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WATER, WATER, EVERYWHERE?: LEGAL STRUCTURES FOR THE CONTRACTING AND PRIVATIZATION OF PUBLIC WATER RESOURCES

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I. INTRODUCTION

Water is perhaps the most precious natural resource. Wars have been fought and people have lost their lives to control or to have access to this precious substance, and future wars may be waged over access.¹ At the same time, today's global economy puts pressure on governments around the globe to enhance the efficiency and effectiveness of their provision of services. One way some governments have responded to this pressure is by contracting² the provision of this basic resource.

The use of contracting is an institutional solution to a peculiar government problem, as traditionally governments provide services that the private sector cannot or will not provide. What is the role for government once water privatization has been instituted? Because in many countries water is a basic and valuable resource for both life and economic development, a central role for government is to manage the distribution of this resource between advantaged and disadvantaged

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¹ See PETER H. GLEICK, *WATERS IN CRISIS: A GUIDE TO THE WORLD'S FRESH WATER RESOURCES* 108 (Oxford University Press 1993); Thomas F. Homer-Dixon, *Environmental Scarcities and Violent Conflict*, 19 Int'l Security 5 (1994), available at <http://www.library.utoronto.ca/pcs/evidence/evid1.htm> (last visited Oct. 29, 2007); Wilfried Remans, *Water and War*, 8 Humantäres Völkerrecht 4 (1995); KEVIN R. SANSOM ET AL., *CONTRACTING OUT WATER AND SANITATION SERVICES: GUIDANCE NOTES FOR SERVICE AND MANAGEMENT CONTRACTS IN DEVELOPING COUNTRIES*, (WEDC 2003); ARTHUR H. WESTING, *GLOBAL RESOURCES AND INTERNATIONAL CONFLICT: ENVIRONMENTAL FACTORS IN STRATEGIC POLICY AND ACTION* 13 (SIPRI 1986).

² We use contracting and outsourcing interchangeably.

classes of citizens. On one hand, how governments distribute scarce resources has the end result of limiting social conflict, and in some cases, even deterring revolution - an outcome that in many ways benefits advantaged classes. On the other hand, disadvantaged classes may need government's intervention to gain a better quality of life by providing services that they could not otherwise afford.

This starting point motivates our essay on the contracting of water provision. A major argument against the privatization of government water utilities is that market forces will affect the price of water, putting pressure on disadvantaged populations; a private entity providing water might engage in "hold up," stopping its operations and leaving local populations without water for periods of time either intentionally or inadvertently. Historically, the responsibility for securing water provision has been delegated to local governments. The transfer of this responsibility to a private authority shifts part of the responsibility, but not necessarily all of it. Local governments may still feel substantial local pressure to secure water provision, while private entities only take on liability. This means that governments should fully consider all the benefits and risks associated with water privatization - including the contingency of failure by private providers.

The purpose of this essay is to provide a set of principles for government executives evaluating water privatization efforts based on examples and recommendations from prior attempts around the world. This paper has four sections. In the first section we consider differences between contracting and privatization, which is essential to framing the debate on the provision of water by a non-public entity. We then elaborate on analytic approaches to understanding contracting generally, drawn from transactions cost economics, which uses task complexity, contestability, and asset-specificity as means for evaluating the contracting decision. Such approaches are important starting points for considering the unique situation of water as a target of privatization efforts. The second section reviews background information about key issues involved in the privatization of water resources. The third section will discuss specific events in water privatization attempts in Africa, Asia, and Latin America. In the fourth section, we assess specific recommendations about water privatization. Finally, in the conclusion we highlight important

points, some shortcomings of previous analysis, and suggestions for future research.

