A Tale of Two Concessionaires:

A Natural Experiment of Water Privatization in Metro Manila

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Abstract

In February 1997 Maynilad Water Services, Inc. and Manila Water Company, Inc. were awarded concession contracts from Manila's Metropolitan Waterworks and Sewerage System (MWSS) and split between them the service areas in Metro Manila. In the years thereafter, the paths taken by the two concessionaires diverged dramatically: Maynilad became bankrupt and was turned over to MWSS, whereas Manila Water has prospered and is now a listed company in the Philippine Stock Exchange. The coexistence of two concessionaires in the same city offers a rare opportunity as a natural experiment to study the role of internal factors in privatization of urban water systems because the effects of many important external factors, such as political support, regulatory structure, and unforeseen events, are effectively controlled. Our findings suggest that corporate governance, financial management, and operations management of privatized water utilities are among the most important internal factors that determine success of water privatization in developing countries.

Key Words: Urban Water System, Privatization, Corporate Governance

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Introduction

The 1990s saw an unprecedented wave of water privatization around the world. Public water utilities' failure to expand service coverage and improve service quality prompted municipalities in many developing countries to turn to the private sector for investment capital, technical expertise, and efficiency improvement (Dosi and Easter, 2003). In addition, water privatization was perceived as a means to end government subsidization by "depoliticizing" water pricing; public water utilities often priced water and sanitation services at below cost-recovery level, creating enormous financial burdens for governments in developing countries. The political environment during the decade was highly favorable to water privatization as pro-market politicians rose to leadership positions in many countries and international financial institutions were actively promoting market-oriented reforms in the developing world through loans and technical assistance programs (Hall et al., 2005). By the end of 2000 at least 93 countries had experimented with water privatization in one form or another (Brubaker, 2001).

The "exuberant enthusiasm" for the water privatization, however, was soon subdued by harsh realities marked by renegotiation, termination, and cancellation of privatization contracts and projects. A World Bank database on infrastructure revealed that by 2002, 75% of contracts for water privatization in Latin America and the Caribbean had gone sour, experiencing either renegotiation or cancellation (Gómez-Ibáñez et al., 2004). In Asia the rate of water privatization has slowed considerably since the Asian financial crisis, as a number of high-profile water privatization projects have been abandoned or canceled due to disputes over water tariff increases (Hall et al., 2004).

Some critics have argued that water privatization is ill-fated because the public benefits of water services are inherently incompatible with the profit motive of the private sector (Estanche at al, 2001; Birdsall and Nellis, 2002; Smith and Hanson, 2003). Others have held that water privatization compromises access to water as basic human right and that it harms the welfare of the poor (Gleick et al., 2004; Scanlon et al., 2004).

Although arguments against water privatization have gained currency in recent years, the urgency of the water crises that led to privatizations during the 1990s remains unchanged to the present day: more than 1.1 billion people worldwide lack safe drinking water, and 2.4 billion lack adequate sanitation (Kessides, 2004). The situation is especially acute for many rapidly growing small cities in developing countries: more than half of the residents in these cities do not have water connections (Hewett and Montgomery, 2001). Inadequate urban water supply systems place a greater financial burden on the urban poor, as a disproportionately high percentage of poorer households lack access to piped water (Johnstone and Wood, 2001; Marvin and Laurie, 1999). Studies have shown that unit costs for water from vendors (who often supply to the urban poor) can be as much as more than ten times higher than for water from piped connections (Crane, 1994; Chogull and Chogull, 1996).

The importance of access to safe drinking water to poverty reduction is highlighted by the stated intention of the Millennium Development Goal (MDG) to halve the number of people without safe water access by 2015. Enormous financial resources are needed to reach this ambitious goal; estimates from the World Bank early in the new century indicated that developing countries would need $60 billion for the water sector over the next ten years (Haarmeyer and Coy, 2002). It is clearly unrealistic to expect governments in developing countries to finance this development entirely on their own. Private sector participation will continue to be among the few options available to municipalities in many developing countries, and especially to the increasing number of fast-growing small and medium-sized cities.

Meanwhile, despite the many criticisms leveled at water privatization, no empirical evidence has emerged to suggest that funding problems are so inherent in the water supply sector as to pose insurmountable barriers to privatization. In fact, one recent study (Galiani et al., 2005) has shown that water privatization reduced child mortality by 5% to 7% in Argentina, with the largest gains in reduction experienced by the poorest population. Although some research has shown that efficiency was not significantly different in private and state-run water operations

(Estache and Rossi, 2002; Kirkpatrick et al., 2004), no empirical study has confirmed claims that private water companies are necessarily less efficient than their public counterparts or that water privatization hurts the urban poor. Given the importance of private sector participation to the success of global efforts to alleviate inadequate and unsafe water supplies, it is of paramount importance to understand where, when, and how water privatization could be successfully implemented.

The voluminous literature on water privatization offers little information about the impact of privatized water utilities' management practices on how privatization has fared in developing countries. Studies of previous water privatization cases have typically focused on external factors such as political support, institutional structure, design of contract, transparency of bidding process, public perception, and impacts of unforeseeable events (Johnstone et al., 2001; Shirley and Menard, 2002). These factors, undoubtedly critical determinants in the success or failure of water privatization, are nevertheless external conditions in the sense that they are outside the control of privatized water utilities. We argue here that privatization involves transformation in ownership structure and organizational culture *within* water utilities, and that how the transformation is managed at the company level has a direct bearing on the outcome of privatization.

One plausible explanation for the lack of scholarly work on the impacts of internal factors on water privatization is that it is methodologically challenging to assess what these internal factors are and how they function. First, it is fairly difficult to disentangle the effects of internal factors from those of external factors, as they are often intermixed and shaped by particular conditions, such that case studies detailing water privatization in a specific locality cannot usefully generate definite conclusions about the effects of internal factors. Second, external factors are often more visible and thus more tractable analytically than internal factors, because it is easier to obtain information on external factors than on internal factors, which may not be readily available in the public domain. Third, statistical tools such as regression analysis may

offer only limited insights on internal factors because localized peculiarities can be hard to quantify and to compare meaningfully.

The recent history of water privatization in Metro Manila presents a unique opportunity as a natural experiment to analyze and compare the effects of internal factors on the success of privatization efforts in an urban context. When MWSS was privatized in 1997, metropolitan Manila was divided into two zones and concession contracts were accordingly awarded to two companies, Maynilad (West Zone) and Manila Water (East Zone). Because the two concessionaires faced the same external factors—e.g., political support, institutional structure, contract design, transparency of bidding process, and locally shared unforeseen events—the analyst can concentrate on differences in internal factors and study the effects of these differences on the success and failure of water privatization.

Discussion below begins by developing theoretical linkages between water privatization and three internal factors: corporate governance, financial management, and operations management. An overview of the evolution of water privatization in Metro Manila sets the stage for analysis and comparison of the performance of the two concessionaires after privatization, in terms of how differences in internal factors have contributed to the different paths that they took and the outcomes they experienced. Final discussion summarizes important results of the analysis and addresses their implications for water privatization policy and for innovation in public water utilities.

Internal Factors and Water Privatization: Theoretical Linkages

Because privatization of public services such as water utilities entails complex changes in economic, social, and even political structure, the process is unquestionably shaped by various external factors such as political environment and regulatory structures. But privatization also involves transformations in ownership structure, organizational culture and operations management; how such transformations are managed, at the company level, has direct bearing on

the outcome of privatization. In the present case, some theoretical linkages can be made between internal factors (such as corporate governance, financial management, and operations management) and success of water privatization.

