


CHAPTER 13

Can Regulation Improve the Performance of Government-Controlled Water Utilities?

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This chapter provides evidence for whether or not regulation can improve the performance of government-owned water utilities. While other studies have examined whether private participation combined with regulation can improve the performance of government-controlled water utilities, there has been little research on whether regulation alone can improve performance.

This chapter examines five case studies on water utility reform in Latin America and the Caribbean. In each case study, a regulatory regime designed for private companies was applied to a government-controlled utility. Assessing performance across a number of indicators, the evidence shows that performance was as likely to deteriorate as to improve during periods of regulation of government-controlled utilities. This contrasts with the evidence of improvement following reforms that combined regulation with private participation. The findings suggest that conventional regulation may be of little use in government-controlled utilities. Conventional regulation is designed to prevent a profit-maximizing utility from raising tariffs above reasonable cost-recovery levels. Government controlled utilities, however, are not commercially motivated and face systematic incentives for short-termism in tariff-setting.

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ability of the regulatory system to protect consumer interests against the potential abuse of political and corporate power. Third, the complexities of shifting regulatory roles over time were not given sufficient attention, which resulted in large gaps between the RO's regulatory capacity and its increased regulatory discretion after the first rate rebasing.

Against the backdrop of these systematic flaws in the design of the regulatory system, the RO's overall effectiveness as a guardian of the concession agreements in the initial years after water privatization, was respectable. The case against Manila Water regarding determination of the appropriate discount rate (ADR) demonstrated the RO's strong commitment in protecting the integrity of the concession contracts. The collapse of Maynilad, cited by opponents as evidence of the failure of water privatization in Metro Manila (Water for the People Network Asia, 2006; Freedom from Debt Coalition, 2010), can in rebuttal be interpreted as a success for the RO in weeding an inefficient operator from the system. The substantial disallowances handed down to the concessionaires in the first rate rebasing exercise, demonstrated the RO's strong will and ability to hold concessionaires accountable for the commitments made in their original bids.

In comparison, RO's performance in recent years points to an urgent need to reexamine its regulatory mechanisms and capacities as the regulatory system has tacitly shifted towards discretionary regulation. Although the RO and MWSS have proclaimed the second rate rebasing exercise to be a general success, the regulatory mechanisms employed may entail high-risks of regulatory capture. The second rate rebasing's reliance on a system of KPIs and BEMs as the dominant regulatory mechanism, along with the RO's failure to apply intensive scrutiny to the target KPIs and BEMs proposed by the concessionaires, raises concerns about the agency's effectiveness in exerting pressures on concessionaires to improve efficiency by harnessing the potential of discretionary regulation.

It might be impractical to overhaul the entire regulatory system, but our analysis provides insights into two potential remedies within the existing system. First, a fundamental shortcoming in the current regulatory system is that the RO's limited independence in regulatory decisions is overpowered by the dominance of a single political actor: the president of the Philippines, who appoints members to the MWSS-BOT. Greater transparency in the making of regulatory decisions might provide the RO with an operating environment in which, other key stakeholders can be brought in to balance the influence of the dominant political actor. A high-level of resistance to the decision to extend the concession contracts in 2009 might have surfaced had a technical analysis of the ramifications of contract extension been made available to the public and to civil society groups.

Second, the RO's ability to benchmark the performance of the two concessionaires has become increasingly important as the regulatory system moves towards discretionary regulation. It is essential that the RO step up its efforts to address both information gaps and the shortfall in technical expertise. Innovative thinking is required to exploit the opportunity of having two concessionaires at hand to promote yardstick competition, as the RO did successfully in the first rate rebasing. Establishing an operational linkage to the National Water Resources Board, especially in the area of standardization of information collected from water utilities, would be fruitful in strengthening the RO's regulatory capacity by broadening the scope of yardstick competition.

References


highly-technical nature. The RO’s regulatory expertise could have played a more decisive role in averting such an outcome had the agency been endowed with more regulatory independence.

8. Conclusions

Water privatization in Metro Manila was highly-controversial in 1997 when water supply and sanitation services were privatized, and more than 10 yrs later, public perceptions and scholarly opinions regarding water privatization continue to be sharply divided. Supporters of water privatization point to the significant increase in coverage, the reduction of nonrevenue water (NRW) distribution, and improvement in water quality as evidences of success (Infrastructure Advisory Services, 2010; Wolf, 2007), but critics argue that water privatization has largely failed due to substantial rate increases, the collapse of one of the two concessionaires (Maynilad), and shortfalls in coverage against concession agreements (Freedom from Debt Coalition, 2010; Water for the People Network Asia, 2006; Esguerra, 2003; Bernhardt, 2005; Hall et al., 2004). However, despite voluminous literature on water privatization in Metro Manila, little is known about the role of the design and evolution of the concomitant regulatory system in determining the outcomes of the privatization. Our analysis of major regulatory decisions since 1997, when privatization was instituted, has attempted to shed some light upon this critical aspect.

