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**SHIFTING THE BOUNDARY OF
THE STATE:
THE PRIVATIZATION AND
REGULATION
OF WATER SERVICE IN
METROPOLITAN MANILA**

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SHIFTING THE BOUNDARY OF THE STATE: THE PRIVATIZATION AND REGULATION OF WATER SERVICE IN METROPOLITAN MANILA

Raul Fabella

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CHAPTER I

GENERAL INTRODUCTION: SHIFTING THE BOUNDARY OF THE STATE

The privatization of the Manila Waterworks and Sewerage System (MWSS) in Metro Manila, Philippines in 1997 was a landmark in the history of the slowly shifting boundary between the Philippine state and market economy. The state and market boundary debate of great moment in the world economic stage in the 20th century (see, e.g., Yergin and Stanislaw, 1998 for a lively account), started in earnest in the Philippines in the second half of the 1980s and still remains a contentious issue in the Philippine economic and political arena. The years following the collapse of the Marcos regime in 1986 saw the start of the march, if ever so spasmodic, towards greater reliance on the market. By contrast, the decade prior to 1986 saw an ever more aggressive encroachment by the state into the market which proved increasingly disastrous.

A. Softening the Boundary

The 1980s already saw a World Bank-blessed and World Bank loan-motivated unilateral *tariff liberalization*, which quickened in the 1990s with the Asean-CEPT and the WTO. The 1990s also saw a determined *deregulation* effort in the oil, transport and telecommunications industries, which delivered substantial early harvest in consumer welfare. They also reinforced the confidence in the capacity of the market to supplant the state in certain economic endeavors. The Build, Operate, Transfer (BOT) Law and the Power Crisis Act precipitated by the crippling power brownouts paved the way towards a successful address in the mid-1990s of the power crisis through market *procurement* of electric power. That the state should disengage from economic activities where the market has a demonstrated superior competence, or, where state has a demonstrated incompetence, seemed assured in the second half of the 90s. The Asian Financial and Currency Crisis in 1998 reminded all and sundry that market imperfection was endemic, especially in the financial sector, and that *economic regulation* had a very important role to play in the stability of the market economy. But *economic regulation* itself presents a difficult technical and political challenge, especially where the tradition of regulatory independence and transparency are remarkably absent. The experience of MWSS privatization could not be told apart from the *regulation* of the privatized water supply and sewerage service sector that followed.

B. The “Make or Buy” Decision

The general philosophy adopted here is this: the natural economic boundary between the state and the market is determined solely by comparative competence. Where the state is weak, the boundary must move away from the state towards the market. Where procurement via the market is cheaper, by reason of comparative competence, the state should “buy” rather than “make” the good or service it is expected to provide.

If the “make or buy” decision associated with the boundary of the firm is a central question (Williamson, 1975), it is even more crucial in the determination of the boundary of the state where the discipline of the market is seldom a compelling internal influence. If, however, state players begin to acknowledge the contribution of state competitiveness and global benchmarking to better overall comparative economic performance and to identify the latter with winning polities, the shifting of the boundary can result. As Nicole Machiavelli observed in *The Prince*, where the survival of the state was the paramount objective which justified any means, “should show himself a patron of merit and should honor those who excel in every art. He ought accordingly to encourage his subjects by enabling them to pursue their calling whether mercantile or agriculture, or any other...so that a man shall not be restrained from beautifying his possession from the apprehension that they may be taken away from him...or from opening a trade through fear of taxes...” Competition among states leads to an efficiently bounded state.

The view we adopt here is that this particular episode of the state ceding ground to the market is linked to global competition. But efficiency consciousness alone may not turn the trick. The state’s inability to find wherewithal to finance vital infrastructure, i.e., severe fiscal constraints also help push the process (see, e.g., Cook and Fabella, 2002).

C. Purpose of the Studies

How the MWSS privatization came about and how regulation of water emerged and evolved have signal lessons for future similar endeavors, apart from shedding some light on the determinants of the boundary between the state and the market. It is the goal of

this endeavor to ferret out lessons that can be learned, the circumstances that can be replicated, and the pitfalls and missteps that can be avoided.

In this series of studies, we will address several important issues and puzzles after five years of privatization and regulation of water and sanitation services in Metro Manila. Corresponding roughly to the chapters in this volume, these are:

- (i) Was the fateful gamble the authorities took in 1997 despite the obvious risks justified by the eventual payoffs to the public?
- (ii) Why and how did the dismal but stable equilibrium represented by the pre-1997 MWSS persist and eventually got overturned?
- (iii) How did the initial expertise deficit as well as the lack of a stronger legal platform for water regulation affect the quality of regulation?
- (iv) What did bid structure and the Concession Agreement offer in terms of incentives and come-ons that allowed the game to proceed?
- (v) How did the tariff disputes arise and either got resolved or left to fester?
- (vi) How did the decision to split the service area into two zones empower the regulators, and
- (vii) How much did corporate culture weigh in on the markedly different performance of the two concessionaires?

Only the reader can decide whether the issues are addressed adequately.

Clearly, because of the nature of the facts, standard tests of significance cannot be carried out. The issues are addressed in what is now known as a “thick description” of reality, more historical and anecdotal than the “thin description.” Although presented as chapters, the studies were made as separate enquiries.

CHAPTER II

MWSS PRIVATIZATION: PERFORMANCE AFTER FIVE YEARS

I. INTRODUCTION

In 21 February 1997, the concession contracts for the privatization of the Metropolitan Waterworks and Sewerage System (MWSS) was signed. In August 1, 1997, water supply and sewerage service management and operation were turned over to two private concessionaires. MWSS became, by virtue of the concession agreement (CA), an oversight body via a regulatory office (RO) regulating the activities of the concessionaires and the implementation of the CA. The features of the MWSS privatization of interest in this chapter are:

1. Division of the MWSS coverage area into two zones – East Zone and West Zone and, thus, two concessionaires;
2. A predetermined service obligation standards involving water supply, sewerage and sanitation for each concessionaire;

The *Manila Water Company, Inc.* (MWCI hereafter) won the East Zone. This is a consortium of four companies led by a Filipino partner, the *Ayala Corporation*. Its three foreign partners are *United Utilities*, *Bechtel* and *Mitsubishi Corporation*. The *Maynilad Water Services, Inc.* (MWSI hereafter) won the West Zone. This is a consortium of two companies, *Benpres Holdings Corporation*, the Filipino partner and majority holder, and the foreign partner *Suez Lyonnaise des Eaux*.

The true test of a policy change is the welfare outcome as reflected by the price and quality of the service delivered. Low price is no consolation when the service is not available when needed or is unusable when available. This is the usual state of affairs in the Philippines under a state-owned and operated service supplier. Price and quality have to be combined and analyzed in tandem.

The levels of analyses used here are: post-privatization outcomes versus (a) pre-privatization standards; (b) regional standards; (c) targets set by the CA at the commencement of concessions.

II. REGIONAL COMPARISON: EFFICIENCY INDICES

Table 2.1 gives a snapshot of the water service performance in the Southeast Asian Region based on the most recognizable indices before privatization (1996) and post-privatization (2002) for Manila and the two concessions. The message is unequivocal. The improvements in Water Availability (from 17 to 21 hours), Water Coverage (a 20% rise), NRW (a 7% fall) and Staff/1000 connections (a 60% reduction) over the pre-privatized outfit are dramatic. The chasm in water service performance between Manila and other Asean cities average, so glaring before privatization, is at last beginning to be closed although the gap is still considerable in NRW, Water Coverage and Staff/1000 Connections. However, the gap is expected to continue narrowing. It is unlikely that Manila will ever catch up with the front-runners despite privatization, since the closure of the remaining gap requires substantial improvement in governance (against theft, property rights, etc.), which in the Philippines remains weak. The performance of the market and market players is greatly influenced by the quality of governance in general.

Table 2.1: MWSS Performance: Pre- (1996) and Post-Privatization (2002) and other Asian Water Utilities (1996).

<i>City</i>	Water Availability (hours/day)	Water Coverage (% of population)	Non-Revenue Water	Staff per 10³ Connections
Singapore	24	100	7	2.0
HongKong	24	100	36	2.8
Seoul	24	100	35	2.3
K.Lumpur	24	100	36	1.4
Bangkok	24	82	38	4.6
Average ('96)	24	96	30	2.6
Manila ('96)	17	67	61	9.8
Manila ('02)	21	79	62	4.1
MWCI	21	82	53	4.1
MWSI	21	79	69	4.1

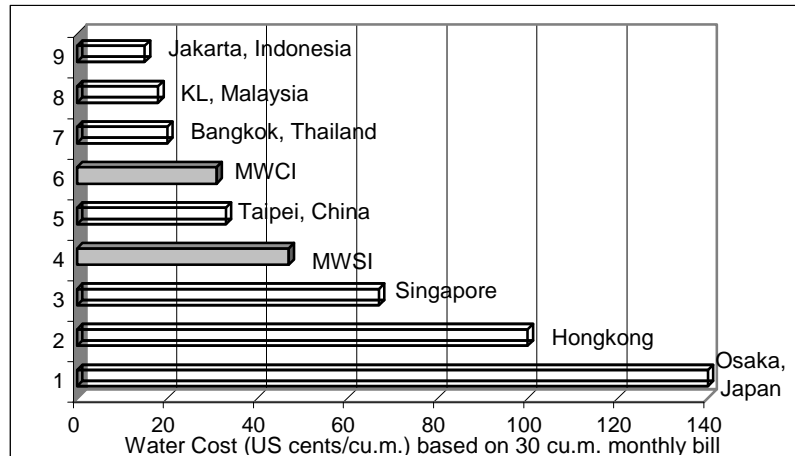
Sources: (1) "Second Water Utilities Data Book: Asian and Pacific Region, Asian Development Bank: October 1997"; (2) "2002 Annual Report, MWSS - Regulatory Office."

For example, the presence of sizeable squatter communities raises the cost of water service. The high cost of prosecution due to long delays and judicial leniency makes water theft less forbidding. Indeed, water theft was made a criminal offense only with the *National Water Crisis Act of 1995*.

III. REGIONAL COMPARISON: PRICE

Figure 2.1 shows the regional price per cubic meter of water in 2002. The MWCI and MWSI rates are based on pre-rate rebasing rates as of March 2002. The new tariffs put Manila in the middle of the pack as to price and trails only Hong Kong and Singapore.

Figure 2.1. Comparative Regional Water Cost

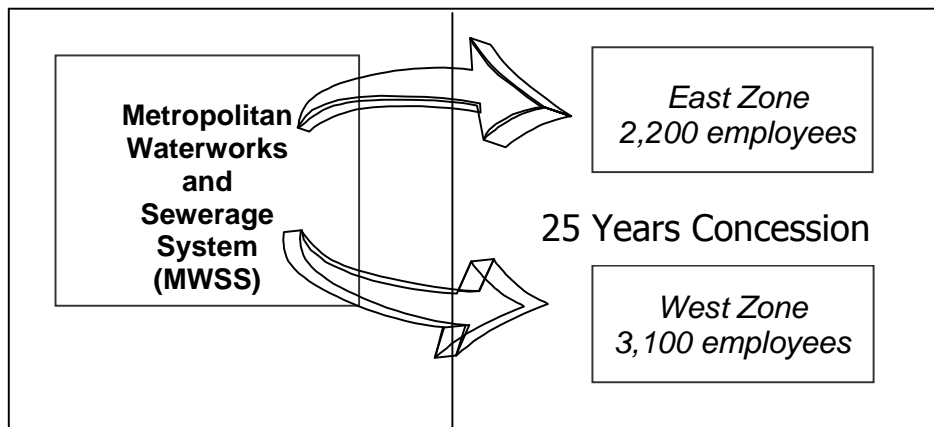


Source: Rivera, 2003

IV. PRICE TRAJECTORY and SAVINGS

Figure 2.2 gives the time trajectory of MWCI rates as compared with the would-have-been price trajectory of the unprivatized MWSS. This includes all add-ons to the basic rates in the water bill. The unprivatized price trajectory is assumed full cost and without the usual subsidy from the state. The cumulative difference shows a savings of ₱10b. It could very well be that the upward trend of the price trajectory for the unprivatized water be less steep, since the state frequently spared Metro Manila water users some of the debt service liabilities to the detriment of general taxpayers.

Figure 2.2. The 1997 Takeover



Source: Rivera, 2003

V. PERFORMANCE VERSUS PRE-PRIVATIZED STANDARDS

We now move to the analysis of water service performance of pre-and post-privatized MWSS. Table 2.2 gives the water service performance of MWCI and MWSI for 2001 and 2002 the benchmarks *2001 target* and *pre-privatization standards*.

Table 2.2: Water Service Performance: 1966, 2001, 2002.

