

UNIVERSITY OF THE WESTERN CAPE
SCHOOL OF GOVERNMENT



The Role of Institutions in State-Private Sector Interaction:
The Case of the Management Contract for Water and Wastewater Services in
the Amman Governorate, Jordan

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ABSTRACT

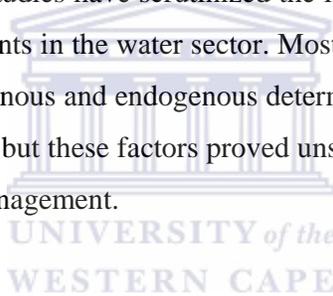
The Role of Institutions in State-Private Sector Interaction: A Case Study of Private Sector Participation in the Amman Water Sector, Jordan

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Master of Administration, Mini-Thesis

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This research investigates the performance of private sector participation (PSP) in the water sector from a governance perspective. It is concerned with the role that institutions play in the interaction between the state and the private sector, which occurs with respect to the regulation and implementation of such PSP arrangements. The research takes place within the context of a development debate and practice, which identifies water as a key poverty issue in a substantial part of the developing countries, which advocates private sector participation as a remedy to inadequate water management and which acknowledges good governance as a crucial requirement for development. Nevertheless, few studies have scrutinized the impact of governance and institutions on the outcome of PSP arrangements in the water sector. Most research on the performance of PSP arrangements has examined exogenous and endogenous determinants, such as the price mechanism and the property rights allocation, but these factors proved unsatisfactory as explaining variables in the context of natural resource management.



To contribute to filling a gap in research this study aims at evaluating the impact of institutional frameworks on the outcome of private sector participation in water supply and sanitation through a case study of the Management Contract for Water and Wastewater Service in the Amman Governorate, Jordan. At the end of the 1990s the quality of water supply and sanitation in the Jordanian capital Amman was unsatisfactory, as supply was insufficient and entailed high costs. Therefore, in 1999, the government of the Hashemite Kingdom of Jordan contracted a private joint venture to improve water service provision in the Amman Governorate. The research takes into account the specific institutional framework for the mentioned arrangement in Amman, which is comprised of the national judicial and political institutions, the specific regulatory institutions as well as relevant international institutions. These institutions are not limited to laws and regulations only, but also include informal institutions such as traditions. The specific objective of this study is to show how the institutional framework of a transaction affects regulatory processes by abating and amplifying the potential for opportunistic behavior of the contracting parties, and thereby affecting the performance of a privately operated water utility.

The examination of the institutional framework of the Amman Management Contract revealed that mainly judicial and international institutions and specific contract rules were constraining the discretion of the contracting parties. Political checks and balances were insufficiently established and the regulatory institutions of the water sector were set up in an improper way. The field study discovered that the resulting discretionary power of certain actors was used opportunistically, which had a detrimental effect on the outcome of the PSP arrangement. Nevertheless the overall performance of the arrangement was good from which the general insight was drawn that regulatory credibility may be developed even in unpropitious environments. However, to be able to judge upon the effect of governance and institutions on a planned or existing PSP arrangement each time a complex assessment of the respective institutional environment is necessary. This is because institutions may not be seen as independent building blocks but rather form a network which is likely to be unique for each country and situation.

The mini-thesis is organized as follows. In Chapter 1 an outline of the study and its problem background is provided. Chapter 2 provides a detailed literature review and sets out the theoretical framework and research hypotheses of the study. Chapter 3 outlines the research design and methodology that was used for the study. Chapter 4 provides background detail on the Jordanian political, economic and social situation, on the issues pertaining to the water sector, and on the Amman water contract. Chapter 5 provides a description and analysis of the main research findings. Chapter 6 provides a summary as well as final conclusions and considerations.

March 2008

DECLARATION

I declare that the thesis entitled *The Role of Institutions in State-Private Sector Interaction: The Case of the Management Contract for Water and Wastewater Services in the Amman Governorate, Jordan* is my own unaided work, that it has not been submitted for any degree or examination at any other university or higher education institution, and that all the sources used or quoted have been indicated and acknowledged by complete references.

Sylvia Marlene Steiner

March 2008



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Sylvia Marlene Steiner
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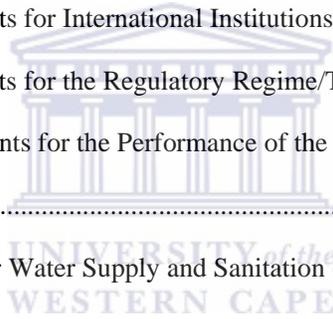
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List of Abbreviations

AGWA	Amman Governorate Water Administration
AWSMP	Amman Water and Sanitation Management Project
CIP	Capital Investment Programme
EIB	European Investment Bank
EU	European Union
GATS	General Agreement on Trade in Services
GAWSIP	Greater Amman Water Sector Improvement Programme
IDA	Institutional Decomposition and Analysis
IMF	International Monetary Fund
JD	Jordanian Dinar
KfW	Kreditanstalt für Wiederaufbau
LEMA	Suez Lyonnaise Des Eaux and Montgomery Watson Arabtech Jardaneh
MC	Management Contract
MENA	Middle East and North Africa
MWI	Ministry of Water and Irrigation
NGO	Non-Governmental Organization
NIE	New Institutional Economics
OECD	Organisation for Economic Co-operation and Development
OIF	Operating Investment Fund
PIC	Performance Incentive Compensation
PMU	Programme Management Unit
PSP	Private Sector Participation
ROE	Rate of Exchange
UFW	Unaccounted-for-water
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WAJ	Water Authority of Jordan
WEF	World Economic Forum
WSS	Water Supply and Sanitation
WTO	World Trade Organization

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION AND RATIONALE

Unsatisfactory access to water supply and sanitation is a key poverty issue which is affecting a substantial part of the developing countries.¹ Without a considerable improvement in the delivery of water and sanitation services this situation is expected to further deteriorate. The Middle East and North Africa (MENA) region is struck by one of the most acute water shortages as most of the countries of the region are arid to semi-arid environments. More than half of the water resources in the MENA countries are brought in from outside the region and what makes it more critical is that most of the water resources in this region have already been accessed.² However, the public sector in many developing countries so far has been unable to manage this development as can be seen from the unsatisfactory provision of water and sanitation in the field.³

This significant and urgent global problem raised my interest and motivated me to contribute with a case study to the ongoing theoretical debates on this issue. The universal development debate of the past two decades has increasingly identified good governance as a key requirement for development. Accordingly, the joint initiative on *Good Governance for Development in the Arab Countries*, launched by the UNDP, OECD and the Hashemite Kingdom of Jordan in 2005, identified the low quality and poor infrastructure of public services, such as water supply and sanitation, as a main challenge to governance.⁴ As a remedy to inadequate water sector management, the initiative advocated the participation of the private sector in water supply and sanitation.