Our analysis suggests that the challenges facing the RO in dealing with privatized water utilities under concession contracts were grossly underestimated in the design of the regulatory system, in both the contexts of contract in completeness and of almost inevitable contract renegotiations. First, institutional arrangements, along with rules and guidelines for contract negotiations, were not specified, which resulted in confusion in regulatory responsibilities, inconsistency in regulatory decisions, and opportunistic behaviors by the concessionaires. Second, the RO’s regulatory independence was not structured carefully in light of the political environment in which the regulatory system was situated. Rushed by the need to complete the privatization process in one year (as mandated by the Water Crisis Act of 1995), framers of the regulatory system made compromises that deprived the RO of statutory independence and crippled the
performance were based on target KPIs and BEMs that had been continuously monitored by the RO. The regulators, on their part, found no major cause for disallowances; in fact Manila Water was even rewarded for surpassing its targets. As a result of this highly-"successful" rate rebasing exercise, all MWSS and RO employees were rewarded with huge bonuses.

The second exercise exposed some potential flaws in the design of the regulatory system. First, although discretionary regulation is required for rate rebasing exercises, the regulatory system is not provided with the independence imperative for discretionary rulings. Second, some challenges stemming from the RO's changing regulatory roles after the first rate rebasing did not receive sufficient attention. The determination of KPIs and BEMs does potentially offer the RO an opportunity to exercise its regulatory discretion, but because the RO's mode of operation has not moved beyond the monitoring roles specified in the concession contracts, this opportunity has not been fully-utilized. Ultimately, the agency has not been equipped with the regulatory capacity necessary to support discretionary regulation. Determining "efficiently and prudently" incurred expenditures and "reasonable" rates of return for concessionaires would be challenging tasks even for regulators in developed countries, and it must be remembered that the RO was established primarily to monitor basic, not discretionary, enforcement of the contracts.

7. Contract Extension and Political Interference

Political interference is almost a given in the regulatory system for water privatization in Metro Manila, as all members of MWSS-BOT, the ultimate decision-making body in the regulatory system, are political appointees confirmed by the president of the Philippines. In a democratic system such as the Philippines, such political interference may be offset by other political forces. For instance, although Maynilad was able to extract favorable terms from MWSS in its original rehabilitation plan in 2003 (commonly known as the Second Amendment to the concession contract) through the support of former President Gloria Macapagal-Arroyo, the plan was not approved owing to pressures from opposition politicians and civil society, forcing Benpres and its partner to take larger losses than had been hoped. A recent regulatory decision to award the concessionaires an extension of their contract agreements for another 15 yrs, however, has demonstrated that political interference can be outright destructive for regulatory decisions that are highly-technical and will have long-term impacts.

Manila Water has begun seeking contract extension once it became listed on the Philippine Stock Exchange in 2005, because its share price will naturally come under tremendous pressure as the expiration date of its concession contract approaches. The firm submitted in 2007 a proposal for extension during the second rate rebasing exercise, scheduled for 2008, but this was dismissed outright by the RO on the basis of a clause in the concession contracts that requires the rebidding process to be conducted when the contracts expire, i.e., in 2022. Moreover, after having battled with concessionaires on numerous occasions over interpretations of the terms in the contracts, regulators also felt that some key provisions and costly omissions can only be adequately redressed through contract revisions which may not be possible within the existing contract period. For example, the existing contracts do not cap the rate of return, the key to the cost-of-service regulation in rate rebasing exercises, an oversight which has led to disputes regarding interpretations of ADRs. The justifications provided by the RO in rejecting the contract extension proposal would seem perfectly sensible to scholars and practitioners familiar with the regulation of network infrastructure where monopoly is inevitable.

Manila Water could not have found better chances for reopening the discussion of contract extension than those that emerged after the second rebasing exercise. Amid financial crisis and looking towards an election year, President Arroyo made it clear to MWSS that no tariff increase recommended through the second rate rebasing exercise could be implemented in 2009. However, postponing the implementation of rate increases, would make it very difficult for the concessionaires to meet their operation targets; this was especially so for the new, post-crash Maynilad, which inherited sizeable debts and other financial obligations from its

12 Based on an interview with Dr. Felipe Medalla.

13 Based on an interview with a senior official in the RO.
its performance in NRW reduction and service expansion substantially. On 18 March 2005, Manila Water was listed on the Philippine Stock Exchange as the first IPO in the Philippines after the Asian financial crisis.

However, the completion of the first rate rebasing exercise, fundamentally altered the regulatory roles of the RO, which had used the concession agreements as its primary regulatory mechanism in dealing with the concessionaires as well as with other key stakeholders. Although the expansion targets and other service obligations specified in the original contracts might still be enforced, the tariff adjustments necessary for achieving those targets would be subject to discretionary decisions by the RO, based on "efficiently and prudently" incurred expenditures and a "reasonable" rate of return for concessionaires. How to exert pressure upon concessionaires to continuously improve efficiency without a competitive bidding process became a new challenge for the RO.