<i>Service Indicators</i>	*Prior To Privatization	MWCI			MWSI			<i>Combined</i> 2002	Gains
		Target 2001	Actual 2001	Actual 2002	Target 2001	Actual 2001	Actual 2002		
Population Served Based on Official No. of Water Service Connections (millions)	7.3m	4.26m	3.2m	3.4m	6.7m	5.3m	5.2m	8.6m	18% increase
Official Number of Water Service Connection	779,380	378,670	352,982	369,699	574,590	577,637	573,194	942,893	21% increase
Water Production (mid) Annual Average	2,800	1,234	1,724	1,658	2,257	2,417	2,363	4,021	44% increase
Water Coverage (Based on Official No. of Connections)	67%	77.1%	76%	82%	87.4%	79%	78%	79%	18% increase
Water Availability (hours)	17	24	21	21	24	21	21	21	24% increase
No. of Staff	7,638	1,386	1,530	1,516	-	2,594	2,366	3,882	49% increase
Staff per 1,000 Connections	9.8	3.7	4.3	4.1	-	4.5	4.1	4.1	58% decrease
Reported No. of Leaks	27,053	-	40,454	38,225	-	41,242	98,611	136,836	-
No. of Leaks Repaired	20,585	-	39,688	37,461	-	38,508	92,189	129,650	-
Non-Revenue Water	61%	16%	48.29%	52.66%	31%	66.25%	68.68%	62%	-
Services Extended to the Urban Poor (Water Service Connections)	Water Improvement For Depressed Areas (WIPDA)	-	*14,504	**22,160	-	61,370	63,370	85,890	-

* with equivalent 50.549 household connections;

** with equivalent 63.910 household connections

Source: 2002 Annual Report, MWSS Regulatory Office

Based on pre-privatization standards, the combined performances showed much improvement: water coverage (18% rise), staff per one thousand connections (58%

fall), water availability (hours, 24% rise), number of staff (49% drop). On NRW, MWCI did better but MWSI did worse. Both did much better in extending services to the urban poor (83 thousand connections). On Sewer Coverage, MWCI did badly and MWSI did better. Both MWCI and MWSI brought, starting 2000, their water quality in to compliance with PNSDW Bacteriological Requirement.

We now view the evolution of the water tariff through five years. Table 2.3 gives the tariff trajectory for MWCI and MWSI.

Table 2.3: Post privatization history of adjustments for the average water tariff

Period	MWSI Average Tariff (peso/m³)
1997-1998	4.96
1999	5.80
Jan 1 – Oct 19 2001	6.58
Accelerated EPA – Oct 20 2001	10.79
FCDA (Jan – March) 2002	15.46
<i>Period</i>	<i>MWCI Average Tariff (peso/m³)</i>
1997-1998	2.32
1999	2.61
2000	2.95
Jan – March 2001	2.95
Provisional implementation of final award (April 2001)	3.22
Accelerated EPA – Nov 2001	4.22
FCDA (Jan – March) 2002	6.75

Source: Final Report, December 2003, MWSS Regulatory Office Rate Rebasing Exercise (submitted by UPecon Foundation).

For MWSI, the tariff on cubic meters of water rose more than threefold from ₱4.96 in 1997 to ₱15.46 in 2002. Table 2.3 also shows, together with the dates, the motivation behind the adjustment, e.g., Accelerated Emergency Price Adjustment (EPA) and FCDA (Foreign Currency Devaluation Adjustment).

For MWCI, the tariff rose from ₱2.32 to ₱6.75, a little less than threefold.

The tariff trajectory appears to be a steep rise for two reasons: (a) the initial tariff was the winning bid which was extraordinarily low (₱2.32 for MWCI and ₱4.96 for MWSI versus the then current tariff of ₱8.00); (b) the five years under scrutiny was indeed very turbulent, being beset by the Asian Financial and Currency Crisis (heavy depreciation of the peso and considerable reactive inflation) and the EL Niño phenomenon, which reduced water supply.

Thus, compared to the pre-privatization tariff, the MWCI 2002 tariff was still below and the MWSI 2002 tariff was about twice as much. The correct comparator is the no-privatization tariff trajectory in Section IV above.

VI. WATER QUALITY

The quality of piped water determines its uses. Poor quality water is not potable and, if drunk, can cause illness and the spread of diseases. For safe potability, poor quality piped water has to be boiled properly or bottled alternative has to be procured, both of which are costly. Low official price only disguises the real high cost of piped water. This is one area where the benefits of MWSS privatization are patent. Table 2.4 gives the bacteriological quality of piped water from 1997-2002 by concessionaire.

Table 2.4: Bacteriologic Quality in the Distribution System

Table 2.4a. Manila Water (MWCI)

	2002	2001	2000	1999	1998	1997
<i>Fecal Coliforms</i>	6234	6040	5586	5104	4652	639
Total number of determinations	21	25	19	36	91	45
- Number containing coliforms	0.3	0.4	0.3	0.7	2	7
- % containing fecal coliforms						

Table 2.4b. Maynilad (MWSI)

	2002	2001	2000	1999	1998	1997
Fecal Coliforms						
Total number of determinations	7549	8793	8577	8742	6520	910
- Number containing coliforms	52	41	45	267	205	43
- % containing fecal coliforms	0.7	0.5	0.5	3	3	5

Source: 2002 Annual Report: The MWSS Regulatory Office

Water quality is gauged by the number of coliforms and specifically fecal coliforms. Note first that the number of determinations (tests) increased almost ten-fold in the case of MWCI and eight-fold in the case of MWSI. This reflects the seriousness with which the concessionaires view water quality. For MWCI, the number of determinations containing coliforms fall from 7% in 1997 to 0.3%; corresponding percentages for MWSI were from 5% to 0.7%. Note that the pre-privatized quality (1997) did not satisfy the Philippine National Standards for Drinking Water (PNSDW). The PNSDW compliance requires at least 95% of samples taken during the year be coliforms- and *E. coli*-free. MWCI became compliant since 1998, MWSI became compliant from 2000. Water quality was an undeniable harvest after price!

The problem with quality is related to property rights problem, on the one hand, and the previous MWSS neglect, on the other. Aqueducts of raw water supply from the Balara Treatment Plant have been occupied illegally by squatters. On top of that, manholes and auxiliary structures were left grossly untended. These at once resulted in contamination and allowed privately profitable illegal connections to be installed. The theft and the asset neglect may also be part and parcel of some MWSS personnel illegal income supplements, which were well known. MWCI did two things: (a) it closed manholes and upgraded its assets to make illegal connections more difficult, and (b) it installed proper water service connections to these communities further reduced the scope of water theft. This proved crucial for water quality improvement as the same time that it reduced non-revenue water.

VII. COMPLAINTS and RESPONSIVENESS

Responsiveness is another important dimension of service. In 1996, the percentage of reported leaks attended to and repaired was 74%. It rose to 97% in 2002 for MWCI and 93% for MWSI for a combined 94% responsiveness. Leaks contribute to non-revenue water and erode the bottom line. The bottom line was never a concern for the state-owned and operated MWSS. This is an example of the "ownership effect" of privatization. This responsiveness may also explain the increased number of complaints regarding leaks.

VIII. SERVICE to the POOR

Both concessionaires devised a program to provide water service connections to the urban poor. This activity was incentives-compatible because water loss is associated by illegal occupancy and, thus, urban poverty. As observed in the case of MWCI, hand-in-hand with a crackdown on illegal connections and the tapping-proof of the aqueducts and connectives, legal water connections now were made available in these areas. By 2002, MWCI had provided 22,160 connections while MWSI 63,370 connections, thus, making billed water available to squatter areas. This reduced the opportunity for water syndicates to steal water, thus, reducing NRW. The combined new connections to poor areas were 9% of total service connections. Previous provisions of water by the state to squatter communities, when available, took the form of public outlets, access to which was, in theory, free. But water trucking meant that effective cost of water ran at three times the official tariff.

IX. COLLATERAL BENEFITS

The continuous availability of good quality water impacts on the intensity of private coping activities that cause substantial negative externalities: (a) The acquisition of privately financed and owned deep wells which directly tap the water table has diminished according to anecdotal evidence. Artesian well service used to be a thriving industry. (b) Residences used to be automatically fitted with water pumps that ensure sufficient water flow in those precious few hours when tap water was available. Of course, the incremental water access by residents was governed by the bad equilibrium of the Prisoner's Dilemma Game. With everyone pumping water, nobody gets an

advantage. Power was just wasted. (c) Business establishments spent a lot of money putting up auxiliary systems to ensure continuous availability. This has now mitigated. The quantification of these collateral benefits is still to be done, but should be substantial.

X. EVALUATION

The growing pains that the MWSS privatization experienced through the first five years were numerous and daunting. But in the end, it is the outcome that either justifies or damns this momentous shift in the boundary between the state and the market in the Philippines. Would Metro Manila water users have been better served without privatization?

There is no question that substantial efficiency gains in numerous areas have been realized: staff per 1000 connections, water availability and coverage. Non-Revenue Water remains too high although it has improved. The rate rebasing decision of the RO on this issue (i.e., penalties for excessive NRW) will reduce it. There is no doubt that the “ownership effect” and incentives-compatibility are working their magic here. The gains in water quality are especially telling. Water procurement as a source of corrosive rent seeking has clearly diminished. The view that water service has become a regular private business with its superior standards is momentous.

Water tariff, too, is now subject to intense scrutiny by a combination of private and public entities combining to form the regulatory environment. This means a more thorough accountability to the public. The burden now lies with the private concessionaires to prove that water tariff adjustment petitions are backed by prudent expenses. Even with the tariff adjustments, water tariffs are still lower than would have been without privatization, especially when implicit state subsidy is removed. The latter is due to the public recognition of debt liabilities via the *concession fee*. Thus, the fiscal impact will be even more favorable in the future. The contribution of the concessions to fiscal integrity in terms of concession fees is estimated at ₱100b.

Did the gamble pay off? The numbers are unequivocal in their message: the gamble paid off.

CHAPTER III

UNDERMINING THE OLD ORDER: METROPOLITAN WATERWORKS AND SEWERAGE SYSTEM (MWSS) PRIVATIZATION

I. INTRODUCTION

There are two interesting angles whence to view the MWSS Privatization. One is to view the experience as a case of *contractual and regulatory game* focusing on incentives of players, their actual behaviors during the episode, the response of regulators and the eventual outcomes. The other papers are of this genre. The second angle is to view the episode as a game of *social change*, a shift from one stable equilibrium to another. The object of the second is to enquire into how the various interests, either converged on or were induced to coalesce towards, or at least to refrain from opposing, the emergence of a new equilibrium. This means looking into the circumstances that changed the payoff matrix governing the behavior of players in the old equilibrium. The process that led to the emergence of a new equilibrium is the interest of this paper.

Water is a basic commodity and, thus, is a highly politicized concern. Water service pricing in Metro Manila, where crucial political decisions are made and compromises are reached and where social unrest is most feared, could make or break a political leadership. This was a crucial consideration in the determination of the old equilibrium.

When MWSS was privatized in 1997 after some three years of preparation, it was hailed as the largest water privatization project and a model for its genre in the next decade. The initial enthusiasm was fueled by the extent with which the winning bids fell short of current water tariff (up to 74%). Paeans such as the editorial "The Joy of Privatization" (*Manila Standard, January 26, 1997*) gushed over and trumpeted its pro-consumer triumph. It was one victory of the market principle that was signally pro-poor to boot. No one could argue against such success. It was, for some, "too good to be true." Was it indeed so? How did this come about?

Here we review the forces that initially rendered the old arrangement a stable outcome and the confluence of new events that conspired to ease the way for the MWSS privatization.

II. THE MWSS PRE-PRIVATIZATION STATUS

The MWSS was a government-operated and controlled corporation (GOCC). As such, it was subject to the usual Commission on Audit (COA) rules on procurement and subject to the Civil Service Law governing the hiring and firing of manpower. As a GOCC, too, it could contract foreign currency borrowing blessed with automatic sovereign guarantees for infrastructure development,. Otherwise, investment was financed by ODA. Needless to state, its water tariffs were set with one eye on the preference of political authorities who hire and fire the members of the governing MWSS Board of Trustees. By 1997, MWSS dollar debt was \$1b and it periodically sought and got fiscal subsidy from the government ("increased equity" in official guise) to service its debt.

Its performance as a water utility was dismal. Table 3.1 gives the MWSS performance in the comparative regional context.

Table 3.1: MWSS Performance: Pre-Privatization (1996) and other Asian Water Utilities (1966).

<i>City</i>	Water Availability (hours/day)	Water Coverage (% of population)	Non-Revenue Water	Staff per 10 ³ Connections
Singapore	24	100	7	2.0
HongKong	24	100	36	2.8
Seoul	24	100	35	2.3
K.Lumpur	24	100	36	1.4
Bangkok	24	82	38	4.6
Average ('96)	24	96	30	2.6
Manila ('96)	17	67	61	9.8

Sources: (1) "Second Water Utilities Data Book: Asian and Pacific Region, Asian Development Bank: October 1997"; (2) "2002 Annual Report, MWSS - Regulatory Office."

MWSS was plagued by the usual problems associated with state-owned and –operated enterprises. Over-manning was the rule. An early retirement offer accepted by 30% of the work force came about without any decline in water service. MWSS had 9.8 per one thousand connections, over thrice the regional average of 2.6. Water was available only seventeen hours a day on average versus 24 hours in other SEA cities. Its Non-Revenue Water (NRW) was 61% of total, twice the regional average of 30%. Its coverage was 67% of total population, a full 30% less than the regional average. Still and all, poor performance seldom motivated meaningful reforms in the Philippines. Even though there is no hiding behind the old adage, "If it ain't broke, don't fix it," bad equilibrium persisted. The dynamics of the polity followed severe path dependence and first-mover advantage.

III. PRE-PRIVATIZATION MWSS as a STABLE EQUILIBRIUM

The pre-privatization MWSS was a mess. It had a bloated manpower, its water service was remarkable more by the interruptions than availability. Its \$1b in debt was a fiscal

burden due in part to its dismal non-revenue water performance and due to the lack of political will to adjust rates. Incentives towards greater efficiency and sustainability did not exist.

The dominant political attitude was “don’t raise the tariff; reduce the service quality.” This is, of course, very clever and is the counterpart of a “slow” boil. Service erosion can be sold as equal sharing of pain. Reducing service hours to a district by four hours hits both the posh subdivisions and squatters of the district. Raising tariffs will hardly reduce water use by the rich but should considerably reduce or shut off that of the poor! This form of water rationing is in keeping with the general populist tendency at work elsewhere in the polity. Formal equity was served. Politicians are comfortable with it. The chattering masses unable to discern beyond nominal equity appeared comfortable with it.