1.2 RESEARCH PROBLEM

Private Sector Participation (PSP) in its various forms has often been suggested as a way out of ineffective and inefficient management systems, inadequate technology, and the lack of investment. However, as water involves the notions of a public good and

¹ cf. Carter, Richard C.; Danert, Kerstin., 2003, p.1

² cf. Abu-Zeid, Mahoud, 2003, p.1

³ cf. Al-Hmoud, Richard C.; Edwards, Jeffrey, 2004, p.1

⁴ cf. United Nations Development Programme, 2005, p.1

a human need, PSPs in the water sector stir political emotions like little else. What is more, after more than 15 years of private sector participation in water services, frequently promoted through the development agencies, the results of empirical studies on the effects of private sector participation remain generally inconclusive, showing successes and failures. The early enthusiasm of the 1990s for private sector participation has therefore begun to fade away. Nevertheless, PSPs – though in a more mature way, taking some of the key lessons learned into account – are still promoted by their advocates as a means of improving water supply and sanitation.⁵

The inconclusive record of PSPs in the water sector suggests that private sector participation does not *per se* contribute to an improvement of water supply and sanitation services. It rather indicates that the success of a PSP is determined by other exogenous and endogenous determinants. Further investigation into the topic showed that although the importance of governance and institutions for development has been widely acknowledged, little research has examined the performance of PSP arrangements in the water sector from a governance or institutional perspective. Most research focused on investigating issues such as the price mechanism and property rights allocation. However, these factors have proved unsatisfactory as explanatory variables in the context of natural resource management.⁶ Equally alarming is the fact that this lack in theory has recurred in development cooperation practice. A report of the World Bank's evaluation department in 2003 showed that only 37% of the water and sanitation projects with a PSP component were also concerned with the public regulation of such arrangements.⁷ In the meantime, two thirds of the projects fell back on contract regulation, thereby ignoring important governance and institutional factors. Merely outsourcing the provision of water and sanitation services to a private provider is clearly not a guarantee for improved water governance. The performance of the private operator is affected by the interaction between the state and the private operator. This interaction again is shaped by the broader institutional and regulatory framework of the PSP arrangement within which the parties operate.

It is the relative lack of previous research focus on the role of institutional variables in the operation and performance of private sector participation in sectors such

⁵ cf. Marin, Philippe; Izaguirre, Ada Karina, 2006, p.1

⁶ cf. Saleth, Maria R.; Dinar, Ariel, 2004, p.23

⁷ cf. Rothenberger, Dieter, 2004, p.20

as water, and the need to address this by case studies that take such variables into account, that forms the main research problem for this study.

1.3 OBJECTIVES AND RESEARCH QUESTIONS

The purpose or overall aim of the study is to evaluate the impact of the institutional framework (political, judicial, administrative, regulatory, and international) on the outcome of private sector participation in water supply and sanitation through a case study of the Amman Management Contract for Water and Wastewater Service in the Amman Governorate, Jordan.

Drawing in particular on the work of Levy and Spiller on PSPs in the telecommunication sector, the specific objective of the study is assess how the institutional environment of a transaction affects regulatory processes by abating or amplifying the potential for opportunistic behavior on the part of the contracting parties, thereby affecting the performance of a privately operated water utility. The general hypothesis to be tested in the case study is the following:

If the potential of political and administrative actors as well as the private operator to manipulate or exploit the contract are not sufficiently constrained by judicial, political, international and regulatory institutions, the performance of a privately operated water utility will be negatively affected.

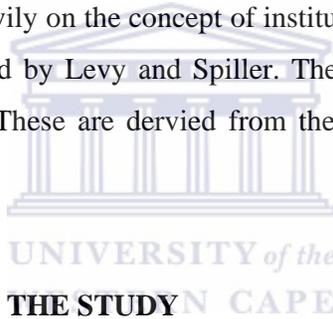
Key research questions that will be pursued by the study include the following:

- *Background knowledge:* What is the country's economic, political and social situation? How is the Jordanian water sector situated? What are the main elements of the Amman Water Management Contract?
- *Independent variables:* What kind of political, administrative and judicial institutions exist in Jordan? What kind of international institutions affect the contract? What kind of substantive constraints have been established?
- *Intermediary variables:* What incentives and potential do political/administrative actors and the private operator have to manipulate or exploit the contract? What is the degree of occurrence of opportunistic behaviour by the contracting parties? Have the regulatory, monitoring and enforcement mechanisms been effective?

- *Dependent variable:* How successful has the operator been in fulfilling obligations and attaining goals and targets set in the contract, and to what extent was performance influenced by the institutional framework within which it operated?

1.4 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

A detailed literature review and theoretical framework is provided in Chapter 2 of this mini-thesis. This first of all outlines key issues related to water governance, management and development. It then provides an overview of research, particularly within the field of transaction cost analysis, that has been carried out with particular regard to the determinants of the performance of private sector participation in public infrastructure. This is followed by the presentation of the theoretical framework of the study, which draws quite heavily on the concept of institutions and the new institutional economic approach developed by Levy and Spiller. The main research hypotheses of the study are then set out. These are derived from the theoretical models examined earlier in Chapter 2.



1.5 SIGNIFICANCE OF THE STUDY

The case which was chosen for this study is the Management Contract for Water and Wastewater Services in the Amman Governorate, Jordan. This case is significant as Jordan is a highly water-scarce country. In the arid Middle Eastern region Jordan is a pioneer regarding the implementation of private sector participation in the water sector and the contract under observation was the first one to be implemented in this country. It is also significant because the PSP option of a management contract, of the Jordanian kind, is increasingly becoming one of the preferred options for many private water companies, rather than the larger-scale and higher-risk forms of PSP (such as lease arrangements and concessions) that were more popular in the past.⁸ It is hoped that the research findings of this study will provide lessons for policy makers in the water and

⁸ cf. Marin, Philippe; Izaguirre, Ada Karina, 2006, p.1

related sectors in developing countries, as well as for academics in terms of future research.

1.6 RESEARCH METHODOLOGY

The research will be largely qualitative and will rely in part on desk research. This will take the form of a detailed literature review of contemporary issues and theoretical debates surrounding the issue of outsourcing and public-private contracting, both in general and in the water sector more specifically. It will also include a detailed description and analysis of key documentary sources on the Amman Water Contract, produced, for example, by the World Bank, the United Nations and LEMA (the private contractor - Suez Lyonnaise Des Eaux and Montgomery Watson Arabtech Jardaneh). Such documentary information will be backed up by semi-structured interviews with key stakeholders in Jordan, selected on the basis of their expertise and familiarity with the subject matter. Two sets of interview guidelines were prepared for these interviews: the first covering questions about the macro-institutional environment that were addressed primarily to members of political foundations and NGOs. The second set was comprised of questions related to water sector regulation and the management contract, which were addressed primarily to Jordanian government officials, water experts and donors. Greater detail about the research design and methodology is provided in Chapter 3 of this study.