The RO has responded to this challenge by introducing a system of key performance indicators (KPIs), and business efficiency measures (BEMs). These measures established baselines that could be referred to subsequent rate rebasing exercises and also enabled the agency to monitor concessionaires’ performance continuously so as to avoid politically costly showdowns during rate rebasing exercises (Table 5). The concessionaires have embraced these changes wholeheartedly, because staying on track with KPIs and BEMs minimizes the possibility of major surprises during rate rebasing exercises. Most importantly, any potential adjustments to KPIs and BEMs can be made through negotiations with the RO behind the scene on an incremental basis, rather than enforced reconciliations of differences during politically-charged rate rebasing exercises. In practice, the targets for KPIs and BEMs were primarily based on proposals made by the concessionaires and in that sense might be presumed "realistic and feasible."11

As expected, the second rate rebasing exercise, conducted in 2008, was much less eventful than the first. Medalla, who played an advisory role in the 2008 rate rebasing exercise, found that the second rate rebasing was "many times easier" than the first one, because the assessments of

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11 Based on an interview with a senior official from the RO.
bidding process. On the basis of calculations conducted by the rate rebasing team, the RO recommended a tariff of P17.00 per cubic meter for Manila Water, slightly lower than the P19.54 per cubic meter requested, and P26.75 for Maynilad, in this case substantially lower than the P34.72 per cubic meter requested. The disparities in tariffs requested and granted, primarily reflected disallowances in the concessionaires’ opening cash positions as well as projected future operating expenditures and capital expenditures. The disallowance amounted to P2.77 billion for Maynilad, compared to only P643 million for Manila Water, which suggests that the rate rebasing team regarded Maynilad’s operations as grossly inefficient (Table 4).

Not surprisingly, the RO’s decisions on tariff adjustments were accepted by Manila Water but acutely contested by Maynilad, which argued (via the concession contract’s first amendment) that major bid assumptions had been superseded by unanticipated exogenous factors and that the bases for disallowances in future cash flows were not specified in the concession agreements. After several failed attempts at reconciling the differences, Maynilad took the case to the Appeals Panel, which ruled in favor of the RO. Maynilad was given a lifeline through the first amendment, but MWSS-BOT and its political masters did not actively intervene on its behalf, not only because of public pressures but also because there were clear indications that Maynilad was looking for a way out. By holding the concession accountable for its commitments, the first rate rebasing accelerated the eventual downfall of Maynilad.

Overall, the first rate rebasing demonstrated both the strengths of the concession contracts as regulatory mechanisms and the effectiveness of the RO in enforcing them. The disallowances imposed on Manila Water, the more efficient operator, indicated that the RO was able to exert pressures on private sector operators in a monopoly position, in order to improve efficiency. The strategy of dividing MWSS service areas into two zones, which had been introduced during the design phase of the privatization plan, seemed to have paid off as benchmarking, allowed the RO to defend its technical assessments more rigorously against various accusations made by Maynilad. The rate rebasing also provided financial incentives for concessionaires to make necessary investments. The significant rate increases awarded to Manila Water allowed the firm to improve

| Table 4: Summary of recommendations for Manila Water and Maynilad |
|---------------------------------|-----------------|-----------------|-----------------|
| PH19.54 billion .................. | PH26.75 million ........ | PH34.72 per cubic meter |
| PH19.54 per cubic meter ........ | PH26.75 per cubic meter .... | PH34.72 per cubic meter |
| PH19.54 per cubic meter .... | PH26.75 per cubic meter .. | PH34.72 per cubic meter |
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| PH19.54 per cubic meter | PH26.75 per cubic meter | PH34.72 per cubic meter |
| PH19.54 per cubic meter | PH26.75 per cubic meter | PH34.72 per cubic meter |


ADR for historical cash flows
Disallowance on historical cash flows per cubic meter
Disallowance on future cash flows per cubic meter
Future OPEX per cubic meter
Future CAPEX per cubic meter
Tariff implication (weighted average of all-in tariff throughout concession life)
the concessionaires' ability to bypass and undercut the RO's rulings by lobbying with politicians. Regulatory independence embedded in the design of the regulatory system, failed to protect the regulatory agency from opportunistic behaviors on the part of the concessionaires. Moreover, although the funding arrangements for financing the RO through concession fees paid by concessionaires might indeed make the agency independent from the state treasury, the financial dependence on concession fees could create a bias against contract termination.

6. Rate Rebiasing Exercises and Changing Regulatory Roles

The regulatory mechanisms applying to the two concessionaires in Metro Manila represent a hybrid of cost-of-service regulation and price-cap regulation (Fabella, 2006). The concession agreements may have been able to hold the concessionaires accountable to their bidding rates for the first five years, with tariff adjustments permissible only for inflation and other extraordinary circumstances. But the tariff levels and their structure are subject to review every five years, for rate rebasing exercises, to ensure that concessionaires' operating and capital expenditures are efficiently and prudently incurred and also recoverable over the term of contract, and that they earn a reasonable rate of return (the ADR). The determination of "efficiently and prudently incurred" expenditures and "reasonable" rate of return requires an extensive and judicious use of discretionary powers that is different from Anglo-American regulatory systems featuring discretionary regulation.

According to the concession agreements, the RO holds the discretion to conduct its first rate rebasing exercise 10 yrs after the inception of concession agreements, which would have allowed plenty of time for the agency to develop the necessary regulatory capacity. Indeed, regulatory capacity was quite weak in the first few years after privatization. The regulators did not have any background experience in water regulation other than a seminar they attended on water regulation 1997, in Florida.\(^9\) However, as a part of the contract amendment negotiated between MWSS and the concessionaires, the RO was obligated to conduct the first rate rebasing exercise on 1 January 2003. Ready or not, the agency had to take on the challenges.