II. DISTINCTION BETWEEN CONTRACTING AND PRIVATIZATION

We start by arguing that contracting and privatization are similar but distinct. The two terms vary in several important ways, although these differences are not always clear in use. To some, contracting is “government agreeing to contracts with private or non-profit groups to deliver certain services” for a specified period of time, whereas privatization is the “use of nongovernmental agencies to provide goods and services previously provided by government” from that point forward.³ In practice, a core difference is that contractors must renew their contracts and continue to give the most competitive bid. However, in many cases privatization is semi-permanent: once a service has been privatized, that firm no longer has to renew any contract with the government to continue the provision of that service; permanence being conditional and depending on the willingness and interests of governments to renationalize service provision.

Both contracting and privatization are important tools for many governments facing pressure to become more efficient and effective in providing a multitude of services. In many countries, firms may lobby public officials to expand either activity – contracting or privatization – especially in the case of water services. Firms know that such contracts can be stable revenue sources and that in many cases the only “market competition” occurs at the point when firms lobby politicians on the distribution of contracts.

When is it acceptable to privatize or contract the provision of services? Of course, there are many reasons why companies and governments decide to “buy” (contract or outsource) rather than “make” (produce within an organization).⁴ One useful perspective, which draws

³ RICHARD B. DENHARDT & JOSEPH W. GRUBBS, *PUBLIC ADMINISTRATION: AN ACTION ORIENTATION* 118-119 (4th ed. Wadsworth Publishing 2003).

⁴ MIKE JOHNSON, *OUTSOURCING IN BRIEF* (Butterworth-Heinemann 1997); Philip Keefer, *Contracting Out: An Opportunity for Public Sector Reform* 2-3,, (The World Bank, Working Paper No. 19908, 1998), available at <http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2001/01/20/00009494>

from transaction cost economics, is that we can assess any privatization decision by considering the task's complexity, the degree of contestability, and the specificity of the asset.⁵ Essentially, outsourcing is justifiable when the total costs (both production and contract management) are lower for government. The problem for a government is to assess the governance costs of contracting *ex ante*. While outsourcing may reduce the costs of service delivery, management costs may increase and offset the savings. This perspective encourages governments to limit governance costs, in the form of bargaining and opportunism. Bargaining costs include the original costs of negotiation, any renegotiation costs, the costs of monitoring the contract, and the costs of conflict. Bargaining costs can occur even when parties negotiate in good faith, but opportunism is particularly important when parties mischaracterize the reasons for their behavior, out of line with the original contract.

Just as with other types of goods and services, contracting water provision probably works best when there is low task complexity, high contestability, and low asset specificity. A specific example of low task complexity is the case where governments contract for billing services. If there are many billing firms operating in the area from which they can select, there is high contestability; low asset specificity could be present if contractors use their assets (i.e., computers) for more than just billing purposes, or can bill for more than just water services. If one of these three is not present (e.g. low task complexity, high contestability, or low asset-specificity) the costs of outsourcing will rise. Of course, the acquisition and maintenance of both physical plants and the technical expertise necessary for building and maintaining water plants suffers from this kind of high asset - specificity. Contractors will account for this kind of high asset-specificity by raising bid prices or shifting to production technologies that are less asset-specific, but probably have a higher provision cost. In general, the rental or leasing of government-owned

6_0101100543291/Rendered/PDF/multi_page.pdf; DAVID OATES & JIM DURCAN, *OUTSOURCING AND THE VIRTUAL ORGANIZATION* (Random House Business Books, 1998); KEVIN R. SANSOM ET AL., *supra* note 2.

⁵ See Steven Globerman and Aidan R. Vining, *A Framework for Evaluating the Government Contracting-Out Decision with an Application to Information Technology*, 56 PUB. ADMIN. REV. 577 (1996); ANNA GRANDORI, *ECONOMIC AND ORGANIZATIONAL BEHAVIOUR* (Routledge 1999).

assets to the contractor might mitigate the contractor's incentives to use less efficient means of production.⁶

In addition to high asset-specificity if there is low contestability, both the contractor and the government are held hostage. This is a situation of bilateral monopoly: the government cannot easily replace the supplier and the contractor must take on high costs due to high asset-specificity.⁷ Governments considering outsourcing may seek to use multiple contractors, but this tactic may have limited use if asset specificity is high. Adding high task complexity only makes the situation worse as bargaining costs increase when the two parties disagree about *ex ante* specification and/or *ex post* performance; in this case, the "make or buy" decision often comes down on the side of internal production.

