profit company use is common for refuse collection. Income for waste management is sourced from local sales taxes, property taxes, user pays or franchise fees as well as government coffers. There are restrictions on local governments tendering procedures in terms of minimum number of bidders, labour rights and environmental issues, but other than this, there are few dictates from higher levels of government - restrictions on local procurement practices 'concern the integrity of the process rather than the mechanics' as OECD (2000:160) put it. As well, criminal law is likely to apply if an auction is influenced through threats of physical violence or bribery or by collusion among bidders of course.

Local governments routinely have financial audits conducted by independent auditors or the local government's own auditor. By way of regulating local services through being party to a funding grant as defined by Freiberg earlier in this paper, OECD (2000:161) explains that 'there is little direct effort by higher levels of government to influence the way local governments operate' - although this reference also points out that 'withholding of funding is a likely enforcement measure'. It notes however, that a trend towards block grants where local government has complete control over how the money is spent has increasingly occurred so that local government now has greater control over how funds are spent, whether savings are possible and the degree to which savings may be returned to citizens in the form of lower taxes. Interestingly, when discussing fiscal mechanisms and the application of pressure to local government in behaving in particular ways with urban waste collection, it notes that 'there is relatively little pressure from higher levels of government', however 'there is a great deal of pressure... from local taxpayers / voters and officials'.

The international city management association (ICMA) municipal yearbook of 1999 report is cited in the OECD (2000) report. The statistics presented characterize the US waste management terrain well. They note that residential solid waste collection has changed in the last 20 years with the proportion of jurisdictions using only public employees falling from 52 percent in 1988 to 36.8 percent in 1997, and almost half (49.0%) of jurisdictions exclusively contracting out these services by the latter date. Commercial solid waste collection was also characterised as having a minority (23.1%) of jurisdictions where public employees were involved in this service compared to 60.2 percent of jurisdictions where this function was exclusively contracted out. Solid Waste disposal also saw 30.0 percent of jurisdictions using only public employees and 40.8 percent exclusively contracting out. Overall, the observation was made that 'some degree of competition applies to residential refuse collection services in somewhat more than

half of US local governments' (OECD, 2000: 163). Contracts also typically covered 3-7 years. Having said this, there were seen to be 'many differing arrangements with respect to the method and frequency of tendering'.

One of the classic refuse collection case studies in the US has been that of Phoenix, the 9th largest city in the US. Since 1978, this city has provided a tendering system for residential solid waste collection with the city divided in 6 sections and one or more areas of the city coming up for tender every other year. Private parties may serve up to half the city at any time so their auditing department having the responsibility to ensure that the bid of the department is consistent with anticipated costs of providing the service. A 'per household' price is the basis of solid waste collection contracts, and for a city which has experienced rapid growth in population, these regulatory arrangements have been judged as working well. The first year of the contract is fixed, whilst subsequent years are adjustable through the consumer price index. Financial penalties occur if households are missed during collections, and the city delays payments until claims by citizens concerning any damage done during the collections are resolved, according to OECD (2000:164). Private bidders must also put up a performance bond, a common method to ensure contractor performance in the US. Spot checks are undertaken by inspectors for quality of service and the city also operates a customer complaint telephone line to assist with the evaluation of performance. Contractors use their own equipment aside from the actual refuse containers (bins) which are owned by the city and used in each household.

Importantly, the Phoenix Auditors' office is in charge of the bid process and evaluates and awards the bids. There is some allowance for the displacement of government workers with both the city itself giving preference to displaced workers in filling other city job openings, and contractors offering jobs to displaced workers as well. There is no absolute control on who may bid for the jobs, although insurance coverage acts as a deterrent given its rigour. The vast majority of states (some 47 of the 50) do not regulate refuse collection prices. Some of the states require suppliers to have licences for solid waste collection and most states require safety inspections for waste collection vehicles. In terms of recycling, some areas have extensive programs for recycling. These seek to be self supporting but in the end, participation by individual households is essentially voluntary. In cities such as Phoenix, 'bidders are required to collect refuse one day per week and to collect recyclable items one day per week' (OECD, 2000: 167).

The average number of private bidders has averaged 4 and typically has ranged from 6 to 3 in Phoenix. OECD (2000:168) notes that 'there have been several market allocation cases bought against private firms that provide commercial and roll-off services in local markets'. These have included agreements not to solicit each others customers, exchanging price lists, price fixing and bid rigging and have primarily dealt with commercial services rather than residential collection or disposal. The US department of Justice has also bought monopolisation cases against Browning – Ferris Inc (BFI) a large national firm for its abuse of market power. A similar monopolisation case was also bought against Waste Management, another large national firm.

On environmental concerns, OECD (2000) notes that there has not to date been a discernable correlation between competition and environmental problems. Environmental laws have been strengthened over time for disposal and collection of solid waste. Both of these comments fit the more general international findings of Hodge (2000) in that /competition, on average, was seen to lead to consistently high service quality compared to previous in-house provision.

3.5 Australia

The introduction of compulsory competitive tendering policies into the United Kingdom were followed more recently by Australia. They became influential as a new public management symbol, heralding the cultural shift announcing that public sector service delivery ought be competitive. Whilst the UK's Compulsory Competitive Tendering regime has been well advertised, we should recognise firstly that CCT applied to only a small number of local government services in the UK – cleaning, refuse collection, maintenance, and catering. And in any event, as Paddon (1993) pointed out, the public sector still won the lions share of the work. He suggests, for instance, that the public sector won 72.1 percent of refuse collection tenders, amounting to 75.2 percent of the value of contracts. In Australia, a range of different approaches to the management of waste by local government was adopted. Different states of the federation took different approaches, ranging from modest policy changes through to aggressive reform. It is to this more aggressive set of reforms that we now focus attention.

In this latter category stood the Kennett Government of Victoria when it introduced compulsory competitive tendering for *all* local government services. Targets were set at 30, 40 and 50 percent for the years 1996, 97, and 98 respectively. By 1998, few of Victoria's 78 Municipalities had failed to meet the 50 percent target. Indeed, because this 50 percent turnover requirement was based on accrual accounting practices also being introduced at the same time, this essentially meant that local government bodies were required to undertake competitive tendering for the *overwhelming bulk* of their services (Hodge, 2000:265).

Such urban services regulation was powerful - the legislated requirement was that 50 percent of all local government services turnover be competitively tendered. In terms of seeing regulation as systemic and purposeful and a change in behaviour, the driving force behind these local government changes was clearly government insistence on targets rather than any spontaneity by local government to move in this policy direction.

On a broader national scale, many Australian case studies were presented in the report of the Industry Commission (1996), along with policy guidance on promoting competition, in-house bids, the tender process and quality assurance. Some 14 case experiences, including four local governments across a variety of services from cleaning and waste collection to home and community care were outlined. Highlighted here were learnings from the City of Melbourne's experience in preparing in-house teams for competition, Victoria's general local government experience in pursuing its aggressive 50 percent competitive tendering targets, and market testing for roads maintenance in New South Wales, (Industry Commission, 1996: 39, 43, 155 and 378 respectively).

In terms of effectiveness, this report argued that "if done well, CTC [competitive tendering and contracting] can lead to significant improvements in accountability, quality, and cost-effectiveness, providing benefits to clients, taxpayers, and the broader community"; Industry Commission (1996). The Industry Commission (1996) nonetheless emphasized that it was vital to structure CTC in a way which ensured clear and accurate specifications, effective competition to choose the best provider and adequate monitoring of contractor performance. As well, it argued that a major benefit of CTC was that it forced agencies to review what they were doing and whether their current activities were effective in meeting underlying policy goals. Successful CTC required a cultural change in government and a new mix of skills, and as well had to be supported by elected representatives, driven by senior management and handled with close stakeholder consultation. This report estimated that in the mid 1990s, some \$13billion worth of services were contracted by public sector agencies in Australia.

3.6 Effectiveness of Waste Management Regulatory Systems

Adapting the philosophy of Freiberg (2006) who saw five regulatory tools being adopted by governments, we might contemplate the effectiveness of the range of regulatory options underway with waste management. There is little doubt that the policy of competitive tendering for urban public services has been a controversial one over the past three decades. The use by the State of private contractors however, has had a lengthy history and whether it is private tax collectors in the bible, or the private cleaning of public street lamps in 18th century England, governments have always had a strong capacity to have relationships with the business sector as part of their function. There is also little doubt that this arena is peppered with ideological rhetoric and overstatement, and that long public-private debates through history have resulted in our arguments now being well rehearsed. Much care in summarising evaluation findings in the competitive tendering and contracting-out arena is therefore needed.

Historically, it is evident that governments have often played a large role in governing, developing and then managing services for domestic waste. In the fervour of competition discussion and ideological debates, their role in providing urban domestic waste collection services is often acknowledged too little. In the United States for instance, the early US survey of Florestano and Gordon (1980) looked at 89 municipalities under 50,000 people and concluded that ‘although a variety of public services are provided by private contractors, the majority of services are not provided in this manner’: Hodge (2000:28). Likewise, Ferris and Graddy (1986) also concluded that around 57 percent and 69 percent of US jurisdictions relied solely on public sector in-house service provision in the areas of waste collection and street repair respectively.⁶

And on the matter of evaluating the cost effectiveness of competitive tendering and contracting-out services, much care is again needed. The literature on effectiveness of competitive tendering and contracting out of local government services is voluminous and it is literally possible to find lots of anecdotes and studies supporting ones own beliefs. The effectiveness of CTC could indeed be the subject of an entire OECD discussion paper on its own. What is crucial here is two matters - to determine firstly the effectiveness of CTC and contracting as a regulatory tool in providing urban waste management services, and secondly, to determine the effectiveness of contracting for other urban services more broadly. So, how effective is the regulation of urban waste management services through contracting?

On this matter, it is not the place of this paper to revisit all major studies on waste collection. A few brief historical examples of highlights from the waste contracting literature are shown in Appendix A to illustrate the care required in assessing the performance of providing urban waste services through contracts. Importantly, dozens of studies evaluating the provision of refuse collection are now available, so rather than focus on single studies of effectiveness, a summary of the research literature is really needed. One such summary was undertaken by Hodge (2000). He summarised the 6,045 performance measurements made in the 15 available statistical studies for waste collection at the time. He concluded that contracting of urban waste collection services resulted in an average savings of 19.3% in service costs. He also re-iterated the findings of the seminal Domberger, Meadowcroft and Thomson (1986) study of 610 UK authorities (and the subsequent Domberger et al 1987 study of 2,947 hospital contracts) both of which reported similar cost savings being achieved when services were tendered but retained ‘in-house’. Hodge (2000) also noted that these two early Domberger et al studies the origin of the now much quoted ‘20% cost reduction rule’ used as a basis for contracting-out and competitive tendering in public sector policy⁷.

⁶ On the other hand, there were also clearly areas where there was a large reliance on external contractors as the sole suppliers of US urban services. These included vehicle towing 77% of jurisdictions, daycare 73%, and hospital services 71%.

⁷ The Domberger et al. rule of thumb, that ‘contracting out public services saves 20%’, has been remarkably influential. It has not only underpinned the wide spread application of competitive tendering in contracting out services at the local government level, but has also been found to be the source of projected savings for many other services including wholesale information technology

Since this time, there have of course been numerous other findings on the contracting of waste services. These broadly support the above conclusions. Bel and Miralles (2003), for example, note the increased use of this regulatory mode in the UK and the US over the past two decades. They comment on the compulsory nature of the UK's competitive tendering laws for solid waste and note that 'nonetheless, competition is still the preferred means to achieve efficiency savings and, hence, best value' even following the 1998 change in the UK which removed the compulsory nature of tendering rules. Their paper looks at contracting out urban solid waste collection in Spain, and finds that contracting out is now a widely used means of managing this service. As well, the city of Barcelona was divided into 4 districts for the concession of this service in 2000.

Cooke and Chapple (2000) also noted the interesting regulatory background for UK waste disposal. It characterised the UK's waste disposal industry as having evolved from a 'disparate collection of localised small-scale operators to a coherent multi million pound industry'. It noted the first PU framework directive on waste management which had emerged in 1975 (75/442), anticipated within the *Control of Pollution Act* (1974). Sixteen years later the European framework directive (91/156) provided the new framework directive. Under this *Control of Pollution Act*, a licensing system was introduced to regulate the final act of disposal, waste disposal. Under the EPA part II the remaining activities such as waste handling, storage and treatment were also subject to regulation. The granting of a licence now reflects things such as ongoing professional confidence qualifications and the previous conduct of applicants (Cooke and Chapple, 2000:750).

Dijkgraaf and Gradus (2003) cite the findings of Reeves and Barrow (2000) who suggested cost savings of around 45 percent in Ireland for private firms collecting household wastes. Their findings, in the Netherlands, confirmed earlier results that contracting out refuse collection resulted in lower costs of between 15-20 percent. Moreover, they confirmed our earlier conclusion that 'the choice between outside and inside provision is more important than the ownership of the collection service. Competition seems to have more effects than the ownership issue.'

Antonioli and Filippini (2002) looked at 30 firms operating in Italy over the period of 1991-95. Their empirical evidence suggested that franchised monopoly, rather than side by side competition, was the most efficient form of production organisation in the waste collection industry. Thus, 'empirical evidence suggests that franchised monopoly, rather than side-by-side competition, is the most efficient form of production organisation in the waste collection industry' in their view. These results seem to support the US practice in this sector, where public or private firms operating as franchised monopolies collect refuse. Moreover, the results show that the only way to introduce competition in this sector is to use, as some US local governments do, a competitive tendering process to assign the provision of this service.