1.7 ORGANIZATION OF THE STUDY

The mini-thesis is organized as follows. In Chapter 1 an outline of the study and its problem background is provided. Chapter 2 provides a detailed literature review and sets out the theoretical framework and research hypotheses of the study. Chapter 3 outlines the research design and methodology that was used for the study. Chapter 4 provides background detail on the Jordanian political, economic and social situation, on the issues pertaining to the water sector in Jordan, and on the Amman water contract. Chapter 5 provides a description and analysis of the main research findings. And Chapter 6 provides a summary as well as final conclusions and considerations.

CHAPTER 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 INTRODUCTION

This chapter is divided into four sections. The first section reviews the literature and outlines key issues related to water governance, management and development. It also outlines different models of drinking water provision, including different forms of private sector participation. The second section provides an overview of research that has already been carried out with regard to the determinants of the performance of private sector participation in public infrastructure. The third section presents the theoretical framework of the study, which draws quite heavily on the concept of institutions and the new institutional economic approach developed by Levy and Spiller in the context of the telecommunications sector. The fourth section sets out the main research hypotheses of the study, derived from the theoretical models examined in this chapter.

2.2 WATER GOVERNANCE AND DEVELOPMENT

2.2.1 Institutions and Governance

The introduction of reform-undertakings such as private sector participation has been advocated by the UNDP-initiative on *Good Governance for Development in the Arab Countries* as a remedy to some challenges that governance is facing. But what is governance and how does it relate to institutions?

The term *governance* is one of the more elastic concepts in the public and academic discourse. A broad definition by the World Bank defines governance as “the traditions and institutions by which authority in a country is exercised”.⁹ This means that formal and informal institutions (traditions) form the framework by which deployed actors exercise their authority. The World Bank concept identifies three dimensions of governance: first, “the process by which governments are selected, monitored and

⁹ Kaufmann, Daniel; Kraay, Aart; Mastruzzi, Massimo, 2003, p.2

replaced”; second, “the capacity of the government to effectively formulate and implement sound policies”; and third, “the respect of citizens and the state for the institutions that govern economic and social interactions among them”.¹⁰ The first dimension refers to the institutions that determine how actors are deployed and replaced and in which way citizens participate in this process. The second dimension is concerned with those institutions that affect the effectiveness of policy-making and the regulatory quality of policies. The third dimension deals with the “respect of citizens for the institutions which govern their interactions”, measured by the rule of law and the control of corruption.¹¹ The economics and comparative political economy literature have found a multitude of manifestations that reveal a link between institutional frameworks and governance outcomes, such as the effect of political checks and balances “on regulatory and fiscal performance” or “the effects of democratic institutions on a wide range of socioeconomic outcomes”.¹² Consequently, a proper institutional framework is crucial for the social and economic development of a country as well as the effectiveness of international development assistance.¹³

2.2.2 Water Supply, Poverty Reduction and Economic Development

In recognition of the urgent water problems which developing countries are facing, the aim of considerably improving the provision of clean drinking water and adequate sanitation especially to the poor was included in the year 2000 in the Millennium Development Goals.¹⁴ The urgency of this situation is demonstrated by the fact that the world’s demand for water resources has been growing much faster than the world population itself.¹⁵ Today one fifth of the world’s population does not have access to safe and reliably provided drinking water and half of the world’s population does not have access to sanitation. This results in 3-4 million deaths every year due to waterborne diseases.¹⁶

The importance of water for development, however, is not limited to nutrition and hygiene alone. An insufficient supply of water and sanitation affects further poverty dimensions. Poverty can be understood as a lack of essential economic, human,

¹⁰ Kaufmann, Daniel; Kraay, Aart; Mastruzzi, Massimo, 2003, p.2

¹¹ Kaufmann, Daniel; Kraay, Aart; Mastruzzi, Massimo, 2003, p.3f.

¹² Kaufmann, Daniel; Kraay, Aart; Mastruzzi, Massimo, 2003, p.21

¹³ cf. Kaufmann, Daniel; Kraay, Aart; Mastruzzi, Massimo, 2003, p.25

¹⁴ cf. <http://www.un.org/millenniumgoals/>

¹⁵ cf. Cosgrove, William J.; Rijsberman, Frank R., 2000, p.19

¹⁶ cf. Cosgrove, William J.; Rijsberman, Frank R., 2000, p.20

political, safety-related and socio-cultural capabilities.¹⁷ This also shows the ties of the poverty concept with the concept of development. Development can be defined with the words of Amartya Sen as the expansion of “the capabilities of people [...] that is, the substantive freedoms he or she enjoys to lead the kind of life he or she values”.¹⁸

With regard to the *human* dimension an insufficient access to water and sanitation affects also the chances for education, especially for women and girls. They are predominantly in charge of fetching and sometimes cleaning the water, which is time-consuming and has led in many countries to the underrepresentation of girls in schools. Tightly connected to this problem are the people’s *economic* chances. A lack of education and health affects their income. In addition, a shortage of water may restrict the opportunities for the establishment of small enterprises on the community level, which need water for their operation. The lack of *political* freedoms make people powerless against an unfair distribution of water, polluted supplies and deficient services, which may strike especially the poor and thus increase the before mentioned negative impacts of an insufficient water supply. Finally, with regard to the *safety-related* dimension, an insecure or insufficient supply of water may provoke violent water conflicts on local, regional and international levels as well as inner-family violence.

In addition to these direct effects of an insufficient access to water supply and sanitation on the people, the long term and macroeconomic effects of efficient water services on the development of a country also have to be taken into account. For example, to what extent does an efficient and profitable operation reduce the burden on the governmental budget? Furthermore, where water resources are depleted over the replenishment rate, increases in efficiency may help to converge towards the goal of a sustainably managed water sector.¹⁹ Poor people are disproportionately affected by insufficient and unsafe water supply and sanitation, as they have less access to medication, less storage capabilities, and less means to purchase water from alternative sources. Improved water services therefore may contribute to poverty alleviation.. Finally to what extent do improved water services increase the business productivity through long term benefits of improved education and health, a higher resilience of

¹⁷ cf. OECD/DAC, 2001, p.31f.