The RO contracted UPecon Foundation, a corporate arm of the University of the Philippines School of Economics, to conduct this first rate rebasing exercise. The decision to outsource a major regulatory function, due in part to the RO's inadequate regulatory capacity, was more importantly intended to lend credibility to the rate rebasing in view of the RO's lack of independence. The rate rebasing team was headed by Felipe Medalla, a respected academic from the University of the Philippines. Medalla is also a prominent figure in the political scene, having served his term as Cabinet Secretary for Socio-Economic Planning and Director-General of the National Economic and Development Authority from July 1998 to January 2001. UK-based Thames Water International Services was subcontracted to conduct technical analysis, and Zambrano & Associates, an Ecuador-based law firm, was selected to deal with legal matters.

Medalla and his team were confronted with immense challenges in the undertaking. First, the concession agreements themselves were incomplete and vague in many respects. For instance, although a schedule of coverage targets existed, the contracts contained no definition of coverage. Nor was NRW, an important parameter in the rebasing exercise, covered in the service obligation section of the concession agreements. Second, benchmarking was essential to distinguish between expenditures that were incurred "efficiently and prudently" and those that were not, but information about efficiency levels of large water utilities elsewhere was either unavailable or not comparable for Metro Manila.\(^10\) Third, the information required of concessionaires for rate rebasing was not clearly specified in the concession contracts, and technical submissions by the concessionaires were not standardized. Despite numerous requests made by the rate rebasing team, Maynilad did not submit crucial technical information.

The rate rebasing team developed a formula based on its interpretation of the parameters of the concession agreement, essentially benchmarking the concessionaires against financial models used in the

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\(^9\) Based on interview with a senior official in the RO.

\(^10\) Based on an interview with Dr. Filippe Medalla.
owner, as well as its political master, which considered contract cancellation to be politically unacceptable. An ad hoc team in MWSS was set up to negotiate a solution to the standoff, and on 5 October 2001, MWSS and Maynilad agreed to amend the concession agreement (Amendment No. 1), allowing Maynilad to increase its tariff by P4.71 per cubic meter in order to accelerate the recovery of its foreign exchange losses within a period of 18 months, instead of spreading it over the term of the contract. In addition, targets for expansion were also adjusted downward in the contract amendment so that the two concessionaires could reduce their capital expenditure requirements in the early years of operation. The big winner emerging from Amendment No. 1 was Manila Water, which saw its tariff raise from P5.10 to P9.37 per cubic meter by symmetric treatment without incurring any damages to its public image.

Although Amendment No. 1 seemed to be imperative to avoid a termination of the contract agreement between MWSS and Maynilad, in retrospect, the two parties would have been better off had the contract terminated when Maynilad stopped paying its concession fee. Although Maynilad was able to secure rate increases to fast-track the recovery of its foreign exchange rate losses through contract renegotiations, the tariff increase granted by the first amendment failed to save the financially troubled firm, primarily because, some fundamental problems internal to the firm, such as inefficient operations and bad investments, remained unsolved (Chiplunkar et al., 2008). In December 2002, Maynilad filed a notice of termination of its concession contract, blaming the lack of efforts by the government to cooperate with the firm in sustaining its operation in the West Zone, and sought the reimbursement of more than US$303 million that it claimed to have invested. Bankruptcy was formally declared in November 2003, after an international arbitration panel ruled in favor of MWSS. Court documents showed that Maynilad had accumulated unsecured liabilities of P17.4 billion against recoverable assets of only P2.4 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.

The public sector and consumers also suffered dearly in the fallout from Maynilad’s collapse. The government was blamed for conceding too much to the demands of the financially-troubled concessionaire during contract renegotiations. The unpaid concession fees had accumulated to more than P6.8 billion by the end of 2003, forcing MWSS to assume short-term loans to service the debts. Most importantly, West Zone consumers were also at the losing end of the chain. About 80% of the population had received continuous service by 2001, but half of these customers suffered from intermittent service by 2005, when the contract was terminated (Marin, 2009). Eventually the costs of contract cancellations would be shouldered by the consumers for many years to come.

Although the RO had initially tried to defend the integrity of the concession contracts, it eventually played a supporting role in MWSS-BOT actions during the contract renegotiations, providing tariff computation for alternative scenarios. As the designated regulatory agency and the only agency with technical expertise and capacity in regulatory decisions, the RO — willing or not — found its responsibilities extending beyond the roles intended for it at the inception of privatization. The regulators came to realize that the effectiveness of their work was (and is) not only measured by the extent to which the original contract agreements are enforced, but also assessed by whether they can find “workable” solutions in changing circumstances; contract agreements should thus be regarded as living documents rather than a bible.

Although contract renegotiations may seem imperative given changing circumstances and the high-costs of contract termination, the contract renegotiations that occurred in this case exposed some weaknesses in the design of the regulatory system. First, the institutional arrangements, along with rules and guidelines for contract negotiations, were not specified, resulting in both ad hoc decisions and long delays in conflict resolution. For example, the acceleration of recovery of losses from peso depreciation was granted for Maynilad, yet a similar request by Manila Water had been rejected two years before. Second, the credibility of the regulatory agency in dealing with the concessionaires was undermined by

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7 Based on an interview with a senior official from the RO.