Corporate Governance

Corporate governance refers to the distribution of rights and responsibilities among different participants in a corporation (the board, managers, shareholders, and other stakeholders) and the rules and procedures that have been adopted for making decisions on corporate affairs (OECD, 1999). Three fundamental principles of corporate governance are accountability, transparency, and responsibility. Improvements in corporate governance are an important mechanism by which privatization may enhance performance.

For example, state-owned enterprises (SOEs) often suffer from a principal-agent problem whereby managers cannot be easily held accountable for their actions. Privatized corporate governance offers the prospect of tighter control of employee performance by linking job tenure directly to performance and accountability. Yet experiences in privatization in recent decades have shown that transfer of ownership cannot guarantee improvement in corporate governance (Dyck, 2001). Nestor (2005) observes that newly privatized companies with a widely dispersed body of owners may fall prey to managerial opportunism—a problem that can become especially pronounced in developing countries where market mechanisms for corporate control have not become well established. In many transition economies, weak corporate governance has been exploited to loot state resources through the privatization process itself (Black et al., 2000).

Some unique features of water privatization pose particular challenges to corporate governance. First, because water is perceived as an essential good, privatized water companies are often subjected to close scrutiny from the public, who are likely to expect high standards of corporate governance. Aguas Argentinas SA (AASA), the private water company in Buenos Aires, experienced this firsthand: the company's reluctance to employ competitive bidding in

selecting contracts and its refusal to share information about its contractors bred public distrust and growing hostility, not only toward AASA itself but also toward the Argentine government and regulatory agency (Bosman, 2005). Because consumers are such important stakeholders in privatized water utilities, these companies must adopt a broad concept of corporate governance that recognizes public satisfaction as a primary goal.

Second, the very nature of water supply technology (which involves high fixed capital costs and increasing rate of return) determines that water utilities are natural monopolies whether in governmental or in private hands. Thus market competition as an external mechanism for effective corporate control is almost nonexistent in the water sector, and regulatory agencies are the arbiter of last resort. However, regulatory agencies often suffer from information asymmetry, and their effectiveness may be further reduced by the general weakness in regulatory capacity found in many developing countries.

Third, because of the substantial financial and human resources needed to operate urban water systems, privatized water utilities are often formed as joint ventures among several partners, typically some combination of domestic and foreign interests. Although a strategic alliance among these different partners is necessitated by political, legal, financial, and technical considerations, the potential for conflicts of interest among them cannot be underestimated. Bad corporate governance can quickly lead to internal conflicts that may bring out the worst in all involved (Bamford and Ernst, 2005).

The fourth challenge confronting privatized water utilities is that water privatization often involves conglomerates that control many subsidiaries through a complex web of pyramiding and cross-holding[1]. Directors within these groups often sit on each other's governing boards. Resulting effects include little independent scrutiny of individual company management and considerably weakened shareholder discipline (Nestor, 2005). Controlling shareholders could potentially expropriate the benefits of minority shareholders and other stakeholders through

related-party transactions that are likely to be detrimental to the operations of the privatized water utilities as well as to the public interest.

Financial Management

A primary consideration for water privatization in developing countries is the need to attract private investments into the water sector, but these private investments often do not come cheap. Newly privatized water companies require substantial amounts of capital for settling labor issues as well as system renovation and expansion, and they must rely heavily on capital markets to finance the deficit. However, because newly privatized companies are not "known" in financial markets and carry the baggage of past public governance, access to credit is expensive (Ozkaya and Askari, 1999). In many developing countries where a domestic capital market is not well established, the only accessible sources may be foreign, a very expensive option because of the substantial amount of risk involved.

Uncertainty regarding regulatory actions and consumers' sensitivity to tariff increases further heighten the risks involved in water privatization projects. Haarmeyer and Mody (1997) describe the evolution of private financing in the water sector as a three-step process. The first step is limited-recourse financing, which is typically expensive because of risks within the sector as well as uncertainties associated with early development stages. The second step is financing through returned earnings, once a stable set of rate-paying customers has been achieved and confidence in the regulatory process has grown. The third step is bond financing, much cheaper than limited-recourse financing but only available for utilities with a track record of stable revenue sources. Privatized water companies might become financially stressed in the early stages of development, not because they fail to achieve efficiency gains but because such gains fall short of covering the expensive limited-recourse financing. Prudent financial management from the outset is thus a key to the success of the water privatization in developing countries.

In preparing bids for water privatization, potential bidders may suffer from the so-called "winner's curse" by underestimating the effects of potential risks such as political risk, current risk, and financial risk. This may improve the prospects of winning concessions, but such bids may become unsustainable when unforeseeable setbacks arise. Water privatization in Buenos Aires, for example, had been seen as a huge success until, in the wake of the convertibility crisis between 2000 and 2002, the privatized utility found itself heavily indebted but unable to attract fresh capital to cover contractual obligations.

Operations Management

Water privatization involves two crucial activities at which privatized water utilities rarely excel: the transformation of a public utility to a private company, and management of public expectations. Employees in public water utilities, as in other SOEs, are often guaranteed life-long employment and thus are not motivated to improve performance. Developing an efficient incentive system is an essential part of organizational restructuring in newly privatized firms (Ozkaya and Askari, 1999). Employees in the public sector are also often slow in responding to customers' demands because there is almost no competition to supply the services they provide. Concessionaires' ability to build an organizational culture that promotes a commercial, customer-driven working environment is essential to the success of the transformation from public to private water company.

Management of public expectations is of critical importance to a privatized water utility's survival. Because water is perceived as essential good, there is often controversy over whether the private sector is fit to operate the water system. In addition, public water utilities generally keep prices below costs; the expectation usually is that privatization will not change that. Although this is virtually always an unrealistic notion, how to contend with imperatives for price increases in the face of unrealistic public expectations is a challenging task. A recent World Bank study discovered that most water and sewerage projects that were canceled had been confronted with

conflicts between price increases and difficulties in collecting from consumers (Harris, et al., 2003).

Two useful strategies for dispelling opposition to water privatization are to build corporate legitimacy and to establish strategic alliances. Although concession agreements may contain mandates that privatized water companies must establish their legitimacy as customer-focused companies commensurate with their private sector status, such legitimacy could be challenged because of the natural monopoly that characterizes water utilities and because of information asymmetry. Privatized water companies can build corporate legitimacy through disclosure to customers and image management (Ogden and Clarke, 2005). In many developing countries, the most likely allies in support of a privatized water utility would be the urban poor who do not have water connections. They often pay several times more than connected residents while suffering from the worst service quality (Johnstone and Wood, 2001). Privatized water companies can significantly strengthen their corporate legitimacy by aligning their interests with those among the poor who strongly demand coverage for underserved communities.

In the following two sections, we show that the water privatization in Manila offers a rare opportunity as a natural experiment to study the effects of the above internal factors on water privatization.

Water Privatization in Manila

Comprised of 12 cities and 5 municipalities, Metro Manila has 11 million inhabitants, about 13% of the total population of the Philippines, and is densely populated, with about 16,000 persons per square kilometer. Privatization of water services was first proposed in the mid-1990s when MWSS, the state-owned water utility responsible for providing water and sanitation for Metro Manila, had become unable to expand coverage adequately to a rapidly growing population. By 1996, MWSS was only able to supply an average of 16 hours of water per day to two-thirds of

its coverage population. Its efficiency as measured by nonrevenue water (NRW)[2] and number of staff per 1000 connections was the lowest among major cities (see Table 1).