III. THE OPERATIONAL CONTEXT OF WATER PRIVATIZATION

From 1990 to 2002, the number of people being provided with water via some sort of privatization agreement expanded from approximately 51 million people to nearly 300 million; yet, public water utilities continue to provide approximately 95 percent of the world's population with water and wastewater services.⁸ The numbers of people worldwide without secure water are staggering: while in urban areas the proportion in 1999 with secure water was around 94 percent, the proportion in rural areas were less than 50 percent in Africa and less than 70 percent worldwide.⁹ The number is even lower among the poorest countries, less than 25 percent.¹⁰ For this and a number of reasons, governments and efforts like the World Bank's Multilateral Investment Guarantee Agency's Privatization Link and the United Nations Joint

⁶ Steven Globerman and Aidan R. Vining, *supra* note 5.

⁷ ANNA GRANDORI, *supra* note 5.

⁸ Meena Palaniappan et al., *Water Privatization Principles and Practices*, in THE WORLD'S WATER: 2004-2005: THE BIENNIAL REPORT ON FRESHWATER RESOURCES 45-78 (Peter H. Gleick ed., Island Press 2004).

⁹ WORLD HEALTH ORG. AND UNITED NATIONS CHILDREN'S FUND, GLOBAL WATER SUPPLY AND SANITATION ASSESSMENT 2000 REPORT, *available at* http://www.who.int/docstore/water_sanitation_health/Globassessment/Global2.1.htm.

¹⁰ Kristin Komives et al., *Access to Utilities by the Poor: A Global Perspective* 13 Discussion Paper No. 2001/15 (UNU/WIDER 2001).

Monitoring Programme (“JMP”) for Water Supply and Sanitation have put substantial resources into expanding the knowledge of when and where privatization works for water services.

Governments engage in four major variants of water contracting.¹¹ First, governments may form public water corporations or use corporate utilities in attempts to encourage efficiency and discourage exploitation. Second, governments may rely on service and leasing contracts; this kind of mixed management may allow governments to bring in managerial and operational expertise that may not be available locally. Third, governments may follow any of a variety of concession models; Build-Operate-Transfer (“BOT”), Build-Operate-Train-Transfer (“BOTT”), Build-Own-Operate-Transfer (“BOOT”), Rehabilitate-Operate-Transfer (“ROT”), and Build-Operate-Own (“BOO”) are the major types used. The fourth variation is for governments to allow fully private businesses and small-scale entrepreneurs to produce and sell water. Interestingly, some argue that the poor often pay much more for water from these private suppliers or small-scale vendors than they would pay if a regulated community water system were in place in this arrangement.¹² Governments rely on a variety of partners in these endeavors, although some very large firms are also involved on a global scale. Major players include France’s Vivendi SA and Suez Lyonnaise des Eaux (recently renamed Ondeo), which together own or have an interest in over 120 countries with claims to provide water to around 200 million people, Great Britain’s Thames Water and United Utilities, the American firm Bechtel, and Spain’s Aguas de Barcelona.¹³ As with many other multinational corporations, these firms have interlocking directorates, own partial shares in one another, and employ joint ventures.

The main reason governments look into private provision is the private sector’s access to capital; the use of private capital to fund water programs may allow borrowing governments to use other sources of public and international capital for other societal needs, expanding the total pool of funds available for social and economic development. Yet,

¹¹ PETER H. GLEICK ET AL., *THE WORLD’S WATER 2002-2003: THE BIENNIAL REPORT ON FRESHWATER RESOURCES* 64 (Island Press 2002).

¹² *Id.* at 69-71.