8 Based on an interview with a senior official in the RO.
and shall make adjustments to such estimates to reflect country risk, exchange rate risk and any other project risks. The Regulatory Office, at its sole discretion, may consider the Concessionaire's rate of return, either stated or implied in its bid, in determining the Appropriate Discount Rate.

The second sentence of the provision can be used to support Manila Water's position, but the last sentence is in line with the position espoused by the RO. The Appeals Panel ruled that the correct ADR should be current-market-driven, as argued by Manila Water. The position taken by the Appeals Panel suggests that more importance was attached to the word shall in the second sentence instead of the word may in the last sentence. However, the panel computed the market-driven ADR to be 9.3% higher than the rate implied in the contract but lower than what was applied for by Manila Water; the allowed adjustment was P0.18 per cubic meter from the charging year to the end of the contract. The RO subsequently launched a petition with the Court of Appeals, but the Appeals Panel's decision was upheld.

Regulators may have been disappointed at the final outcomes of the conflict with Manila Water with regard to determination of ADR, but the incident in fact vindicated the RO's role, despite its many noticeable shortcomings, as a vital actor in regulating the concessions. The credibility of the RO as a guardian of contracting agreements was strengthened as a result. Reflecting on key lessons from the lengthy and costly process in the determination of ADR, Aquino stressed the importance of the concessionaires' establishing a good working relationship with the RO, instead of treating it as an adversary and relying on the Appeals Panel to solve disputes.⁶

5. The Contract Amendments and the Real Costs of Contract Renegotiations

Even if Manila Water, in the East Zone, could forgo an acceleration in cost recovery to offset peso depreciation in the wake of the Asian financial crisis, Maynilad in the West Zone did not have that luxury. First, depreciation of the peso affected Maynilad much more deeply than it affected Manila Water. Based on an assumption that higher investment per capita would be required by the East Zone compared to the West Zone, the debts inherited from MWSS (mostly denominated in foreign currencies) had been allocated at a 90:10 ratio between the West Zone and the East, such that a disproportionately high-percentage of the financial impacts of peso depreciation fell on Maynilad in the West.

Second, Manila Water was able to make some critical adjustments in response to the financial crisis, such as considerably scaling down the capital expenditure plan based on its bid. However, Maynilad, had been more aggressive initially in making capital investments to meet service expansion as specified in the contract agreement; but these capital expenditures had failed to improve the concession's operational efficiency and its financial condition (Wu and Malaluan, 2008). For example, the NRW had actually increased after Maynilad took over the West Zone (Regulatory Office, 2002).

Third, Benpres, the local partner in Maynilad, was under financial stress. In 2000, Benpres reported net losses of P353 million, causing significant concern among banks targeted by Maynilad for financing. As a result, Maynilad was not able to close a US$350 million term loan which it desperately needed to weather the storm of the Asian financial crisis.

Fighting for its financial survival, Maynilad pinned its hope on accelerating the recovery of its foreign exchange losses, which had accumulated to P2.664 billion since 1997. In October 2000, Maynilad filed a petition for an accelerated EPA, similar to the one requested by Manila Water two years earlier. The RO rejected this proposal, as such adjustment is specifically prohibited in the concession agreements, and it only granted Maynilad an EPA of P0.26 per cubic meter to spread out the impacts of peso depreciation over the remaining duration of the contract. Maynilad was in despair, declaring force majeure on 8 March 2001, on the ground that none of its concerns was substantially addressed by MWSS or the RO, and it unilaterally decided to stop paying concession fees. The concession agreement for the West Zone was on the verge of cancellation.

The RO considered its regulatory discretion to be bounded by the concession agreements, but this was not the case with MWSS, the asset

⁶ Based on an interview with Mr. Antonino Aquino.
decision-making power granted to the MWSS-BOT, along with its composition, paves way for political influence in regulatory decisions, as endorsement from the president and the cabinet is a critical factor in determining key regulatory actions.\(^4\) One conspicuous flaw in the regulatory system is the lack of consumer representation in the MWSS-BOT.

Under this regulatory system, the roles of the RO remain unclear. On one hand, it is mandated to monitor compliance with rules and terms specified in the contracts, but on the other hand, it is also tasked with altering these same rules and terms when contract agreements are being renegotiated between MWSS and the concessionaires (Ehrhardt et al., 2007). The conflicts between these two roles not only weaken the RO’s credibility and legitimacy in dealing with the concessionaires but also lead to considerable confusion even among staff within the RO itself (Landingin, 2003).

4. Determination of Appropriate Discount Rate (ADR) and Contract Incompleteness

The first serious challenge to the RO as a newly-established regulatory agency came much earlier than expected. In March 1998, less than a year after MWSS was privatized, Manila Water requested a rate increase of P3.23 per cubic meter (an enormous amount, considering its bidding rate) under the Extraordinary Price Adjustment (EPA) clause in the concession agreement. This petition was triggered by two “extraordinary circumstances”: the substantial devaluation of the peso following the Asian financial crisis, and the drastic reduction of available water in the Angat Reservoir that supplies 97% of Metro Manila’s water needs resulting from extreme droughts due to the El Niño phenomenon in 1997–1998. Two critical provisions lay at the heart of Manila Water’s proposal for the rate increase: an Appropriate Discount Rate (ADR) of 18%, and a front-loading of the recovery of losses on account of extraordinary circumstances over the first four years.