The urban poor were hurt the most by MWSS's ineffective and inefficient operations. According to a 1995 household survey, poor households that relied on private water vendors paid prices up to 13 times higher than the rates for MWSS household water connections (David and Inocencio, 1998). Furthermore, with water and sanitation services priced below costs, MWSS had to rely on periodic government subsidies to service its debts, placing a heavy financial burden to the government.

Water privatization thus appeared to be an attractive solution to the looming water crisis. The Ramos administration believed that water privatization could improve operations efficiency, raise financial resources for water investments, and end the need for government subsidies (David, 2001). In 1995 the Water Crisis Act was enacted, giving the president the authority to privatize MWSS within one year. The government wasted no time in laying the groundwork, which was closely patterned on Buenos Aires' example. The water tariff was increased by 38% in August 1996 in anticipation of pressures for an increase during the process of privatization; in the meantime, the MWSS labor force was cut by 30%. Both strategies had helped to boost private sector interest in participating in water privatization (Dumol, 2000).

International financial institutions were closely involved in the privatization process from the very beginning. In 1995 the Asian Development Bank (ADB) provided a technical assistance (TA) grant amounting to US$582,000 as a part of its Umiray–Angat Transbasin Project, to assist MWSS in promoting privatization activities. The International Finance Corporation (IFC) of the World Bank acted as the lead advisor for the design and the implementation of water privatization.

A critical feature in the design of water privatization in Manila was that the service areas in Metro Manila are divided into two zones (see Figure 1), which according to the bidding rule cannot be operated by a single concessionaire. There were three reasons for the split: (1) it gave regulators more leverage in their negotiations with concessionaires; (2) it provided opportunities

for benchmark comparisons between the two zones; and (3) the arrangement served as a safety valve, such that if one concessionaire got into financial trouble, the other concessionaire could take over (Dumol, 2000).

In January 1997, in what has been known as the world's largest water privatization deal, competitive bidding was held to privatize MWSS. Four consortia submitted bids for both the East and West Zones. In accordance with the rules for the bidding, the Maynilad Company, a joint venture by Suez and Benpres Holding (controlled by the Lopez family), was awarded the concession contract for the West Zone; the Manila Water Company, Inc., a joint venture by Ayala, United Utilities, and Bechtel, was awarded the East Zone. Both concession contracts were to last 25 years, and the targets for improvement in service coverage, water quality, service quality, and reduction in NRW were specified in the contracts. The two concessionaires in combination were expected to increase water supply coverage from the then-current 67% level to 85% by 2001, and to 96% by 2006 and beyond. In addition, the two concessionaires were to pay roughly US$1.2 billion in concession fees[3] over the 25-year period to service existing debts of MWSS and to finance operations of the MWSS Regulatory Office, which had been established to oversee the implementation of concession contracts.

The concession contracts also specified tariff adjustment mechanisms. Three grounds were deemed acceptable for rate adjustments: inflation, extraordinary price adjustment (EPA), and rate-rebasing. The concessionaires would be allowed to adjust base rates automatically according to the consumer price index. Tariffs could be adjusted annually to recoup the financial effects of certain events unforeseeable to the concessionaires, such as sharp devaluation and changes in laws and regulations. A rate-rebasing exercise would be conducted every five years so that return on investment, or appropriate discount rate (ADR), would not exceed a fair return. The original intention of rate-rebasing was that the concessionaires would be allowed to reap efficiency gains during the interval of two consecutive rate-rebasing exercises; rate adjustments every five years would ensure that consumers also shared the benefits of the efficiency

improvement. Unfortunately, tariff adjustments through rate-rebasing became a major source of tension and controversy soon after privatization because both the level of ADR and the validation of various assumptions for computing rates of investment were subject to regulatory discretion.

Another critical feature of water privatization in Manila was the extremely low bids offered by the two winning consortia—especially by Manila Water, which proposed a base rate amounting to only one-fourth of MWSS tariffs at the time of bidding (see Table 2). In fact, the bid was so low that officials administering the bidding process had to confirm with Manila Water that it was indeed the water tariff that was meant, and not the discount (Dumol, 2000). The overall impression among the policy makers was that the generally low bids reflected both the inefficiency in MWSS and the private sector's confidence. In retrospect, although the low bids ensured an easy sell of the concession agreements to water consumers in Metro Manila, they planted the seeds for public outcry about rate hikes in the years following the privatization process.

Two unforeseen events deeply undermined the financial models used by the two winning consortia in the bidding process, making them grossly inaccurate. The first was that just after the concessions were granted, the Angat Reservoir, from which 98% of Manila's water supply is drawn, had experienced an unprecedented drought; the amount of water available to the two concessionaires decreased by 30%. The second was the Asian financial crisis under which currency devaluation almost doubled MWSS's dollar-dominated debt service burden. The financial obligation for the two concessionaires increased accordingly, as the concession agreements had stipulated that MWSS debt service was to be paid for from concession fees[4]. The financial crisis also made it more expensive for the concessionaires to access financial market for their capital investment projects, because of the sudden jump in risk premiums.

Not surprisingly, the low tariffs that were to be achieved through water privatization proved "too good to be true" (Fabella, 2006); tariffs began to rise gradually through 2001 and accelerated after October 2001, when contract amendment was granted by the Regulatory Office

(see Table 3). In the public eye and among civil society groups the government had been perceived as fairly accommodating to the two concessionaires' demands. A foreign currency differential adjustment (FCDA) was granted to allow the concessionaires to automatically recover from the foreign currency losses at an accelerated rate, and the appropriate discount rate (ADR) was adjusted significantly upwards in the rate-rebasing process held in 2002. In addition to accelerated recovery of foreign currency losses and higher ADR, targets for expansion and NRW were also adjusted downward in the contract amendment so that the two concessionaires could reduce their capital expenditure requirement in the early years of operation.

These substantial rate increases and lowered targets granted by the Regulatory Office nevertheless failed to prevent Maynilad from descending into bankruptcy in 2003. The firm never made a profit during its eight years in operation. At the start of its concession Maynilad had targeted a reduction in NRW from 64% in 1997 to 31% in 2001; instead NRW rose to 69%, and as result the volume of billed water was only half of the target level. Maynilad stopped paying its concession fee in April 2001, despite the numerous rate increases that had allowed it to recover foreign exchange rate losses due to the Asian financial crisis. The unpaid concession fees had accumulated to over Php 6.8 billion by the end of 2003, forcing MWSS to assume short-term loans to service the debts. In December 2002 Maynilad filed a notice of termination of its concession contract, blaming the government for the firm's difficulties in sustaining business in the West Zone and seeking reimbursement of more than US$303 million that the firm claimed to have invested. Bankruptcy was formally declared in November 2003, after the international arbitration panel ruled in favor of MWSS. Court documents show that Maynilad had accumulated unsecured liabilities of Php 17.4 billion against recoverable assets of only Php 2.4 billion. In 2005 Maynilad was turned over to MWSS under a so-called debt-for-equity swap, in which Benpres relinquished its shares to MWSS and other creditors in exchange for unpaid concession fees and debts.