Lastly, Ohlsson (2003) recently compared public and private firms using the refuse collection costs of 170 firms in 115 Swedish municipalities. Interestingly, public production costs were 6 percent lower than private production costs from his analysis.

Turning now to the broader question of the effectiveness of contracting as a regulatory tool for urban services in general, it is important to note that the experience and findings of waste contracting have been remarkably influential in other areas of public sector reform and have underpinned moves by governments to use the contract regulatory tool for many other urban services. The meta-analysis of Hodge (2000) is again provides a useful summary here. Moreover, such a meta-analysis is probably more reliable than a

outsourcing for the entire Australian Federal Government (Rouse and Hodge, 2006). This study was interesting in that it projected, on the basis of Domberger's research, to save \$1 billion of federal funds by outsourcing information technology services.

traditional literature survey or an analysis of case studies, because it avoids the usual tendency of reviewers to emphasize those results that they like, and criticize the studies producing results that they do not like^{8,9}.

One of the most globally significant studies in the area, it looked at empirical studies drawn from some 1400 journals and magazines and 6000 non-serial publications and theses. The study focused on all of the available empirical measurements that had been made of service quality and service costs under contracting throughout the world. Some 129 studies were gathered for a narrative literature review, and then a quantitative meta-analysis was undertaken on the results of available statistical studies from this collection. Only those studies considered to have reasonable research design integrity were included. This review showed that for the large range of research results found, the reality of contracting-out government services was quite different to the pictures often presented by outsourcing advocates and outsourcing critics. What were the broader meta-results here?

For the 28 international studies adopted in his meta-analysis, some 20,131 'before and after' measurements of contracting and competitive tendering effectiveness were summarised. In essence, this statistical study showed the following:

- a significant average saving of around 6 percent (12%)¹⁰ is probably experienced in contracting public sector services overall;
- the bulk of the evidence on contracting related to strong savings in the areas of garbage collection, cleaning and maintenance services (ie with savings ranging between 19% to 30%);
- for many other services, particularly those more difficult to define and measure, little or no savings were found from the empirical evidence (between an 8% saving to a 24% increase);
- cost savings available from contracting-out different services were found to be statistically different (i.e. there was no standard cost savings figure, like 20%, applicable to all services)
- the little empirical evidence available on service quality indicated that, on average, service quality was unaffected by contracting - sometimes it was better, sometimes not;
- contracting either in-house or outside the organisation both led to savings - and hence, service specification and competition appeared to be the drivers of efficiency, not the sector doing the work¹¹;
- A significant flow-on seemed to operate in that agencies not contracting services, but in areas adjacent to those areas actually contracting services, showed cost reductions of around two thirds that for areas contracting out¹².

⁸ The meta-analysis approach is the most reliable method of summarising many research findings, because it avoids the usual tendency of reviewers to emphasize those results that they like, and criticize the studies producing results that they do not like or do not understand. Meta-analyses have been undertaken across a wide range of areas, from education and psychology to medicine and law, and have been applied to both public and private sector research. For examples across the business and public sectors, see Hodge (2000, 70). Such analyses are nonetheless rare in public policy, although Lynn and Hill (2002) is another exception.

⁹ The balanced literature review method is the next most reliable, though we need to recognize that traditional literature reviews of research studies are nowhere near as reliable as commonly assumed See Hodge (2000), chapter 5, for an expansion of the logic behind adopting the meta-analytic approach in preference to relying on traditional literature surveys alone - even for a small number of research studies. One of the best examples of traditional literature surveys leading to completely opposing conclusions was the work of Glass, McGaw and Smith (1981:19) citing Miller's classic work in 1977. Here, five reviews of the efficacy of psychotherapy and drug therapy were analysed and it was noted that in many cases, the same study was claimed by the reviewers to support opposing hypotheses. Clearly, different reviewers see the same empirical results quite differently.

¹⁰ Averaged over available international *measurements* (most of which related to garbage collection, cleaning and maintenance), a mean cost saving of around 12% was found, but averaged over *services* (equally weighted) a mean of around 6% was found.

¹¹ This finding is an important one in view of the need for regulatory frameworks which are sector neutral in the present work. Private sector versus public sector efficiency arguments have a long history. But it is clear that competition and contracting reforms can improve value for money even when work continues to be done within the public sector.

Thus, whilst outsourcing advocates often quote '20 percent reductions' for costs when contracting out government services, the meta-analytic findings pointed to much more modest outcomes in reality, with average cost savings of probably around one-third of advocates' claims at 6%. Whilst similar savings across all functions of government were also often advertised, the meta-analytic findings pointed to cost savings that were very different for different services (ranging from savings in both maintenance and cleaning of 30 percent down to none in others such as health services and corporate services). Whilst outsourcing proponents argued that such contracting needed to be done with private sector companies, the meta-analytic findings pointed to contracting in-house also leading to around the same cost savings as contracting externally, suggesting that careful task specification and competition through contracting were the drivers of efficiencies rather than the sector doing the work. And whilst the keenest advocates argued that almost all local government services ought to be subject to competitive tendering, the meta-analytic findings suggested that large 'flow-on' effects occur with contracting, and that a little bit of contracting-out and competition may well go a long way towards improving overall organisational performance. As well, and contrary to the arguments by reform critics that contracting necessarily leads to reduced service quality, the meta-analysis found that cost reductions were achieved with no loss at all to service quality on average.

There were also several important qualifications to this research. First, despite the appearance of accuracy in these numbers, it was often unclear the degree to which the various contracting arrangements had been preceded by competitive tendering processes per se. For this reason, it was rarely possible to be mathematically definitive about the effect of competition per se, as compared to the effects of contractualising service delivery (including developing specifications, reviewing services and optimising service or quality levels) or compared to the private sector doing the work in preference to government. Logically, however, given the similar size of cost savings found from both contracting with the private sector and contracting with in-house teams, the major benefits appear to have been from the act of contracting and the existence of competition¹³. Second, all cost comparisons are subject to a series of assumptions and likely costing inaccuracies. It must, nonetheless also be recognised that this research information is the best that is available and that the key in our 'before and after' comparisons is not so much the issue of absolute accuracy but consistency in order to gauge the relative cost performance before and after. Third, there is little research available that directly compares the technique of contracting-out with other reform techniques such as partnerships, alliances or benchmarking. Despite these qualifications, 6 percent is itself a considerable average saving on extensive annual budgets for urban governments, and would amount to many millions of dollars in direct annual benefits.

The research also points to a range of deleterious impacts and costs of change, such as redundancies, retraining, remedial actions for local unemployment, and greater impacts on disadvantaged employees, that may need to be financed from the savings. Provided these impacts are identified, it is considered that the magnitude of savings is sufficient to justify implementation of a competitive regime.

Aside from the focus production cost and service quality issues, there has been less talk on important matters such as corruption. Morelle (1998) is one clear example of the importance and potential for corruption in the waste collection industry in urban areas. Her article, whilst early, presents the New York political battle between prosecutors on one side and organised crime on the other over the cities most

¹² From the statistical results of Domberger et al (1987) and Mehay and Gonzalez (1993), it was evident that although these areas were not themselves actually contracting out services, the threat of competition and the acquisition of new, market based, financial performance knowledge itself also led to real performance improvements.

¹³ Additionally, other research literature in arenas such as telecommunications has supported the powerful effect of competition on service cost and price. This suggests that whilst regulators have struggled as the optimal regulatory prescription has evolved, significant consumer benefits have nonetheless been achieved through increased competition.

lucrative industries. She notes that whilst the Genovese and Gambino crime families for decades had been believed to control various industries, small local businesses had also been part of the long history of customer allocation conspiracies and restraint to fair trade competition. Morelle notes that in Regulatory terms New York City's requirement that all commercial establishments hire private carters to haul their refuse can be traced back to the late 1800's. Morelle notes that New York City businesses were probably paying Cartel hauling companies nearly \$500 million in unnecessary 'cartel over charges'. In addition to waste management, Morelle notes other industries such as the Fulton fish market which whilst it conducted more than \$1US Billion, saw crime families taking a percentage of all transactions in the market and reduced the profits of clean companies by two thirds (Morelle, 1998:4). Similar stories were reported by Morelle for the garment district where the shipment of garments were controlled by organised crime. It is noted that 'the Gambinos pleaded guilty to the charges in 1992, and by 1995, the cost of shipping apparel had dropped 20 percent.' Likewise the grip which organised crime had on the construction industry was reported to involve kickbacks for union leaders including racketeering. Charges were brought against 5 union officials in 1995, and 'as a result, experts estimate that construction costs across the city have declined 10 percent'.

The story here is clear. As Hodge (2000, 150) reports, even the presence of 475 companies in New York has never guaranteed solid waste management has been competitive at all. Organised crime easily transcends any competition that might arise. Sensible, strong, clear, state initiated competition regulation and enforcement is required.

Overall, then, what we observe in OECD waste collection arrangements is therefore the widespread use of competitive tendering arrangements; various licensing regimes; and mixed ownership options for the delivery of this service as well as reliance on grant conditions to shape the behaviour of service providers. Both competitively tendered contracts and franchises appear to be effective as regulatory devices, and can be applied in terms of competition 'in the market' as well as competition 'for the market'. Moreover, competitive tendering appears to be effective across a broad range of essential urban services. Notwithstanding this observation, robust competition is never guaranteed, and strong regulation and enforcement is required by the state.

4 Current Practices in Regulating Urban Water Supply Services

4.1 Introduction

The water sector broadly comprises wide water catchment and basin management services to appropriately govern water resources, the supply of urban potable water for drinking and other uses, and the treatment of waste water and sewerage. OECD (2004: 21) reports that the three primary consumers of water are households, industry and agriculture. Further, it noted that for a sample of OECD countries, consumers represented 5 percent of water use, agriculture 30 percent and industrial use 65 percent. These were somewhat different to worldwide water use estimates, where agriculture was responsible for some 69 percent of water use, with industry at 23 percent. This discussion paper will focus on water supply in urban areas.

The supply of urban water has over the past few decades had two key characteristics. The first has been the gradual evolution from an engineering to an economic basis of water supply governance: (Finger and Allouche, 2002). The need to understand essential water governance using economic principles as well as technological capability is now unarguable. Perhaps we ought to add a further context to this suggestion however, and suggest that both economic and engineering governance also exist within the earlier context of successful development (Phillips, 2006) as well as the later context of regulatory governance (Gilardi et al, 2006). The second characteristic of urban water supplies in recent times has been its extraordinary sensitivity in political terms. Observers such as Llobatera (2003) note that the privatisation of water and sanitation in Spain, for example, brought with it ‘water wars’, including ‘one of the greatest mobilisations of civil disobedience in recent history’. This saw some 80,000 families refusing to pay their water bills in Barcelona due to inflated minimum consumption levels and a substantial rise in price and as well, hundreds of local demonstrations ‘some with as many as 500,000 people’. In a similar vein, Swyngedouw (2005) writes of the privatisation of water as being tantamount to ‘dispossession’. He accuses governments as ‘paving the way and imposing conditions that guarantee privatisation and then secure profitable operations afterwards.’ Moreover, he also accuses reformers of uncritically attacking state provision as ‘wasteful, inefficient, and sub-optimal’ whilst ‘conveniently forgetting how in many countries around the world, the state managed during the 20th century to bring water to everyone, light our houses with electricity, erect some buffer[s] against excessive social and environmental exploitation, plan and build all manner of infrastructure, provide hospitals, make education accessible for all, and thus guarantee some sense of security’. Perhaps such sensitivities are not surprising in the context of huge multinational water companies moving around the world, eager to invest in water markets as governments progressively open these up. Such corporations include Vivendi (with market revenues of US\$44.4 billion in 2000) and Suez Lyonnaise Deseaux (at US\$33.6 billion revenue). Such companies not only have huge market influence but are indeed bigger than many of today’s nation states (Finger and Allouche, 2002:18). Such power comes in stark contrast to the observation by Finger and Allouche (2002:152) that there is a higher number of people in the world without water supply than with. Likewise, there are more people not served by urban sanitation than served.

What is evident here, as Kessides (2004:227) argues, is that the appropriate regulation of water supply is a crucial issue for people living in urban areas. Also evident is the observation that there is likely to be considerable sensitivity in making decisions and in choosing between multiple institutional options in water supply regulation and governance. Table 2, taken from Kessides (2004:228), exemplifies the wide range of ownership / institutional options.

Option	Ownership	Financing	Operations
Service contract	Public	Public	Public then some private
Management contract	Public	Public	Private
Lease contract	Public	Public	Private
Concession	Public	Private	Private
BOT (build-operate-transfer) contract	Private then public	Private	Private
BOOT (build-own-operate-transfer) contract	Private then public	Private	Private
Reverse BOOT	Public then private	Public	Private
Joint ownership	Private and public	Private and public	Private and public
Sale	Private	Private	Private

Table 2: Institutional Options for Water Supply
(Source: Ringskog, 1998)

There are clearly multiple potential options as to institutional arrangements for urban water supply. Having said this, the jury is open as to the effectiveness of such arrangements, the manner in which particular arrangements fit a country's historical heritage and the degree to which the particular theoretical options are actually in popular practice.