The RO acknowledged the extraordinary circumstances but found that the calculations in Manila Water’s proposal were not in compliance with the concession agreement. First, the front-loading of recovery of losses over the first four years was disallowed under the concession agreement, which clearly states that the impacts of any such adjustment should be spread out from the charging year up until the end date of the contract. Second, the 18% ADR in Manila Water’s application was substantially higher than the ADR implied in its original bid (which was 5.2%, according to RO’s calculation) and therefore, allowing such an adjustment in the ADR would be equivalent to granting Manila Water, the opportunity to scale down the commitment it had made in winning the concession agreement in the bidding process, and thus, would potentially undermine the integrity of the bidding process. On these considerations, the RO granted P0.04 per cubic meter, or only 6% of the increase sought by Manila Water.

Unsatisfied with this decision, Manila Water brought the case before the Appeals Panel in September 1998. According to Manila Water, the 5.2% rate of return in its bid was based on “unleveraged equity”; i.e., no debt was taken on. Antonino Aquino, the CEO of Manila Water at the time, argued that the ADR should be based on “the market-based weighted cost of capital” to account for the cost of borrowing, not on unleveraged equity, and that the Asian financial crisis has “made the ADR higher than what it might have been in the past.”\(^5\) However, interestingly, Manila Water had voluntarily lowered its requested rate increase from P3.23 to P0.52 per cubic meter by the time it took the case to the Appeals Panel (Fabela, 2006).

The dispute over ADR was fueled in part by an ambiguity in the contract that left both positions arguable. The concession agreement defines ADR as follows:

“Appropriate Discount Rate” means, at any time, the real (i.e., not inflation adjusted) weighted average cost of capital (after taxes payable by the concession business). In determining the Appropriate Discount Rate, the Regulatory Office shall apply conventional- and internationally-accepted methods, and in particular, shall make estimates of the cost of debt in domestic and international markets, the cost of equity for utility businesses in the Philippines and abroad

Beyond the concession agreements, the regulatory power of the RO is confined by three features of the regulatory system for water privatization in Metro Manila. First, because it was established by virtue of the concession agreements, the RO has no legal or statutory independence (Fabella, 2006). The option of setting up an independent regulatory agency by legislation was initially contemplated by the government, but it was anticipated that more than a year would be required to complete the legislative process and build the political compromises necessary for passing the legislation, a delay that could potentially undermine the entire privatization process. Instead, a "semiautonomous" RO was introduced as an "intermediate step."\(^2\)

Second, after the concessionaires took over, RO did not become independent from MWSS, the asset owner and contracting party for the concession agreements. Regulators are appointed by the MWSS Board of Trustees (MWSS-BOT), which must also approve all RO budgets. More importantly, RO decisions require the approval of the MWSS-BOT, which holds the veto power for any regulatory decisions that the RO might render (Fabella, 2006). Because of this arrangement, the RO has never been regarded by concessionaires as a neutral body that can provide them a fair hearing.\(^3\)

Third, the Appeals Panel, an arbitration body created under the concession agreements to settle disputes that cannot be resolved through consultation and negotiation, also exercises regulatory functions of an appellate character. It is composed of three members, including a chairman appointed by the International Chamber of Commerce, one representative nominated by the concessionaires, and another by the RO. The Appeals Panel can overrule the regulatory decisions made by the RO, and its decisions are considered final.

The regulatory system described above, opens the door for political interference while creating considerable tensions and conflicts between the RO and the concessionaires. The MWSS-BOT is composed of nine members, all appointed by the president of the Philippines. The ultimate

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1 Based on an interview with Dr. Felipe Medalla, former Cabinet Secretary for Socio-Economic Planning and Director-General of the National Economic and Development Authority (1998–2001).
2 Based on an interview with a senior official in the RO.
3 Based on an interview with Dr. Felipe Medalla.
Table 2: Water Supply, Sanitation, and Sewerage Coverage Targets for the West and East Concession Areas

<table>
<thead>
<tr>
<th>MAYNILAD WATER SERVICES, INC. (West Zone)</th>
<th>2001</th>
<th>2006</th>
<th>2011</th>
<th>2016</th>
<th>2021</th>
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<td>Sewerage**</td>
<td>3</td>
<td>16</td>
<td>51</td>
<td>52</td>
<td>55</td>
</tr>
</tbody>
</table>

*Expressed as a percentage of the population in the designated city of municipality at the time of the target (excluding users who are connected to a piped source of water other than from the MWSS system). For areas designated by the cities or municipalities as depressed areas, these targets may be met by the installation of one public standpipe for each 475 people.

**Expressed as a percentage of the total population in the designated city or municipality connected to the Concessionaire’s water system at the time of the target.

Source: Concession agreement.

The second outcome stemmed from the extremely low-bids offered by the two winning consortia at the outset, especially the bid by Manila Water that won the East Zone (which was equivalent to merely one-fourth of MWSS tariffs) (Table 3). Although the low-rates obtained through competitive bidding were hailed as an indication of the great success of the privatization process, they became a major source of tensions between the RO and the concessionaires because of the enormous pressure for tariff increases that arose in the wake of the Asian financial crisis. Fabbela (2006) suspects that the winning bidders may have bid very aggressively due to considerations outside the water sector, as both the Lopez and Ayala families were heavily involved in real estate in Metro Manila.