Manila Water took a completely different path. Although its bids seemed to be unrealistically low at the outset and even more so in light of the unanticipated events that followed, and although it missed some key targets in early years after the privatization, the company performed well financially. Its NRW was reduced from 58% in 1997 to 35% in 2005. Remarkably, the company had begun to make a profit by 1999, when water in the East Zone was selling at a huge discount off the pre-privatization rate, and it has been profitable ever since. In 2004 Manila Water posted net income of Php 1.335 billion. On March 18, 2005, Manila Water was listed at the Philippine Stock Exchange as the first IPO in the Philippines after the Asian financial crisis.

Internal Factors and Water Privatization in Manila: Maynilad vs. Manila Water

Corporate Governance

A striking feature of corporate governance in Philippines is the concentration of economic power in extremely small number of family conglomerates. The largest family conglomerate controls 17% of the nation's total market capitalization; the largest 10 families control more than 50% (Wu, 2005). The interlocking nature of corporate control within these conglomerates presents special challenges for discipline in the corporate sector (Saldana, 2001).

Two of the three largest of these family conglomerates, Lopez and Ayala, became involved in the water privatization in Manila. Lopez controlled Maynilad through Benpres Holdings, a publicly listed holding company, and Ayala controlled Manila Water through the Ayala Corporation, another publicly listed pure holding company. Both conglomerates have used pyramiding and cross-holding to control business interests in real estate, banking, construction, telecommunication, and electricity production and distribution.

The involvement of multinational water companies in water privatization in Manila added another dimension of complexity to corporate governance of the two concessionaires.

Strategic alliances with multinational water companies were considered key inducements for Lopez and Ayala to participate, as neither had technical expertise in operating urban water systems. The possibility arose, however, that problems might develop from multinational partnerships, owing to differences in management styles and corporate cultures. A more important consideration was that their interests might not always be aligned, especially likely insofar as the participating companies all had other subsidiaries and affiliates whose interests might in turn be affected by operational decisions made by the two concessionaires.

The concessionaires' responses to these challenges differed markedly. In Maynilad, contracts for services and consultancies went largely to Suez and Benpres, as well as to their subsidiaries or affiliates. For example, a management consultancy contract went to Lyonnaise des Eaux Philippines (LDEP), a subsidiary of Suez; a program management contract went to Safage Consulting and Montgomery Watson, both affiliates of Suez; service contracts went to First Philippine Balfour Beatty and to Philippine Steel Fabricators, Inc., both subsidiaries of First Philippine Holdings Corporation, which is a subsidiary of Benpres Holdings. The size of such contracts was often substantial. For example, in 2001, when Maynilad decided to stop paying its concession fee because of heavy indebtedness, 11 French consultants were reportedly paid Php 168 million, of which Php 110 million was for consultancy services (Santiago, 2002).

Because related-party transactions were shielded from competitive bidding, Maynilad incurred exorbitant costs. For example, Maynilad's computers were purchased from IBM France, an affiliate of Suez. Compared with Manila Water, the East Zone concessionaire, Maynilad spent, per employee, 80% more on computers (Diokno-Pascual , 2004). Table 4 shows comparatively higher operating costs for Maynilad on almost all categories; the exception, utilities cost, is due to higher pumping requirements for Manila Water's service area. It is especially curious that Maynilad's operating costs (see Table 5), especially non-personnel operating costs, actually increased dramatically while its financial woes were worsening; one would expect to see exactly the opposite in a financially distressed company. And related-party transactions led to more than

these high operating expenditures: it aggravated tensions between the two partners (Benpres and Suez) that had plagued the water privatization initiative from the very beginning[5].

Manila Water, in comparison, has maintained an arm's-length relationship with subsidiaries of Ayala Corporation and other partners in the joint venture. It has outsourced to some 75 contracting companies much of its work for replacing outdated water mains and repairing leaks; only one of those is affiliated with Ayala Corporation. Manila Water's more successful practices in corporate governance certainly have not gone unnoticed: in 2005 ASIAMONEY voted it the best-managed company in the small cap category.

Although a private water company's management determines the quality of its corporate governance practices, the public sector has ample opportunities to influence corporate governance practices through the bidding process, regulatory actions, and asset ownership. Government officials guiding the bidding process would be wise to pay careful attention to each bidder's corporate governance practices, as these could be an indicator of what how that bidder might perform if awarded the contract. Government can also include good corporate governance practices in concession agreements. Mark Dumol, a government official who was extensively involved in the bidding process in Manila, has particularly emphasized the potential of utilizing regulatory tools to constrain bad corporate governance practices: "If I can rewrite the privatization rules, I would put in tougher provisions against the shareholder-related companies', especially the foreign partners', making a quick buck from transactions with the local concessionaire company" (The Center for Public Integrity, 2003).

In retrospect, benchmark competition established by having two concessionaires seems to have worked from the perspective of the public. Having two concessionaires operating in the same city and subject to the same political environment not only helped the Regulatory Office to overcome the information asymmetry associated with water privatization (and with weak regulatory capacity as well), it also offered the concessionaires a yardstick for assessing and containing the potential negative impacts of related-party transactions. Perhaps the most

important benefit was that the information available through benchmark competition helped to dissipate the public's anxiety in dealing with tariff increases.

Financial Management

The financial models used by the two concessionaires for the bidding in early 1997 were prepared at a time when foreign capital was pouring into the Philippines, begging for investment opportunities. The Asian financial crisis abruptly and completely changed the landscape that the two new concessionaires confronted. Easy credit was no longer available, and creditors had become extremely meticulous in the due-diligence process.

Manila Water made some critical adjustments to its financial management in response to the crisis. First, it focused on domestic lenders for capital expenditure by leveraging on Ayala Corporation's good reputation and successfully settled for small-size loans from several local banks, starting at a level of about US$20 million in 1998, and gradually increasing in cumulative levels to US$25 million in 1999, US$55 million in 2000, and to US$67 million by 2001. Second, it slowed down its capital expenditure considerably as compared to the original bids. Although this resulted in Manila Water's failure to achieve some goals in the early years, the slowdown may have been a sensible strategy for protecting the company against substantial financial risk before it could tap into less expensive means of financing. Third, Manila Water targeted the areas that were most likely to produce financial improvements with a limited amount of capital expenditure, such as innovative approaches in reducing NRW.

Manila Water's cautious approach to financial management paid off. It is remarkable that the company was able to make a profit as early as 1999, when the water in East Zone was still selling at a significant discount compared to the pre-privatization level. Small but well-targeted capital expenditure right after privatization allowed the company to solidify its bottom line, enabling it to secure less expensive financing later on. Manila Water's capital expenditure has

increased significantly after 2002 (Figure 2), which should help it to achieve its targeting in the years to come.

The same prudence in financial management is not evident in the case of Maynilad. It focused on immediately securing a huge US$350 million Term Loan from the Asian Development Bank, European Investment Bank and a syndicate of foreign commercial banks with the participation of COFAGE as political risk insurer, for its capital expenditure projects. This strategy failed as the huge borrowing proved to be very difficult to close. The prospective long term lenders set stringent conditions and only initially agreed to a US$100 million Bridge Loan.

While this should have allowed the company to make strategic capital investments to improve financial performance, the anticipated opportunities never materialized. Despite substantial capital expenditure, Maynilad was very slow to attend to some critical aspects in improving its financial standing. For example, until 2004 Maynilad did not have a database that could provide area-specific estimates of water losses due to theft versus losses due mainly to the bad state of pipes and inefficient metering (Esguerra, 2006). In the meantime the negotiation for the full term loan became protracted and the large capital investment without resulting operational efficiencies have led to more accumulated financial losses that eventually bankrupted the company. In March 2003 Maynilad defaulted on its payment of the Bridge Loan, and closure of the term loan has inevitably fallen through.