¹⁸ Sen, Amartya, 1983, p.755 and Sen, Amartya, 1999, p. 87, quoted from Durth, Rainer; Körner, Heiko; Michaelowa, Katharina 2002, p.8

¹⁹ cf. Shirley, Mary M.; Ménard, Claude, 2002, p.3f.

agriculture and food production to rainfall variability, and industrial development as industry is dependent on reliable water services? Sufficient, reliable and efficient water services of a high quality therefore also significantly contribute to economic growth.²⁰

2.2.3 Alternative Modes of Drinking Water Provision

Now that the interrelation between water, poverty and development has been pointed out, it is necessary to clarify how these problems may be addressed. With regard to the use of water in the water-scarce MENA region, it can be said that while “water per capita consumption rates are the lowest in the world, municipal and industrial water requirements are expected to double and triple over the next years.”²¹ However, although water demand is rising, the world is facing a crisis of effective water management rather than a crisis of scarcity per se. With today’s knowledge, experience and technology, water problems are potentially manageable providing the resource is used and managed a lot more efficiently than in the past.²² However, securing safe and affordable water and sanitation services for all is still a major challenge to water governance in developing countries.

Traditionally water and sanitation have been provided publicly. However, in many developing countries the public sector has proved incapable of overcoming ineffective and inefficient management systems, of introducing modern technologies and of providing sufficient investment. As a remedy to this challenge donors have over the past two decades promoted private sector participation. Private sector participation shall be defined here as including all arrangements between a public and a private partner that involve the latter in the delivery of infrastructural services.²³ The possible forms of PSP range from the hybrid forms of a management contract, an affermage contract, a lease contract or a concession to fully private provision (divestiture) as the main alternatives (see Figure 1).²⁴

²⁰ cf. Stockholm International Water Institute, 2002, p.9ff.

²¹ Abu-Zeid, Mahmoud, 2003, p.115

²² cf. See Biswas, Asit K.; Tortajada, Cecilia, 2005

²³ cf. World Bank, 2006a, p.xiii

²⁴ Further alternatives known as BOT, BOO, BOOT and others are available, but make no difference with regard to the causal mechanisms assumed in this research.

FIGURE 1: FORMS OF PSP

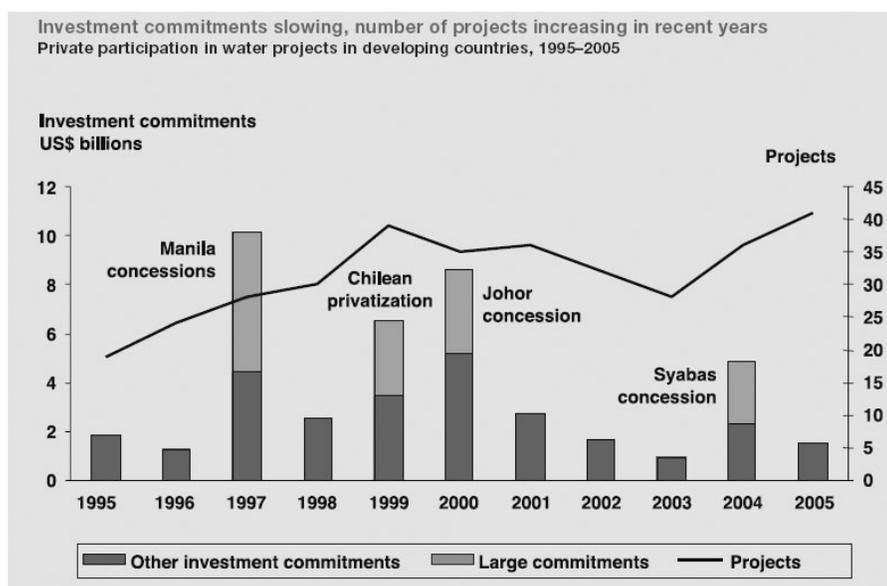
Option	Ownership of		Financing infrastructure investment	Operations
	operating assets	infrastructure assets		
Management contract	Contracting authority	Contracting authority	Contracting authority	Private Operator (receives a fee)
Affermage contract	Private Operator	Contracting authority	Contracting authority	Private Operator (retains a fee)
Lease contract	Private Operator	Contracting authority	Contracting authority	Private Operator (pays a lease fee)
Concession	Private Operator	Contracting authority	Private Operator	Private Operator (retains revenues, pays concession fee)
Sale or full divestiture	Private Operator	Private Operator	Private Operator	Private Operator (retains revenues, pays license fee)

Source: Merged and adapted from Prasad, Naren (2006), p.682 and World Bank (2006a), p.9

In the case of a management contract the responsibility for the management and operation of a utility is transferred to a private operator, but the ownership and the responsibility for investments remains public. The operator receives a fee of which a part is usually conditional on achieving performance targets. In affermage and lease contracts, the contracting authority keeps the task of financing the investments, but the operator is responsible for operating and maintaining the business and therefore owns the operating assets. The options differ in the way that in affermages the operator retains a fee from the revenues that have been collected on behalf of the contracting authority, while the operator in case of a lease contract has to pay a lease fee from the collected revenues to the public authority. The concession is a form of a PSP where the operator, in addition to the responsibilities mentioned in the previous two options, is responsible for financing the investments but without owning the infrastructural assets. In this case, the operator retains the revenues in return for a concession fee. Finally, the divestiture is an arrangement where the operator is obliged to pay a license fee, but has the full responsibility for the business and owns the infrastructural assets.²⁵ With the increase of responsibility and ownership transfer in the above mentioned arrangements, both the risk and potential profits for the operator increase.

²⁵ cf. World Bank, 2006a, p.7ff.

FIGURE 2: INVESTMENT COMMITMENT AND NUMBER OF PROJECTS



Source: Marin, Philippe; Izaguirre, Ada Karina, 2006, p.2

Recent trends show that governments and operators are shying away from arrangements involving major risks such as in a concession or divestiture. The share of management and lease contracts in PSP projects has risen from 19% in the second half of the 1990s to 24-25% in the years 2001-2005.²⁶ Countries with no previous experience of PSP in the water sector tend to fall back upon arrangements where the private operator is in charge of increasing the operational efficiency of the utility, while the public authority remains responsible for financing the investments. The fact that developing countries have been able to obtain the necessary financing on better conditions from donors may have been a catalyzing factor in this trend.²⁷ Thus, as Figure 2 above shows, while the amount of private investments in the water sector has declined in recent years, the number of new contracts has grown. This shows that neither governments nor private operators have turned away from PSP in general, but are rather concentrating on the managerial and operational competences of the private side while avoiding the risks that result from entering into long-term commitments with high risks.