This rule has, however, a massive downside for all. (a) For those still uncovered by the service (39% of the population), there is no money available to extend the service, which means, they will continue to pay through the nose for their water (up to four times the official tariff for trucked water). (b) Those entities that require water on a twenty-four hour basis have to provide their own continuous supply: costly electrical equipment and storage installations that raise the cost of doing business. (c) Those who can afford will employ water pumps to suck more than their share of water when available from the pipes and leave others gasping for nothing even during the service hours. The prohibition against such pumps exists but as with most laws in this environment, it is observed more in breach. Thus, the unspoken public policy of *nominal equity* is subverted to deliver substantial *operative inequity*. This, needless to say, is a repeated refrain elsewhere in a weak state. (d) The huge disparity between official water tariff and the open market tariff creates a parallel market for illegal connections that raises NRW and makes key water service employees brokers of illegal water interconnection. (e) The proliferation of private deep wells worsens the common resource problem. The system was headed to a crisis.

This erosion, however, develops slowly and imperceptibly. Everyone has time to adjust, to develop his or her own defensive scam. One-upsmanship is rewarded. Before one knows it, vocal vested interests have emerged in the creaky delivery process. Continuous imperceptible corrosion do not grate as much as price adjustments.

The MWSS Board, whose membership is appointed by the political authority often as a form of patronage, internalizes the authority's tacit preference and "goes along" as a safest path to retirement or to other more juicy positions.

Multilateral lending institutions and private loan syndicators are given *implicit* or *explicit sovereign guarantees* for their loans, the best possible arrangement for creditors in LDCs. They are not directly penalized by escalating inefficiency.

The MWSS workers are protected by a maze of Civil Service rules and, thus, have virtually airtight or permanent security of tenure. Their rank tends to be bloated by accommodation of political jobseekers and the mandatory regularization of casuals after given period. They are paid little but are expected to do little.

MWSS was a classic state-owned and operated enterprise. The old Soviet factory joke applies: "They pretend to pay us, we pretend to work." Some who were in the position to sell illegal water connections could, however, become wealthy. This was a lottery price that others may aspire for. The mess represented by pre-privatized MWSS was sustained by indefinitely postponing remedies into and, in effect sacrificing, the future. The losers either could not find a voice or were bought off. Of the former was the taxpayer-at-large who subsidized water for Metro Manila users whenever debt service is not passed on. The business sector was still dominated by domestic-oriented players who as a group could pass on the high cost of business. The sectors that competed in the world market burdened by higher cost of business did not yet constitute a political force. Finally, information on viable alternatives was absent.

The mess of the pre-privatized MWSS was a manifest stable low-level equilibrium with all the players pursuing their best interests, given the rules of the game and the observed payoffs. The winners were sustained by an Olsonian dynamics, where the losers, finding subversion too individually costly and the benefits of resistance too diffuse (i.e., general public), went passively along. The payoffs left little room for change agency.

This old order does not surrender without a radical change in the payoff matrix of the game. Since the internal forces cancel each other effectively, the shock has to come from the outside.

IV. PRESSURES TOWARDS PRIVATIZATION

The 1990s was a singular decade for globalization in East Asia. Massive foreign investment, both portfolio and equity and the radically altered geopolitical landscape, changed the perceived opportunities of players and the payoff structures. (i) Domestic market-oriented firms that could essentially pass on the higher cost of business to local customers began to branch into the expanding tradable sectors (e.g., computer chips and peripherals for Ayala Land; into telecommunications for Benpres Holdings), where global competitiveness suffered with the high cost of water, among others. “Brick and mortar” businesses seemed decidedly inferior in the roaring 90s. (ii) The political authority egged along by severe fiscal constraints began of the early 1990s to embrace privatization and deregulation as growth drivers and its efforts in telecommunications and transport deregulation and power procurement were handsomely rewarded. Privatization became a fiscal strategy to stem the fiscal hemorrhage due to state corporations as observed in Cook and Fabella (2002).

To secure the country’s place in the putative Pacific Century and attract foreign investment, the cost of doing business must be reduced. Increasing awareness of Von Thünen competition (see, e.g., Fabella, 2000), where rival locations compete for hovering *smart capital* on the basis of non-traded complimentary factors, e.g., hard and soft infrastructure and worker skill, resulted in the acute discomfiture among some key

players with the sore thumb that sticks out. Water service, already objectively disastrous, became viewed subjectively as such. Suddenly, it was a "crisis". (iii) Even more important was the new awareness of alternatives in water procurement. International water companies were combing East Asia for investment opportunities. They were armed with new information on water utilities privatization not only from developed countries but also from LDCs (Chile, Argentina, Macao). They brought with them not only expertise at cutting down the problem into small portions, but also the financial and expert resources to "turn key" the enterprise. This was the most crucial factor. The expanded information set was a uniquely globalization offspring.

Globalization simply revealed that postponing the reckoning was too costly relative to the emerging realities and new information set. A way out was not only highly desirable, but also eminently feasible.

The factors that pointed towards a privatization strategy on the water front are:

- (a) Tiger Aspiration: The dismal performance of MWSS, a chronic source of public and business dissatisfaction, was a galling reality check to the very public tiger aspirations or the Ramos presidency.
- (b) "Privatization" in the form of BOT projects had been successfully employed to solve the power crisis where early harvest had been substantial. Procurement of new capacity did not entail additional fiscal burden "for the present".
- (c) The empowerment of the business sector, especially the export sector and the foreign investors in the 1990s, was considerable and their clamor for competitive cost of doing business was being tabled.
- (d) Overtures by Foreign Players: Around 1994 a Malaysian firm, together with Biwater, a British water service provider, proposed the privatization of MWSS by direct purchase. In late 1994, Biwater also presented its own bid as an "unsolicited proposal" under the BOT Law. In 1995, a third negotiated bid offer was received, this time from a large real estate firm in a joint venture with foreign group (Dumol, 2000). The information set expanded on two counts: (a) These bids revealed clearly the existence of possible and financially able interested parties in the privatization of water, and (b) at least one viable

- alternative mechanism to state water provision, the straight purchase by a private group.
- (e) The Power Crisis: The successful address of the “power crisis” in the early 1990s was preceded by the “Power Crisis Act” (which gave the President the power to negotiate BOT contracts for power supply and generation). A “Water Crisis Act” which would give the President same power of negotiation in the water sector and privatization of water utilities was a natural corollary. It additionally gave MWSS the power to retrench personnel and made theft of water a criminal act. The “Water Crisis Act”, however, gave the President a *time-bound power* which had to be exercised with dispatch (six months). This was to prove both a boon and a bane.
 - (f) The Buenos Aires and Macao Exemplars: *Lyonnaise des Eaux*, a French water company, and the partners in the privatization of the Buenos Aires and Macao water systems reported to key figures on the performance of those projects. NRW fell to 14% from 44% in Macao. In Buenos Aires, water tariff actually fell. In both cases, the winner was determined by a competitive bid (Dumol, 2000). President Fidel Ramos and DPWH Secretary Vigilar became sold to the idea. The *two-zone* idea from the Paris model was to come later. That the model has been tried and succeeded outside of the OECD pall was especially eye-catching.
 - (g) Multilateral agencies were eager to lend technical assistance and advisers to prepare the ground. The IFC was a crucial player.

The confluence of events by the mid-1990s made the political authority singularly bullish rendered the public receptive and put potential objectors on the defensive. The grip of the old ethos was loosening.

V. A HAPPY CONFLUENCE of EVENTS

Clearly, the clinching of the privatization of MWSS was a milestone in Philippine political economy. As large and as complex as it was, nobody could have predicted that in three years from June 1995 to August 1997, its privatization would be clinched. Table 3.3 gives the chronology of events in the run-up to takeover:

Table 3.3: MWSS Privatization Timetable

Conceptualization	June '94 – Sept '95
Procure financing for advisers	Nov '94 – July '95
Select advisers	July '95 – Nov '95
Start of Advisory Work	10 Nov '95
Design privatization strategy	Nov '95 – July '96
Due diligence by bidders	May '96 – Dec '96
Pre-qualification	May '96 – Dec '96
Contract negotiation	Jul '96 – Dec '96
Bid submission	6 Jan '97
Bid award and contract signing	21 Feb '97
Take-over	1 Aug '97

Source: Dumol, M., 2000

While privatization of some sort has been ongoing through the late 1980s and early 1990s, most were either straight sale or greenfield BOT contracts. None were as politically sensitive or as complicated as water in the capital city. Table 3.3 also shows the various layers of technical background spadework that had to be hurdled.

It came though by a happy if perhaps unique confluence of events. The roaring 1990s, with the chronic foreign exchange problem for once manifest in excess rather than in scarcity, guaranteed that financing was not an issue. Japanese banks were especially eager to lend at hitherto unknown low rates. Foreign investors were spoiling for any and every profit base in the "Pacific Century". It also came at the heels of the triumph over the "power crisis" anchored on the BOT Law and BOT contracts. To give the address of the water problem a similar political impetus, a "water crisis" was, in effect, formally declared by the Water Crisis Act. The deregulation of the telecoms industry was ongoing and substantial signal benefits were being reaped to the lasting credit of Ramos' kitchen cabinet headed by General Jose Almonte, the self-declared nemesis of "unearned income". After the socialist collapse (1989-92), the market ideology was triumphant and could seem to brook no opposition. The state was doing right by facilitating the market. As one former opponent of trade liberalization quipped: "we're all globalists now." Symbolically, this statement was made right after his company struck a joint venture project with a world "white goods" player. It was a strange world, indeed.

What could go wrong?

VI. POLITICAL WILL MANIFEST: CREDIBLE COMMITMENT

The government's enthusiasm to see the project through under such a time constraint (it had to be locked up before the 1998 Presidential Elections and the end of President F. Ramos' term, the limit set by the Water Crisis Act), took two crucial steps to ease the way for privatization.

1. It raised the tariff rate per cubic meter of water by 38% from about ₱5.00 to about ₱8.00 five months prior to actual contract closure.
2. It offered a generous early retirement plan for employees which reduced the work force by 30%.

Both of these actions not only made the intended concessions more attractive to bidders but, more importantly, they constituted a manifest political commitment which promised a departure from business-as-usual. A state that can do those two hitherto unheard of things can be trusted to follow through. These were clear proxies for a *credible commitment* that was required to create some interest and excitement in the business community.

There is no question that President Fidel Ramos' constant hovering presence throughout the run-up, dismantling hurdles along the way, clinched the privatization effort.

VII. POTENTIAL PITFALLS

The three years it took to privatize MWSS resulted in several issues being glossed over and pushed into the background. Both the state and the private sector made miscalculations. The excess of exuberance was ripe culture for such mistakes.

Due to the shortness of the run-up period, there was no time to set up a proper regulatory infrastructure for water. The Regulatory Office was itself set up as part of the Concession Agreement (CA). It had no legal statutory independence from the political

principal. Additionally, the requisite expertise to regulate water utilities was conspicuously absent. MWSS morphed by virtue of the CA from a water and sewerage service provider to a regulator. It failed badly in the first; how could it succeed in the second? While expertise could be quickly availed of at a price (e.g., UPecon and Thames Water were hired as consultants), could it suddenly realistically excise the very source of its previous failure: political interference in its decisions? This would become a big issue later. Is the RO itself beholden to a higher implicit principalship where the tariff battles are truly won or lost?

The concessionaires and bidders were not immune to the big disease of the era: overestimation on the exchange rate front. Most EA countries were, throughout the 1990s, battling without much success the appreciation of their currencies. If the direction of peso movement were to be forecast based on the previous ten years, it would have been appreciation. The peso had appreciated from about ₱26 to ₱25 per US dollar in the mid-1990s. The noise from the Central Bank leadership was “depreciation over my dead body.” Exporters in Cebu province burned the Central Bank governor’s effigy for his “strong peso policy.”

The nature of the business meant that *due diligence* was heavily biased towards type I error: adjudge healthy and deal with a tumor later if it arises. *Due diligence* was made more tenuous by extremely bad record keeping of the old MWSS. Bad records or missing records is systemic in most state institutions where corruption is rampant. But in the mid-1990s, and due to the shortness of decision period, that risk of inadequate due diligence could be glossed over. The CA provided potential relief in the form of price adjustment mechanisms that could compensate for downside surprises: *Emergency Price Adjustment* annually and *rate rebasing* in, perhaps, five or certainly ten years. Indeed, the authorities were concerned that, due to these windows, bidders could plunge and try to recoup later. That was not necessarily bad. In a world characterized by severe path dependence and first mover advantage, getting a toehold, however tenuous, was a step forward.

Even when the claims are truly meritorious, there always is the danger that large tariff adjustments are politically unpalatable and can be vetoed, which was the bar to a tariff plunge. The players, on their part, may renege on deliverables and not get punished due to regulatory weakness. Most of all, the designers wanted to ensure that viable bidders will come to the party.

Yet another political problem peculiar to LDCs is that the bidding consortia were headed by Filipino firms that had considerable other local interests. Table 3.4 gives the bidding consortia and their other interests.

Table 5.1: Pre-qualified Bidding Consortia

<i>Pre-qualified Consortium</i>	Business Interests
1. Local Sponsor: Metro Pacific Corporation International Operator: Anglian Water International (UK)	Property development, telecoms, etc. UK based water and sewerage operation
2. Local Sponsor: Ayala Corporation International Operator: North West Water (UK)	Property development, telecoms, electronics, Banking and financial services Water and Sewerage Operation in Manchester area. A division of United Utilities Ltd.
3. Local Sponsor: Benpres Holdings Corporation International Operator: Lyonnaise des Eaux (later Ondo)	Property development, power generation and distribution, telecoms, electronics, banking and financial services A global player in the field of environmental services
4. Local Sponsor: Aboitiz Holdings Corporation International Operator: Compagnie Generale des Eaux (later Vivendi)	Power generation and distribution, financial services, etc. A global player in the field of environmental services, telecoms, entertainment, etc.