3. The Design of the Regulatory System: Structure and Regulatory Independence

According to the concession agreements, the bid rates were to be established as the standard rates on the date on which the concession agreements took effect, and any subsequent adjustments to tariffs could only be made on the basis of the following considerations:

1. The percentage change in the consumer price index for the Philippines;
2. Any extraordinary price adjustment allowed on the basis of circumstances such as amendments in service obligation, changes in law affecting cash flows, extraordinary currency adjustment, or problems in MWSS project commitments that would materially affect the financial performance of the concessionaire; and
3. Adjustments approved in periodic rate rebasing exercises, to be based on evaluation of the expenditure and operational performance of the concessionaires.

The RO, established as a part of the concession agreements, consists of a chief regulator and four deputy regulators, each responsible for one of the four functional departments — technical, financial, customer service, and administration and legal matters — and has about 60 employees (Figure 3). According to concession agreements, persons previously or currently affiliated with MWSS or the two concessionaires are barred from appointment to office in the RO. The RO is financed by concession fees.
family); Manila Water, a joint venture formed by United Utilities, Bechtel, and Ayala Corporation, won the concession contract for the East Zone.

The decision to privatize the water supply and sewerage service in Metro Manila was primarily driven by the failure of MWSS to expand service coverage to a rapidly growing population. By the time of privatization in 1997, MWSS had only been able to supply water to about two-thirds of residents in its service areas and to provide sewerage connections to less than 10% of households. In general, its services could be characterized by low water pressure and intermittent supply, operating on an average for only 16 hours a day (David, 2000). Unaccounted-for or non-revenue water (NRW) stood at as high as 60% of total water distributed (Table 1). To make things worse, with water supply and sewerage service priced below costs, MWSS had to rely on periodic government subsidies to service its debts, placing a heavy financial burden on the government. Inspired by the success of privatization of urban water utilities in the United Kingdom and Argentina, policymakers in Metro Manila decided that water privatization in their own area could improve operational efficiency, increase investments in the water sector, and end the need for government subsidies (David, 2001).

The Water Crisis Act was passed in 1995 to pave way for water privatization, allowing the government to privatize any or all of the segments, operations, or facilities of MWSS. Modeling the best practices in other countries, in 1996, MWSS increased water tariffs by 38% and cut its workforce by 30%, aiming to boost private sector interest in participating in water privatization and to demonstrate the political commitment of the government (Dumol, 2000; Fabella, 2006). The decision to privatize MWSS was embraced wholeheartedly by international financial institutions. The Asian Development Bank (ADB) provided a technical assistance (TA) grant in 1995 worth US$582,000, to assist MWSS in promoting privatization activities, and the International Finance Corporation (IFC) of the World Bank acted as the transaction advisor for the design phase of the privatization process (David, 2000).

Two requirements were stipulated for the bidding process. First, each potential bidder or consortium had to be composed of a “local sponsor” with majority control and an “international operator” with expertise and a proven track record in the provision of water sector services. These criteria reduced the number of potential bidders from more than 50 to only four. Second, on the advice of IFC consultants, the service areas in Metro Manila were divided into two zones as described above; and it was stipulated that these two zones could not be awarded to a single concessionaire, in order to promote yardstick competition (David, 2000).

The bidders were required to submit a technical proposal that focused on service obligations and other technical requirements, and to state a rate bid expressed as a percentage adjustment to the prevailing MWSS rates. All four consortia met the minimum technical requirements in their technical proposals; the consortia with the two lowest rate bids, Maynilad and Manila Water, won the concessions for West and East zones, respectively. Both concession contracts were to last 25 years, and the targets for improvement in supply continuity, drinking water quality standards, wastewater treatment, and water and sewerage coverage (Table 2). The winning bidders took over MWSS operations on 1 August 1997.

Two outcomes that emerged from the bidding process have since posed significant challenges for the regulatory system over the ensuing years. The first is that local partners in the winning consortia are linked to Lopez (in the West Zone) and Ayala (in the East Zone), two of the top three family conglomerates in the Philippines, both with considerable financial and political clout in the country (Fabella, 2006). The financial health of these conglomerates may have significant impacts on the stability of the national economy, something the regulators have to take into consideration in their regulatory decisions for the metropolitan water concessions.

<table>
<thead>
<tr>
<th>City</th>
<th>Population (millions)</th>
<th>Water availability (hrs/day)</th>
<th>Water coverage (% of population)</th>
<th>Non-revenue water (NRW) (% of production)</th>
<th>Staff/1000 connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manila</td>
<td>10.6</td>
<td>16</td>
<td>58.7</td>
<td>63</td>
<td>9.8</td>
</tr>
<tr>
<td>Singapore</td>
<td>3.0</td>
<td>24</td>
<td>100</td>
<td>7</td>
<td>2.0</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>6.3</td>
<td>24</td>
<td>100</td>
<td>26</td>
<td>2.8</td>
</tr>
<tr>
<td>Seoul</td>
<td>10.6</td>
<td>24</td>
<td>100</td>
<td>36</td>
<td>2.8</td>
</tr>
<tr>
<td>Kuala Lumpur</td>
<td>1.4</td>
<td>24</td>
<td>100</td>
<td>36</td>
<td>1.4</td>
</tr>
<tr>
<td>Bangkok</td>
<td>7.3</td>
<td>24</td>
<td>82</td>
<td>38</td>
<td>4.6</td>
</tr>
</tbody>
</table>

interpretations. More importantly, the financial calculations conducted by the concessionaires during the bidding process proved to be grossly overoptimistic in the wake of the Asian financial crisis, which occurred right after the concessions took effect. With inadequate regulatory capacity and limited regulatory independence, the RO was compelled to find workable solutions to these challenging problems through regulatory actions (Groom et al., 2006).