In this section we will outline two case experiences from the United Kingdom and France. Ballance and Taylor (2005:2) suggest that these are the two industry models most commonly referred to in public debates. We should recognise, however, that they are certainly not the two most common models in practice. Of the fifteen EU countries nominated by Finger and Allouche (2002:192) some twelve of these have over 80 percent of the population supplied by public water utilities. And of the three remaining countries, the proportion of the national population supplied by public water utilities is over 60 percent for Spain, but around 26 percent for France and around 12 percent for the UK. Clearly, the UK and France are outliers in terms of their water supply governance frameworks rather than typical. Nonetheless, they do sit at one particular frontier of thinking, and on this basis deserve examination so that discussion of a full range of EU water regulatory regimes is then possible. Acknowledging what has been termed as the World Bank's 'crisis of faith' in the efficacy of private sector reforms, there is also clearly much to learn from empirical experience here according to Philips (2002) as cited in Kessides (2004:260). We will return to this issue later.

Looking at the OECD as a whole, both access throughout most jurisdictions to public water supply and the proportion of population connected to public waste water plants is generally impressive. Finger and Allouche (2002:184) suggest that throughout OECD countries, the proportion of the public with access to public water supply is between 80-100 percent, with most countries above 90 percent. Likewise, the proportion of the population connected to waste water plants is generally high with an average OECD figure for European countries of 62 percent.

4.2 United Kingdom

The oldest established UK water supply company, the London Bridge Water Works was established in 1581. Over the years, multiple water wheels were seen operating out of the Thames River, and increasingly competitive conditions resulted from multiple water supply companies operating for an expanding London population. Indeed, Graham-Leigh (2000:51) argues that ‘by 1815 it was becoming clear to all the water companies that the competition was benefiting none of them, and that unless prompt action was taken to end it some at least of them would face financial collapse’. The companies struggled to reach agreement over infrastructure provision and as government wrestled with the question of charges, water supply gradually became an increasingly public policy matter and an ‘anti-water monopoly association’ voice arose in 1820. By 1821, a select committee of parliament had been established to enquire into the state of supply of water to London. As well as these issues of water charges and company viability, the previous few decades had also been marked by colourful accusations of scandalous fraud and profit by water entrepreneurs (Graham-Leigh, 2000:92). Water was also regarded as so offensive and unhealthy that further political action was taken through a Royal Commission in 1828. Indeed, by 1851, supply arrangements with private water companies were seriously under challenge and in 1852 the first regulatory framework for London’s water supply was enacted. A further Royal Commission was held in 1869 and two further Royal Commissions followed such that by the 1890s, public ownership was suggested as the way forward.

Hassan (1985) argued that the transfer of responsibility to UK public authorities in the late 1800s led to a 15-17 fold increase in the value of British water production. It was seen as a highly successful solution to water supply problems at the time. Indeed this superior performance of public enterprise compared to the ill effects of the previously unregulated private enterprise market up to the 1870s explains why regulated private enterprise was not particularly subject to experimentation at the time. The growth in public involvement between 1870-1914 was indeed an historical development of some importance with implications which have extended, as Hassan argues, up to the present day.

The subsequent nationalisation of water supply companies led to what Maloney (2001) called a ‘professional bureaucratic complex’ in which technocratic decision making systems predominated. Whilst water was certainly supplied competently, this led in Maloney’s eyes to a public business which was essentially ‘the private management of public business’ given that it gave little cognisance to important political, social and economic factors at the time. On the other hand, once water companies in the UK were privatised in 1989, the subsequent privatised businesses were essentially ‘the public management of private business’, due to the manner in which independent (public) regulators governed the sector on behalf of the community. The privatisation of the water and sewerage industry of the UK is well documented in the literature.

Ballance and Taylor (2005) note that the Water Act (1989) privatised ten regional water authorities supplying water and sewerage services which had to this time been publicly owned. Each of these companies operated subsequently under a licence granted by the Secretary of State for the Environment. In terms of regulatory institutions, OFWOT (or the Office of Water Services) was a principal regulator that operated alongside the Drinking Water Inspectorate and the Environment Agency. The responsibilities for each of these regulatory institutions is outlined in Ballance and Taylor (2005) along with the responsibilities of the Secretary of State. What is important here is to recognise OFWOT as the economic regulator of the water industry and the Drinking Water Inspectorate as responsible for monitoring the compliance of water companies in terms of drinking water quality. Subsequent to this, the Water Act (2003) also provided for the creation of an independent Consumer Council for water to ensure a stronger consumer voice in the sector. The major functions within economic regulation were periodic reviews of price limits, development of market competition and ownership and merger policy. The water sector was priced under the formula known as ‘RPI + K’ where as well as the retail price index, the K

component comprised a general X efficiency factor for other regulated utility sectors and a Q factor for greater investment in the water sector compared to other sectors. Periodic water reviews were undertaken in the UK in 1994, 1999 and 2004.¹⁴

Under this regulatory model, Finger and Allouche (2002:199) report that the core businesses of the private water companies both for water supply and for sewerage treatment were licensed by OFWOT for 25 years and ‘in the event of inadequate performance, OFWOT ha[d] the power to revoke licenses’. Thus compared to previous public operation, water licenses enabled transparent regulation to be specified in a license and the provision of certain data to be published in annual reports to satisfy transparency requirements. The regulator thus had ‘very close control of the water industry, not only preventing price discrimination... but also monitoring investments’ (Finger and Allouche, 2002:200). Such a system, according to Finger and Allouche, ‘imposes a certain cost for precise monitoring activities which are paid by the consumers’, and also did ‘not really favour competition’ – a fact which was recognised by the private operators who complained of over-regulation at the time.

In concept, several competition mechanisms were possible in water supply. Cowen (1998) notes that competition could in concept be (a) yardstick competition; (b) competition for the market; (c) contracting out of services; (d) capital market competition. In its original form, the British system was to introduce a system of indicators or yardsticks which simulated competition amongst companies (Bakker, 2003). However, a few years into privatisation, regulatory creep (in Bakker’s mind) had set in, and rather than being an endpoint of regulation, price caps had become a means to the end of regulating rates of return via intense scrutiny. Because input costs had been far lower than forecast and profits had been way above expected levels, water companies had become ‘more tightly regulated than any other of the privatised industries’. Bakker (2003) notes that outsourcing within the water companies had also occurred to improve efficiency through spin-off companies and sub-contracting non-core or even core functions such as maintenance.

Since this initial privatisation flurry, there have been many major ownership changes in the industry and some evolution of regulatory governance. There has also been, of course, a predictable heated debate on the effectiveness of the UK’s privatised and newly regulated arrangements. What is certain here is that, as Sawkins (2001) suggests, the UK water industry ‘remains highly regulated, complex and difficult to enter’. One of the interesting evolutionary directions recently undertaken in the UK has also been the proposal to return water supply infrastructure to public control through mutuals or customer corporations (Bakker, 2003). One of these proposals was formally approved on the basis that it promised to significantly lower consumer bills. OFWOT nonetheless warned that the model was not one for the industry as a whole. A further observation is the comment that real competition amongst water suppliers in the UK has not been as strong as that observed in other utilities such as electricity or telecommunications.

Evaluating the United Kingdom’s Water Supply Regulatory Framework

The first observation we might make on the British foray into privatising water was its visible unpopularity. Indeed the Labor Government reacted to an incensed public by imposing a so called Windfall Levy on water companies in 1997 and 1998, extracting £1.65 billion (or over 20 percent of that years turnover for the water industry): Bakker (2003). This political action not only indicated the unpopularity of this policy, but also implicitly acknowledged the degree to which the regulatory regime had underestimated the returns going to private companies and its shareholders.

¹⁴ Interestingly, Finger and Allouche (2002:198) note that at the time the water supply sector was privatized in 1989, Margaret Thatcher was quoted as saying ‘about a quarter of the water industry in England and Wales had long been in the private sector’.

In this light, it is little surprise that evaluations of the effectiveness of the UK's water regulatory regime vary. Looking across all UK utility reforms as a whole, Parker (2003) reminds us that 'in assessing the impact of privatisation on economic performance it is difficult to separate out the effects of ownership, competition, regulation and technological change'. He also suggests that 'in terms of the distribution of the efficiency gains, initially investors were the main beneficiaries in the UK, but consumers gained as competition developed and regulation tightened'. Looking more specifically at water reforms, Robinson (2000) was more specific noting 'that privatisation ha[d] been less successful in water than in the other privatised utilities. The highly regulated regime [wa]s closer to the old nationalised industries than in gas, electricity and telecommunications'. Notwithstanding this, Robinson (2004) notes that 'water privatisation has had some success in allowing capital to be raised without going to government, in improving efficiency and in depoliticising industry decisions'.

A few typical detailed assessments of water reforms are also informative. Ballance and Taylor (2005, 55) present a wide array of positive evaluation outcomes as follows:

- Unit cost to operators for water had fallen by 18 percent and for sewerage had fallen by 9 percent in real terms in the nine years up to 2001/02.¹⁵
- A 17 percent nominal reduction and a 32 percent real reduction in employment costs over this period.
- Marked improvements in water leakage from the supply system of around 29-33 percent in the decade prior to 2001/02.
- Improvements to the high quality of drinking water with 99.82 percent of tests showing compliance with the standards at July 2000, and the number of tests failing the standards at the end of the 1990s being one tenth that of those in 1992 (falling from around 50,000 breaches to around 5,000 over this time).
- River and canal chemical quality having improved from 84 percent rated as good or fair up to 95 percent in the decade up to 2001/02. Coastal bathing water compliance having improved from 66 percent in 1988 to 97 percent in 2001.
- Unsatisfactory combined sewer overflows having improved from 31 percent (in 1994/95) to 24 percent in 2001, and substantial increases in 'positive sites for otters in England'.

Overall then, Ballance and Taylor (2005: 73) concluded that 'the performance of the water industry in England and Wales since privatisation ha[d] improved substantially in all areas'. Theirs was clearly a glowing assessment. These findings were in line with the earlier research of Parker (1999a). He reported the number of properties at risk from low water pressure fell from 1.26 percent of all connected properties in England and Wales in 1992/3 to 0.43 percent by 1996/7. The number of properties that experienced unplanned interruptions of water supply of more than 12 hours fell from 0.36 percent of the total properties supplied in 1992/3 to 0.21 percent in 1996/7. 'Certainly, there is no evidence of a sustained deterioration in service quality since privatisation in any of the regulated industries...' Parker (1999b) reported further that between 1989/90 to 1997/98 'measured' household water and sewerage bills increased by 26.8 percent and 36 percent respectively in nominal terms, and 'unmeasured' water and sewerage bills increased by a visible 90.7 percent and 96.0 percent respectively. In real terms, the measured bills reflected a 5.7 percent decrease for water supply and a 1.0 percent real increase in sewerage bills. The real increases in 'unmeasured' costs also amounted to 41.7 percent for water supply over this time, and for sewerage, 46.0 percent. Parker also presented information on return on capital employed and stated that the average for water and sewerage companies for 1990/91 was 9.8 percent compared to 11.1 percent as at 1996/97.

¹⁵ Contrasting this, Ballance and Taylor (2005) present information showing a one percent reduction in water unit costs to customers and a one percent increase in sewerage unit costs to customers, but do not explicitly discuss these results.

Other reports also reported favourably on regulated performance. These included OECD (2004:191) and the assessment of Finger and Allouche (2002:199) which argued that the UK regulatory framework was ‘beneficial, at least when it comes to investment’.

Saal and Parker (2000; 2001) were not as glowing however. Saal and Parker (2000) undertook detailed econometric analyses of water and sewerage industry costs and concluded;

- that privatisation in 1989 did not lead to increased efficiency,
- that a regulatory tightening of the price cap from 1 April 1995 did lead to appreciable efficiency gains, and
- there were not significant economies of scope in water and sewerage services in the UK.

Interestingly, the implication here is that the successful privatisation of the industry was initially achieved ‘at the expense of not building in sufficient regulatory pressures for management to pursue efficiency gains at the outset’. Likewise, Saal and Parker (2001) found through further statistical analysis that whilst substantial reductions in labour usage had occurred for the UK, total factor productivity growth for water and sewerage services had not improved relative to the pre-privatisation period.

Very much more sceptical of performance gains was the work of Schofield and Shaoul (1997). Their conclusion was that the public water supply system had deteriorated and that moreover, it was not ‘an aberration due to some rogue company or unusual weather conditions...it [was] systemic’. They complained that little information on network performance was at the time of writing available to the public and that as a consequence it was unclear the degree to which companies were maintaining the infrastructure system. They also argued that little data was available to indicate whether the billions of pounds made available to the water companies via price rises since privatisation had been used to meet water quality and sewerage treatment standards and that indeed ‘nothing [was] being done to ensure that the necessary investment takes place’ in infrastructure. Overall, they regretted ‘OFWOT’s overriding concern to maintain the ability of the companies to finance their operations’ and concluded that ‘it seems likely that prices will continue to rise’. We might reflect that in comparison to the statistical analyses based on widely available panel data, the Schofield and Shaoul review was more limited to qualitative and anecdotal empirical data.