Source: Rivera, 2003.

The Ayala Group was heavily in real estate, telecommunications, manufacturing, and banking. The Benpres Group was into power generation, power distribution, telecoms and, most of all, into media via the giant ABS-CBN group. Their calculations may include considerations beyond the water company itself and would murky auction decisions. Did

the bidders plunge? This remains an interesting issue (see "Network Synergy Efforts and Seemingly Strong Bids" by Fabella et. al.).

The additional downside of their involvement is that each could parlay the "too-big-to-fail" claim that could influence regulatory decisions later. Indeed, "cross-default" possibility was floated later to spice up a tariff dispute between one of the operators and the regulatory office. Couple that with the uncertainty about where the real seat of regulatory decision-making and the problem is compounded.

VIII. THE DIE is CAST

In a sense, this is, however, unavoidable. The size of the resources involved meant that only very large Filipino business groups could participate and this is a very small set in an LDC. Capital market imperfections additionally ensure this to be a small set. That the Philippine Constitution mandates a 60% Filipino participation meant that foreign players could not, on their own, participate and win, exacerbated the situation.

The designers of the privatization project were aware of the dangers. They were also aware that if it did not go through before the hard legal deadline, it might never go through. The gamble had to be taken and the political authorities never hesitated. The purpose of this set of studies is to enquire on the wisdom of this fateful decision.

CHAPTER IV

THE REGULATORY ENVIRONMENT

I. INTRODUCTION

In view of the short duration allowed the framers of the privatization strategy, the regulation of the two concessionaires, each a monopolist in its franchise area, was lodged in the Regulatory Office (RO) which was created by virtue of the Article 11 of the Concession Agreement rather than by the force of a separate legislation. The framers viewed the latter as the ideal as it would have invested the RO with the form, if not the substance, of regulatory independence. That this may create problems in the future was in the minds of the framers but consideration of those can be postponed for now. The other problem is the lack of time to properly equip the regulatory office with the technical and human capital needed for adequate regulation. The question here is this: Did these really hamper the RO's effectiveness?

II. REGULATION

A. The Regulatory Office

Article 11 of the CA stipulates that the MWSS Board of Trustees establish a regulatory office (RO) to be funded from the concession fees paid by the concessionaires. The MWSS Board of Trustees is given the power to make changes in the RO as it deems fit. Exhibit A of the CA sets down the powers and responsibilities of the RO.

The RO consists of five members, each having a fixed five-year term. Members of the RO should have no present or prior affiliation with MWSS or the concessionaires. One member is designated *Director*. Removal of a member is the jurisdiction of the Appeals Panel. The RO functions as a Committee and passage of a resolution requires at least three votes.

The RO has four divisions:

1. Technical Regulation
2. Secretary and Legal Adviser
3. Financial Regulation
4. Quality and Customer Services Regulation

Each is headed by a member of the RO. The RO's main functions include:

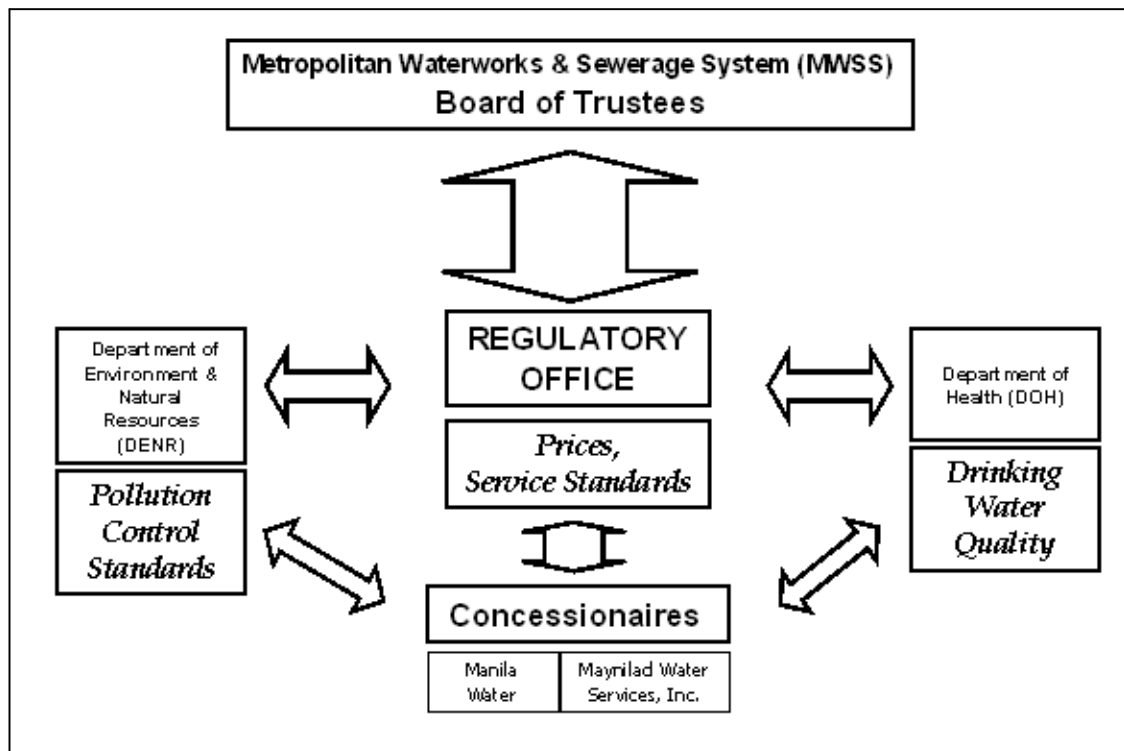
1. Monitoring and implementing the CA;
2. Implementing the EPA and the Rate Rebasing provisions;
3. Arranging the regular and independent technical audit of the activities of the concessionaires;
4. Enforcing service standards;
5. Contract outside experts and consultants with international experience to provide information and guidance, especially on the EPA and Rate Rebasing and ADR.

B. Other Agencies

In truth, the regulation of water and sewerage service went beyond the RO. The RO's primary task was the determination of water tariffs and the enforcement of service standards. In this, the RO is overseen by the *MWSS Board of Trustees* whose members are appointees of the President of the Philippines.

The concessionaires are, however, answerable to other government agencies: (a) the *Department of Environment and Natural Resources* that monitors the *Pollution Control Standards*, and (b) the *Department of Health* that monitors *drinking water quality*. These liaisons closely with the RO, which enforces targets on these issues. Table 4.1 gives the regulatory environment in a nutshell.

Table 4.1: The Regulatory Environment



Source: Rivera, 2003.

The big issue in water regulation is where the ultimate decision-making power lodged. The RO's decision can be vetoed by the MWSS Board of Trustees, so it appears that this is where the decisions are made ultimately. But since water is such a political issue with wide-ranging ramifications, the ultimate political and appointing power that decides to reveal a preference for the direction, magnitude or timing of tariff adjustments may be heeded by the MWSS Board of Trustees. The President of the Philippines appoints the chairman and members of the Board of Trustees, some of whom are ex officio members as cabinet secretaries and their pliability to presidential revealed preference may determine their future career path in government or in other government corporation. Is this something that a legislatively created RO cannot easily avoid? We think not. The regulation of power by a separately legislated body gives ample plausibility to this view.

Indeed, when disagreements arose regarding the RO's decision, there were instances when a concessionaire's representation went all the way to the "top" and got some

relief. The oft-cited example here is *Amendment No. 1*, which allowed a shorter recovery period for CERA (currency exchange rate adjustment) than is stipulated in the contract and set the first rate rebasing in 2002.

One fortunate aspect of the Concession Agreement is that it provided (Section 6.3.b) that the regulatory body be financed by a payment by the concessionaires, thus, making it financially independent of the state treasury. This will prove important for regulatory independence.

C. The Basis of Regulation

The Contract Agreement (CA) is the document governing the regulatory interaction between the RO and the concessionaires. This is treated more fully in a subsequent paper ("The Reassurance Game: Bid Structure and Concession Contract") and will not be detailed here.

III. FILLING EXPERTISE DEFICIT

The regulation of water is intensive in the use of expert knowledge and experience. The estimation of the *appropriate discount rate* (ADR) is a high-brow finance issue although the general formula can be easily retrieved from the internet. The granting of tariff relief spread throughout the remaining life of the contract involves the set-up of computer programs. The valuation of underground assets is difficult at best and harrowing at worst. The proper evaluation of CAPEX and OPEX submissions are tough accounting and financial hurdles.

MWSS, originally constituted, was a water and sewerage service supplier, not a regulator. It just did not have the specialized knowledge required to properly regulate a private concessionaire. This was not lost on the framers. Again, the decision was to risk "learning by doing."

To address the expertise problem, the RO, in accordance with the CA's advice, hired a cohort of local and foreign consultants first to train its personnel in crash courses on regulation in general and water regulation in particular and to help in the tariff

adjustment claims. MWSS hired the *UPecon Foundation*, a private foundation based in the UP School of Economics, to constitute a team to give short-term training and then prepare the troops for the first EPA dispute with *Manila Water Company, Inc. (MWCI)*. Consultants financed by multilateral institutions, viz., *Asian Development Bank*, also helped nibble away at the expertise deficit. The first real test was the defense of the RO's EPA decision before the Appeals' Panel. The RO, apart from some legal overzeal (it tried to contest the Appeals' Panel decision contrary to Article 12.5 of the CA) did not do badly. The giant hurdle was, however, still to come – the rate rebasing exercise at the end of five years.

The UPecon Foundation was hired by the RO to form a *rate rebasing team*, headed by Dr. Felipe Medalla, a professor at the UP School of Economics, to evaluate the rate rebasing claims of the concessionaires and advise the RO on future courses of action. Judging from the outcome of the rate rebasing exercise, the expertise deficit seemed to have been overcome with dispatch. MWCI, after intense consultations, accepted the team's recommendation. MWSI called for arbitration. The international *appeals panel* constituted to arbitrate the dispute between *Maynilad Water* and the RO on the tariff adjustment ruling decided largely in favor of the RO. MWSI decided to seek recourse from the Courts of Law in apparent contravention of the CA's Article 12.5. MWSI has filed a *Notice of Early Termination* of its concession. The matter hangs to this day.

IV. THE INTERNATIONAL ARBITRATION PANEL

The CA provided that in case of dispute between a concessionaire and the RO on the latter's decision, the former may call for arbitration by an appeals panel constituting of (a) an international arbitrator of some stature, (b) a nominee by the concessionaire, and (c) a nominee by the RO.

This was a very healthy provision since crucial decisions could be tested before a panel with international stature and, thus, presumably free from domestic political horse-trading. Clearly, this (a) allowed enthusiastic participation by foreign players even in such a politically charged service activity, and (b) kept the parties especially the concessionaires from insisting on a perfect CA knowing that the appeals panel can inject

common sense and fair reckoning into the business relationship. It is all right to go into a long-term contract, however incomplete, if the parties can agree on a fair and impartial arbitrator in case of future dispute. There is no question that this CA provision allowed the privatization of MWSS to meet the deadline set by the Water Crisis Act. Thus, it appears that the expertise deficit did not hamper the regulatory process.

The internalization of the regulation of water meant that domestic myopia and political constraints could be overcome. What was overlooked was that the parties would not waive their right of appeal to the Courts of Law despite Article 12.5 of the CA.

V. MAJOR REGULATORY EVENTS and DECISIONS

A number of Regulatory milestones stand out:

1. Extraordinary Price Adjustment (EPA):

In 30 March 1998, MWCI applied for an EPA citing the following as GEA (Grounds for Extraordinary Adjustment): (a) the peso devaluation; (b) the El Niño phenomenon; (c) network deterioration and increase in employee salaries after signing date (21 February 1997) and commencement date; and (d) cost overruns of existing projects. The tariff adjustment petitioned was ₱3.23 based on an ADR of 18%.

The RO in 6 August 1998 granted an EPA for (a) and (b) of ₱0.04 over the remaining life of the contract. MWCI responded by calling for arbitration by an appeals panel, at the same time adjusting its petition to ₱0.52/m³ increase. This adjustment was especially interesting. It appears that MWCI underestimated either the RO's capacity to evaluate or its resolve to stick by its mandate as a public trust.

The Appeals Panel determined that the correct Appropriate Discount Rate (ADR) should be current market-driven 9.3% and not past market-driven 5.2% used by the RO and implied in MWCI's bid nor the 18% proposed in the EPA petition by MWCI. The allowed adjustment was ₱0.18/m³.

The RO launched a petition with the Court of Appeals in apparent violation of Section 12.5 of the CA (waiver of right of appeal). The Appeals Panel decision was upheld. Due

to the delay in implementation to April 22, 2001, the adjusted increase became ₱0.27 (to ₱3.22/m³). The RO had passed its first test.

2. Memorandum of Cooperation: Amendment No. 1:

In July 9, 2001, the MWSS-RO and MWSI signed a Memorandum of Cooperation on the recovery of ₱2.664-b foreign currency losses incurred since 1997. The CA provides for such a relief but spread throughout the remaining life of the concession. Section 9.3.2.iii of the CA states that the appropriate EPA "would cause the Net Present Value as at June 30 of the Charging Year of the expected Receipts of the Concessionaire for the period beginning January 1 of the Charging Year until the *Expiration Date* to change by an equal amount but opposite in sign to the Net Present Value of Cash Flows referred to in (u) above."