¹³ *Id.*

governments face other sources of pressure to privatize water provision, each rooted in a different set of beliefs. Some of these pressures are *societal* – the belief that privatization will satisfy unmet basic needs, *commercial* – the mindset that emphasizes that more business is better, *financial* – the belief that the private sector mobilizes capital faster and more cheaply, *ideological* – the argument that smaller government is better, and *pragmatic* – that posit competent, efficient water-system operations require private participation.¹⁴

The discussion of contracting water resources is not a recent phenomenon, occurring in the United States in the late 18th century and in France in the 19th century.¹⁵ Recent prominence comes from the lack of provision noted above in many developing nations and the efforts of the World Bank and others. But, discussions are tainted by recent high profile privatization failures. For example, water prices tripled over the next five years following privatization in 1997 of Manila’s public water works. The withdrawal of one firm in 2002 abandoned a project serving 6.5 million people.¹⁶ As Koos Richelle of the European Commission noted: “You learn as much from your mistakes as your failures, and we need to study water-privatization failures as well.”¹⁷ Reasons for opposition are varied; some concerns are about the distribution, affordability, ecological stewardship, accountability, and lack of public participation.

Numerous guiding principles have been offered to fill this void. The World Bank and other international water organizations, like the Global Water Partnership, advocate the Dublin Principles. These principles were agreed upon at the 1992 United Nations Conference on Environment and Development in Rio de Janeiro: the ecological principle focuses on the environment; the institutional principle is that stakeholders should have a voice in water management; the gender principle argues that

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ Roel Landingin, *Loaves, Fishes and Dirty Dishes: Manila’s Privatized Water Can’t Handle the Pressure*, CTR. FOR PUB. INTEGRITY (2003), available at <http://www.publicintegrity.org/water/report.aspx?aid=51> (last viewed June 20, 2007).

¹⁷ See Eric Johnston and Asako Murakami, *Water Forum Closes Amid Clash Over Privatization*, THE JAPAN TIMES, March 24, 2003, available at <http://www.japantimes.co.jp/cgi-bin/getarticle.pl5?nn20030324a7.htm> (last viewed June 21, 2007).

women play a central role; and, the instrument principle claims that water is a scarce resource and should be allocated by economic principles.¹⁸ More recently, the World Bank has argued that efforts at privatizing water resources should emphasize the management of water as a social good, the use of sound economics in water management, and the maintenance of strong government regulation and public oversight.¹⁹ Both sets emphasize the role public participation plays in developing water systems that meet clear standards and principles for equitable, efficient, and reliable operation and management.

IV. WATER PRIVATIZATION EFFORTS

In this section, we review recent specific examples of privatization efforts in Africa, Asia, and Latin America to assess the power of privatizing the provision water services, and the effects of task complexity, contestability, and asset-specificity in future privatization efforts. We begin with Africa, given its central role in recent debates among multilateral aid providers, then turn to Asia and finally to Latin America.

In Africa, the main deterrents of performance of water utilities are governance issues (e.g., corruption) and weak political and market institutions. Using data from twenty-one African water utilities²⁰ (seventeen public and four with private sector involvement), engaged in mostly water supply but also production, distribution, and sewerage, Estache and Kouassi²¹ show that water utilities using the demand

¹⁸ The Global Development Research Center, *The Dublin Statement on Water and Sustainable Development*, (1992), available at <http://www.gdrc.org/uem/water/dublin-statement.html> (last viewed Oct. 29, 2007).

¹⁹ Palaniappan, *supra* note 8.

²⁰ The areas of jurisdiction were at the municipal, province, region, and country levels; the countries included were Benin, Burkina Faso, Cote d'Ivoire, Ethiopia, Ghana, Mauritius, Morocco, Namibia, Niger, Nigeria, Senegal, South Africa, Togo, Tunisia, Uganda, and Zambia. See Antonio Estache & Eugene Kouassi, *Sector Organization, Governance, and the Inefficiency of African Water Utilities* (World Bank Policy Research, Working Paper No. 2890, 2002), available at <http://rru.worldbank.org/Documents/PapersLinks/1453.pdf>.