In addition to assessing the performance of the UK’s water regulatory regimes in terms of economic and social outcomes, it is also worthwhile to make a few comments in terms of regulatory process performance and institutional criteria as we suggested in our earlier discussion on frameworks. Ballance and Taylor (2005) acknowledged that the regulatory regime of the water industry had struggled to gain legitimacy. They noted that whilst the regulator clearly had a strong legislative mandate, and had been established in the context of strong political support, the regulated water utilities were not happy with the regulators decisions on many occasions and had moreover also not seen the available appeals mechanisms as particularly attractive. The recent prominence of accountability issues for the UK’s independent regulators symbolises not only the difficulties of this regulator/supplier tension, but as well, also indicates the need for stronger links to citizen and consumer concerns. Despite these observations, Ballance and Taylor (2005: 70) concluded that there has been ‘generally a reasonably good process in terms of using consultative mechanisms’ in the UK’s regulatory decision making and that the expertise involved in regulating the water industry in the UK has been significant. On the matter of the cost of regulation, Ballance and Taylor nominated that such costs were ‘undoubtedly high’, with OFWAT having an annual budget of around £12.5 million (2003/04), and around 50 pence on each water bill (or 0.21 percent of consumer outlays).

4.3 France

The French system of water supply is also highly visible around the world, but for reasons other than regulatory reforms to public sector enterprise. It has two noticeable characteristics. First, as Elnaboulsi (2001) reminds us ‘today, nearly 80 percent of the French population receive privately distributed water’. Given that article 72 of the French constitution enables local municipalities to be free in choosing the management style of public services, this is an interesting observation in its own right. The second visible characteristic is, as we have already mentioned, the substantial financial strength of the global private French water companies. Today, Vivendi, SLE and SAUR are all transnational companies in the arena of providing public sector services.

Elnaboulsi notes the history of today’s French water industry. He explains that ‘the French model of drinking water supply is deeply rooted in the spatio-political subdivision of the French territory and the French democracy, into 36,000 communes whose mayors hold legal responsibility, under the ‘Communal Code, for the provision of clean drinking water, collecting and treating waste water and the supply of other local public services’. Following World War II, many French municipalities sought external help in filling their obligations to provide public services and French local communities also formed geographically coherent groups to pool resources. This led to 15,500 independent water utilities reflecting as Elnaboulsi says ‘the complex geographical mosaic that is the French communal structure’. These communes undertake their public mission with oversight from the Interior Ministry and cooperation with the Environment, Public Health, and Agriculture Ministries. The French regulatory responsibilities are complex. Elnaboulsi explains;

‘statutory responsibilities for water regulation and planning within France are split amongst a large number of authorities and agencies, all of whom operate at different levels (commune, department, region, state) depending on the nature of the water (groundwater, surface water, domanial rivers, estuaries and ports), [and] the use and the type of intervention. Water resources management is based on the principle of integrated river – basin management. Water related activities within a catchment area are performed by a Water Agency’.

‘There are six water agencies in France. They are public and administrative organisations created by the ‘1964 Act’. They have in charge water resources management and protection, water policy implementation and local actions coordination. They are responsible for collecting extraction and pollution taxes, and allocate the collected funds between local authorities. They subsidise a part of water supply and sewerage treatment charges, and finance water resources conservation programs’.

But how did all this evolve? Briefly, in order to meet expansionist urban development plans, privatisation increased dramatically in France from around 30 percent in the mid 1950s to around 75 percent by the 1990s (Dore et al., 2004). Whilst this market appeared potentially to be highly cost efficient with a large number of competitive bids, it was in practice not so due to government intervention, according to Dore et al. In their words, ‘the French system is centralised, politicised, and insulated from market forces due to heavy subsidies that remained even after privatisation’. As well as such subsidies, market incentives were also attenuated under legislation which disallowed a winner of a contract to reduce the number of employees of a utility or their wages after a private sector takeover. The net effect of such guarantees was to enable water companies to grow and to expand to become international in size and these days transnational corporations. A fascinating outcome.

Today, Elnaboulsi explains that under French law, entities managing water services are obliged to ensure that the characteristics of public services (that is continuity and dependability, mutability, equality of access to consumers in terms of tariffs and services) are required as well as ensuring that the interests of

users in terms of price and water quality are protected. As well, Elnaboulsi notes that ‘local public investments benefit from large-scale government subsidy’.

Across the country some 80 percent of water is distributed through (private) delegation contracts, with the remaining 20 percent being distributed through public management arrangements. The proportions for waste water treatments are similar with private delegation contracts catering for 60-70 percent of waste water treatment, and public management being responsible for 30-40 percent. Over time, French municipal organisations have progressively looked for more efficient ways of providing water and waste water services by delegating the services to the French companies (Elnaboulsi, 2001:529). Four main contractual forms have been used throughout, including concessions, lease contracts or affermage, management contracts and commissioner management contracts (the so called French model of delegation). Prior to 1995 concession contracts ran for long periods and had no duration limits, so that concessions with a 75 or 50 year period exist now. Such contracts essentially amount to self regulation. On the other hand, lease contracts or affermage, are normally for a duration of 10-12 years¹⁶. The main features of these four contract types are shown in the following table, taken from Elnaboulsi.

Delegation contracts	Concession	Affermage	Management	Regie interessee
Financing investments	Private	Public*	Public	Public
Financing operation costs	Private	Private	Public	Public
Ownership	Public	Public	Public	Public
Management	Private	Private	Private	Private
Relation with users	Private	Private	Public	Private
Financial risks (firm)	High	Moderate	Low	Low
Duration	20	10-12	Contract	Contract
Rates setting	Contract	Contract	Public	Public and private
Payments	Rates payers	Rates payers	Fixed fees	Fixed fees w/ incentives**

* Sometimes the private company is in charge of specific investment costs

** Incentives are bonus based on productivity and commercial performance

Table 2: Delegation’ main features of Industrial and commercial local public services
(Source: Elnaboulsi, 2001, 536)

The French model, as Ballance and Taylor (2005:82) note, is therefore essentially based ‘on the concept of competition *for* the market and the use of long-term contracts between public authorities and private operators’. Thus ‘private operators win the right to manage these assets, but unlike in England, ultimate ownership remains with the public sector’. These days, Veolia Water (formerly Vivendi Water) is the largest private operator in France with 26 million water customers and 17 million sewerage customers and an annual national revenue in 2002 of €6.2 billion. Lyonnaise des Eaux is the second largest private supplier with 14 million water customers and 9 million sewerage customers and 2002 national revenues of €4.6 billion for water and all waste activities. SAUR supplies 6 million customers in France. All three companies are now global with revenues of €13.3 billion for Veolia Water, €15.9 billion for Lyonnaise des Eaux and €2.2 billion Euros for SAUR according to Ballance and Taylor.

The regulatory regime in place in France to govern water and waste water arrangements is also outlined by Ballance and Taylor. They note that a national framework of rules and legislation governs the form or

¹⁶ Ballance and Taylor (2005:85) also confirm that management contracts are typically of five years, affermage contracts have a life of 10-15 years usually and concession arrangements is now limited by law to a maximum of 20 years.

private sector participation and the conduct of franchise bidding processes. Secondly they note the body of case law in which contracts between public authorities and private operators exist, along with the legal requirements for reporting performance under French service delegation contracts and the requirements placed on private operators in determining charges for such services. Above French law, European law is also relevant in granting delegation contracts. Conceptually there is no discrimination between potential operators on the basis of nationality. Such contracts are chosen through objective criteria, and a transparent selection process is used and terms of the contracts do not unduly stifle competition. French law also establishes arrangements under which private operator accounts may be examined by regional audit commissions and this law puts in place formal reporting requirements for private operators in municipalities concerning water services. Importantly, Ballance and Taylor (2005:92) point out that ‘service delegation contracts for the provision of water and sewerage services, or other similar services, are treated quite differently under French law to private commercial contracts between businesses’. In other words ‘French public service law treats administrative contracts quite differently to the treatment of private contracts under common law systems’. Interestingly, contracts for the delivery of services to the public are not subject to general provisions of the French code of public contracts and such contracts are not required to go to tender – so that the choice of future partner has been dependent on ‘personal considerations’ (Ballance and Taylor, 2005:92). Under these arrangements, French concessions have been able to avoid the outrageous behaviour seen with monopoly power in other jurisdiction (such as the Fat Cats observed in the UK, or price increases after privatisation seen in many developing countries elsewhere around the world). Perhaps because of the educational background of the senior people in government and companies in France concessionaires have demonstrated a greater degree of trust and civility. This cultural specificity around strong social ties and a special culture in large companies and the French government has perhaps enabled the broader public interest in France to be met, or at least its appearance.

Performance Assessment of French Water Provisions

Private sector participation in water and sewerage provision all over the world has been inspired by the contractual arrangements of the French model according to Finger and Allouche (2002:194). Indeed, they have been seen as a classic example of public private partnership (PPP); Dore, Kushner and Sumer (2003); Hodge and Greve (2005). Importantly, however, this type of ‘partnership’ model is significantly different to the private finance initiative model of the UK and the various other PPP family members outlined in Hodge and Greve (2005). We shall return to this issue later. The more important question at present is not the symbolic ‘PPP’ model, or the global success of French private water companies, but how effective the supply and regulatory regime has been in delivering urban water in France.

On this matter, the task of assessing the performance of French water provision is made difficult through the lack of publicly available information on French water utility costs according to Ballance and Taylor (2005:94). They report that France had the fifth most expensive water prices in the world¹⁷ (with Germany the most expensive and the UK ranked sixth). Ballance and Taylor also examine the relative economic efficiency of French water companies against the English water sector and conclude that English industry returns were lower than those available elsewhere – presumably including the water sector in France. This implies that the allocative efficiency in the water industry of France was either on-a-par with, or less than, those in the UK. That said, there is little doubt that the dynamic efficiency of large French water companies ranks high in the world and has underpinned their global expansion. Developments in membrane filtering technology, water purification, distribution management systems and leakage control,

¹⁷ Ballance and Taylor (2005, 95) also quote French studies which surveyed 5,000 municipalities and covered 68 percent of the population. These studies found that water ‘prices varied by a factor of 4 across the country’, and that ‘on average, water delivered by private companies is 27% more expensive than by public operators and wastewater services managed by private operators is 20% more expensive’.

metering and information technology to support customer service, and geographical information systems all attest to this conclusion.

As well as the creative, commercialised research efforts of these companies, the efficiency of the French franchise market itself also deserves discussion. In this regard, Ballance and Taylor (2005: 100) conclude simply that ‘tendering processes in the French water industry would seem to be quite competitive’ notwithstanding the direct evidence on efficiency levels being limited and the competitiveness of tendering being constrained by what they termed ‘less than optimal information flows’. These conclusions were different to the more modest assessments of commentators such as Elnaboulsi (2001). He concluded that whilst he expected delegation contracts to continue and private investments in infrastructure to grow, he regarded alternative suppliers as being ‘cartelised’ with the consequence that even if new deals were struck, they were ‘not likely to be better than the old one and...might even be worse’. Municipal bargaining power, to his mind, was limited simply to the threat of revoking delegation in favour of direct management. But even here, this threat lacked practical credibility because municipalities simply did not in reality have the financial means to free themselves from the long term relationships established by firms. In other words, Elnaboulsi suggested that the ‘lock-in’ effect of such arrangements overcame any theoretical efficiencies to be gained through competition.

The one major disadvantage of the French model noted by Finger and Allouche (2002:196), was the lack of a single national water regulator on behalf of government. In their words, ‘everything is left to the communities and the contractual arrangements between them and the water companies’. There is ‘no single authority responsible for the water sector’. Moreover, ‘regulation via market mechanisms cannot be fully efficient either, given the high concentration of the French water industry’. Finger and Allouche suggest that prices charged by private operators leasing infrastructures are, as a result, more expensive than those services provided by municipal-owned bodies although this gap had narrowed from a figure of 23 percent dearer in 1991, to 14 percent dearer in 1997. As Dore et al (2003) bluntly put it, ‘it seems clear that the French water model lack[s] the proper machinery for economic regulation’. Importantly, Finger and Allouche (2002: 197) agreed with this argument. They also then took it one step further, though, noting that the main deficiency of the French model – that is, the absence of a water regulator – still remains to this day, and that this weakness ‘strongly liked by the operators, seems to have not only been copied, but moreover exported to the developing countries’.

As a consequence, the legitimacy of France’s regulatory regime is an open question notwithstanding the blunt accountability offered through voting at elections¹⁸. The reality is that in terms of direct citizen accountability, customers have little information as to how private operators, once selected, perform and whilst municipal councils no doubt have accountability mechanisms, the absence of a single national water regulator would suggest that the empirical performance of both regulatory bodies in France and the regulatory regime as a whole would be mixed. In terms of decision making processes, Ballance and Taylor (2005: 104) conclude that ‘decision-making processes in relation to water and wastewater services are reasonably open to public scrutiny or are safeguarded by legislative requirements in relation to procurement’. As well, the expertise of regulatory decision making is seen by Ballance and Taylor to be largely sufficient, although smaller municipalities would no doubt suffer limitations in this respect. Overall, Ballance and Taylor (2005: 105) conclude that ‘the regulatory regime for the water industry in France deserves to be seen as performing quite well in terms of those factors that influence the stakeholders’ perceptions of its legitimacy’.