The Memorandum of Cooperation Section 2.2, in contrast, authorized MWSI to recover the foreign exchange losses set forth above within a period of one and a half (1½) years, starting from July 1, 2001..." Section 2.3 of MOC applies the formula to future forex losses. Thus, the Section 9.3.2.iii of the CA was in effect amended for foreign exchange losses. In exchange, MWSI agreed to infuse an additional equity of \$80m. This is now known as *Amendment No. One*. This doubled the MWSI tariff (₱9.18 to ₱19.19/m³).

In addition, the MOC, in effect, determined the date for the first rate rebasing exercise to be January 1, 2003 (Article 3.1 of MOC). Thus, the RO gave up its discretion on the year of the first rate rebasing. This was an important decision favored by the concessionaires. MWCI, an interested bystander in the case, saw its own tariff raised from ₱5.10 to ₱9.37/m³ by symmetric treatment.

Finally, MWSS-RO promised in the MOC to deliver 300 mld additional water from the BOT Muntinlupa Project in January 2007. This can constitute a source of dispute if the delivery does not materialize as in the past.

3. Rate Rebasing:

The rate rebasing mechanism allows the Concessionaires recovery of Capex, Opex incurred *efficiently and prudently* since the commencement of the concession and not covered by the winning bids. The operational criteria are *efficiency* and *prudence*. Every aspect of the contribution to the tariff are revisited and reappraised to allow a reasonable rate of return to the concessions. These are the Opening Cash Position (OCP, to reflect past unrequited costs), the ADR, service obligations and future Opex and Capex. The concessionaires declare their preferred position via a *business plan* that generates the tariff rates based on parameters (e.g., ADR) and service obligations. Amendment No. 1 fixed the first rate rebasing in 1 January 2002.

In October 2001, MWSI asked for a tariff of ₱34.60 and MWCI in March 2002 for a tariff of ₱19.54. The RO decided on a tariff of ₱26.75/m³ for MWSI and ₱17.00 for MWCI. MWCI accepted the RO decision but MWSI refused and called for arbitration by an Appeals Panel.

The Appeals Panel substantially upheld the RO's position. In December 9, 2002, MWSI filed a *Notice of Early Termination*. 2003 saw a running legal and media battle between MWSI and MWSS-RO as to how to effect the transition and who gets what. The matter hangs to this day.

4. *Minor Regulatory Decisions:*

- a. Billing Scheme: The RO in cooperation with the concessionaires developed a standardized billing scheme to apply to subdivisions. This preempted the previous MWSI billing scheme and lowered the tariff. This was implemented in 2003.
- b. Turnover of Subdivisions' Water System: The RO in cooperation with the concessionaires developed a policy of Interconnection/Turnover of Subdivision Water System and invalidated MWSI's refusal to effect such transfer.
- c. Late Payment Penalty of 3%: MWCI imposed a 3% late payment penalty since April 2001. The RO in effect sanctioned the penalty and called for a uniform policy.

SUMMARY:

It appears that the creation of the regulatory office via the concession agreement rather than via a separate law did not really hamper the proper regulation of water service. The residual lack of independence of the RO, as currently set up, would not have been avoided by a legally constituted RO. Since its board would have been vulnerable to influence by the political authority through its appointing and patronage power. The provision by the CA of arbitration by an internationally constituted *appeals panel* was a very healthy rampart against abuse. The encouragement by the CA of the use of local and foreign consultants to fill the *expertise gap* added additional safeguards. The birthing problems of regulation, though substantial, were properly hurdled. It was a correct decision for the framers to have gone ahead despite the circumstances falling short of the ideal. Had perfection been a criterion for going ahead, the whole exercise would never have seen closure. Blaise Pascal's advice was hereby heeded, "Perfection is the greatest enemy of the good."

CHAPTER V

THE REASSURANCE GAME IN MWSS PRIVATIZATION: BID STRUCTURE AND CONCESSION AGREEMENT

I. INTRODUCTION

The design of the concession agreement (CA, heretofore) and the bidding process were crucial to the forward movement of the privatization initiative. Water and sewerage procurement for Metropolitan Manila was a huge undertaking weighed down by a tangle of entrenched political interests. In other words, the business environment was fraught with political risks. Although the market would be in essence a monopoly in a basic commodity and promised an acyclical revenue stream, tariff determination would be subject to state regulation with all its attendant political inscrutability. Past experience did not augur favorably for a smooth rules-based relation. The business community had to be reassured that the privatization and regulation game will be played with new set of rules and new governance environment.

The first step at the reassurance game was the bidding of the concessions. The concession route was godsend since it lowered the front-end commitment of players, allowing more players to join the fray. A minimum capital base of \$100m was required. Straight purchase of assets would have required a more sizeable financial commitment, which could lead to bid failure and perhaps may have conditioned privatization on a negotiation rather than bidding. The bidding design had to meet many idiosyncratic hurdles, such as the 60-40-ownership mix mandated by the Philippine constitution in case of foreign participation which was keenly sought after to provide the initial expertise platform.

The next step in the reassurance game was the concession contract itself. The regulatory environment it sets up must be substantially internationally acceptable without ignoring purely local issues, such as the treatment of state workers. The mechanism for dispute resolution must be substantially insulated from local politics and must be imbued with the philosophy that market sustainability is central to the definition of success.

We focus on these two crucial steps here.

II. THE BIDDING PROCESS

The bidding procedure adopted transparent international bidding rules (Rivera, 2003):

- (a) A strict pre-qualification procedure where Filipino local companies were pre-qualified separately from foreign water operators. Thus, Filipino pre-qualified firms could then join up into a bidding consortium with foreign pre-qualified firms. Pre-qualifications were on the basis of financial capacity, perceived know-how, and experience with large projects.
- (b) The bidding consortium should consent of a “local sponsor” and an “international operator”.
- (c) A two-envelope system: the technical envelope containing specifics is opened first and judged either compliant or not; if compliant, the financial envelope is opened and compared with other financial envelopes of compliant bidders in terms of tariff. Lowest tariff wins.
- (d) Bidders must bid for both zones but can win only one. If a bidder wins both zones, a predetermined minimum average formula would assign which one he will run and the next highest bidder wins the other.
- (e) The bidder’s financial envelope comes in the form of a business model detailing over the lifetime of the contract, the debt service, the Capex and the Opex that justify the tariff bid via the “Net Present Value equals zero” rule. This means that the discount rate, specifically, the Appropriate Discount Rate (ADR) is a crucial ingredient in the justification of the bid. The ADR itself may, by virtue of the CA, be (a) *openly declared*, or (b) *implied* in the financial/business model. The local sponsors and their international partners are given in Table 5.1 (which is Table 3 of Rivera 2003, see CD).

Table 5.1. Pre-qualified Bidding Consortia

<i>Pre-qualified Consortium</i>	Business Interests
1. Local Sponsor: Metro Pacific Corporation International Operator: Anglian Water International (UK)	Property development, telecoms, etc. UK based water and sewerage operation
2. Local Sponsor: Ayala Corporation International Operator: North West Water (UK)	Property development, telecoms, electronics, Banking and financial services Water and Sewerage Operation in Manchester area. A division of United Utilities Ltd.
3. Local Sponsor: Benpres Holdings Corporation International Operator: Lyonnaise des Eaux (later Ondeo)	Property development, power generation and distribution, telecoms, electronics, banking and financial services A global player in the field of environmental services
4. Local Sponsor: Aboitiz Holdings Corporation International Operator: Compagnie Generale des Eaux (later Vivendi)	Power generation and distribution, financial services, etc. A global player in the field of environmental services, telecoms, entertainment, etc.

Source: Rivera, 2003.

There were then four consortia: "Ayala Corporation with United Utilities," "Metro Pacific Corporation with Anglian Water," "Benpres Holdings Corporation with Lyonnaise de Eux," and "Aboitiz Holdings with Compagnie Generale de Eux." The local sponsors were all conglomerates engaged in many activities except water services. The international partners were all global players in water and sanitation services. These were either French or British.

The reassurance game seemed to have worked. The bid results were as follows:

Table 5.2: Bid Results

East	Percent Bids	Peso Bids
Ayala-United	26.3886	₱ 2.3169
Aboitiz-CGE	62.8800	₱ 5.2090
Metro Pacific-Anglian	64.5080	₱ 5.6638
Benpres-Lyonnaise	69.7888	₱ 6.1275
West		
Ayala-United	28.6333	₱ 2.5140
Benpres-Lyonnaise	56.5922	₱ 4.9688
Aboitiz-CGE	56.8800	₱ 4.9941
Metro Pacific-Angilan	66.8998	₱ 5.8738
Prior to Bid	100.000	₱ 8.7800

Source: Dumol, 2000

The Ayala-United consortium won both the East and the West Zones at ₱2.32 per cubic meter of water and ₱2.51 per cubic meter, respectively. Ayala-United was awarded the East Zone, by virtue of a predetermined lower average formula. Thus, Benpres-Lyonnaise, with the second highest bid of ₱4.96 per cubic meter for the West Zone, got the West Zone. Ayala-United's bid for the East was only 26.38% of current water tariff of ₱8.70 per cubic meter. That of Benpres-Lyonnaise was only 56.57% of existing tariff. The feeling of total vindication by advocates was well placed and euphoria seemed in order. A column in one broadsheet entitled "The Sweetness of Privatization," summarized the mood of the day.

III. BIDDING INCENTIVES

Given the CA provisions for tariff adjustment and the bid process, several tendencies are incentivized:

1. Deep Pocket Bias
 - (a) Bidders will go as low as a zero tariff bid in order to win, because they can recoup historically if prudently incurred spending via the OCP (Opening Cash Position) after five (discretionary to the RO) or after ten years (mandatory).
 - (b) One bar to going zero bid is that the firm then incurs losses through five years (if lucky) or through ten years (if unlucky), which must be financed by borrowing. The other is being disqualified as "nuisance".

(c) Capacity to Borrow: This means that the ones who can plunge and survive are those either with the deepest pockets or those who can tap the deepest pockets, viz., the banks. This guarantees that the existing conglomerates had the edge. And, indeed, they obliged.

2. Potential Political Sacrifice of Efficiency

If the deepest pocket bidder is also the most efficient, this procedure will ferret out the most efficient. If not, efficiency can be sacrificed for deeper pockets or political clout that can move the goalpost favorably.

3. Lower Tariff Guarantee in the Short Run

That a lower-than-prevailing prevailing tariff will result is almost a certainty. But this could be a short-run outcome. Following the rate rebasing exercise, a steep rise in the tariff can be expected as concessionaires try to recoup losses. Thus, the tariff benefit is heavily front-loaded.

4. The recoupment potential dangled in the rate-rebasing window tended to attract more bidders – a normal perennial concern for sizeable projects bidding.

5. Even with deep pockets, the risk remains that (a) the RO rejects a rate rebasing exercise after five years and/or (b) the RO imposes strict “efficiency and prudence tests” on costs and murky cash flow projections.

The bidding incentives worked rather well. The question is: Did these result in sustainable outcomes?

IV. THE CONCESSION AGREEMENT

The existing BOT Law route was one way to privatize MWSS. The Concession route, á la Buenos Aires, Argentina was another. The BOT route, successful for power, was made attractive due to the *take-or-pay* guarantee extended by the government. This was to subsequently prove very costly for the government’s fiscal integrity and very profitable

for recipients. Likewise, most BOT projects were "Greenfield" variety with assets being provided from scratch. MWSS assets already existed. Furthermore, existing employees had to be provided for.

By contrast, a concession strategy gives the concessionaire the following responsibilities in return for fair return on investment:

- (a) Full operational control of the water utility (Article 2);
- (b) Full responsibility on capital expenditures, including debt obligations. The state, however, retains ownership of the MWSS asset.

Concession would eliminate many roots of inefficiency inherent in state ownership. The contingent fiscal hangover, in theory, will ease up.

The main provisions of the MWSS concession agreement (CA) are for the following:

- (a) A twenty-five year contract to supply water and sewerage service;
- (b) The concessionaires to service the MWSS debt via the Concession Fee (Article 6, Section 6.4);
- (c) Ownership of concession to be at least 60% Filipino (Preamble);
- (d) The concessionaire to deliver on certain predetermined service targets and standards (Article 5);
- (e) Provisions for the protection of MWSS labor groups (e.g., an early retirement facility, relief of employees before, and re-hiring on, take-over day with provisions for termination pay, and six-month probation after rehiring) (Article 6, Section 6.1);
- (f) The CA established a "special regulatory office" to administer the concession agreement. Thus, the regulatory body was itself a creature of the concession agreement (Article 11);
- (g) Provision of tariff adjustment mechanism (Article 9):
 - (i) Emergency Price Adjustment (EPA) to handle tariff relief for inflation and other unforeseen events, such as currency devaluation; the EPA is the CA's Price Cap dimension without the X-efficiency give-back feature (Article 9, Section 9.3);

- (ii) A *Rate Rebasing* after five years at the discretion of the regulatory office and mandatory after ten years and every five years thereafter. The rate rebasing exercise shall determine the tariff adjustment needed to provide concessionaires with a return on investment equal to "Appropriate Discount Rate" (ADR), taking into consideration future and past costs prudently incurred. This feature makes the CA a *cost of service (COS)* contract (Article 9, Section 9.4);
- (h) Dispute Resolution (Article 12). In case of disagreement between MWSS and the concessionaire on the tariff adjustment, the concessionaire can invoke the judgment of an "Appeals Panel", an internationally constituted group of three members, one appointed by the concessionaire, one by MWSS and one international arbitrator (Article 12, Section 12.1 – 12.6). That rate adjustments, when judged appropriate, would be calculated over the remaining life of the project. Article 12.5 mandated that the parties wave their right of appeal beyond the Appeals Panel.
- (i) Each concessionaire was to post a *performance bond* in an escrow account in a bank. This could be forfeited in case the concessionaire unjustifiably abandons the contract, or is terminated for contract violation (Article 6, Section 6.9);
- (j) Force Majeure and GEA (Article 16, Section 16.10) define what could constitute valid grounds for extraordinary tariff adjustments;
- (k) That the budget of MWSS and RO be financed by payments from the concessionaires (Section 6.3.b). This is important because it renders the regulatory body financially independent of the government treasury and all its allocations;
- (l) Finally, the government, in its part, promises to deliver in the future a specific volume of water from the ongoing water projects (Umiray and Laiban) (Section 6.13).