²¹ *Id.*

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approach for rural and peri-urban²² provision of services, are often inefficient. Development is often community-driven with a preference for small-scale operations; they then charge higher tariffs²³ than they would if their facilities were efficient. Smaller operations frequently and directly interact with users, leading users to be more willing to pay; all together, only 13 percent of utilities operate as efficiently as the best-practice group (those relatively efficient water utilities).²⁴ Unfortunately, policy designers and public managers lack information that would allow them to make inefficient operators more efficient.

Out of one hundred and fifty water utilities in the region, less than 10 percent had private sector participation, yet private ownership was statistically significantly associated with efficiency.²⁵ Would broader private sector involvement reduce average tariff charges? Would those efficiency savings help improve access for disadvantaged groups? The answers are not clear. Throughout Africa, private operators are not necessarily the best performing utilities, though they invested heavily and produced improvement in sector operations. The primary drivers of inefficiency in Africa appear to be related to governance issues and weak institutions (precursors to broad economic growth). Generally, privatization is difficult where there is limited support for markets, let alone markets for goods and services traditionally supplied by governments.

In contrast, there seems to be little evidence that private providers are more efficient than public utilities in Asia. Examining fifty water

²² Peri-urban areas are areas not serviced by the public utilities of the locality, usually serviced by independent providers (IPs), usually inhabited by marginalized people who just erect homes surrounding a city with no title, the municipal utilities and concessionaires are usually not authorized to connect these residents and have few incentives to do so. See Tova M. Solo, *Independent Water Entrepreneurs in Latin America: The Other Private Sector in Water Services* 16 (2003), available at [http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/49a0102c9b95cf028525664b006a1a4/9d85ff0f21515b1585256d9700768314/\\$FILE/Tova_ingles.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/49a0102c9b95cf028525664b006a1a4/9d85ff0f21515b1585256d9700768314/$FILE/Tova_ingles.pdf) (last viewed July 23, 2007).

²³ Tariffs are the amounts charged to customers. *Id.*

²⁴ *Id.*

²⁵ *Id.*

utilities in nineteen countries²⁶, Estache and Rossi²⁷ find that twenty-two utilities had some form of private sector involvement in management, billing and collection, leak repair, meter reading, source development, production, or pumping. What determines these utilities' production costs? Generally, cost increases are higher where there is greater quality. This higher quality of water induces the number of metered clients to rise; cleaner water is costly, but there is more demand for this water. Densely populated areas are cheaper to serve, probably because of lower capital costs for pumping stations and pipe maintenance. But, there is no evidence that private or public water utilities are more efficient. Of course, these utilities may not be concerned with efficiency, and efficiency is always difficult to measure. But generally, there is little evidence that privatization increases efficiency or reduces the cost of service.

As privatization occurs, regulators may switch from price or revenue-cap regulation to rate-of-return regulation, which may cause firms to reduce costs.²⁸ Regulators may fear a tradeoff between efficiency and quality – that increased efficiency means reduced water quality. In practice, efficiency can come as firms invest in the latest technology to become competitive; public utilities may want to deter privatization of their own operations by meeting this new standard established by firms – “catching up.” The Asian experience suggests that the question of efficiency may come down to competition rather than ownership.

While privatization has not been used much in Africa and used only marginally in Asia, Latin America presents a unique opportunity to assess the direct effects of privatization. Using data for eighteen cities with some form of privatization and twenty-eight control cities²⁹, Clarke,

²⁶ The nineteen countries in this study are Bangladesh, Bhutan, Cambodia, China (including Hong Kong and Taiwan), Cook Islands, Fiji, India, Indonesia, Kazakhstan, Republic of Korea, Kyrgyz Republic, Lao People's Democratic Republic, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea, the Philippines, Singapore, the Solomon Islands, Sri Lanka, Thailand, Tonga, Uzbekistan, Vanuatu, Vietnam, and Samoa. See Antonio Estache and Martín A. Rossi, *How Different is the Efficiency of Public and Private Water Companies in Asia?*, 16 *World Bank Econ. Rev.* 139-148 (2002).