The predicaments facing the RO in Metro Manila are not unique to regulatory agencies tasked with regulating privatized water utilities under concession agreements in other countries. Thus, its experience may offer valuable lessons for policymakers and regulators elsewhere. First, concession projects are common: during the very recent time frame we studied (and not counting projects canceled during that interval) there were about 278 water concession contracts in active operation, serving 160 million consumers in developing economies alone. Many of these have been under stress due to difficulties in dealing with conflicts in implementing their contracts (Public-Private Infrastructure Advisory Facility, 2010), and lessons from Metro Manila's water privatization experience may help avoid major pitfalls. Second, much of the literature on water privatization around the world, based on case studies, has centered around a debate on the merits of water privatization as a measure of policy reform. Insufficient attention has been paid to the role of regulatory systems in shaping the success or failure of water privatization in a given context. The experience from Metro Manila suggests that the success of water privatization efforts may critically depend upon the performance of regulatory systems. Third, the challenges facing the RO in Metro Manila highlight several fundamental shortcomings of so-called best practices in the design of regulatory systems for PSP in water sector through concessions. Here again, the experience in Metro Manila may point to areas requiring new thinking and creative ideas.

2. The World's Biggest Water Privatization Deal

In January 1997, in what was known as the world's largest water privatization deal, competitive bidding was held to privatize MWSS, a government corporation responsible for water supply and sewerage service to all Metro Manila, as well as to a number of municipalities in adjacent provinces of Rizal and Cavite. The service areas of MWSS were divided into two zones: the concession contract for the West Zone was awarded to Maynilad, a joint venture between Suez Lyonnaise des Eaux and Benpres Holdings Corporation (controlled by the Lopez
privatization. But the relevance and usefulness of these contracts as the primary regulatory mechanism has since declined as the regulatory system tacitly moved towards discretionary regulation. We argue that more emphasis should be placed on transparency and performance benchmarking to improve regulatory effectiveness in the absence of regulatory independence.

1. Introduction

Private sector investments in urban water utilities have been declining in recent years. The World Bank’s Private Participation in Infrastructure (PPI) database shows that the number of new private sector participation (PSP) projects in urban water utilities in 2009 was the lowest since 1995 (Figure 1). More important in the present context, the rate of decline for concessions, accounting for nearly 64% of all PSP projects in urban water utilities from 1990 through 2009, has been much more rapid than the rates for other forms of PSP, such as management contracts, leases, and Greenfield projects. The size of investments committed to concession projects has also declined sharply, from about US$1.6 billion in 1995 to about US$152 million in 2009. New concession projects tend to be highly-concentrated in a few countries such as China and Chile (Marin and Izaguirre, 2006).

Although the recent decline in PSP in urban water utilities by concession might be merely a short slump due to the recent global financial crisis, some recent high-profile cases of early terminations of concession projects — in Puerto Rico in 2003, in El Alto and La Paz, Bolivia, in 2005, and in Buenos Aires, Argentina in 2006 — have been worrisome, especially given that these projects had been in operation for a long period before termination, thus, raising concerns about the long-term sustainability of concession projects in water sectors in developing countries. Examination of these failures points to two intrinsic conflicts in the regulation of privatized water utilities under concession agreements. First, although concession agreements constrain the discretionary power of regulatory agencies, contract incompleteness, widespread and unavoidable in the water sector, calls for more extensive uses of discretionary power. Second, although contract renegotiations may undermine the efficiency gains achieved through competitive bidding processes, the economic costs and political risks of terminating concession contracts can be prohibitively high. The ability of regulatory systems to navigate these conflicts plays a central role in determining the success or failure of concessions in urban water utilities.

This chapter assesses the impacts of these conflicts upon regulatory effectiveness by examining major regulatory decisions made after water supply and sanitation services in Metro Manila were privatized in 1997. A regulatory office (RO) was established as a part of the concession agreements between Metro Manila Water and Sanitation Service (MWSS) and two private concessionaires, and its regulatory role envisioned at the inception of privatization was quite straightforward — to monitor the enforcement of concession agreements — and thus, required limited discretionary power, as mechanisms for tariff adjustments were supposedly clearly specified in the contracts. However, events that followed, have demonstrated that the tasks facing the RO are anything but straightforward. Although the design of the contracts followed best practices at the time, it soon became clear that the contracts were incomplete. Some critical terms, such as the rate of return, were left unspecified, prompting constant battles between the RO and concessionaires about their

![Graph showing private sector participation in water utilities 1995-2009](source: The World Bank and PPIAF, PPI Database)