After two decades of private sector participation in water management, there is no conclusive proof regarding their efficiency as results have been mixed and empirical

²⁶ cf. Marin, Philippe; Izaguirre, Ada Karina, 2006, p.3

²⁷ cf. Marin, Philippe; Izaguirre, Ada Karina, 2006, p.3

studies remain open to doubt. Although various case studies have revealed improvements in the sector following privatization, these studies often used samples that typically did not entail “enough variation either across countries or over time to find strong, statistically significant results”.²⁸ Opponents of PSP have argued that the privatization of water supply and sanitation services has often been characterized by problems such as corruption, excess pricing, excess profits and low water quality; problems which are often associated with the replacement of public monopolies by private ones.²⁹ For this reason and because of the political sensitivity of the water issue the debate on water privatization has become extremely polarized. Over time, “water has been conceptualized as a service, an economic good, a social good, an environmental need, a human right, and in many other ways”.³⁰ However, too often pro- and anti-privatization proponents have ignored the new insights each of these concepts has brought, and advocated water either as a commodity or as a right. While water certainly can be considered as a social good, the reliable provision of safe water is a service “which costs money, energy and human resources”.³¹

2.3 LITERATURE REVIEW: APPROACHES AND LEVELS OF ANALYSIS

This section provides a brief overview of some of the key research that has been undertaken on the determinants of the performance of private sector participation in infrastructure provision. Much of the literature on PSPs has hitherto concentrated on large-scale projects with high private investments, leaving small-scale projects and PSPs of a management or lease contract type relatively neglected.³² The author regards this as an inappropriate narrowing of the view on PSP, especially as the recent development shows that the share of low-risk options is rising.³³

The literature review is structured according to the level of analysis on which the determining factors (that the authors put forward) can be located. The definition of levels is borrowed from a later work of Oliver Williamson.³⁴ Williamson identifies four levels for the analysis of transactions: (1) the level of institutional embeddedness, (2)

²⁸ Clarke, George R.G.; Kosec, Katrina; Wallsten, Scott, 2004, p.4

²⁹ cf. Lobina, Emanuele; Hall, David, 2000, p.36

³⁰ Carter, Richard .C.; Danert, Kerstin 2003, p.1070

³¹ Carter, Richard C.; Danert, Kerstin 2003, p.1071

³² cf. Budds, Jessica 2000, p.55

³³ cf. Marin, Philippe.; Izaguirre, Ada Karina 2006, p.3

³⁴ cf. Williamson, Oliver, 2000, p. 597

the level of the institutional environment, (3) the level of governance, and (4) the level of resource allocation and employment (see Figure 3). Levels 1 and 4 will be covered fairly briefly and largely for completeness, while the main focus of this review is on the two middle levels. The levels will be listed in reverse order, starting with the fourth level.

FIGURE 3: LEVELS OF ANALYSIS

Level	Focus	Purpose	Broader Theory
Level 1	Embeddedness: informal institutions, customs, traditions, norms, religion	Often non-calculative; spontaneous	Draws from social theory
Level 2	Institutional environment: formal rules of the game – esp. property (polity, judiciary, bureaucracy)	Get the institutional environment right.	Draws from the economics of property rights/positive political theory
Level 3	Governance: especially of . contracts (aligning governance structures with transactions)	Get the governance structures right.	Draws from transaction cost economics
Level 4	Resource allocation and employment (prices and quantities; incentive alignment)	Get the marginal conditions right.	Draws from neoclassical economics/agency theory

Source: Adapted from Williamson, Oliver, 2000, p. 597

2.3.1 Level of Resource Allocation and Employment

The fourth level draws from the fields of neoclassical economics as well as the agency theory. Neoclassical economists are mainly concerned with prices and quantities as they find that an optimal resource allocation is automatically created through competition in the market. Such findings are based on the assumption of perfect competition. However, the provision of infrastructure services, in particular water and sanitation, entails natural monopoly characteristics.³⁵ A mere reliance on price mechanisms and competition would therefore be inadequate and inappropriate for infrastructure services. Proper price setting mechanisms may therefore only be considered as one of the building blocks that affect the performance of PSP

³⁵ A natural monopoly occurs where the fixed costs for entering the market are very high. The high investments that are necessary especially for piped distribution systems make it uneconomic for a second supplier to enter the market.

arrangements. Agency theory, on the other hand, emphasises the alignment of incentives and an efficient sharing of risks between the contracting parties before the signing of a contract (ex-ante).³⁶ Thus, this theory could help to explain failures of PSPs to deliver when there are deficiencies in the contract, in particular with respect to the incentive schemes. Better contractual conditions could hence avoid a future failure.

2.3.2 Level of Governance

In contrast to the foregoing approach, transaction cost economics (which forms part of the field of new institutional economics) focuses on the governance of contractual relations. A pioneer of the transaction cost approach is Oliver Williamson. His particular interest was to explain why specific transactions governed by specific institutional arrangements are undertaken more or less efficiently. As the new institutional economic approach helps to form the basis for the theoretical framework of this study, it will be discussed more comprehensively than the previous approach.

Williamson's main argument is that the level of transaction costs is directly related to the degree of (mis)fit between *transaction characteristics* and the chosen *governance structure* (e.g. contract type). He discerns three dimensions for characterizing transactions: uncertainty, frequency and idiosyncrasy. Uncertainty refers to the unknown circumstances that will prevail during a contract's implementation. As the rationality of human beings is bounded, it can become necessary to adapt the contract, which involves costs for renegotiation and modification. With regard to the frequency dimension, three types can be identified: one-time, occasional and recurrent transactions. This dimension affects costs, because recurrent transactions over a long time require other enforcement mechanisms than occasional transactions. Finally, the last dimension classifies investments into non-specific, mixed and idiosyncratic ones. With an increasing degree of idiosyncrasy (i.e. the more specific the investments are), the supplier's capability to transfer investments to other locations or purposes without considerable loss of value decreases. Thus, the supplier is "locked into" the transaction to a significant degree".³⁷ The lock-in effect describes a situation where sunk costs induce the supplier to continue supplying even when the business is uneconomic in the short term in order to prevent the loss of the investments. If the buyer is aware of this

³⁶ cf. Williamson, Oliver, 2000, p. 600

³⁷ Williamson, Oliver, 1979, p.240

lock-in, the danger of the buyer's opportunism grows.³⁸ The transaction costs that can be associated with this feature are the costs for preventing the buyer from opportunism and the costs that arise from enforcement mechanisms to ensure that the supplier makes the agreed-upon investments.