Operations Management

The two concessionaires jointly inherited a highly centralized organizational structure that retained some of the common characteristics of state-owned utility companies in many developing countries. Most MWSS employees were accustomed to a system that was rule-based and procedure-driven. Consequently they performed their jobs with little concern for effectiveness and efficiency (Weldon and Beer, 2000a). To overcome the difficulties of

transforming a public utility into customer-driven private water company, Manila Water developed strategies centering on a few core objectives: (1) to build a corporate culture focused on honesty, effective performance, and customer service; (2) to create a new organizational structure with a clear chain of responsibility through decentralized decision making; (3) to alter work procedures toward better communication and cooperation; and (4) to establish a reward system aligning pay with responsibility and results (Weldon and Beer, 2000b).

A hallmark of Manila Water's approach to these objectives was its effort to instill trust and confidence in former MWSS employees, which was backed with sufficient retraining and support. Instead of treating former MWSS employees as a collateral liability in securing the concession contract, Manila Water management viewed them as invaluable and indispensable resources for building a strong new company. Rather than relying on imported talent, Manila Water sent these veteran employees abroad for training and exposure to relevant operational environments (Chortrani, 1999). Similarly, the company's middle and senior management positions were mostly staffed by former MWSS employees, with only a very few top positions filled by representatives seconded from Ayala and its foreign partners. The employee-retention strategy took hold: more than five years after privatization, 95% of Manila Water personnel were former MWSS employees (UTCE and Japan PFI Association, 2004).

Manila Water also adopted several innovative approaches in operations management to target NRW. Although improved corporate governance practices and prudent financial management helped to control operating costs and capital expenses, a key to the company's financial success was persistent efforts toward reducing NRW, which have directly contributed to the revenue increase. Within less than a decade of privatization Manila Water reduced NRW significantly, from 58% to 35% of former levels whereas in the West Zone NRW increased from 64% to 69% (see Figure 3). This dramatic success was mainly due to two innovations in its operations management: territory management and the Water for the Community Program.

Territory management, a part of Manila Water's management decentralization initiative, partitioned its service areas in the East Zone into smaller and more manageable clearly defined territories. The East Zone was divided into seven business areas, which were in turn subdivided into a total of 43 operational districts, termed demand monitory zones (DMZs). Each DMZ had approximately 10,000 water connections and was subdivided into several district metering areas (DMAs), each servicing 500 to 1,000 connections. Each DMA was to be managed by a territory team consisting of a territory business manager, DMA officers, meter consumption analysts, site officers, and service providers. The territory teams would be responsible for customer services, monitoring and control of NRW, and new service development; they also were empowered to make decisions pertaining to their customers' water and wastewater needs, funding, and implementation. Because of this clear tiered division of responsibilities, evaluation and compensation of employees and managers could be geared to quality of performance. One improvement resulting from this structure was quicker response to customer demand. Within a few years of its inauguration, average time to repair leaks was reduced to four days in Manila Water's East Zone (compared to 11 days in Maynilad's West Zone), and 97% of customer service complaints were communicated and resolved within 10 days (UTCE and Japan PFI Association, 2004). The territory management system remains in operation today.

The Water for the Community program (Tubig Para sa Barangay), begun in 1997, focused on extending water supply services to areas containing numerous clusters of lower-income families. Under this program, several households (typically two to five) can share one connection and thus split its cost of consumption among them. Where such an arrangement is not feasible, one bulk connection is provided to the whole community (up to 100 or more households), and costs of connections are shared by all. By 2005, more than 500 projects in the East Zone are completed under the program, benefiting approximately 850,000 people in poor communities (Manila Water Annual Report, 2005). A unique feature of the initiative is that it brings water only to the edge of a community, next to a main road, where shared meters for a group of households,

or the entire community's bulk meter, can be positioned (See Figure 4). Water is then billed at volume passing through these meters at the community entry point; it is the responsibility of the community to distribute the water from thence to individual households and to protect against leakage and illegal connections. Manila Water's service connections under Tubig Para sa Barangay have effectively imposed a zero NRW rule in areas plagued in the past with rampant illegal connections.

Given that private water companies often encounter political opposition to privatization in general and to tariff increases in specific, the Water for the Community program helps Manila Water to build legitimacy. Because the company has been able to provide water services to poor communities that the public water utility had failed to reach, they became political allies in the company's efforts to dissipate opposition to water privatization. The Water for Community program also makes business and financial sense for the company. Because Manila Water in effect imposes a zero NRW on projects under the program, it has actually helped to reduce overall NRW by minimizing illegal connections, leaks, and incidence of water contamination in areas where these problems are the most severe. The program has also played an important role in attracting support, in the form of in low-interest loans or equity investments, from international organizations and foreign government donor organizations concerned with supplying water to the poor[6]. The success of the Water for the Community program suggests that the public benefits and private sector profit motives may not be inherently incompatible in water privatization. Perhaps the most remarkable aspect of this achievement is that projects targeted at water supply for the poor were not specified in the 1997 concession contracts.

The situation was completely different at Maynilad. A large number of employees from Benpres Holdings and its subsidiaries were transferred to Maynilad, most of them with no experience in the water sector; incomers from Suez took up most of the new company's management positions. Former MWSS employees felt they were being treated as second-class citizens in the new company, and morale sank[7]. The company did not invest as much as needed to

upgrade its employees' capabilities; in its first years of operation annual expenditure on such training averaged only Php 1,500 (about $US30) per employee (UTCE and Japan PFI Association, 2004). The mentality, mindset, and behavior of former MWSS employees who had remained with the company had scarcely changed from pre-privatization levels.[8]

Ironically, the idea of territory management had been initiated by employees at Maynilad right after the privatization[9], but the company had passed over this option in favor of a system-wide approach to dealing with NRW problems[10]. It did not, however, promptly inaugurate a centralized monitoring plan for pinpointing leaks in the system: the first reliable and consolidated report on leakage was not introduced until 2000 (UTCE and Japan PFI Association, 2004), although billions had already been deployed in capital expenditures for laying new pipes.

Maynilad also created a program for supplying the poor, Water for the Community program (Bayan Tubig). Its expansion mode was more "generous" than Manila Water's: families usually received individual connections, with meters near their houses (see Figure 5). This arrangement left the lines exposed such that unconnected households could tap into the system before the water reached the meter for connected households. In fact, even a connected household could decide to tap its own connection before it reached the meter (UTCE and Japan PFI Association, 2004). Thus it comes as no surprise that NRW continued to rise in these communities as the program expanded. Maynilad eventually halted Bayan Tubig because of the financial difficulties the program created.

Concluding Remarks

While much of criticisms leveled at Manila water privatization have focused on significant rate hikes and slower-than-expected service expansion (Buenaventura et al., 2004; Esguerra, 2003), the performance of privatization should be assessed in a historical context. It is true that both concessionaires raised their water tariffs substantially in their first years of operation, but the magnitude of increase in part reflects their extremely low bids: Manila Water's

winning bid was only a quarter of the rate before privatization. Given unforeseen events such as the Asian financial crisis of 1997 and the unprecedented drought that afflicted Angat Reservoir, it is highly plausible that MWSS would have increased its charges to the same level even had it not been privatized, or else the government would have had to assume a substantial financial burden.