²⁷ *Id.*

²⁸ *Id.*

²⁹ Located in Argentina, Bolivia, and Brazil. See George R.G. Clarke et al., *Has Private Participation in Water and Sewage Improved Coverage? Empirical Evidence from Latin*

et al.³⁰ found no conclusive evidence that privatization improved service coverage. Their approach allows them to compare municipalities before and after they introduced privatization and with similar control cities. In essence, both those municipalities that introduced privatization and those that did not introduce it improved water and sewerage access. Moreover, introducing privatization neither improved nor degraded service for the poorest households. But, the improvement in access over time could not be attributed to government or private ownership/operation.

Again, this does not mean that privatization may have benefits. Just as with “catching up” in Asia, privatization in Latin America could provide benchmark competition that encourages publicly owned utilities to improve their own performance.³¹ However, there is low contestability in this situation because there are often few bidders for contracts, several large private firms dominate the sector, and many contracts are renegotiated. Why are there so few bidders? Firms winning contracts face regulatory oversight for both economic and for health protection regulation. However, more important perhaps are that the operation of such facilities have high asset-specificity, that there are no clear alternative uses for that technical expertise and capital investment, and that the operation cycle has a long lifespan. With large amounts of capital invested, in items like water processing plants and pipes, high performing water utilities are prone to expropriation by developing governments.

Does regulation change the behavior of firms in the water market? Government-imposed price caps on water utilities can cause firms to poorly maintain their assets, if only because these assets can function for a long time so maintained.³² Can firms change the rules of the game to account for this? In Latin America, approximately two-thirds of contracts are renegotiated³³; this bargaining/opportunism cost may increase the total

America (World Bank Policy Research, Working Paper No. 3445, 2004), available at http://papers.ssm.com/sol3/papers.cfm?abstract_id=625323 (last visited August 15, 2007).

³⁰ *Id.*

³¹ *Id.*

³² Such caps often only allow for operation costs. Price caps are instituted to limit the prices firms charge, allowing for an affordable service to the populace, and induce firms to lower their costs, thus causing a cascade of lower prices. *Id.*

³³ *See Id.*

cost of privatization efforts. Interestingly, Guasch, et al.³⁴ show that having a regulator deters renegotiation, but that having price caps increases the likelihood of renegotiation.

What kinds of firms would a government encourage to become involved in privatization? In Latin America, the preference has been for large private international firms who are given long-term exclusive license rights to provide water, but there has also been strong opposition in Latin America to privatization efforts because of "deep rooted convictions that reserve water resources to the public domain, and against the notion that water services should be financially viable and that it could be a profit-making business."³⁵ Is there a role for local entrepreneurs in such settings? Based on the experiences of six cities in Argentina, Bolivia, Columbia, Guatemala, Paraguay, and Peru, it appears that small independent providers (IPs) can have a positive private impact on water provision.³⁶ In these areas, IPs compete for customers and operate with limited government oversight and no government support. Their impact is substantial, as Jamal Saghir, World Bank Director of Energy and Water and chair of the Water and Sanitation Sector Board, notes: "small scale providers serve about 25 percent of the urban population in Latin America and East Asia, and 50 percent of the urban population in Africa. . ."³⁷ Essentially, IP market shares are largest in areas underserved or left out by official utilities. Mobile water providers use trucks and/or carts to sell their water to customers; fixed network providers pipe their water directly into the consumers' homes. Mobile operators face high costs, low service volume, and high risk because competitors can change their service areas as demand changes; network operators have lower costs and lower prices, offer convenience, provide a high quality service, and are exposed to more risk due to the necessary capital investment and the possibility of expropriation and regulation. The transition from mobile operator to network operator is eased when local and national governments encourage competition and assure property rights.