To make the transaction efficient, the level of (especially ex-post) costs has to be kept low. According to Williamson, transaction cost efficiency can be achieved through the right choice and design of a governance structure. Governance structures are "arrangements [e.g. contracts] between economic units that govern the way they cooperate and/or compete".³⁹ Williamson distinguishes three main types of arrangements available for the governing of transactions: markets, hierarchies, and hybrids. A market transaction is the simplest and most flexible governance structure because ex-ante contracting costs are low and no specific enforcement mechanisms have to be established. This is mainly because competition protects each party against opportunism of the other party. The flexibility of the arrangement makes it especially suitable for transactions with a high degree of uncertainty, but a market is only appropriate for non-specific investments of all frequencies. If more specific goods or services are involved, possible market alternatives decrease and room for opportunism emerges.⁴⁰ In the case of a hierarchy a single authority decides upon the use of assets and bears all risks. The transaction is vertically integrated into the firm or any other entity, thereby securing a high commitment and minimizing the danger of opportunism. But due to a lack of competition, internal organization tends to be short of incentives for cost reductions and productivity enhancements. Thus, a hierarchy is only appropriate, if the transaction is highly idiosyncratic and uncertain. Finally, hybrids are those kinds of contractual frameworks, for which various possibilities exist in which way the ownership of assets, the risks and decision-making rights can be distributed between the parties and for which a variety of mechanisms can be established to protect from opportunism. In general, Williamson recommends them for transactions with mixed investment characteristics of a recurrent type and idiosyncratic investments of an occasional type. However, for the special case of the regulation of a natural monopoly, such as water supply, which demands highly idiosyncratic investments, he argues that,

³⁸ For a definition and explanation of the term 'opportunism' see chapter 4.1.

³⁹ Huet, Freddy; Saussier, Stéphane, 2003, p.413

⁴⁰ cf. Williamson, Oliver, 1979, p.253

if efficiency concerns “necessarily join buyers and sellers in a bilateral trading relation of a continuing nature”, then a specialized governance structure, namely a hybrid, is the appropriate governance structure.⁴¹

The preceding explanation of Williamson’s approach has pointed out that the degree of a (mis)fit between the characteristics of a transaction and its chosen governance structure determines the transaction costs. This hypothesis is empirically supported by a research by Ménard and Saussier (2002) who have applied the transaction cost approach in their examination of contractual choice and performance in the water supply in France.⁴² They were able to econometrically test the assumptions underlying the approach and what they found is what the theory suggests. If the mode of governance is chosen in accordance with what the transaction situation requires, then the performance of this arrangement is similar or better than the performance of arrangements working in comparable conditions but under a different mode of governance. The performance was relatively good when a transaction characterized by a high uncertainty and specificity of investments was governed by an integrated arrangement,⁴³ i.e. public provision or a management contract. Empirical results further showed that whenever the transaction is less uncertain and investments are less specific, a concession is an advisable PSP arrangement. From their findings Ménard and Saussier conclude that there is no absolute advantage for one specific governance mode, but “comparative advantages that depend crucially on the characteristics of the transactions that modes of governance organize”.⁴⁴ *Getting the governance structure right* is therefore one key determinant of the performance of a transaction (such as a PSP arrangement), whereas performance is used here in the sense of transaction cost efficiency.

2.3.3 Level of the Institutional Environment

When we move to the second level we may distinguish between approaches that originate from political economy or public choice theory on the one hand and new institutional economics (NIE) theories on the other hand. The NIE approaches of the second level differ from the transaction cost economics on the third level (which are

⁴¹ Williamson, Oliver, 1979, p.258

⁴² cf. Ménard, Claude ; Saussier, Stéphane, 2002, p.8

⁴³ cf. Ménard, Claude ; Saussier, Stéphane, 2002, p.25

⁴⁴ Ménard, Claude; Saussier, Stéphane, 2002, p.27

also part of the NIE) in the sense that they are concerned with the *rules of the game*, and not with the *play of the game*.⁴⁵

The case study by Baietti, Kingdom and Ginneken (2006) about the characteristics of well performing water utilities identifies political factors as the main determinants of success and can therefore be assigned to the first category. Their study examines public water utilities, but the identified key attributes of well-performing public utilities are also regarded as valid for private utilities.⁴⁶ The findings of the case study show a link between the performance of the utilities and the way they are connected with their environment: Well performing utilities are boasting a significant degree of autonomy and an accountability framework that is capable of maintaining an equilibrium between the various stakeholders (national government, municipal officials, community leaders, financing institutions and customers).⁴⁷ In contrast, poorly functioning utilities showed a low autonomy and distorting influences from the various stakeholders. Their conclusion is therefore that a utility's autonomy combined with balanced accountabilities to a variety of stakeholders (including customers) prevents politicians and others from pursuing their short-term political interests by arbitrarily interfering into the utility, thus fulfilling an important condition for good performance.

Another view is taken by Rufin and Romero (2003) in their study of the sustainability of regulatory reforms in Latin America. They find that the independence of a regulatory entity is a crucial criterion to both secure commitment from the public side and to prevent capture from the private side. The possibility of a capture of regulatory entities by the regulated companies depends on the resources and capabilities available to regulators. The danger of a lack of commitment of the public side on the other hand lies within what they call "time inconsistency in public policy", i.e. the pursuing of policies that are inconsistent with past ones.⁴⁸ They find this phenomenon especially prevalent in infrastructure services because of their vulnerability to patronage. The danger of appropriation becomes likely, which is the "gradual erosion of private property rights".⁴⁹ But in the case that regulatory independence has been established, its sustainability depends on structural features that determine the actors'

⁴⁵ cf. Williamson, Oliver, 2000, p. 599

⁴⁶ cf. World Bank, 2006b, p.2

⁴⁷ Baietti, Aldo; Kingdom, William; van Ginneken, Meike, 2006, p.10ff.

⁴⁸ Rufin, Carlos; Romero, Evanán, 2003, p.1

⁴⁹ Rufin, Carlos; Romero, Evanán, 2003, p.3

ability to commit. Stability-providing constitutions, effective legislative and judicial supervision, high competence, participation and transparency are features that make the reversal of regulatory independence more difficult. In summary, Rufin and Romero identify in their analysis a mix of political and institutional factors as determinants of the likelihood of appropriation and capture which again affect the performance of a utility.