Although the system expansion still falls short of what is specified in the concession contracts, the two concessions had increased connections by 30% during the first five years of operations, a feat that MWSS would have taken 30 years to achieve on the basis of its historical performance. Impressively, much of that expansion occurred in economically distressed areas, directly benefiting the urban poor who had formerly relied on more expensive water supply alternatives.

Worker productivity increased significantly after privatization. Consolidated figures for the two concessions show that number of staff per 1000 connections dropped from 9.4 in 1996 to 4.1 in 2003. Both concessionaires managed to resolve over-employment from pre-privatization levels through early retirement programs, with little or no social disruption in the corporate setting.

Our investigations show that generalized conclusions about water privatization in Metro Manila should not be ventured without carefully differentiating between the two concessionaires. There are pluses and minuses in the external factors surrounding water privatization in Manila, some of which are related to intellectual discourse beyond the scope of this essay; but Manila Water's more successful experience compared to Maynilad's suggests that studies focusing on external factors alone may be too limited. Water privatization without improvements to management systems for the privatized utilities severely reduces the chance of success, even under favorable external conditions. On the other hand, Metro Manila's experience shows that innovative management practices in privatized water utilities can help to overcome obstacles introduced from the external environment.

Our analysis suggests that decisions regarding internal factors such as corporate governance, financial management, and operations management were key factors in the divergent paths taken by the two concessionaires after privatization. First, while both concessionaires involved family conglomerates (Lopez and Ayala) and multinational companies (Suez, United Utilities, and Bechtel), corporate governance practices differed considerably between the two from the outset. For example, Maynilad generally awarded management and technical consultancies to subsidiaries of its French (Suez) and Filipino (Benpres) partners. Such related-party transactions were partly responsible for internal conflicts reported between the two partners but also led to higher costs for start-up and enhancement operations. Manila Water's trajectory, involving few dealings with related parties, avoided such problems.

Second, the concessionaires' different financial management practices were critical determinants of their success in the years following privatization. In adjusting to the Asian financial crisis, Manila Water went for smaller loans at the beginning targeting operating efficiency and service improvement, and then gradually scaled up borrowing to produce a virtuous financing cycle of investment and efficiency improvement. Although this strategy deviated from Manila Water's contractual commitment to capital expenditure, it shielded the company through the turbulent years immediately following the crisis. Maynilad, by contrast, did not make similar adjustments, and large capital investment without resulting operational efficiencies have led to more accumulated financial losses that eventually bankrupted the company.

Third, the concessionaires' relative success with water privatization was linked to their attention to two critical factors that have seldom been few managed well: the transformation of a public utility into a private company, and management of public expectations about the services the utility is pledged to deliver. One key to Manila Water's overall success was that it catered its operations management toward these two considerations from the very beginning. Employees transferring from MWSS were perceived as having valuable prior experience and were given

training to adapt to the new privatized organizational culture and to its innovations, some of which, such as territory management, were designed to improve employee performance. Manila Water has also been sensitive to objections to water privatization and has made concerted efforts to dispel such opposition through initiatives such as its Water for Community program. In comparison, Maynilad's approaches have been less well conceived. For example, management and employees imported from outside the preexisting public company often had no experience of water supply utilities, and lines installed in poor neighborhoods were not designed to prevent unauthorized taps.

The results of our exploration of the effects of internal factors in water privatization have several important policy implications. Analyses that ignores the importance of such internal factors may lead either to oversubscription to the general notion of privatization or, conversely, to underestimation of its potential for water supply solutions. Privatization will not automatically bring efficiency gains unless privatized companies can allocate substantial resources toward reorienting internal organization and operations; but to reject privatization outright, on the basis of "inherent" incompatibility between the private sector and water business, may deprive the public of a valuable option.

Our emphasis on internal factors is not intended to imply that public policy cannot play an active role in shaping the outcome of privatization. On the contrary, there are ample opportunities for governments and the regulatory agencies to influence private corporate decisions on internal factors through the bidding process, through regulatory actions, and through asset ownership (in the case of concessions).

We also point out that the importance of internal factors to the quality of performance by water concessionaires in Metro Manila, the subject of our study here, offers some encouragement to municipalities struggling with failing public utilities and an unfavorable external environment for water privatization. By learning from the best practices of privatized water utilities, public utilities can envision and achieve improvements in water services through internal restructuring

within the public context. The current slowdown in privatization does not mean that public water utilities should remain unchanged. Manila Water's successful tactics show that innovation in internal management, especially attention to performance incentives and rewards for experienced personnel, can help to close the gaps in water services to the urban poor.

Notes

[1] Pyramiding is defined as owning a majority of a stock of one corporation that in turn holds a majority of the stock of another, a process that can be repeated a number of times; cross-holding is defined as a company further down the chain of control having come shares in another company in the same business group (Claessens, Djankov, and Fan, 2002).

[2] Nonrevenue water (NRW) refers to water that is not billed because of leakage through holes in the pipes, illegal connections, or measurement problems due to faulty meters.

[3] The concession fees were split 90–10 between Maynilad and Manila Water, reflecting the utilization ratio of capital from MWSS' borrowings prior to the privatization. It was expected that Manila Water (East Zone) would incur higher capital expenditure because it included new development areas where connections were yet to be installed. Few connections were envisioned for the West Zone (Fabbela, 2006)

[4] The heavier burden fell to Maynilad because of the 90–10 split in concession fees.

[5] Interview with a senior manager in Maynilad, July 2006.

[6] Interview with Mr. Tony Aquino, CEO of Manila Water, May 2006.

[7] Interview with a senior official in MWSS Regulatory Office, July 2006.

[8] Interview with Ms. Macra Cruz, Deputy Administrator of MWSS, July 2006.

[9] Interview with Mr. Tony Aquino, CEO of Manila Water, May 2006.

[10] Interview with a senior manager in Maynilad, July 2006.