The foreign debt of MWSS was apportioned in this way: 80% or \$800m to be shouldered by the West Zone, 20% or \$200m to be shouldered by the East Zone.

The foreign debt of MWSS was apportioned to the two winners in this way: \$800m to the West Zone Concessionaire (Benpress-Lyonnaise) and \$200m to the East Zone Concessionaire (Ayala-Bechtel), an 80-20 split. The West Zone had a higher population density and required less new investment. The East Zone included rural areas (Rizal Province), many still to be connected.

This was factored into the bid information.

V. THE CA INCENTIVES

The regulatory environment in the CA as described is a hybrid of a Cost-of-Service (COS) regulation and a price-cap regulation. The rate rebasing feature where efficiently and prudently incurred costs plus a fixed return on investment are reimbursed by a tariff adjustment is clearly COS. The EPA designed to allow annual adjustment for inflation and other force majeure is clearly Price Cap without the X-efficiency factor.

The CA features no cost-reducing incentives and may be subject to the Averch-Johnson effect (Averch and Johnson, 1962), viz., if the fixed rate of return is reckoned on capital base and is less than market rate, over-investment on capital base will occur to the detriment of other costs. The CA poses the “efficiency and prudence test” as a buffer against capital base profligacy.

The optimal cost-reimbursement contract reflected by Laffont and Tirole (1998) under unobservable type but observable costs (presumably when the “efficiency-prudence test” is foolproof), calls for rent or reward (above normal profit) for the revealed efficient firm that hits the targets and no penalty if the targets are not met (i.e., less effort is revealed by non-compliance). This first feature (reward) *was not* in the CA and represented a glaring omission. The CA recognizes that costs are only imperfectly observable and must pass the prudence and efficiency test.

The RO did not have, at the outset, the expertise to run the “prudence and efficiency” test on concessionaire claims but could and did hire specialists as consultants. The rate

rebasing team recommended a reward system for over-fulfillment of targets, thus, rendering the contract symmetric and optimal in the Laffont-Tirole sense.

VI. COST-REIMBURSEMENT WITH PROFIT CAP AS THE DOMINANT STRATEGY

There are several key players in this game: the potential private sector bidders, their bidding agents, the MWSS Committee that directly presided over the MWSS privatization, the political authority to whom the Privatization Committee was, as an agent, and accountable to (in other words, the principal), the foreign advisory group, the International Finance Corporation (IFC).

- (a) *The Private Sector Consortia:* The *implicit guarantee* of fair market return was attractive to private sector aspirants, especially the established conglomerates with very deep pockets. The commitment of the political authority was made manifest by two moves: (i) the raising of the tariff prior to privatization to ₱8 per cubic meter from ₱6.00, which showed some political courage, and (ii) by the reduction of MWSS manpower by 30% via an early retirement plan.
- (b) *Special Task Force:* Each of these hired a *special task force* to mount their bid. The incentive structure (as per one of the players) was skewed towards winning: a win will mean large bonuses and a permanent honored place in the resumé.
- (c) *The MWSS Privatization Committee* defined its mission in terms of a tariff lower than prevailing as well as seeing MWSS privatization through. This will spare them and their principal public opprobrium and perhaps get public praise.
- (d) *The Political Authority:* A low tariff outcome will not only earn praise but also pave the way for further privatization, which was its public credo. It will jettison a fiscal drag and perhaps boost a bid for a constitutional change for a second term.
- (e) *Short Horizon:* Both Privatization Committee and the Political Authority will not have to face the post-rate rebasing tariff escalation to come, at worst, in five years. This will be *somebody else's problem*.
- (f) *The IFC:* The IFC's first concern is to assure the final decision maker, the Political Authority, that a lower tariff is certain and is, thus, a political *brownie point*. It

was a sure investment in time and effort. The IFC's point group also has an implicit or explicit incentive for seeing a privatization through this being part and parcel of the *Washington Consensus* and its likelihood is highest with a cost-reimbursement contract.

- (g) *The MWSS workers and union:* These were offered a generous early retirement package and were assured of continued employment by a covenant written into the CA itself.
- (h) *External Principals:* The public and the press saw lower tariff as the only acceptable test of privatization. The Political Authority and the Privatization Committee knew this and will go ahead if such an outcome is guaranteed. Indeed, they got what they wanted.

In other words, the Cost-Reimbursement contract and bid rules constituted a *dominant strategy* for all the players. It pushed potential conflicts into the future and guaranteed an international dispute resolution mechanism. It was in the parlance of the day a "win-win solution." The IFC logically recommended the same for Argentina and Indonesia.

VI. THE CHILE ALTERNATIVE

A viable alternative to the cost-reimbursement (or COS) concession contract with rate of return cap and the winner being chosen by the lowest tariff bid is the fixed tariff and water and sewerage service targets contracts with the winner being chosen by the revenue highest bid. This was the price-cap regulation employed in Santiago, Chile. The winner's rate of return can be anything as long as it is warranted by the fixed tariff and service obligations compliance. There is an automatic incentive to cut costs since the cost saving will accrue to the concessionaire. Thus, this should attract cost-efficient aspirants rather than just deep pockets. It has no implicit market guarantee, however, and the concessionaire stands to lose if it bids higher than is warranted by growth in demand and the extent of cost-cutting possible. How attractive was this?

1. *The Private Sector Consortia:* Absent the implicit market guarantee, only those with extensive experience in water management would be interested. The "due diligence" process would be long and tedious in comparison to the cost-reimbursement

contract. And in the end, there may not be enough bidders to avert *bidding failure*. These players would prefer the cost-reimbursement contract.

2. *The Privatization Committee:* Since they define success as lower than prevailing tariff that can be met by setting the fixed tariff at, say, ₱6.00/m³. But the prior condition for success for this is that there is no *bidding failure* which would have aborted the whole enterprise. This was clearly a major concern among the members. Responsibility for the efficient concession earning high profits is a no-no.
3. *The Political Principal:* The political authority has two goals: (a) a lower tariff privatization outcome which could have been met by fixing the tariff at, say, ₱6.00/m³, and (b) that the MWSS is taken out as a fiscal burden. If the bids are high, the government realizes a privatization windfall; if too low or even negative, the government absorbs the subsidy as the one-time cost of privatization. This can be politically tricky. Again, if there are no bidders, the project collapses and is repeated at a higher fixed tariff. Time was of the essence. In any case, the risks were real and this player will prefer the cost-reimbursement contract. Furthermore, it would be politically costly if profits were high.
4. *The IFC:* Whatever has the higher likelihood of pushing through, based on the preference of the political principal, would be the IFC's choice.
5. *The ex-post players:* The press and the public could have pounced on state subsidy where bids were negative and would have pounced on high concession profit. Public myopia would be better humored by the cost-reimbursement contract. The Political Principal and the Privatization Committee knew this.

Thus, overall, the price cap strategy involved risks that the players would rather not take.

Why did the Chilean government take the risk? Chile was run by an increasingly strong state under the Pinochet and the state flaunted its market ideology without regard for populist pressure. Its room to maneuver was larger.

Why did Philippines, Indonesia and Argentina go the cost-reimbursement route? The political principals were less immune from populist pressure and, thus, chose the less risky course.

VII. CREDIBLE COMMITMENT

The designers of the cost-reimbursement concession contract were aware of the *potential for plunging* by bidders: “win first, be bailed out (by rate rebasing) later.” The tariff adjustments required later on could breach the politically acceptable thresholds but that would be somebody else’s problem. The bonuses shall have been long awarded. Nonetheless, their hope was that the possibility of a ten-year red ink could deter extreme bids. This hope was weakened by a possible fifth year rate rebasing at the discretion by the RO. Since one of the RO’s mandate is to ensure the viability of the concessionaires (common knowledge), a slew of red ink could, in good faith, sway the RO into an early rate rebasing.

While its mounting forex problem cannot be denied, MWSI may have been playing the rate rebasing card: if it cannot borrow because of the sea of red ink, it will collapse and, thus, force an early rate rebasing. The prospect of early and favorable risk rebasing outcome made drastic cost-cutting aversion made less urgent for MWSI. That it did not seem to apply to MWCI deserves its own enquiry which we offer later (Chapter VIII).

More critical was the fact that the two lead Filipino partners were both conglomerates of considerable financial and political clout. The size of the financial requirement meant that only their type will be credible aspirants and this would be true for most LDCs. These conglomerates would normally hold considerable exposure of the banking sector. Put together, they do, arguably, exude the aura of being “too big to fail.” This type of enterprises, when distressed, implicitly become wards of the state for systemic stability reasons. Subsequently, the *cross-default* rhetoric foisted by MWCI seemed to exploit this

heft asset. Size and clout are accepted buffers against regulatory risks especially in weak states.

The lead partner of the West Zone concession, Benpres Holdings Inc., has, among its assets, a media empire (ABS-CBN) which exercises considerable political clout and not only during elections. This particular asset could, in theory, be trained towards swaying the Political Principal of the RO towards favorable positions. Given the political uncertainties and regulatory shifting sands, those who can move the goalposts will, at the margins, have more incentive to play.

Given these circumstances, the concessionaires could reasonably bet that the state commitment to market discipline and written rules will be soft and accommodations could be wangled out. A soft state is an all too common drawback in LDCs and the source of many derivative problems.

Early termination, citing MWSS breach of contract, and giving the concession back to the government required an Appeals Panel to arbitrate. The Appeals Panel in November 2003 decided that no substantial breach of contract transpired and that MWSI should honor its concession fee obligation (whose payment it suspended in March 2001). MWSI then declared bankruptcy in December 2003.

VII. EVALUATION

Some observations suggest themselves:

- (a) The outcome of the bidding seemed to confirm the expectation that the bidders would be very large and politically powerful. They would also go threateningly “low” to the glee of the designers and their patron.
- (b) The *Memorandum of Cooperation* (nee Amendment No. 1) seems to confirm the expectation that post-contract strategic behavior by winners can sway the RO to decide in its favor.
- (c) The rate rebasing team’s recommendation disallowing ₱88b MWSI’s OCP for NRW target non-compliance and of a ₱26.75 versus the petitioned ₱34.60 tariff

hardly fit in the political economy model. The rate rebasing team was considered reputable and could not be easily and costlessly ignored by the RO if it wanted to. Furthermore, the same methodology was used for the MWCI, which accepted the tariff decision. Neither was the subsequent Appeals Panel swayed. The political game seemed to have ended where these two bodies were concerned. They insisted that the rule-of-law, i.e., the CA, be followed.

- (d) The next move was to contain the damage to MWSI after its bankruptcy declaration. The attempted solution was the ill-fated *Amendment No. 2* which proposed a disengagement plan for MWSI. Benpres Holdings was to give up its equity in MWSI to the government but also its liabilities (Benpres guaranteed all MWSI's debt). The market valuation of these two did not properly add up by oppositors' reckoning. The political principal appeared amenable to the trade but the public opposition became shrill. The story meanders uncertainly as of 2005.

CHAPTER VII

THE "TWO ZONE" DECISION IN MWSS PRIVATIZATION: DID BENCHMARK COMPETITION WORK?

I. INTRODUCTION

In the MWSS privatization three crucial decisions were made: (1) that the private sector participation be through a cost reimbursement concession with the concessionaire taking full operational control while the state continued to own the assets in lieu of a straight purchase and ownership by the private sector for which there were early offers (Dumol, 2000); (2) that it be awarded through an auction to elicit the lowest tariff and to ensure market discipline; and (3) to split the MWSS service area into two sectors: the East Zone won by the Ayala-Bechtel-United consortium (to be known as the Manila Water Company, Inc. (*MWCI* hereafter)), and the West Zone won by the Benpres-Lyonnais consortium (known subsequently as Maynilad Water System Inc. (*MWSI* hereafter)). The third decision was made purposely to empower the regulatory office by way of *benchmark competition*, which can provide crucial data on the performance of the concessionaires.

One of the many problems associated with regulating a utility concessionaire is *asymmetry of information* skewed in favor of the concessionaire. Concessionaires have first hand information about expenditures and degree of effort to reduce or control cost and achieve contract deliverable. These are largely unobserved by the regulators and are liable to be overblown. The concession agreement (CA hereafter) provides that the Regulatory Office (RO hereafter) approve tariff adjustment petitions by the concessionaires that cover *prudent* and *legitimate* costs and to disapprove otherwise. This requires the RO to have some idea of prudent costs and the reasonable toll taken by unforeseen events and force majeure.

In a complex operation such as a water utility, such precious information, while known to concessionaires, is hard to pin down by the RO. One way of coping is to take a statistical average of a number of existing water utilities operating around the world.

This does not provide adequate information about local cost and climatic factors. It provides some information but does not provide enough confidence to backstop the RO's decision.