This brings us to the NIE approaches of the second level which concentrate on institutional factors. Saleth and Dinar (2004) have developed a framework to identify those institutions, institutional linkages and external influences that may have an impact on water sector performance.⁵⁰ They distinguish between water institutions and exogenous or contextual influences. The water institutions are composed of the water law (water rights, scope for private participation etc.), the water policy (use priority, project selection etc.), and the water organization (structure of water administration, finance patterns etc.). The environment which may have an influence on the water institutions or directly on the water sector performance is characterized by the political system, the legal system, the demography, the economic development and policies as well as the resources environment. Institutions affect water sector performance by their effects on the transaction costs, since they are able to minimize uncertainty and thus facilitate exchange.⁵¹ Regarding the factors exogenous to the water sector Saleth and Dinar find that they “represent the exogenous constraints and opportunities facing the water sector” and thus shape the interaction between institutions and water sector performance.⁵²

Another approach on the second level which emphasizes the institutional environment is the one by Levy and Spiller (1994) in their study of PSPs in the telecommunication sector.⁵³ While Ménard and Saussier have narrowly applied the generic form of the transaction cost approach, Levy and Spiller (1994) have augmented it with macro-institutional factors, namely political and judicial institutions, and tested the validity of this framework in a comparative analysis of privatized telecommunications regulation. Their objective was to verify if the institutional environment in a country affects the regulatory commitment of the government and if

⁵⁰ cf. Saleth, Maria R.; Dinar, Ariel, 2005, p. 3

⁵¹ cf. Saleth, Maria R.; Dinar, Ariel, 2004, p. 35

⁵² cf. Saleth, Maria R.; Dinar, Ariel, 2004, p. 105

⁵³ cf. Levy, Brian; Spiller, Pablo T., 1994, pp.201-246

this has an influence on the sector's economic performance. The results of their empirical examination show that if a country lacks the necessary institutional environment that substantiates commitment and if this lack is not absorbed by a regulatory system that is correspondingly designed, the performance of the private operator will be weak. Holburn and Spiller (2002) have made use of the same theoretical framework and applied it to international electricity sector reforms.⁵⁴ Their findings confirm Levy and Spiller's assumptions since they also identify institutional provisions, particularly a credible regulatory environment, as major conditions for the success of private sector participation. We will come back to this approach later and will now continue with a short reference to Williamson's last level of social analysis.

2.3.4 Level of Institutional Embeddedness

The level of institutional embeddedness refers to informal institutions such as customs, norms, tradition and religion. Analysis of this level has been undertaken by economic historians and other social scientists.⁵⁵ As each higher level imposes constraints on the level immediately below, the level of embeddedness also restrains the possible efforts to *get the institutional environment* right. However, informal institutions themselves can hardly be shaped deliberately, but usually develop in a non-calculative and spontaneous way. Therefore Level I is often taken as given.

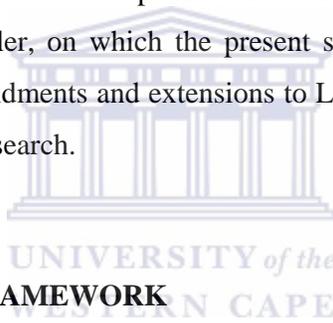
The preceding survey of the literature shows that the research on the determinants of the performance of private operators in public infrastructure projects has been carried out on different levels. Many enquiries have been devoted to the level of resource allocation and employment. However, neoclassical economics have largely failed to explain the experienced malfunctions of PSP arrangements and the basic assumptions of the theory have been widely challenged by the new institutional economics (NIE) theories. Therefore, this level has been traced here only marginally. With respect to NIE theories much of the research has focused on regulation as a contracting problem and has therefore concentrated on investigating the adequate allocation of property rights, the definition of incentive and enforcement schemes and the fitting of the contractual terms with the transaction characteristics.

⁵⁴ cf. Holburn, Guy L.F.; Spiller, Pablo T., 2002, pp.1-40

⁵⁵ cf. Williamson, Oliver, 2000, p. 596

However, current development debates indicate that a country's broader governance system is increasingly recognized as a vital requirement for development. The present study therefore aims at closing a gap in research by providing a systematic application of a framework, which aims at identifying in which way institutions (and not the contract design as such) affect the performance of private sector participation in the water sector. Thus, it will take into account the specific characteristics of the water sector, as it is assumed that the characteristics of other infrastructure services (such as telecommunication and electricity) will not allow a one-to-one transfer of the conclusions of existing research in these fields. The conceptual framework will be adapted to be applicable to all types of private sector participation, thereby compensating for the bias in literature towards large-scale and high-risk investments.

The following section further develops the theoretical framework for this study, in particular by discussing the concept of institutions; outlining the framework developed by Levy and Spiller, on which the present study relies quite heavily; and identifying a number of amendments and extensions to Levy and Spiller's approach for the purposes of the present research.



2.4 THEORETICAL FRAMEWORK

2.4.1 The Concept of Institutions

Institutional economists define institutions as “humanly devised constraints that structure human interaction”⁵⁶ or as “rules that together describe action situations, delineate action sets, provide incentives and determine outcomes”.⁵⁷ In other words, the notion of an institution contains several elements. Behavioural rules may be formal (e.g. laws, constitutions) or informal (e.g. norms of behaviour, conventions, self-imposed codes of conduct).⁵⁸ In any case, these rules constrain or encourage a certain human behaviour. This applies because institutions entail mechanisms that enforce these rules, either through incentives or through enforcement mechanisms. Here, one can distinguish between private and state enforcement. While the former means the

⁵⁶ North, Douglass, C., 1994, p.360

⁵⁷ Saleth, Maria R.; Dinar, Ariel, 2005, p.2

⁵⁸ cf. North, Douglass, C., 1994, p. 360

enforcement of customs, norms and conventions through society, or of formal private rules through organized private monitoring, the latter is the organized enforcement of positive law by the state. The notion of institutions that will be used in this study is wider than the notion of organisations. Organisations are the bodies or activity systems which include concrete individuals and which are governed by institutional arrangements.

Now that these terms have been clarified, it is necessary to look into the different categories of institutions. One can identify judicial institutions that regulate legal interactions through the definition and enforcement of rights and duties. Another category are political institutions, which govern political interactions, for example constitutions, electoral rules and federalism. Economic institutions influence or determine economic interactions, by means of markets, contracts, allocation of ownership etc. Finally, social institutions regulate social interactions, such as informal norms, but also formal rules such as gender quotas.