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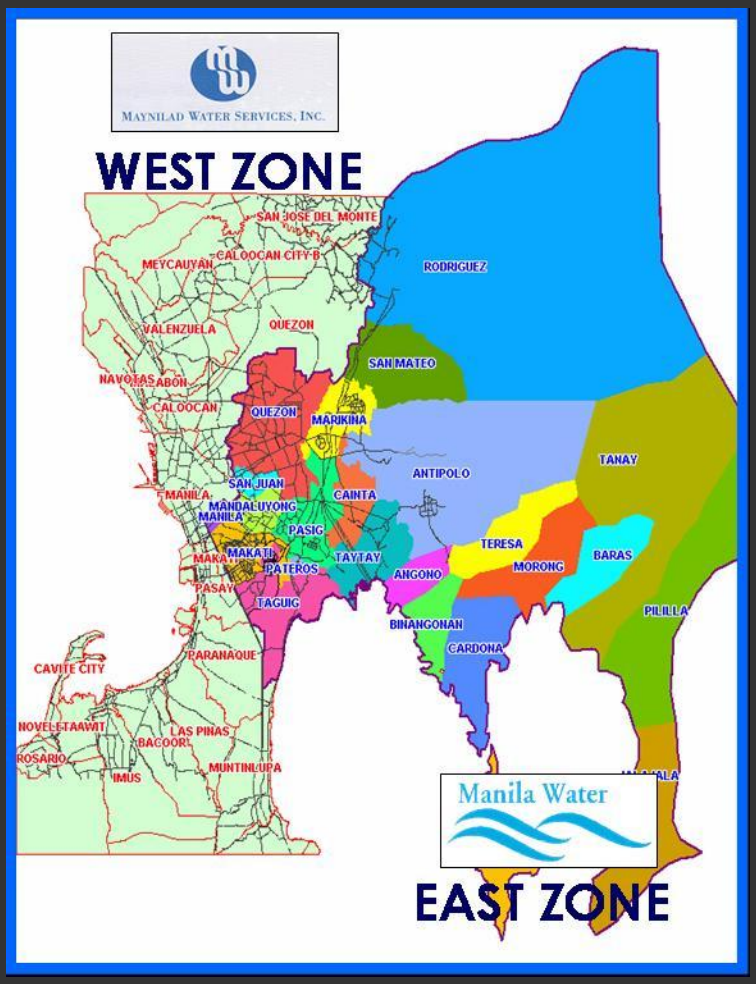
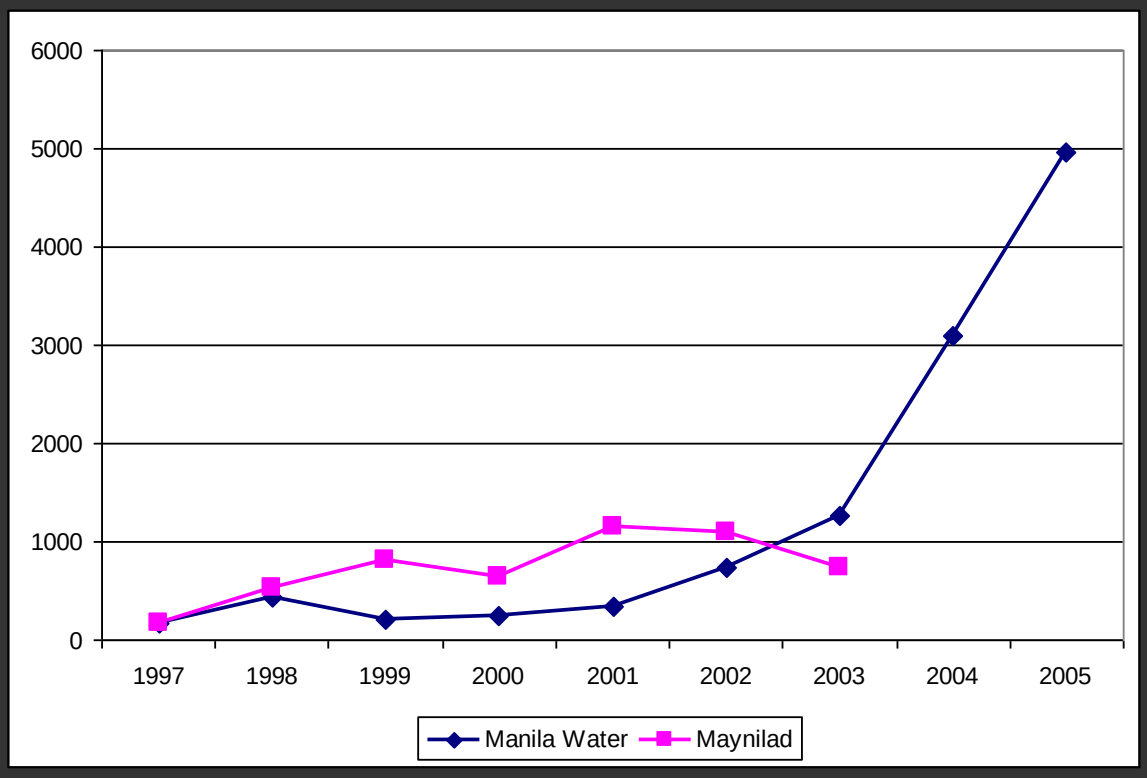
Figure 1. Service areas of Maynilad and Manila Water