The broader conclusions of Finger and Allouche (2002:208) are also instructive here, but less glowing. They argue that ‘the French model of public-private partnerships and environmental policy does have very

¹⁸ Interestingly, the price of water was a major topic of debate during the 2001 municipal elections in France if we believe Ballance and Taylor’s account.

serious problems: we can mention the corruption cases, the collusive links between water TNCs and political parties and the weakness of consumer protection, thus highlighting a clear lack of transparency in the contracts, the pricing and the control mechanisms of these private operators'. As well, placing the French experience in the context of the OECD more broadly, it appears that whilst the bulk of water supply institutions are publicly managed and owned throughout the OECD, the leading private alternative supply regimes themselves have significant performance shortfalls.

Overall, then, and despite the political sensitivity of water supply arrangements, there are clearly a wide variety of alternative approaches possible in urban water supply and no one single model stands out as superior. French water arrangements follow a long historical pedigree of successful partnerships and a wide variety of contractual options between governments and private bodies is possible. These arrangements are dissimilar to those PFI schemes of the UK, however. The UK's history of water provision on the other hand has moved from private, to nationalised and back to private (under the 'regulatory state'). Despite the high profile of these two cases, their licensing and regulatory arrangements are essentially outliers in Europe. Public water supply utilities and traditional governance arrangements remain the dominant model for water provision throughout the EU. Moreover, mixed reports on their success compared to more traditional regimes have been published. French arrangements, for instance, whilst resulting in large, global and dynamic companies, have also been criticised in terms of the resulting 'lock-in', and in the absence of a national regulator, with corruption, collusion, low consumer representation and weak transparency.

5 Current Practices in regulating Urban Public Transport Services

5.1 Introduction

Urban transport is crucial to cities and towns. The provision of this service is integral to the urban economy, with implications for urban planning, equity and employment. Again, public transport is a policy issue which attracts advocates with strong views and such sensitivity is a key characteristic in the governance and regulation of the service.

As with other urban services, traditional public transport services have been subject to much reform over past decades. It is also, at least conceptually, one of the services whose economic development can easily be carried out by public entities or private companies ‘because the exercise of authority is not involved’ (Pina and Torres, 2001). There are many voices in these reforms, and strong advocacy occurs for and against institutional, modal, ownership and service level changes. In the midst of such argument, urban public transport would appear to be popularly viewed as a common sense natural monopoly and thus worthy of close regulatory attention.

There are many potential modes within the urban public transport task, including rail, tram, bus and taxi. This section will deal mainly with urban bus transport with some commentary as well on urban rail transport services. The two jurisdictions on which we will focus will involve firstly the United Kingdom and secondly several other European Union jurisdictions. In line with the comment made earlier, the UK’s governance of urban public transport services will be analysed not on the basis of it being typical, or the degree to which its experience might be generalisable, but on the basis of its frontier ‘experimental’ position. In other words, rather than being a typical case of regulatory arrangement, the UK is an outlier in regulatory reform across Europe, but it will again nonetheless be discussed because it represents one end of a continuum of regulatory options. Alexandersson, Hulten and Folster (1998) put it this way ‘Britain is one of only a few countries where a deregulation of some scale has been carried out’. This again, provides the basis for a comparison against both the other end of the extreme – the wholly public and bureaucratic arrangement of public transport services – as well as a wide array of structural and regulatory arrangements in between these two extremes.

5.2 United Kingdom

Urban Public Bus Transport

The UK urban transport terrain in the 1920s – 1930s was quite different to that of today. There were less than one million private cars and public transport had 51% of the UK passenger transport market; Lesley (2005). Railways, incidently, also carried 55% of all freight. Collectively, therefore, public transport essentially enjoyed monopoly conditions as Lesley put it, even in the absence of major national operators. But with more and more enterprising ex-servicemen setting up bus companies and road haulage businesses after the First World War, railways, which had been heavily regulated since the 19th century, began to complain of unfair competition. Likewise, private buses challenged municipal tramways. Accusations flew. Road hauliers were accused of cherry picking profitable rail routes, and ‘private bus companies were accused of throwing passengers off buses and turning around to pick up a full load in the other direction’! The Road Traffic Act 1930 imposed quantity control regulation over buses, and aimed to fix all this.

More recently, the history of essential urban public bus transport in the UK has been just as interesting, with Mackie and Preston (1996:1) explaining that ‘in 1930, the passing of the Road Traffic Act created the framework of public control over the British bus industry. The regulated market was characterised by

restricted entry, area monopolies created through merger and acquisition, area-wide fares and service networks supported where necessary by cross-subsidy, and quality control of vehicles and drivers'. In other words, the consequence of this regulatory regime was 'the creation of territorial monopolies to existing operators in return for running socially needed services'; Lesley (2005). This regulatory system represented very much the classic approach to providing public bus services. The characteristics of this service have seen wide application around the world.

This regulatory control system emerged, in the view of Mackie and Preston from three concerns. The first was public safety, and with buses widely suffering from perceptions of poor safety performance with many deaths from omnibus accidents through the 1920s. Second was a concern over 'unfettered competition' in which dangerous driving and many curious old practices which were not conducive to sensible road use or safety might reoccur. Third was the concern for railway and tramway protection. The system grew under a series of thirteen area Traffic Commissioners established by the Act. They sought an orderly network of services which was well organised and properly coordinated and as well which met the public need. The Commissioners regulated entry routes and fares by 1979 the local bus industry was both heavily regulated and owned by local and central government.

By the mid 1980s, the National Bus Company (NBC) consisted of around 70 publicly owned subsidiaries (Mackie and Preston, 1996:72). By this time, a number of questions were being debated as part of the push for deregulation: the shape of an unregulated market structure; the likelihood of evenly spaced and connected service patterns; the optimality of the price/service mix; whether operator ticketing arrangements may reduce the level of service' and the stability of an unregulated outcome. So how was bus transport subsequently transformed?

Winston (2000) noted that the transport Acts of 1980 and 1985 largely privatised and deregulated the bus industry in the UK with the exception of London and Northern Ireland. He continues noting that;

'although buses operating within London were not deregulated, individual routes were put out for competitive tender. Under the 1985 Act, public or private bus companies could offer virtually any bus service they deemed profitable by giving local authorities 42 days (6 weeks) notice. The 70 subsidiaries of the National Bus Company – a nationalised entity – were sold and the other publicly managed bus companies that had dominated local bus service were reorganised as separate for-profit corporations. Many of these companies were subsequently sold to the private sector, while those that remained public could no longer receive direct government subsidies. Local authorities could supplement commercial routes by subsidising additional services that they felt were justified by social concerns, but these services had to be secured through competitive bidding'.

In other words, British deregulation implied that private bus companies became free to start scheduled bus services on a commercial basis 'wherever they wished, including the freedom to decide on timetables and fares, choice of vehicle type and so on' (Alexandersson et al., 1998). Moreover, for those routes considered to be unprofitable but still valuable from a public perspective these became subject to competitive tendering by public procurement. In London itself, there was no deregulation, as Alexandersson et al (1998) explain. The responsibility for coordinating bus services remained in the hands of London Regional Transport which was gradually subjecting its services to tendering. Mackie and Preston (1996:58) note that deregulation reforms aimed to 'set free' the bus industry in order to offer 'a better service to the passenger at less cost to the taxpayer and ratepayer'. They detail the long deregulatory process throughout the 1980s and list the main elements of deregulation reforms in terms of:

- a) removing control of entry and exit to the local bus market
- b) compulsory competitive tendering for loss making services

- c) changes in ownership and organisation
- d) local authority powers and duties
- e) competition law
- f) subsidy cuts.

For our case, we ought note that all six reform elements were influential in changing the previous culture of bureaucratic operation.¹⁹ What were the outcomes of this deregulation?

Assessing Urban Bus Regulatory Reform

Alexandersson et al (1998) note that several studies have reported the results of British deregulation and that one of the most often cited works (that of Heseltine and Silcock, 1990) concluded that there had been ‘a 40 percent decrease in costs per bus kilometre, while the supply of bus-kilometres has increased by about 25 percent’. Mackie and Preston (1996: 130) summarise their analysis in the following terms

‘the 1985 Transport Act had not been the unqualified success that the White paper hoped, nor the unmitigated disaster that some critics feared. The main successes were the reduction in operating costs and the increase in output in terms of vehicle miles. The main failures were the increases in real fares and the decline in patronage’.

Interestingly, their economic analysis suggested that overall, a net gain in consumers surplus had occurred. The analysis of Nash (1993) also noted that the deregulation of buses produced ‘clear cut evidence of success, with indeed a 30 percent reduction in cost per bus mile’ although partly as a result of reduced wages and conditions, changes in the mix of services and the transfer of some responsibilities. There was to his mind nevertheless, ‘no doubt that a major real cost saving ha[d] resulted’. Additional evidence of success was also the increase in bus miles looking at fares, he noted that the results of deregulation were ‘unhappy’ with average real fares increasing by 8.3 percent between 1985/6 to 1988/9 and that furthermore a decreased patronage was ‘the biggest disappointment of deregulation’, with trips declining by 7.1 percent over the same period. Looking at the experience of London, which was not deregulated, he noted that the introduction of competitive tendering (which was being introduced across all routes) had already ‘achieved a substantial cost reduction of some 14 percent per bus mile, even though by 1992 only 40 percent of services had been subjected to competitive tendering’.

Returning to the commentary of Alexandersson et al. (1998) we might also note their finding that ‘the economic effects of the British deregulation as a whole are considered to be questionable, and some researchers even call some deregulation a failure’. Their comment was based on the fact that demand had decreased by 25 percent and that the loss of passengers could only partly be explained by a rise in fares of about 19 percent resulting from decreased subsidies. They concluded that ‘the lack of coordination of the bus companies timetables is considered to be an important explanation’ and that passengers also faced constantly changing timetables along with route tickets that were often company specific. Their conclusion, for London, however, was different in that cost reductions had been achieved without considerable losses of passengers despite the fact that subsidies had decreased and fares had increased by the same magnitude as the rest of the country. The comment by White (1997), likewise, was that ‘the experience in London suggests substantial benefits [were] derived from retaining a comprehensive network planning and marketing organisation, while adopting competitive tendering of services as a

¹⁹ Mackie and Preston (1996:47) note that deregulation occurred despite the conclusion of early studies that ‘it was clearly possible to design route networks which were subsidy free’, although details of such studies are ‘now mainly of historical interest’. Wider public policy and political movements such as privatization overtook the more technical and professional transport policy and economic ethos.

means of improving efficiency. It is also possible to privatise all of the operating companies without losing such network benefits’.

Urban Rail Public Transport

Reforms to Britain’s rail system have been a globally prominent example of changing state-owned enterprise, as well as an infamous part of the political economy of Thatcherism. Bradshaw and Laughton-Smith (2000:103) liken the reform of British Rail to a scale ‘comparable to the restructuring of enterprises in eastern Europe at the start of the 1990s’. They remind us that the British Transport Commission was nationalised in 1948, with the British Railways Board its successor in 1962. The Board operated passenger and freight services and ‘was almost entirely vertically integrated: that is to say it owned its own trains, infrastructure and carried out almost all track and train maintenance itself’. In the decades preceding privatisation of British Rail, much restructuring was already occurring with the privatisation of hotels in the early 1980s, its shipping division Sealink sold in 1984, the train manufacturing subsidiary British Rail Engineering Limited privatised in 1988 along with catering services on stations and some trains, privatisation of some quarries producing track ballast and the extensive sales of surplus land. Other reforms also occurred such as a commercial joint venture with BAA to build the Heathrow Express service to Heathrow Airport in the early 1990s. Bradshaw and Laughton-Smith (2000:105) detail several other reforms over the decades including early exploration of the Channel Tunnel rail link project using private funding. Indeed, they comment that much experience had been gained by British Rail in working with the private sector and that this work had largely predated the UK governments later Private Finance Initiative. They argue as well that the Board, in parallel, had ‘reorganised its operations along business lines’.

The restructuring chosen for British Rail followed the logic of earlier utility privatisations in the UK, with the result that full legal separation of infrastructure (rail track) was affected from both rail freight and train operations, each of which initially stayed in British Rail control. In 1994, British Rail was thus broadly broken into a rail-track company, British Rail itself and a European passenger service or channel tunnel. It was further broken into 25 separate passenger train operating companies, 6 freight companies, 13 infrastructure maintenance units, 3 rolling stock leasing companies and other engineering, consultancy, design and supporting companies. These various companies were then privatised. Quinet and Vickerman (2004:309) explain that these various privatised companies were very different to the prior internal reforms in which profit centres had been formed and they brought a number of improvements in performance - particularly reduced subsidy levels. The privatised train operating companies operated under franchises awarded by the Office of Passenger Rail Franchising – there were initially 25 separate passenger franchises of varying periods between 5-15 years. RailTrack, the infrastructure owner and operator, was also privatised in 1996.

A variety of public sector agencies were also responsible for regulating these arrangements according to Quinet and Vickerman. These included the Office of Passenger Rail Franchising, the Office of the Rail Regulator and passenger rail executives. The broad arrangements for British railways at 2001 is shown in Quinet and Vickerman (2004:310).