³⁴ J. Luis Guasch et al., *Renegotiation of Concession Contracts in Latin America* (World Bank Policy Research, Working Paper No. 3011, 2003), available at <http://ideas.repec.org/p/edn/essedps/103.html> (last visited August 2, 2007).

³⁵ See Tova M. Solo, *supra* note 22, at 5.

³⁶ *Id.* at 30.

³⁷ *Id.* at 4.

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What are the long-term prospects for private provision of water by IPs in developing countries? Generally, even if IPs have enough business acumen to negotiate the vagaries of their markets, and even if IPs grow to command a substantial market share, the impact on disadvantaged populations can still be negative. It is believed that IPs charge four to ten times the public water utilities' unit price, and while that is below the rumored 20 to 150 times the inflated price, the impact on wealth is still substantial.³⁸ More importantly, government policies regarding the extension of service provision or the regulation of private network operators affects their willingness to improve their infrastructure. If a private concessionaire of water expands its coverage aggressively, the long-term prospects for IPs will be limited. IPs also fear the expropriation of assets. Is that sufficient to deter their investments? In the end, it probably is not. As Abel Mejia, World Bank Water Sector Manager in the Latin American and the Caribbean Region, notes: "even the poor are not willing to pay but are actually paying for water services when the service is provided to them, even in a less than optimal way."³⁹

V. DISCUSSION OF RECOMMENDATIONS

In this section we assess specific recommendations for the privatization of water provision for the purpose of enhancing efficiency and price reduction; efficacy guidelines are dependent on the institutional and competitive context, but these factors are central for those developing strategies for privatization. Generally, public utilities worldwide charge customers only the operating costs for service provision and rely on loans for infrastructure improvements and the expansion of coverage. As most economists would argue, and as the Dublin Principles indicate, also factoring in expansion and infrastructure improvement costs by public utilities for correcting water pricing is significant, either as a precursor for eventual privatization or the public retention of water provision.

Strategically speaking, price changes are usually phased in to allow disadvantaged residents time to accommodate increased water costs. Such behavior serves to build faith in public utilities and reduce the probability

³⁸ *Id.*

³⁹ *Id.* at 5.

of privatization. Complete privatization is always an option, but drastically adjusting tariffs prior to privatization is one way public officials create a sense of “urgency”⁴⁰ about the current state of increasing water prices, and due to the inevitability of rising water prices, privatization is seen as an easy alternative. Given that prices will rise, privatization is offered as a solution. For the long-term viability of privatization, the core issue in many developing countries is how to ensure that disadvantaged populations are not harmed by increasing prices. In industrialized nations where public water utilities have already extended coverage and governments are stable, a central question is whether price caps cause constrained competition. As noted, price caps lower service quality and can damage proper asset maintenance; price caps also increase the likelihood of the renegotiation of contracts, increasing bargaining/opportunism costs, and increasing the total costs of contracting. However, regulatory agencies are necessary to insure that standards are met and to reduce the likelihood of renegotiation.

Governments often phase in privatization efforts, usually the simplest tasks first. One example of simple outsourcing is the billing department. This low task complexity function allows governments to build the capacity for the more effective and efficient management of contracts. Governments often progress to contracting more intricate tasks, up to the full privatization of water provision. However, just phasing in complex tasks may not be viewed as positively if the public believes that privatization reduces costs immediately. For that reason, political viability may lead to the contracting of tasks with high task complexity, such as privatizing water provision, even when governments do not have the capacity and experience to manage the contracts efficiently and effectively, thus causing governments to stumble and gain competency along the way.