II. BENCHMARK COMPETITION

The idea behind *benchmark* competition is that a concessionaire has many features similar to the other concessionaires, even as it has other features peculiar or specific to itself. The literature (Laffont and Tirole, 1994) calls the first systemic features and calls changes in these "systemic shock," it calls the second "idiosyncratic features" and changes in these *idiosyncratic shock*." The existence of comparators operating with same systemic features helps the RO in determining systemic shocks and the reasonable responses thereto. Comparators operating in different localities and environs give only "noisy" benchmarks. Comparators in the same locality and the same domestic and political environments, by contrast, provide greater informational precision and reduce the information advantage of the concessionaire over the RO. The usefulness of benchmark competition depends on how *systematically similar* are the concessionaires and how well they can collude to minimize being "shown up" by the other.

Consider an optimal cost reimbursement contract (also cost of service contract). An optimal contract for concessionaire i pitted against a benchmark competitor, j , with substantial systemic overlap between them, requires the reimbursement to be equal to the (symmetric information) effort cost less the observed cost difference ($C^i - C^j$) (i.e., $t_i = \psi_i(e_i^*) - (C^i - C^j)$, see Laffont-Tirole, 1994, chapter 1). Thus, if i^{th} cost C^i is less than benchmark j 's cost, C^j , concessionaire i is awarded rent (something on top of its effort cost). The opposite is true for j (i.e., the higher cost firm is penalized). The optimal benchmark-informed contract makes the benchmark competitor, the spear carrier of market discipline, although they do not compete in the same product market. The assumption is that the lower cost firm is the state-of-the-art efficiency. If the two firms can collude, as happens when there is only one concessionaire, the cost differential will not surface. Thus, collusion by the concessionaire blunts this information benefit.

The problem in practice is for the RO to determine which of the reported costs reflect systemic shocks and which reflect idiosyncratic shocks. The latter makes the costs non-comparable. For example, inflation and exchange rate changes are easy-to-measure systemic shocks. The initial state of disrepair of the water pipes may be idiosyncratic and so are the strategies (and consequent costs) adopted to deal with this problem. Provisions for systemic costs are easy to gauge.

III. PROBLEMS of TWO-ZONE DECISION

Against the benefits of the decision, which seemed iffy initially, the problems of the two-zone decision were foreseen from the start (Dumol, 2000).

1. The division of the area had to meet the economic criterion of minimizing interconnection problems in combination with a balanced mix of developed and undeveloped areas. This then determined the allocation of foreign debt liabilities.
2. It is more costly overall to carry two parallel white collar backroom operations and management systems rather than just one.
3. It is more complicated for the RO to deal with two, rather than one, concessionaires. Agreement on how to allocate the debt overhang had to be struck.
4. It is conceivable that, in view of the bidding structure, two very different tariffs will be charged two households in the same border neighborhood. This is the tariff gap problem.

The decision, however, had advantages apart from empowerment of the RO. It did reduce the size of the financial deal and may have increased the number of bidders to acceptable (non-failure of bid) levels. The *tariff gap* problem remains to this day. Did the two-zone decision work as envisioned? Since differential performance is *sine-qua-non* for benchmarking, we first investigate it.

IV. DIFFERENTIAL PERFORMANCE

The differential performance of the two concessionaires MWSI (West Zone: Benpres/Lyonnais) and MWCI (East Zone: Ayala/International Water/Mitsubishi) are given by Table 7.1. This gives the period 1997-2002 performance in BWV (Billed Water Volume), NRW (Non-Revenue Water (%)), *Opex/BWV* (Operating Expenses per BWV),

Personnel Cost/BWV and *Non-Personnel Cost/BWV*. It also shows the pre-privatization MWSS performance.

Table 7.1: Comparison of Concessionaires' Performance (1977-2002) and of MWSS (1990-1995)

INDICATORS: MWSS vs. MWCI vs. MWSI				
BWV in m ³				
Year	MWSS	MWSI	MWCI	YEAR
1990	376	103	76	1997
1991	385	212	186	1998
1992	386	257	229	1999
1993	384	272	247	2000
1994	397	283	266	2001
1995	420	300	288	2002
NRW%				
Year	MWSS	MWSI	MWCI	YEAR
1990	57.68	64.10	58.56	1997
1991	57.06	60.80	48.67	1998
1992	54.96	67.20	50.99	1999
1993	57.43	65.40	51.46	2000
1994	58.17	66.30	53.43	2001
1995	53.21	66.30	53.75	2002
OPEX/BWV				
Year	MWSS	MWSI	MWCI	YEAR
1990	6.1512	6.4291	7.2016	1997
1991	5.9794	7.1454	6.1473	1998
1992	5.6798	7.0339	5.1153	1999
1993	5.3299	6.7017	4.7922	2000
1994	5.7421	7.1992	4.5204	2001
1995	6.1127	9.4728	5.0603	2002
Personnel Cost/BWV				
Year	MWSS	MWSI	MWCI	YEAR
1990	3.6972	4.9342	4.1025	1997
1991	3.3824	4.7871	2.6465	1998
1992	3.1899	4.6530	2.3316	1999
1993	2.9295	4.1727	2.1654	2000
1994	3.1914	3.4752	1.8684	2001
1995	3.3157	4.3025	2.3301	2002
Non-Personnel Cost OPEX/BWV				
Year	MWSS	MWSI	MWCI	YEAR
1990	2.4540	1.4950	3.0991	1997
1991	2.5970	2.3583	3.5008	1998
1992	2.4899	2.3809	2.7837	1999
1993	2.4004	2.5291	2.6268	2000
1994	2.5507	3.7240	2.6520	2001
1995	2.7970	5.1704	2.7301	2002

Source: Final Report: Metropolitan Waterworks and Sewerage System Regulatory Office Rate Rebasing Exercise, submitted by UPecon Foundation, December 2002.

The following are noteworthy:

1. On BWV in cubic meter – the differential in growth between MWSI and MWCI is negligible. This growth rate in BWV is, however, spectacular in comparison to pre-privatization MWSS's five-year performance (1990-1995). This indicates a greater determination by the private sector to raise revenue based on billed water as it touched deeply their bottom line. This can be viewed as the "ownership effect". The owner's claim on residual motivates the enlargement of that residual.
2. The NRW as percentage of total water supplied clearly separated the concessionaires. MWCI reduced NRW from 58.5% to 53.7% while MWSI saw NRW rise from 64% to 66%. MWCI's gains was, however, no different than pre-privatization MWSS gain from 1990-1995 (from 57.6% to 53.21%). The MWSS NRW gain has to be weighed carefully since the end of period NRW (1995) being 53.21% is much lower than the 1997 average NRW (61%) for the two zones! Highly improbable!
3. OPEX/BWV punctuated MWCI's superiority in the cost arena. This dropped from ₱7.20 to ₱5.00 per cubic meter of water for MWCI. That of MWSI rose from ₱6.40 to ₱9.50 in five years. By 2002, OPEX/BWV of MWCI was half that of MWSI. It was higher for MWCI in 1997.
4. Personnel Cost/BWV also highlighted the superiority of MWCI, both over time and compared to MWSI. From 1997-2002, MWCI halved its Personnel Cost/BWV from ₱4.10 to ₱2.30. That of MWSI fell slightly from ₱4.90 to ₱4.30. MWSS before privatization hardly reduced Personnel Cost/BWV in the period 1990-1995. By 2002, MWCI's personnel cost was about half that of MWSI's!
5. Non-Personnel Cost OPEX/BWV is even starker in its performance contrast. MWCI started with ₱3.00 in 1997 and ended in 2002 with ₱2.70, a slight drop. But MWSI's rose from ₱1.49 to ₱5.10 in the same period. By 2002, MWCI's was about half that of MWSI.
6. Opex subitems per cubic meter of water, namely, Salaries and Wages and Chemicals/BWV also show marked variance. MWCI's "S and W/BWV" fell from ₱4.10 in 1997 to ₱1.90 in 2001. That of MWSI fell too but only slightly from ₱4.93 in 1997 to ₱3.475 in 2001. MWCI's "S and W/BWV" was about half that of MWSI. In the case

of “Chemicals/BWV,” while MWSI’s rose from ₱0.39 in 1997 to ₱0.49 in 2001, that of MWSI’s fell from ₱0.32 to ₱0.19 in 2001. The contrast cannot be more stark.

7. MWCI attained breakeven and profitability starting the third year of operation; MWSI started and ended the five years in the red.

These data show an unmistakable contrast in the performance of the two concessionaires in favor of MWCI. They give the RO enough basis to be wary and skeptical of MWSI’s claims. Collusion is not a problem.

V. COST DISCREPANCIES

The UPecon rate rebasing team also made a comparative analysis of disaggregated costs for year 2000 for MWCI and MWSI. Table 2 shows the result of the exercise. After adjustment for staff numbers, MWSI’s average annual wage is 24% higher than MWCI’s. Due to higher pumping requirement of MWCI, which was verified, MWSI’s Utilities Cost per connection was 101% lower per connection and 149% lower per cubic meter of water. There was not much difference in Cost of Contracted Services (including Management and Technical) in 2002, but this curiously ballooned (doubled) for MWSI in 2001. Cost of Materials and Supplies favored MWCI by 11% per connection and 3% per cubic meter of water. Finally, MWCI did very well in financial cost component: 73% lower in Performance Bond Premium and 79% lower in Insurance Coverage. The latter may reflect the creditors differential view of the two concessionaires’ risk rating and that of their respective guarantors. It is generally accepted that the guarantor of MWCI’s performance bond and borrowings, the Ayala Group, enjoys a higher credit rating than the counterpart for MWSI, the Benpres Group.

The performance of MWCI revealed to all and sundry what was “feasible” at that time. There was no way to judge whether MWCI cost performance defined the efficient frontier.

VI. DID THE RO USE THE BENCHMARK COMPETITION?

The RO, in its dealings with the concessionaires, depended heavily on information provided by the benchmark competitor.

- a) In 1998, two parallel EPA requests were filed with the RO, one from each concessionaire. The R.O. evaluated the petitions using the ADR in the winning bids. MWSI accepted the RO's tariff adjustment decision. The RO claimed that its methodology, in effect, must also apply to MWCI. This argument was used by the RO throughout the Appeal's Panel proceeding where MWCI contested the RO's tariff decision.
- b) The Rate Rebasing Team convened by the UPecon Foundation in its Main Report (December 2002) explicitly stated, in its "Prudence and Efficiency Tests – Costs Side" (Section 2.5, pp. 9-10), that *Level 2 Analysis* attempts to "...compare performance of two concessionaires (1) with itself through time, (2) with pre-privatized MWSS, and (3) *with each other*." Its Table 7.12 (Table 7.2 here reproduces) juxtaposes their performance. The Report observes the stark contrast in favor of MWCI. The confidence with which it decided to lop off ₱8.40b of MWSI OCP position, based largely on NRW target shortfall has, we believe, something to do with its knowledge of the demonstrated performance of MWCI on NRW but also in other areas of cost.

Table 7.2: Comparison of MWSI and MWCI Expenditures: 2000

<i>Cost Indicator</i>	MWCI	MWSI	SI:CI Variance
<i>Average annual staff wages</i>	304,673	402,674	24%
<i>Utilities Cost</i>			
Per connection	564	281	-101%
Per cubic meter	0.37	0.15	-149%
<i>Cost of contracted services</i>			
Per connection	346.61	354.87	2%
Per cubic meter	0.23	0.26	10%
<i>Cost of materials and supplies (w/o alum)</i>			
Per connection	202	209	11%
Per cubic meter	0.13	0.15	3%
<i>Performance bond premium</i>			
Pesos per 1 million US dollar	291,860	824,310	73%
<i>Insurance value</i>			
Per length of main	903	4,180	78%
Per installed WTP	1,411	6,793	79%

Source: Final Report: MWSS-RO Rate Rebasing Exercise, submitted by UPecon Foundation (December 2002).

Thus, the RO played the concessionaires against each other in order to pursue its mandate of safeguarding the CA and serving the public.

- c) The RO in 2002 defended its decision to grant a tariff of ₱26.75 per cubic meter instead of the ₱34.60 petitioned by MWSI on the ground that the same methodology was applied to MWCI and the RO decision was accepted by MWCI (2002 Annual Report MWSS Regulatory Office). The message is that the methodology, if improper, would have induced an adverse reaction by both. That the result was acceptable to one suggested that the differential in performance was the crucial factor.
- d) The *appeals panel* substantially upheld the RO's decision, no doubt convinced by the benchmark logic of RO.

Apparently, the RO felt there to be substantial systemic features between MWSI and MWCI that empowered the RO in its dealings with either. The two-zone decision at the outset seemed justified by subsequent events. The appeals panel supported this decision. That a third concessionaire could have shown up MWCI itself will never be known. The ideal may never be revealed.

VII. CONCLUSION

There is no question that benchmark competition greatly empowered the RO in its role as the guardian of public interest in the water privatization and regulation. The difficult task was to uncover the systemic shocks and isolate them from the idiosyncratic shocks. The rate rebasing team of consultants was very sensitive to this distinction and deepened the analysis where idiosyncratic shocks may explain cost differentials. For example, MWSI's increased cost for alum dosing was accepted as the source of cost differential in Cost of Materials and Supplies, thus, idiosyncratic. Higher pumping cost requirement for MWCI was accepted for Utilities Cost, again idiosyncratic.

But the RO's empowerment by benchmark competition was contingent on one of the concessionaires seriously pursuing efficiency in cost and revenue. Had the both of them laggards and depended on a pliant R.O. to return them to profitability, the picture may have altered drastically. Had they colluded in their cost revelations, the RO would have had little to stand on. But evidence seems to show, they did not.

The empowerment of the R.O. was also reinforced by the hiring of an upright and reputable expert group, UPecon Foundation, which cobbled together a mix of academics and international players that cannot be easily influenced by the players nor ignored by the RO itself. This appeared to be crucial leg supporting the RO.

Why they did not collude is an interesting question. One hypothesis is that the two concessionaires were marching to different drummers. One was steeped in market competitiveness games, where cost management was king; the other was practiced in managing the state-and-market interphase where political leverage was king. This is explored in the next paper.