One characteristic of these arrangements was that in contrast to the previous vertically integrated monopoly arrangement, they were complex. Whilst there was also undoubtedly a significant contribution to government coffers, the effectiveness of these reforms has also been the subject of much ongoing debate. Nash (2000:161) notes that what was actually happening in these reforms in general terms was firstly that infrastructure was separated from operations. Second, franchising passenger operations through contracts was argued as the best way of reducing subsidies. Third, there was a degree of open access for all other operators to compete over the same infrastructure (though in practice this has been most

applicable to operations). Furthermore, Nash explains that additional features were also evident in this UK case. First, the infrastructure itself was privatised. Second, extensive subcontracting was undertaken, and third, an independent rail regulator was established. So, how effective were these new arrangements overall?

Assessing Rail Transport Performance

Different analysts will always evaluate regulatory reforms differently, particularly when large capital amounts are at stake. Not surprisingly, therefore, a mix of evaluation conclusions have been reached. Quinet and Vickerman (2004:312) note that 'it could be argued that the British reform essentially finished up with the worst aspects of all systems'... 'it lost the potential benefits of an integrated system and replaced it with one that was over-regulated and over-complex and which did not allow any of the potential benefits of competition'. At the time of their paper, commentators were already talking about the demise of RailTrack and noting that there were already 'moves to reduce the number of franchises to create more viable regional groupings, and from the perspective of both satisfying demands and simplifying operations'. On the other hand, Nash and Jansson (2001) noted that whilst the British system had seen complete privatisation and extensive competition for the market along with extensive government control of fare and services and very little competition in the market, 'views on how successful this approach had been differed'. Moreover, they argued that 'up to the last year it had seemed to work reasonably well but the difficulties in funding investment and the difficulties following the Hatfield accident suggested that there were difficulties arising from the fragmentation involved in this approach'. Other assessments since this time have confirmed these difficulties, such that even comments in the usually conservative and measured Economist magazine were more pointed than praiseworthy. It in an article headlined 'Enron on Thames' it observed that the regulatory reforms made for the London Underground had essentially failed and needed rethinking. Both the expectations and political promises made when re-regulating UK's successful public rail operations had far exceeded the more modest delivery of regulatory reforms on the ground.

Overall then, it seems that the rail and bus reforms of the UK had mixed effectiveness and that while some of the reforms did have some real pay offs, many did not.

5.3 European Union

Britain seems to have taken urban public transport reforms further than other nations, but what can we learn from the wider experience around the European Union? Andersen (1992) provided an early insight into the regulatory systems around Europe and whilst a little dated now, he nonetheless indicates the frontiers as at the 1990s. Table 3, following, indicates the major variables of these systems. There are four clear characteristics evident; the low revenue-cost ratios ranging from 24 percent in Italy up to a high of 92 percent (Finland) or 95 percent (Ireland); the significant degree of contracting; extensive control of fares; and the overwhelming predominance of planned regulatory systems. Andersen notes that most regulatory reforms were based not on ideology but to save money on public budgets. As well;

'we find in all countries a reluctance towards full deregulation like the British system. The main reason for not introducing such a system has been a strong interest and political will to continue a system of integrated public transport with a uniform fares system for local public transport. The only option left is competitive tendering in bus operation'.

Entry/Exit Regulators

	Exclusive Rights to Public Operators	Needs Based Licences	Contracts by Arbitration	Contract by Tendering	Free Entry	Period of Time for Licences (years)	Type of Operating Subsidies	Revenue, Cost Ratio	Concessionary Fare System Available	Control of Fares	Regulatory Systems
Denmark	x		x	x		5	N/R	55-56	x	F	Planned/franchising
Belgium	x	x					N	30-40		F	Planned
Finland		x				5	N	57-92		F	Planned
France	x			x		7	N	53		F	Planned/franchising
Greece	x	x				-	N	40-50		F	Planned
Ireland		x				-	N	80-95	x	F	Planned
Israel		x		x		-	N	66	x	F	Planned/franchising
Italy	x	x				-	N	24-28	x		Planned
Netherlands	x	x					N/R	28-40		F	Planned
Norway		x		x		5-10	N/R	55-60	x	F	Planned/franchising
Portugal		x			x		N/R	67		F	Planned/market
Spain	x			x		8-20	N	70-90		F	Planned
Sweden			x	x		3-5	N/R	39-48	x	F	Planned/franchising
Switzerland		x				10+3	N	54-82	x	F	Planned
Turkey	x	x					N			F	Planned
United Kingdom				x	x	3	R		x	L/F	Market
West Germany		x				8	N	54	x	F	Planned
Yugoslavia	x					-	N			F	Planned

Table 3: Survey of Regulatory Systems in Europe

Explanations:

- = unlimited
- N = Network subsidies
- R = Route subsidies
- Blanc = No information
- F = Full or extensive control of fares
- L = Little or absence of control of fares

In terms of industry structure, competitive tendering in Sweden has led to a concentration of bigger operators as well as a tendency towards more private operators. Subsidy savings in Sweden with tendering are reported as having amounted to around 10 percent. In Norway, the ratio of public-private ownership in local bus transport is around 50-50. And in Scandinavia, the conclusion is that introduction of fixed subsidy systems in the form of contracts by either arbitration or competitive tendering has also led to subsidy savings.

Hensher and Stanley (2003) report further that 80 percent of publicly served routes in Denmark and Sweden are open to tender in contrast to the figure of 7 percent in Norway. They suggest as well that Norway (and New Zealand) provide 'leading edge examples of how 'performance-based' approaches to public transport delivery can be structured at the urban, regional and rural levels.

Pina and Torres (2006) also review the operating and regulatory environments best suited to stimulating efficiency in delivery of urban transport around the EU. They look in particular at the effect of privatisation and deregulation on the technical efficiency of bus services in 73 cities and conclude that it is competition – total or partial – that is most effective in controlling costs. They note that Sweden has, since 1989, competitively contracted-out most public transport services and that public bus services were mandatorily competitively contracted in Copenhagen. They note as well that competitive contracting has been introduced in Australia, Germany, France, Portugal, Finland, Norway and Spain as well as in the US. Through data envelope analysis, they look at input indicators including operating costs, fuel costs and capital costs as well as output indicators in terms of bus vehicle kilometres, bus seat kilometres, bus boarding and passenger kilometres. Contextual variables are also reviewed. Of the 73 cities analysed, 29 are from the EU. In this sample 43 cities have urban transport delivered by local government-owned corporations; 11 have franchised services; 12 are delivered simultaneously by public and private operators; and 7 have services that have been deregulated. Their analysis is sophisticated and shows that 'in western democracies there is no general trend towards deregulation, more liberal regulatory regimes or privatisation'. There are nonetheless examples and initiatives towards more competitive solutions such as franchising with competitive tendering in most countries. The empirical evidence on the relationship between efficiency and ownership or institutional structure is not conclusive although it tends to partially confirm that competitive contracting and full competition gives better results than public provision alone. Having said this, 'statistical tests do not show any significance as regards [the] relationship between efficiency and the type of operator' in formal terms according to their data.

A similar analysis conducted by Egmond, Nijkamp and Vindigni (2003) analysed local public transport systems across 22 European cities. They concluded that 'the present conditions – including a European policy of limited competition – has led to rather successful outcomes'. Of the 22 cities, 16 cases represented the dominant organisational form of limited competition. All limited competition cases appeared to 'yield rather promising results'. Interestingly, 'the quality of governance and management appeared to be a decisive positive factor (eg. for Berne and Paris)'. On the other hand, 'over-organisation of local public transport systems generally is seen as leading to a failure'. They also concluded that high subsidies for local public transport systems led to unsatisfactory financial and social economic performance whilst moderate subsidies in general appeared to yield good results.²⁰ Overall, it was important to recognize that 'there is no single, preponderant, and unambiguous performance cause for local public transport systems'. In other words, success had multiple causes.

²⁰ We might question the cause and effect here in that it may be that high subsidies cause poor performance or that poor performance causes high subsidies.

So, what may be learned from the EU experience? Whilst the privatization and re-regulation of UK public transport has attracted attention of scholars, how might we explain the broader ownership changes of public enterprises in the EU over the last four decades? And what might the implications of such assessments be? It is to these questions that we now turn.

Clifton, Comin and Fuentes (2006)²¹ analyze the motivation for ownership (and regulatory regime) change across the EU and conclude that a 'European paradigm' in which the EU seemed to have 'its own defining features, patterns, hallmarks and values' was in operation as it shaped its own 'regulatory state'. Influential here was the assumption of a strong role for the European Commission in its implementation of market reforms, amidst the existence of economic crisis, technological change and an emerging network society. This explanation was quite different to the common assumption of a 'British paradigm' (with a pro-privatization position and an assumption that the logic of privatisation should be embraced in the modern global market economy) or a third alternative explanation of 'multiple logics' (where motivations behind privatization reforms in the EU were diverse and complex, and with no identifiable common logic). Clifton, Comin and Fuentes observe that public enterprise participation was still significant and stable in most of Europe between the years 1970-1990, and that the UK was the only country where there was a significant reduction from 1980. Even by 2000, half the EU-15 still had majority public participation, and only in the Netherlands, UK and Spain was this level below 25 percent. They also remark that the UK result ought as well be perhaps considered 'in the light of the recent renationalisation of the rail network from 2001'.

This particular finding is an interesting one in the sense that the fundamental question to be asked about regulatory framework options for countries such as China concerns the degree to which policy, structure and regulatory reform ideas and constructs can be successfully transferred from one jurisdiction to another. It would be interesting to ask a series of parallel fundamental philosophical questions of China itself, and focus on those characteristics that are likely to inevitably make up the 'China paradigm' to underpin its future regulatory reforms. Indeed, they may provide more purchase than assuming the transfer of OECD regulatory paradigms. Such matters certainly deserve further thought.

²¹ Clifton, Comin and Fuentes (2006) compare three different explanations for the European experience. The 'British paradigm' assumes a pro-privatization position and in their words holds 'that all countries should embrace the logic of privatisation if they are to be included in the modern global market economy'. This perspective 'interprets privatisation as a single, homogenous process that can be implemented in diverse countries and yet have the same kinds of results'. They note that the British paradigm is 'alive and well in the contemporary period...' and characterizes the policy prescriptions by the World Bank and the International Monetary Fund which suggest private ownership superiority for efficiency, and 'the need to avoid the deadly disease of public ownership'. The second paradigm investigated, the 'multiple logics' approach, assumed that the motivations behind privatization reforms in the EU were 'so diverse and complex that it is not possible to identify one or several common logics'. This paradigm, in other words, regards the UK not as a European reform leader, 'but as an anomaly' and with privatisation reforms in western Europe as 'a confusion of rationales in search of a common policy'. The third paradigm investigated was the 'European paradigm', where there was consensus that Europe was characterized by economic crisis, technological change and an emerging network society - itself an important force for policy reform including deregulation and privatization. Influential here is the assumption of a strong role for the European Commission in its implementation of market reforms and Europe as 'a regulatory state'. In other words, privatisation in the EU seemed to have 'its own defining features, patterns, hallmarks and values'. Also noted as particularly influential in these transport and communication regulatory reforms in Europe was the response to the creation of a single market by 1992 and the Single European Act. Overall, then, the superior explanation for the transport and communications sector in Europe was found to be the 'European paradigm' rather than the 'British Paradigm' or the 'multiple logics' approach.

5.4 Assessing Regulatory Performance in Urban Public Transport

How might we understand the public transport reforms of Great Britain and draw lessons from both the bus and rail industry changes? The analysis of Preston (2001) comments that we should first conclude ‘there are no countries similar to Great Britain’...and that these lessons inevitably represent a personal view. Nonetheless, bus reforms suggest some strong lessons to Preston. Firstly, he concludes that there are regulatory (and ownership) cycles. Explaining this, he sees the rapid growth in the 1920’s of the bus industry followed by regulation through the 1930 Road Traffic Act. Price regulation was then lifted by the 1980 Transport Regulation Act and quantity regulation by the 1985 Transport Act, but with concerns that this had reintroduced some aspects of market failure, this led to a 2000 Transport Act in which some regulatory powers had been increased. The bus industry’s initial growth phase was therefore dominated by private sector operators. The 1933 London Passenger Transport Act represented a watershed which created a publicly owned board to own underground railways and buses operating in London, and public ownership was extended further in 1947 and 1968. By 1985, 91 percent of local bus kilometers were operated by public sector companies but the 1985 Transport Act changed all that, and by 1996/7 this figure was down to a mere 4 percent. These changes seemed to have reflected over time the varying importance of regulatory failure and market failure, in Preston’s view. He also concludes that deregulation has led to large reduction in costs and lower subsidies but that it ‘does not seem to have led to lower fares’. As well, he notes in particular that comprehensive tendering led to welfare gains and quotes that between 1985/6 to 1993/4 welfare in London increased by £205 million due principally to increased tendering procedures and the imminent privatization of London buses. He notes suggestions that tendering in London led to cost savings of between 16-20 percent. He also concludes that deregulation had some successes at both the route level and network level but that as a corollary, it also had failures. In terms of railway reform, he concludes that off-the-track competition was substantial with 5 serious bids for each of the 25 train operating companies in the first round. Management buyouts on the other hand seem to have been relatively unsuccessful and likewise on-the-track competition was ineffective and, at least in early 2001, the financial picture was mired. Overall, then, he concludes that at an aggregate level, competition *for* the market was more effective than competition *in* the market. For buses, this led to significant increases in welfare of up to 25 percent for the London bus market.