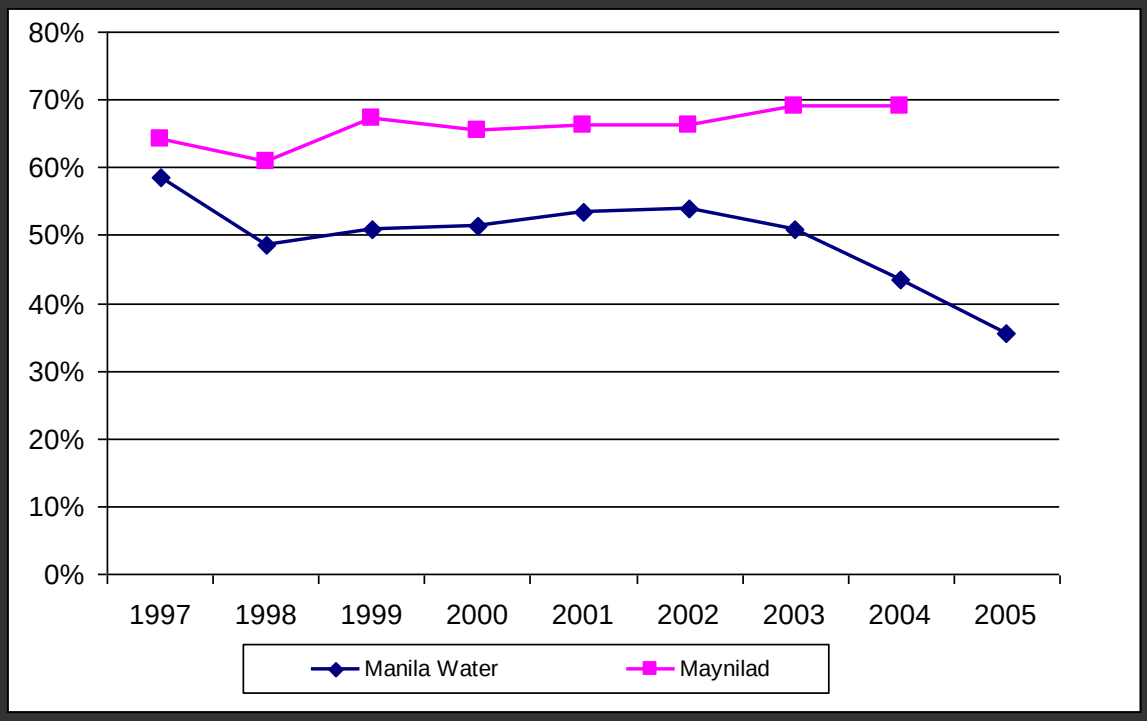
Source: MWSS

Figure 2: Capital expenditures, Manila Water and Maynilad



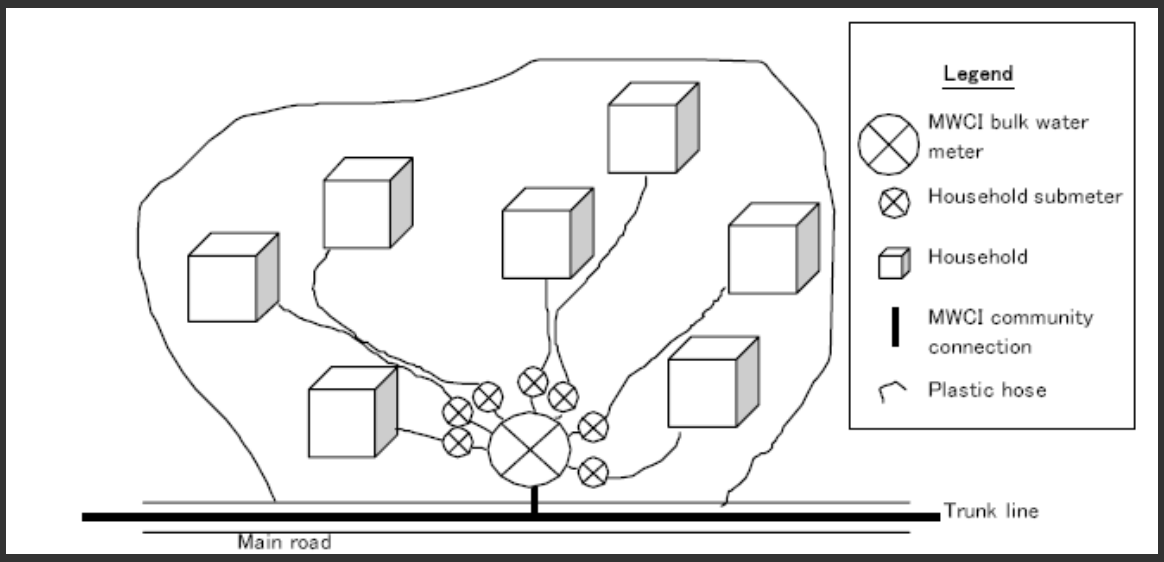
Source: MWSS Regulatory Office

Figure 3. Nonrevenue Water (NRW), Manila Water and Maynilad



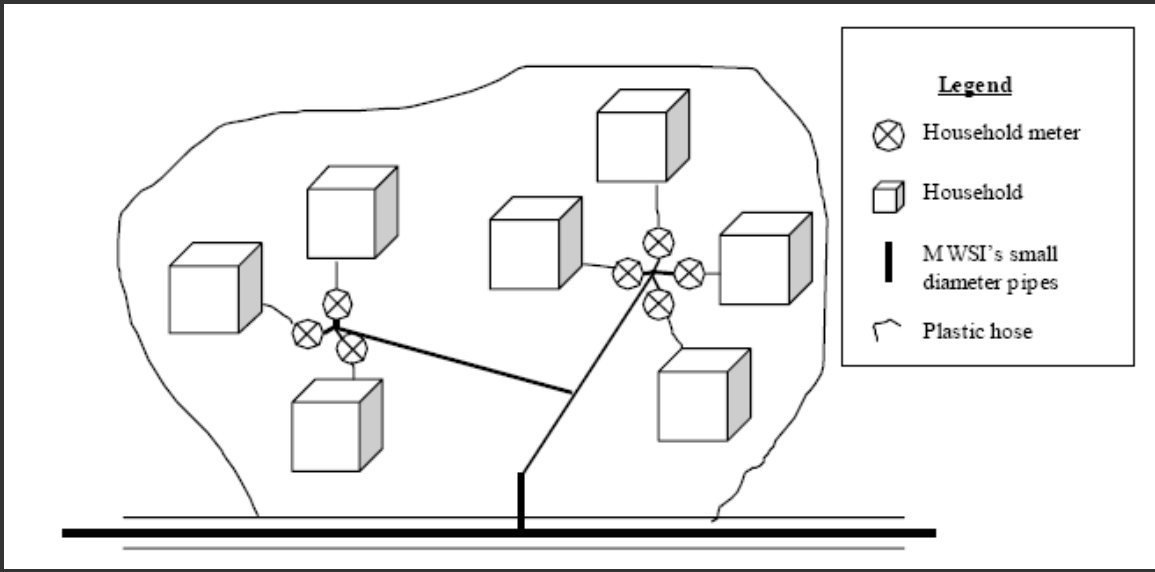
Source: MWSS Regulatory Office

Figure 4.Service expansion mode for Community for Water Program at Manila Water



Source: UTCE and Japan PFI Association, 2004

Figure 5.Service Expansion Mode for Community for Water Program at Maynilad



Source: UTCE and Japan PFI Association, 2004

Table 1. MWSS service compared to other major Asian cities, 1996

City	Population (millions)	Water availability (hrs/day)	Water coverage (% of pop)	Nonrevenue water (NRW) (% of production)	Staff/1000 connections
Manila	10.6	16	58.7	63	9.8
Singapore	3.0	24	100	7	2.0
Hong Kong	6.3	24	100	36	2.8
Seoul	10.6	24	100	35	2.3
Kuala Lumpur	1.4	24	100	36	1.4
Bangkok	7.3	24	82	38	4.6

Source: Second Water Utilities Data Bank, Asian and Pacific Region, Asian Development Bank, October 1997.

Table 2. Bids received, and winning bids

Pre-Privatization Rate	**Php 8.56**
West Zone	**Bids**
Ayala–International Water	Php 2.5140
Benpres–Lyonnaise des Eaux (Maynilad)	Php 4.9688 **Winning bid**
Aboitiz–Compagnie Générale des Eaux	Php 4.9941
Metro Pacific–Anglian Water International	Php 5.8738
East Zone	Bids
Ayala–International Water (Manila Water)	Php 2.3169 **Winning bid**
Aboitiz–Compagnie Générale des Eaux	Php 5.5209
Metro Pacific–Anglian Water International	Php 5.6638
Benpres–Lyonnaise des Eaux (Suez)	Php 6.1275

Table 3. History of Tariff Rates before and after Water Privatization (Php per cubic meter)

	Average Base Tariff		Average All-in Tariff*	
Pre-privatization	8.56		*8.78*	
Post-Privatization	Manila Water	Maynilad	Manila Water	Maynilad
1997-1998	2.32	4.96	4.02	7.21
1999	2.61	5.80	4.37	8.23
2000	2.76	6.13	4.55	8.63
2001	2.95	6.58	4.78	9.17
2002	4.51	11.39	9.37	19.92
2003	10.06	11.39	13.38	19.92
2004	10.40	11.39	14.00	19.92
2005	13.95	19.72	18.55	30.19
2006	14.94	21.12	19.73	32.34

Source: MWSS Regulatory Office

*All-in Tariff=Base Tariff + CERA (Currency Exchange Rate Adjustment) + FCDA (Foreign Currency Differential Adjustment) + EC (Environmental Charge) + VAT (Value Added Tax)

Table 4. Operating costs, Maynilad and Manila Water (2000)

	Manila Water	Maynilad
Average annual staff wage (Php)	304,673	403,674
Utilities cost (Php/m^3 billed)	0.37	0.15
Services (Php/m^3 billed)	0.23	0.26
Chemicals (Php/m^3 billed)	0.13	0.17
Materials and supplies (Php/m^3 billed)	0.13	0.17

Data Source: MWSS Regulatory Office

Table 5. Comparison of costs in Maynilad and Manila Water

	OPEX*/BWV** (Php per cubic meter)		Personnel cost/BWV (Php per cubic meter)		Nonpersonnel cost/BWV (Php per cubic meter)	
	Manila Water	Maynilad	Manila Water	Maynilad	Manila Water	Maynilad
1997	7.20	6.43	4.10	4.93	3.10	1.50
1998	6.15	5.15	2.64	4.79	3.50	2.36
1999	5.12	7.03	2.33	4.65	2.78	2.38
2000	4.79	6.70	2.17	4.17	2.63	2.53
2001	4.52	7.20	1.87	3.48	2.65	3.72
2002	5.06	9.47	2.33	4.30	2.73	5.17

Data Source: MWSS Regulatory Office

*OPEX: Operating Expenditure
**BWV: Billed Water Volume