CHAPTER VIII

CORPORATE CULTURE VERSUS THE LUCK OF THE DRAW

I. INTRODUCTION

MWCI won both the East and West Zone bidding and was awarded the East Zone by some predetermined formula based on the average of the lowest two bids. Thus, the West Zone fell to the second placer in this zone, MWSI. The East Zone, as already observed, encompassed newer development areas including semi-rural areas of sparser population and where connections still had to be installed. The West Zone encompassed the older and littoral section of Metro Manila where most of the underground distribution assets was concentrated and was of much higher population density. Fewer new connections were envisioned for the West Zone and, thus, less new Capex. Indeed, it is likely that the eventual 80-20 distribution of foreign liabilities of the old MWSS (to be serviced via the *concessions fee* payments of the concessionaire) reflected the perceived underlying asset distribution.

MWCI's *cognate assets* as the premier real estate developer in the country were located largely in the East Zone. This may actually have prompted MWCI's winning very low and "seemingly bid" entry (₱2.32 per m³) in the original auction. (This is explored further in another paper: "Cognate Interests..."). While luck is involved, MWCI did stack the deck in its favor by bidding more aggressively for the East Zone.

The West Zone, while having the lion's share of the underground assets, was recognized to suffer from greater NRW or water loss due to (a) much older watermain and pipe connections and, thus, greater extent of leakage due to wear-and-tear, and (b) greater extent of water theft, illegal connections and free public water outlets due to heavy concentrations of squatter communities. Indeed, the bid information shows the 1997 (initial) NRW for the East Zone to be 44% while for the West Zone it was 60%. This, being MWSS data, are considered suspect and self-serving in absolute values. However, the relative magnitudes appear correct. The original bids gave a projected reduction trajectory, so this fact appears known from the start. It appears from hindsight that both MWCI and MWSI overestimated their capacity to slash water losses but MWSI's

optimism was the less subdued. NRW of MWCI rose to 52.66% in 2002 of its supplied volume from 44%; that of MWSI rose to 68.68%. This latter is higher than the MWSS pre-privatization NRW of 61%. Once again, the pre-privatization numbers should be taken with a grain of salt.

There is reason to argue on hindsight that the West Zone's problems would prove to be less tractable and that this would weigh down the MWSI's overall performance. This is the luck-of-the-draw version of the argument: MWSI was unlucky to get the West Zone. More on this later.

II. DIFFERENTIAL PERFORMANCE

Two competing explanations have been bruited about regarding the skewness of performance in favor of MWCI. The first one is differential *corporate culture molded by type of previous activities*, and the second is just the *luck of the draw* or on whose lap fell the more ex-post revealed problematic West Zone. The differential performance of the two concessionaires is detailed in the previous chapter ("The Two-Zone Decision in the MWSS Privatization: Did Benchmark Competition Work?") and is only referred to here.

III. CORPORATE CULTURE

The Ayala Corporation is the foremost property development company in the country. It has cognate interests in banking and financial services. Lately, it has branched into mobile telecommunication with foreign partners and electronics equipment manufacturing. The interesting common facet of Ayala Corporations' varied activities is *market competitiveness* as the preponderant determinant of success. The state is largely a passive player in these activities, especially in the determination of the central contributions to competitiveness: price and quality. The Ayala Corporation largely stayed clear of the state-sponsored orgy of rent seeking under the Marcos dictatorship, although one branch under the late Enrique Zobel, was known to have played ball with Marcos. Its banking flagship, the Bank of Philippine Islands, is well known for its very conservative philosophy – studiously avoiding risky exposures in episodes of euphoria. In the no-holds-barred 1990s, this operational philosophy was made the butt of jokes as

other more gung-ho rivals forged ahead in market capitalization. Its wisdom emerged only when it saved BPI from the banking crisis in the wake of the 1998 Asian Financial Crisis. It is also known that the Ayala Corporation projects itself as a global player with decidedly global benchmarks. The corporate culture was oriented decidedly to excel at market competition.

The case of MWSI's mother corporation, Benpres Holdings, is said to be starkly different. Although as a conglomerate it was also into property, telecommunications and banking, the core business of Benpres Holdings is in the power sector (distribution and generation), in which it had a chequered history. The Lopezes were considered by Marcos as a political threat in the 1960s and engineered the takeover of its flagship, Manila Electric Company (Meralco). After Marcos' downfall in 1986, the government of President Aquino restored Meralco to the Lopezes.

The electric power business is one of the most heavily regulated businesses as it should be, since it is also largely monopolistic. Tariff determination is very political and requires close working relationship with, and even better the capture of, the political decision-making apparatus. Thus, market competitiveness cannot be said to be the preponderant selector of winners in this sector. Lobbying power, on the other hand, is especially important. That the Lopez Group also strategically owns ABS-CBN, a TV network giant, only serves to reinforce its lobbying clout in the eyes of many. That ABS-CBN exhibited partiality towards President Arroyo's candidacy seems of little dispute.

It is especially noteworthy that in the last May 2004 presidential exercise, the two contenders for vice-president of the Republic were long-time broadcasters of the Lopez's TV network. They both were also sitting members of the Philippine senate before they ran for the Vice Presidency, attesting many say to the network's political clout. The endorsement of ABS-CBN in an electoral exercise meant that a good chunk of the private TV medium was less accessible to political opponents. Complaints on this score were loud and poisted. Thus, it was said, the *corporate culture* that developed in the Benpres Holdings and (presumably) bequeathed to MWSI was one steeped in the management of the *state-market interphase* and the capture of or influence over the

state decision-making apparatus. In the height of the election campaign, the government floated a prospective amendment to the CA ("Amendment No. 2" it was called) that observers thought was highly favorable to MWSI now in the process of disengagement from its water concession.

The person chosen to head MWSI, Rafael Alunan, was a former government high profile Secretary of the Interior in the Ramos government. By contrast, the chosen head of MWCI, Filemon Berba, was a highly respected consummate technocrat with Ayala Corporation. MWCI's principal foreign partner is the UK-based United Utilities, while that of MWSI was the French company Lyonnaise des Eux (later Ondeo).

IV. THE LUCK of the DRAW

As observed, MWCI won in the bidding of both zones and was assigned (by a formula) the East Zone. The two zones have to be operated separately. Coming second in the West Zone, MWSI was awarded the West Zone. The East Zone, apart from including the prime real estate holdings of the Ayala Group, included large semi-developed areas, some even rural. The West Zone included the older, highly urbanized, littoral areas of Metro Manila. The players were given time for due diligence.

The winning bids (see Table 5.2) of MWCI slightly favored the East Zone: ₱2.32 per m³ for the East Zone and ₱2.51 for the West Zone. MWSI actually favored the West Zone (₱4.9 versus ₱6.1 per m³) over the East Zone. But the winning bids differed markedly between the winners, creating the tariff gap. The bids suggested that MWCI was aware of slightly of the difference in favor of the East Zone, but that MWSI was either unaware (due perhaps to diligence failure) or oblivious of the true difference in the conditions of the two zones.

There were three big differences: (a) The pre-agreed distribution of MWSS foreign debt (\$1b), 80% of which was assigned to the West Zone and 20% to the East Zone was known but only slightly got reflected in the winners' bids. (b) It was generally held that the pipes in the West Zone would be much older and had higher tendency to spring leaks under increased water pressure but the extent of this was hazily known. The

thinking seem to have been that the tariff adjustment mechanisms (EPA and rate rebasing) provided for by the CA would make good losses due to surprises. The EPA and rate rebasing prospect made due diligence seem less urgent. One can always claim ignorance later.

In this initial phase, corporate culture did seem to matter. MWCI's due diligence pointed in the right direction. MWSI's did not.

The Asian Financial and Currency Crisis pushed the exchange rate to unprecedented heights. This meant that the MWSI, which shouldered \$800b in foreign liabilities would require substantial tariff adjustment and/or pending that, would require substantial new money to tide it over. That MWCI, however, made the adjustment petition first despite the relatively lower forex liabilities suggests that MWCI was quicker to anticipate the impact on its bottom line of implied increased concession fee payment. If there were, however, an expectation that the concession fee will be postponed or adjusted, complacency by MWSI or for that matter for MWCI would be justified. The concession fee issue was to become a persistent tug-of-war between MWSI and the MWSS-RO. MWCI appeared never to have raised the issue at all.

A case can be made that MWCI got lucky when it got the East Zone. It can, however, be also argued that MWCI made its own luck. Its bid did reflect some of the actual conditions, while MWSI's did not.

V. FINANCIAL RATIOS

Audited financial statements (Table 8.1) submitted to the RO show that MWCI, after only two years of being in the red (1999, 1998), became solidly profitable after that. By contrast, MWSI never attained positive profits and losses mounted in 2001 and 2002. The crucial difference seems to be the cost per m³ of water billed. For MWCI, this rose slightly from ₱6.07 in 1997 to ₱7.81 in 2002, with even lower costs in the in-between years. For MWSI, this cost tripled from ₱9.36 to ₱27.85. MWCI's cost performance seems propelled by a drastic fall of the ratio of Operating Cost (less Amortization) to Operating Revenue from 109% in 1997 to 67% in 2002. MWSI's ratio rose from 128%

in 1997 to 131% in 2002. For MWCI Billed Water Volume rose 51% between 1997 and 2002. It rose only 11% for MWSI.

Table 8.1: Financial Performance Ratios

A. MWCI	2002	2001	2000	1999	1998	1997
Operating Expe* / Operating Revenue (%)	67	78	82	86	106	109
Operating Expe / Billed Water Volume (₱)	7.81	5.54	5.53	5.20	5.60	6.07
Net Income/Operating Revenue (%)	21	11	8	8	-7	-9
<i>B. MWSI</i>						
Operating Expe* / Operating Revenue (%)	131	131	101	126	132	128
Operating Expe / Billed Water Volume (₱)	27.85	14.13	10.03	11.79	10.26	9.36
Net Income / Operating Revenue (%)	-35	-35	-6	-29	-34	-28

*less amortization and depreciation

Source: 2002 Annual Report: MWSS – Regulatory Office

This picture allowed MWCI to tap private sector lenders for needed loans while MWSI failed. This may, indeed, be MWCI's motivation for cost reduction and pursuit of profitability – the possibility of private loan windows without the prop of its holding company.

VI. HUMAN RESOURCE MANAGEMENT and INCENTIVES

The central hurdle here is that the concessionaires inherited employees from the state-owned and –operated system, MWSS, where the employees were covered by state civil service rules. This, in essence, fostered a Philippine *state-employee ethos* characterized by low morale and low-powered incentives structure: essentially low fixed salaries and, in practice, no prospect for redundancy on poor performance. The effect was a bloated rank of employees with a staff per 1,000 connections of 9.8, almost double the next highest (4.6 in Bangkok) in the region. The Concession Agreement stipulated that MWSS employees be absorbed on probationary basis by the concessionaires.

MWCI absorbed 2,200 employees in August 1997. By end of 2001, largely due to the Early Retirement Incentive Program, the MWCI had 1,530 employees achieving 4.1 employees per 1,000 connections. The reduction of 31% of its employee rank could not have occurred under normal civil service circumstances except under very generous fiscal prudence-busting incentives. MWSI, which absorbed 3,100 employees in 1997,

had 2,366 in 2002, a drop of 24% in its employee complement. Again, this is a substantial reduction.

MWCI Employee Stock Option Plan (ESOP) granted employees 6% of total outstanding stock. This was in keeping with the CA. This was true as well with MWSI. Thus, there was now an effort to change the incentive structure for employees, though as yet CA-induced.

To achieve NRW targets, MWCI initiated a program that subdivided its service area into 43 hydraulic territories called *Demand Monitoring Zones*, managed by a Territory Team. Decision-making was then decentralized, thus, creating a pseudo-tournament among the territories. Likewise, 160 District Metering Areas were formed. Winners were rewarded.

MWCI's overall philosophy appeared from anecdotal evidence to be: "We forget that you came from the old MWSS. You are now MWCI employees under a new environment. Rules and rewards structures are clear. Show that you belong." By all accounts, the new incentive structure changed the ethos of former state employees. Incentives work. MWCI also initiated extensive use of private contractors, former employees who opted for early retirement. For some of those 31% opting to retire, the incentive structure is now that of the private sector facing another private sector player.

Overall, it appears that MWCI reached out better to its absorbed employees than MWSI. What it showed false is the hypothesis that "You inherit state employees, you inherit bad ethos." Instead, its performance showed that "If the incentives are right, the ethos will follow."

VII. EVALUATION

The performance of MWCI was clearly superior and indications of more strenuous effort at raising efficiency seem clear. Our interpretation of the evidence is that had MWCI been awarded the (ex-post more difficult) West Zone, it would have done better than MWSI at reducing NRW, controlling other costs, and raising billed water volume. The differential in performance may be less stark.

The reason for this seems to be that MWCI was trying very hard to impress its potential creditors so as to access new financing which it evidently did. By contrast, MWSI appears to be trying to raise its claim against the public by way of impressing the RO, which it viewed as mandated by the CA to render it whole. Negative profits only served the purpose. By contrast, positive profit served to open private loan windows for MWCI. MWSI's access to private loans depended on its capacity to convince the RO to grant all its rate rebasing and other requests. It, however, failed. It did not help MWSI's financing that the financial position of its perceived mother corporation, Benpres Holdings, was deemed precarious, in contrast to that of the Ayala group.

Although the evidence is anecdotal and cannot be construed as conclusive, our reading is that differential corporate culture played a distinct role in generating the starkly differential outcomes. The behavior of the concessionaires seem to reflect some *path dependence* operating in differential corporate culture.

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