Having noted these glowing conclusions on competitive tendering we ought add the more sober findings of Yvrande-Billon (2006). Commenting on the recent French experience in franchising urban public transport, she analyses why competitive tendering in the sector did not appear to translate into better performance. In theory, the French model of regulation introduced in 1993 made the use of competitive tendering compulsory and had been expected to lead to significant improvements in the urban public transport sector performance. She explains that French urban public transport in 2002 was delegated to private companies in 69 percent of cases, to public administration in 10 percent of cases and to a mixed company in 21 percent of cases. The modes of delegation included net-cost contracts (51%), gross-cost contracts (27%), management contracts (20%) and concessions (2%). Interestingly, she comments that of the 123 bidding procedures recorded over eight years in a sample of 165 networks 88 percent led to the renewal of the incumbent – or in other words, in only 12 percent of cases were operators changed. Her analysis of unit costs suggested that these did not cease increasing after the promulgation of the ‘Sapin’ Act in 1993 and were 17.5 percent higher than in 1991. This in turn led to an ‘alarming financial situation’. For an answer to the question of why competitive tendering in the French urban public transport sector seemed to be ‘rather a myth than a reality’, she commented that uncertainty in service specifications dissuaded potential entrants to bid for contracts and other entry deterring behavior also existed such as collusion and predatory behavior. In support of this, she noted that the French Competition Commission had recently fined a cartel between three

leading operators Keolis, Transdev and Connex with fines of 5 percent of their turnover in France. These investigations focused on 122 market attribution procedures in the late 1990s and confirmed that these three companies had consulted each other to divide the market amongst themselves. They had coordinated their bidding and ‘not only ha[d] the companies explicitly agreed not to compete with each other... they also ha[d] controlled the attribution of at least 27 markets by threatening potential entrants that were likely to disturb their anti-competitive game’. In several markets, the three companies agreed either not to participate or to withdraw before the final decision of the local authorities, with phony bids being submitted. She also quoted frequent renegotiations of contracts and the lack of bidding parity with substantial incumbency advantages as being influential. The solution, in her opinion, was seen to be the creation of a national regulatory agency that would standardise performance indicators to compare the operation of operators or a move away from area based contracts to route-based or smaller area-based contracts as in the London area or some Scandinavian cities.

On the other hand, Fraquelli, Piacenza and Abrate (2004) analyse 45 Italian municipal companies conducting public transit networks. Their findings support ‘a regulation introducing competitive tenders to access ... the market’. Other findings such as those of Preston and Vandeveld (2001) also support the use of competitive tendering. Their analysis of bus services in Adelaide, Australia, suggested that seven area contracts led to real costs per bus kilometer reducing by 38 percent and bus kilometers operated increasing by 8 percent, ‘whilst patronage had shown signs of small increases against a previous background trend of 2.5 percent per annum decline’.

On a broader level, as well, we ought recognise that whilst most urban public transport analyses looked at buses and trains, deregulatory questions ought look as well at a range of other matters ranging from restrictive work rules preventing part-timers operating during rush hours through to other modes of operation such as taxis, dial-a-ride, jitneys or van-pools. The early work of Cervero (1985) notes that traditionally urban transport regulations have been overly restrictive on these modes with the consequence that private ride sharing ventures had been ‘regulated out of existence’. Moreover, a Byzantine network of local, regional and state authorities had evolved for administering and enforcing these regulations to his mind.

A further comment here is that whilst EU urban public transport systems were reviewed above, it may have been just as logical to use as a leading reference point Montreal and Toronto (Canada) for example, given that these are ‘often cited as models of public transit, with system performance and ridership figures comparable to the best in the world’ (Siemiatycki, 2005). Likewise, the busway network in Ottawa is internationally acclaimed as an innovating and successful alternative to intensive urban rail systems.

We could also logically have looked in more detail at the involvement of public-private-partnerships for the provision of urban public transport. Siemiatycki however notes in his examples of Canadian mass rapid-transit investment that in the case of the Canadian partnership project analysed, the project appraisals and discourse favored a pro-PPP project stance and whilst there was no present evidence to suggest any illicit activity in the planning process, there was very much a feeling that the original plan to promote a PPP solution was fixed and that the subsequent analysis was carried out to affirm this decision. He noted also that the planning and decision process for this transport PPP was characterised by confidentiality and lack of disclosure rather than meeting broader transparent public policy expectations.

Lastly, any analysis of regulatory performance and reform ought make explicit winners and losers throughout the change. In this vein, the work of Wirth (1997) is interesting. His analysis of privatisation of urban transportation services in Mexico City found that in contrast to earlier

findings which observed benefits to cities and tax payers (who pay less in public subsidies), privatisation of transportation in Mexico City resulted in not only in congestion and safety problems but also in substantially higher fares and multiple negative externalities. Looking at minibuses in Mexico City revealed a substantial lack of accountability as drivers pressured governments to increase fares, ignore safety regulations, and reduce competition. 'Likewise, corrupt public officials undermine[d] the democratic decision making process by favoring individual service providers to the disadvantage of the users'. These minibus concessions were thus privately owned but inadequately regulated. Overall, the inner city highways were found to be subsidized by the public to serve the affluent minority who owned cars. Furthermore, 'federal policies ha[d] created a transportation system that serves the 18 million people of Mexico City inequitably' to Wirth's mind. These types of assessment indicate the importance of evaluating winners and losers as part of regulatory change and acknowledging the corrosive effects of corruption from public officials. Such lessons again deserve further consideration.

Overall, then, what might we conclude in terms of the regulation of urban public transport services? Again, the UK's most recent ownership and regulatory reforms should be seen as outliers in Europe, although interestingly, its traditional arrangements for public transport have been widely adopted. Buses were privatised and deregulated in the early-mid 1980s, but with mixed judgements as to relative success. And rail transport was also privatised and then partly returned to public ownership. The EU as a whole has seen a significant degree of contracting in urban public transport, along with extensive fare control and an overwhelming predominance of planned (mostly public) regulatory systems. In essence, the EU has demonstrated a reluctance to deregulate, although considerable competitive tendering has occurred. Evaluations suggest that contracting and competition gives better results than pure public provision alone.

6 Learning From Regulatory Frameworks in the OECD

6.1 Observations of OECD Arrangements

There are a number of observations of OECD experience that are worthy of emphasizing. This section briefly outlines these. The following section builds on these observations and articulates some of the key issues requiring further development as regulatory framework options for China are explored.

The empirical experience of OECD countries suggests that general rules for regulatory design were few and far between. In a broad philosophical sense, OECD countries have moved from an era of infrastructure development with an overriding public engineering logic, towards a time of a 'regulatory state' underpinned by an economics and governance logic. Throughout the OECD, the business of regulating essential urban services is now carried out at several levels of government, and numerous models can apply. A broad continuum exists in terms of the regulatory models available - from the institutional to the contractual - and modes can also be combined. All models have strengths and weaknesses, however. In terms of ownership, the private provision of urban services is feasible, but the majority of ownership structures for OECD urban services is nonetheless public at present. Thus, we observe that whilst competitive tendering is the dominant form of regulating waste services, most OECD countries regulate the supply of water through public utilities, and urban transport through planned public regulatory systems. Many systems make some use of competition, either *for* a market or *in* a market. Thus, competition between public and private firms is common in waste services and contracting is seen as an effective regulatory tool. Competition is rarer and weaker in the supply of water, and although the privately based UK and French supply systems are well known, they are also essentially OECD outliers. Likewise, some OECD public transport systems use franchising arrangements under a policy of limited competition. But many do not, and are more traditional in structure, restricting entry, and controlling system parameters and prices.

Observations around the OECD also suggest that the progressive and limited introduction of rigorous competitive tendering systems for works, and services would seem to offer some advantages to government in terms of the delivery of urban services. Public-Private Partnerships remain a controversial service delivery option. Made famous through both the UK Private Finance Initiative and historical French private water arrangements, there is no doubt that such contractual arrangements can deliver large infrastructure projects - as have most governments throughout history. PPPs have been criticized as being weakest on matters of governance and regulation, however, with their effectiveness dependent on a 'deal-by-deal' assessment; Hodge and Greve (2005, 2007). Even today, corruption, collusion, consumer protection and lack of transparency remain concerns in France despite its lengthy pedigree in this arena. PPPs nonetheless provide a technically feasible option for essential services and can facilitate both public infrastructure delivery and public service provision if strong regulatory regimes exist.

The increased use of independent regulators where urban services have been privatized or corporatised has enabled a new source of professional power and accountability to be harnessed for the good of citizens in western liberal democracies. Such independent regulatory schemes spread power, and also rely on multiple accountability systems including ministerial accountability, judicial (legal) accountability, bureaucratic (managerial) accountability, constituent accountability, market accountability, professional accountability and public accountability. Both of the power of independent regulators in the 'regulatory state' and the

evolution of multiple accountability systems contrast a traditional command and control culture, however. These observations could also be placed alongside a further observation is that newer ‘responsive’ regulatory regimes having a much stronger focus on codes, guidelines and soft regulation modes now usually co-exist with traditional regimes of command and control arrangements and are thought to be more effective.

We therefore now face a major intellectual challenge in terms of better understanding how countries review, learn, revise and improve their regulatory systems as experience is gained. Part of this learning will involve assessing the degree to which countries such as China might take on ideas from other countries by way of copycatting, emulating, harmonising or adapting, as distinct from ‘home growing’ regulatory solutions. Another aspect of this learning will involve the explicit consideration of the fundamental role of national political governance over technical or economic regulatory arrangements. Acknowledging political considerations seems particularly important given that our own OECD history seems to be largely built on home-grown regulatory solutions chosen within our own jurisdictions. And where ideas may be gleaned from the international experience, should reformers be relying on the most common (and probably reliable) practices of governments or those outliers most visible on a ‘best-practice frontier’ and popular amongst the international epistemic communities selling and advocating regulatory ideas?

A further crucial matter little discussed this far is the dual role of governments such as China as both a developer as well as a regulator. From the perspective of development history, (rather than the regulation of say, already built infrastructure), it appears that with the exception of the United States, most other governments around the world have used the state as a primary development mechanism, rather than international private businesses. If regulatory reforms were to include ‘home-grown’ options based on public ownership and existing regulatory institutions, a detailed knowledge of the strengths and weaknesses of existing regulatory frameworks, institutional practices and capacities, and regulatory cultures and the political relationships between government institutions along with their legitimacy would be required. As well, the perspectives of multiple disciplines would be preferable given that judgments as to relative levels of success for regulatory regimes tend to be subjective and personal²².

In translating regulatory models, crucial assumptions such as the power and legitimacy of a democratic polity are also often taken for granted. These include a rule of law underpinning commercial contracts; an independent judiciary upholding regulatory decisions; consumer voices giving feedback on essential services; and a wide range of transparency and accountability mechanisms. The extreme position of assuming that the ‘regulatory state’ model of independent regulators can be transferred from western liberal democracies into China may even be a ‘fatal remedy’. Such an assumed transplant quite rightly risks the criticism of naïvity in the attempt to remove politics from the institutions of regulation, and an overly anxious preoccupation with the notion of independence.

Caution and learning is thus needed overall in articulating regulatory reform options rather than haste towards simplistic reform models. As well, the extent to which regulatory regimes from other jurisdictions can be usefully adapted to existing governance systems in countries such as

²² Evaluating regulatory regimes is an inherently difficult task, not only for technical reasons, but because of the huge conflicts of interest buried within such judgements. Many regulatory consultants, operators and those professionals within the international epistemic community would by definition see themselves at the forefront of thinking and practice. They would often also see themselves as being associated with ‘successful’ regimes being implemented. This makes attempts at benchmarking somewhat self referential, and although such conflicts are rarely acknowledged, the consequence is that evaluation commentaries are completely contestable.

China, or perhaps existing regulatory schemes can successfully be improved through ‘home-grown’ solutions, both remain open questions.

Key Issues for China and Matters for Further Study

A wide range of other issues also deserve further thought in determining regulatory options for China.

Our understanding of the ‘regulatory state’ notion itself is currently modest for even OECD countries let alone China. Whilst our attention is currently drawn to the increased frequency and key roles of independent regulators in the modern western state, far greater consideration is needed to improving our knowledge of components such as ‘regulation inside government’ and ‘regulation through mechanisms of self-regulation’. An over-emphasis on the presence of independent regulatory institutions, could for example, have several risks. First, it may, as Phillips (2006, 34) notes, overlook ‘the continued co-existence of both developmentalist and regulatory functions’. The challenge for much of China’s rural poor is to receive high quality urban services at all, not the more recent western quest for economic efficiency once it is provided. The development function of the state is both essential and primary. Indeed, the development challenge faced by China exists not only in the sense of the narrow provision of infrastructure – or services. It is also concerned with the development of strong market sector players within the national economy as well as internationally²³.

In this light, the regulatory state model may even have ‘limited direct relevance’ and utility for states such as China, and particularly so given that it has ‘yielded little purchase on the processes of state transformation and the nature of contemporary states’ outside industrialised settings: Phillips (2006, 18). Indeed, transporting the regulatory state model to countries such as China may actually hamper our analysis and understanding of the various forms of regulation that exist and are evolving in these states, as Phillips puts it. ‘Regulation without a regulatory state’ clearly exists at present in China, and we ought not be excessively anxious to squeeze our regulatory studies of China’s options into ‘the analytical straight jacket of the regulatory state model’ in her words.