Moreover, high asset specificity can lead to a hostage situation when there is low contestability for contracts. If a government sells to a contractor its water provision assets, what happens if the firm goes

⁴⁰ In Kurt Lewin’s view, change processes have three phases: unfreezing, changing, and refreezing. “Urgency” in the unfreezing stage motivates people to change their perspective. See JOHN R. JR. SCHERMERHORN ET AL., ORGANIZATIONAL BEHAVIOR 364 (9th Ed.(9th ed. 2005)).

bankrupt? Leasing of assets gives governments some capacity to provide services in those events, but leases also induce risk for firms if governments expropriate their investments. To address this leasing issue, payment of negotiated prices for assets is an alternative, but can be problematic because firms may invest more in infrastructure than is efficient because negotiated prices are forms of security.

Even in industrialized nations, the central problem that designers of privatization face is low contestability in the provision of water. Contestability only enters during bidding. Because water provision involves high task complexity, high asset-specificity, and low contestability, this reduces efficiency gains; firms are just different monopolies. Even though the benefits of competition are limited by low contestability, competitive benchmarking may provide another solution to this conundrum.

In developing nations, the problem is in gaining coverage extensions when governments are often unstable. In contrast to industrialized nations, IPs are a viable option for quickly supplying marginalized populations. IPs increase competition (contestability) and can offer some of the promised gains of privatization. The difficulty lies in the instability of governments that are unlikely to take credible action against the expropriation of IP assets. Even at four to ten times the price of utility provided water, the cost of IP-provided water is roughly equal to operating costs plus the costs for extending coverage and the infrastructure improvement costs. IPs help solve the first key transactional problem in the chain of contestability, task complexity, and asset specificity. IPs (especially mobile IPs) are fairly contestable, their task complexity depends on the scale of operations, and asset-specificity depends on the absolute number of customers served.

In general, privatization may not necessarily be the right answer for every jurisdiction seeking the effects of competition. For example, if jurisdiction A privatizes water provision, the surrounding jurisdictions, B, C, D, and E, may see the effects of competition due to their water utilities being motivated to meet a new benchmark set by the private provider. The cascading positive effects of higher efficiency and performance will be realized by the surrounding jurisdictions through the threat of competition if the private provider in jurisdiction A is better able to bid on contracts in B, C, D, or E because of proximity. That threat falls as

proximity is reduced. Essentially, any given jurisdiction prefers to be affected by the threat of privatization while not actually experiencing privatization – especially if one values public accountability. This is especially true for industrialized nations where the gains from privatization will not be as dramatic as those in developing nations because the public water utilities are performing well, but are not motivated to continue increasing their performance.

VI. DISCUSSION

The purpose of this essay is to assess how governments evaluate water privatization efforts based on examples and recommendations from prior attempts around the world. We started with the related roles of contracting and privatization because this is how the debate on the provision of water by a non-public entity has been framed. We then reviewed a number of analytic approaches for understanding contracting, generally drawn from transaction cost economics. In essence, the prospects for successful contracting and privatization depend on task complexity, contestability, and asset-specificity. This is no different for the privatization of water provision. We then addressed insights from a broad variety of cases, mostly in developing nations, about the prospects for enhanced efficiency and lower costs with the provision of water by private firms. In general, there is very scant evidence for the power of the private sector – except in the case of small independent providers. Our analysis of specific recommendations usually made about water and its privatization reveals the power of considering contestability, asset specificity, and task complexity. It also reveals why IPs have found success in some areas of the world.

Why allow for private provision? If we believe that we should manage water as a societal good, use sound economics in water management, and maintain strong government regulation and oversight, understanding the conditions under which private provision is a powerful supplement to the public sector gives us a route to extending social benefits to disadvantaged groups. Technical aspects of regulation remain, but even technical approaches to regulation of private firms providing public services, such as price caps, can have unintended consequences, like a lower quality of service and the improper maintenance of assets. More importantly, some

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types of regulation induce opportunistic behavior by firms, like renegotiation; in the end, those behaviors increase the total costs of privatization. Moreover, countries strong enough to regulate are also often strong enough to expropriate, especially those with weak rule of law.