Second, a deeper consideration as to the meaning of ‘independence’ and its underlying assumptions is needed. Defined within developed economies as institutions outside of the usual political, administrative and legal agencies, the notion of independence seems optimistic at best. Regulation is after all, fundamentally about power. And where, as Minogue (2006, 75) puts it, ‘regulators, and even judges, owe their positions to the political-bureaucratic elite, the possibilities for the exercise of independent judgements and action ... may be nonexistent’. At worst, new powerful agencies with discretion may even lead to increased corruption.

Third, the notion of regulatory agencies outside the influence of politics seems remote. OECD jurisdictions clearly see elected Parliaments as central to a successful regulatory state. But even outside this, as Minogue puts it again, ‘it is difficult to envisage what independent regulation could possibly mean, or what how it might be somehow insulated from overriding political considerations’. It may even be that, as Minogue and Carino (2006, 8) note, the core ideal of independent regulation for countries such as China rests on ‘a naïve view of the political process and a misunderstanding of political priorities’, given that ‘economic governance cannot be

²³ If we learn from the global rise of French water companies, such market sector players could, with government acumen and synergies, support Chinese essential services companies in becoming dynamic world corporate players.

insulated from overriding political considerations'. Creating institutions outside the realms of government does not of its own accord reduce the imperatives of politics and make regulatory policy making any less deeply political than it already is. And politics dominates regulatory governance in the development context.

Last, and perhaps with a degree of humility, we might also reflect that western analyses of performance of regulatory state components are often not as strong as our advocacy. Minogue (2004) debates, quite rightly, the validity and veracity of transferring regulatory regimes and reforms which themselves have not seriously been comprehensively evaluated or have themselves seen ambiguous assessments as to performance improvements in their home application let alone being transferred to another jurisdiction. As well, we have already mentioned that the effectiveness of regulators in the west depends on the rule of law to underpin commercial contracts and an independent judiciary to uphold regulatory decisions without fear or favor. But it also depends on far more than this; an active citizenry in the polity, professionalism in the regulators, effective accountability of the agencies themselves; an ability to conduct public debates through the press, and perhaps the biggest call of all – an underlying sense of trust from both citizens and institutions as to the 'legitimacy of the new rules of the game'.

So, given the problems of simply adopting 'regulatory state' structures, what might be the alternatives? Several points come to mind. If ideas are to be grafted onto existing Chinese regulatory systems, Parker and Kirkpatrick (2004) firstly suggest that perhaps countries such as China should take on greater experimentation with aspects of regulatory systems which appear to work elsewhere but might also be wholly adapted to local cultural and jurisdictional characteristics. There may be a substantial role for adaptation and experimentation as regulatory ideas move through the global epistemic communities such as transnational professional networks, international consultants, think-tanks, policy advisors, bankers and financiers: Gilardi et al (2006) and Hodge (2006). Adaptations and experimentation may also be considerable given that current regulatory state ideals are essentially based on an economics/law paradigm, with a US or at least Western bias as well.

Second, our current knowledge of Chinese regulatory systems is also quite limited. If future regulatory regimes are to emerge and overcome past regulatory failures, such knowledge gaps need to be bridged. Questions as to both what exists in formal terms and the manner in which existing Chinese regulatory systems work (or don't work) in reality are both relevant matters. There are from personal experience huge differences between the two. Examples here include regimes such as contract law where formal 'black and white' law is quite different to practices in the field, and in financial management and finance records, where again, significant differences exist between 'theory' and 'practice'. These gaps matter and have been a focus of much work from the World Bank, IMF and others such as GTZ. There has been less investigation thus far examining regulation inside government as a phenomenon along with the aspects of regulatory capture (in any of its guises as state based corruption, as firms shaping laws in their favor or as undue influence in decision making or enforcement). Unfortunately, regulatory capture occurs far more often than we care to acknowledge, as Minogue and Carino (2006) hint. Even in relatively straight forward areas such as competitive tenders for public sector services, the degree to which China has opened up markets to local competitors (as well as national and international competition), has been little discussed. Likewise, not much is known about the veracity of local competitive public tenders. This contrasts our knowledge at the national and international level, where French water companies operate throughout the world and IBM undertakes, for instance, large computing contracts for the Australian federal government (Hodge and Rouse, 2006) - both attesting to the transparency of competitive tendering policies in these jurisdictions.

Third, regulatory reform might usefully focus on improving ‘regulatory relationships and efficiency inside government, and move away from the current preoccupation with independent regulators external to government’ as Minogue (2006, 76) states. As well, there appears to have been little thought thus far on looking at the cultural parameters, historical parameters and political parameters built within traditional regulatory and governance systems of China, and in thinking through the potential applicability of aspects of these traditional systems where sensible. There is clearly a need therefore to maintain a balance between regulatory regime options as established through western economic ideas (much of which is based on ‘ideal types’) at one extreme and through a social and historical context and ideas from the home country, at the other.

Fourth, it may be that better regulation in China may be encouraged less through formal reforms than by indirect means. For example, recalling that one regulatory tool was the provision of information, increasing the transparency of public sector institutions and government decision making and activities will no doubt provide progressive incentives for changed behaviour. For example, in some areas of existing Chinese regulation, licensing systems for instance are ‘overelaborate and dysfunctional’ according to Ogus and Zhang (2006). As a consequence, they are likely to work not in the public interest, but in the private interests of bureaucratic and political elites. Improvements in real transparency²⁴ and strengthened accountabilities to citizens may provide more leverage than institutional reforms in such cases. These efforts may also increase the effectiveness of services and infrastructure provision through commercial mechanisms. Both in-house contracted activities (whether these are for in-house teams operating under agreed government service provision levels or else operating under legally binding commercial contracts) as well as external activities or even large scale partnership arrangements would benefit from increased transparency.

So, the ‘China paradigm’ we face in an assessment of current regulatory challenges is multidimensional. There are clearly many regulatory models as well as lessons from the OECD experience, and choosing those reform options most suited and adaptable to both large rich cities as well as poor rural villages will not be easy. Perhaps, like France, China will choose to adopt PPPs, not in terms of commercial contracts but as a hybrid arrangement regulated by the state for the citizenry? Or perhaps China will choose to focus more on internal regulatory and transparency reforms as a priority. Either way, it will be a fascinating journey ahead.

²⁴ Note that Heald (2007, 35) observes the difference between ‘nominal’ and ‘real’ transparency. They give the example of the UK, where formal explicit rules specified how political parties could be funded. These rules regulated legitimate party donations but were in stark contrast to the reality of non-reportable loans actually adopted for funding by wealthy donors who quietly made loans to the UK Labor Party and some of whom were subsequently rewarded with Peerages! Subsequent allegations of ‘cash for peerages’ were not surprising and a scandal in the UK ensued. The difference between nominal and real transparency here was palpable, but became apparent through the press and news media.

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TERMS OF REFERENCE
Regulatory Reform Review of China

Objective

The OECD, through the regulatory policy division, will undertake a country review of China. One of the chapters -- at the request of our Chinese counterpart, the National Development and Reform Commission -- will address the regulatory framework for urban services. The Chinese need to improve delivery, whether by government, through PPPs or regulated private providers. A regulatory framework which is neutral in respect of the delivery mode will therefore be needed. Our focus is on what China can learn from OECD Member countries experiences, together with our own knowledge and insight. The OECD is not being asked to design a regulatory framework for China, but to bring forward options grounded in analysis of key issues.

The first step is to take stock of what OECD Member countries, have been doing in this field. How do they regulate the provision of public services in metropolitan areas? Is the regulatory framework set at national, provincial or local levels? What co-ordination exists? How open are public services to domestic and foreign providers? These services must include water and public transport and one other, perhaps waste management, could also be referenced, but will need to be defined further with the consultant.

Tasks

To prepare a background report that will inform a chapter in the Regulatory Framework for Urban Services for the Regulatory Reform Review of China. The Consultant will:

- 1) survey current practices for public service delivery in several OECD countries, a) to indicate the range from public to private mode and including public-private partnerships, b) whether provided by central ministries, agencies or other arms-length units, or by sub-national governments, and c) whether in markets that are open to competition;
- 2) survey regulatory frameworks for public and private suppliers, indicate at what level government has responsibility to initiate such frameworks, and put these in the specific institutional and historic contexts of individual countries;
- 3) survey the literature for methods for benchmarking or evaluating how well a system functions, either from a theoretical perspective, or based on comparative ex-post evaluations of price, accessibility, reliability and consumer satisfaction as variables, and drawing on existing reviews and evaluations of service quality where available; and,
- 4) prepare a short list of key issues that any further study would need to keep in focus (for example, whether there are independent regulatory authorities, and if so, how transparent, independent and accountable they may be; consultation when drafting new regulations; and risk awareness and management).

Appendix 2

Illustrative Examples of Waste Collection Contracting Research

The recent research story of domestic waste collection might be summarised as follows. The early, impressive and appealing results of Bennett and Johnson (1979) indicated that in Fairfax County USA, 29 Private Firms all charge less than the solid waste division of the county. At some \$127 per year for municipal collection versus an average of \$87 per year for private companies this difference was statistically significant and could not have arisen by chance. But as Donahue (1989:60) pointed out, whilst conceptually plausible, it is actually a good deal less convincing than these early authors assert as the analysis did control for distance from the dump, dispersal of households served, quality and frequency of service or other factors. These concerns were not simply academic whining, as there were clearly many influential variables on refuse collection costs and that there was in any event no evidence that public and private efficiency data was statistically different.

Savas, one of the most ardent promoters of privatisation and contracting-out in the world, looked at 1,378 US communities and after controlling for scale, organisational form and pickup, found that contracted private firms were 9 percent cheaper than municipal provision. Interestingly however, he also found that competitive arrangements were one third more expensive than the local government service. The importance of insuring collection route contiguity in refuse collection was evident here. Numerous other studies over the years could be quoted here, but two are important.

In the United Kingdom, another team of economists (Domberger, Meadowcroft and Thomson, 1986) studied the possible influence of competitive tendering on the production costs of local government waste collection services. Analysing 610 authorities through 1983-84 revealed cost differentials of 22 percent when contracting was being undertaken with the private sector, and 17 percent when the service was tendered but retained in-house. Controls for a wide range of variables were present. Thus, in terms of design rigour, Dombergers' work was exemplary. Domberger's cost equations are outlined in Table 1 following.

Through regression analysis, the economist team Domberger, Meadowcroft and Thompson isolated the determinants of the cost of refuse collection. The “cost function” adopted for the analysis was as follows;

$$\text{Log } C = a_1 + a_2 \log \text{UNITS} + a_3 \log \text{WAGE} + a_4 \text{FREQ1} + a_5 \text{FREQ2} + a_6 \text{METH1} + a_7 \text{METH2} + a_8 \text{METH3} + a_9 \text{METH4} + a_{10} \log \text{DEN} + a_{11} \log \text{DISP} + a_{12} \log \text{HOUS} + a_{13} \text{RECLAIM1} + a_{14} \text{RECLAIM2} + a_{15} \text{RECLAIM3} + a_{16} \text{CONTRACT} + a_{17} \text{TEND} + e$$

This Cobb-Douglas formulation of the production function implies that the cost of production is a function of the level of output, the frequency of pick up, input wage costs, the method of collection, the density of housing, the distance to disposal, the proportion that is domestic, the extent of reclamation of paper and bottles, and whether after tendering, the collection is undertaken by in-house or external private companies. The regression results were as follows.

Variable	Description	OLS results	
		Co-efficient	t Statistic
CONSTANT		-2.76	-3.97
UNITS	Number of units	1.04	54.94
WAGE	Average earnings	0.90	7.51
FREQ1	More than once a week	0.0065	10.62
FREQ2	Less than once a week	-0.0036	-2.78
METH1	Kerbside	-0.0026	-10.88
METH2	Other collect and return	-0.0012	-2.45
METH3	Skep or other normal method	-0.00071	-2.68
METH4	Special collections	0.00030	0.16
DEN	Density of units	-0.015	-1.88
DISP	Average distance to disposal	-0.028	1.87
HOUS	Percentage of units that are domestic households	-0.43	-5.28
RECLAIM1	Reclaimed paper	0.000073	4.27
RECLAIM2	Abandoned vehicles	0.000087	1.44
RECLAIM3	Bottle-banks	-0.00037	-0.31
CONTRACT	Privately contracted	-0.25	-7.66
TEND	Tendered but retained in-house	-0.19	-4.52
	Number in Sample	610	
	\bar{R}^2	0.927	
	R^2	0.925	

Figure A.2: Cost Equations Illustrating the Statistical Controls Adopted and Detailed Results for the Analysis of Domberger et al (1986).

Of importance here is the fact that the key statistics indicate the relative strength of the association between the cost of waste collection and each variable. The bigger the ‘t’ statistic the stronger and more certain the relationship. For this data, what is clear is the very strong relationship between the cost of refuse collection and the number of units collected – that is “the more work done, the higher the cost”, as might be expected from common sense. As well, the complexity of this analysis for what, to many, would seem a simple service of collecting the garbage is instructive. Some eight variables are controlled for before then getting statistical data articulating the effectiveness of contracting and competitive arrangements²⁵. The care required here when making conclusions as to the effectiveness of competitive tendering as a regulatory tool is clear.

²⁵ The cost impact of a variable such as the cost savings for contracting in house for instance can be gauged by calculating the impact of each individual co-efficient on the collection cost.