Institutions affect interactions by constraining and encouraging a certain human behaviour through incentives and disincentives. Acting according to the rules of the game rewards the players or at least does not lead to their punishment. However, acting against the rules results in sanctions and is therefore costly, provided that the institutions are properly enforced. By shaping the incentives of the actors, institutions increase the information level of the players about the strategies that are available for their counterparts and about their related costs and benefits for them. For example, an administrative actor will not exceed his/her competences, if the consequences for him/her are costly. In this example, this may be the case if the water sector is properly juridificated and the administrative actor can expect to be held responsible for misconduct. Being aware of the constraints on the behaviour of the administrative actor, his/her counterpart possesses information on the likelihood of the different strategies available to him/her. Thus, institutions are able to decrease uncertainty. The ability to forecast the strategic behaviour of the players to some extent reduces risk and consequently facilitates exchange.⁵⁹

Institutions are also related to the costs of transactions. A transaction can be defined as a transfer of a good or service “across a technologically separable

⁵⁹ cf. Saleth, Maria R.; Dinar, Ariel, 2004, p.35

interface”.⁶⁰ The terms of a transaction may be specified in a contract between the transaction partners. In economic terms, a contract can be defined as an agreement under which at least two contracting parties “make reciprocal commitments in terms of their behaviour”.⁶¹ When setting up a contract ex-ante costs for information, negotiation, writing, and ex-post costs for monitoring and enforcing arise. If the contract also entails the combination of resources, further costs are added such as organization, ongoing communication, reporting etc. With the preciseness of the contract also the costs of the transaction rise. Nonetheless, even if high contracting costs are computed, contracts are necessarily incomplete, because the rationality of all players is bounded.

When the institutional framework insufficiently constrains the discretion of the actors in a transaction (e.g. through incomplete contracts, lacking regulation or ineffective enforcement), opportunistic behaviour may arise, which is defined here as the pursuit of self-interests by one or both of the transaction partners.⁶² This includes all breaches or disregards of the contract, pressure for its renegotiation or manoeuvres of manipulation and deception. Even though a highly precise contract might discourage opportunism to a major extent, opting for precision is not a solution to the problem of opportunism. The reason is that it makes the transaction inflexible and that with the precision of the contract the costs of contracting rise.⁶³ While the set up of institutions (such as contract law) creates costs, institutions are also able to reduce transaction costs by limiting the discretion of the actors, which again decreases the need for precise contracts, large-scale monitoring and detailed enforcement mechanisms.

The argumentation above has shown that the institutional environment affects the contractual performance of the transaction partners (i.e. their behaviour within the transaction) by limiting their discretion. An inappropriate alignment of institutions is likely to have unintended outcomes. The same applies in the case of an insufficient enforcement of institutions, i.e. if actors expect that sanctions will not be imposed even if rules are broken. However, the proper design of institutions may contribute to bring about a good performance, in terms of contractual performance and consequently also the effectiveness of the contract (i.e. achieving contractual targets). This means that

⁶⁰ Williamson, Oliver, 1981, p.552

⁶¹ Brousseau, Eric; Glachant, Michel, 2001, p.2

⁶² cf. Durth, Rainer; Körner, Heiko; Michaelowa, Katharina, 2002, p.214. [Translated by the author]

⁶³ cf. Saleth, Maria R.; Dinar, Ariel, 2004, p.99

institutional frameworks can be more or less developed, i.e. more or less effective in helping to bring about desired outcomes. Due to this link between the institutional framework and the effectiveness of the contract, this study assesses the success of a PSP in terms of the effectiveness of the contract. Naturally, an effectively implemented contract is not necessarily successful in developmental terms, if the increase of efficiency and welfare is not among its objectives. But neither is a contract a success in developmental terms merely for the reason that it aims at the increase of efficiency and welfare. To be a success in these terms it first needs to be effectively implemented.

2.4.2 Theoretical Framework Developed by Levy and Spiller

The theoretical framework by Levy and Spiller is rooted in transaction cost economics, but it supplements the transaction cost approach by adding the *institutional environment* as an exogenous variable. The specific objective of their study of PSPs in the telecommunications sector is to show how political and judicial institutions affect regulatory processes by abating and amplifying the potential for administrative expropriation or manipulation, thereby affecting the performance of a privately operated water utility.⁶⁴ They define political institutions as those formal mechanisms that establish how laws and regulations are made and how the members of the legislative and the executive are appointed, how these laws are implemented, and what the nature of the relation between the executive and the legislative is. Judicial institutions are defined as those formal rules that determine the internal structure of the judiciary and the mechanisms for appointing judges, as well as the resolution mechanism for conflicts among private parties or state-private party conflicts.⁶⁵

Before explaining which effects these institutions may have, it makes sense to trace the linkage between the terms used by Levy and Spiller and those by Williamson. Williamson defines the *governance structure* of a transaction as an “institutional matrix within which transactions are negotiated and executed”.⁶⁶ Although with this definition he mainly refers to contractual institutions, which regulate the behaviour of the parties, the concept can easily be expanded at this point. Levy and Spiller distinguish two notions: the *regulatory governance framework* and the *regulatory incentives*. The regulatory incentives are those rules (institutions) that constrain the monopoly

⁶⁴ cf. Levy, Brian; Spiller, Pablo T., 1994, p.202

⁶⁵ cf. Levy, Brian; Spiller, Pablo T., 1994, p.205f

⁶⁶ Williamson, Oliver, 1979, p.239

behavioural tendencies of utilities, such as pricing, subsidies, and assignment of risks and rewards.⁶⁷ The regulatory governance framework comprises the mechanisms that constrain regulatory discretion of political and administrative actors who have the final authority over the sector. Furthermore, it includes the rules that resolve conflicts, which come up in relation to these constraints.⁶⁸ Levy and Spiller argue that most of the literature dealing with regulation has been preoccupied with what falls under the regulatory incentives, and that this focus is inadequate. They state that regulatory incentives indeed matter for performance, but that “their impact (positive or negative) comes to the forefront only if regulatory governance has successfully been put in place”.⁶⁹ One example is that incentives for an operator to invest are only effective if the operator does not need to fear that his investments – once they are made – are devalued by the opportunistic actions of the regulator. This problem is known to Williamson as a *hold-up problem*. To fill the gap in the literature, Levy and Spiller concentrate on the regulatory governance of transactions and the institutional environment in which it is embedded.

Levy and Spiller find that political and judicial institutions affect the regulatory processes between regulator and operator in two ways: *on the one hand* by influencing the potential for manipulation and expropriation by political and administrative actors; and *on the other hand* by determining which PSP options are most suitable. The latter is important, as long-term complex contracts that transfer more responsibility to the private party require more effective regulation and supervision than short-term and simpler contracts that transfer less responsibility. However, this study will concentrate on the first aspect of institutions and come back to the second one in the final chapter when concluding on the role that the institutional framework played in the case study.

When looking at the regulatory problem it becomes clear that the special transaction features of utilities intensify the danger of arbitrary political and administrative action. First, public infrastructure is characterized by large sunk investments (or idiosyncrasy). This means that a private operator that has assumed the responsibility for such investments (for example, concessions) is locked into the

⁶⁷ cf. Figure 1, Level 4

⁶⁸ cf. Holburn, Guy L.F.; Spiller, Pablo T., 2002, p.8

⁶⁹ Levy, Brian; Spiller, Pablo T., 1994, p.205

transaction to a considerable extent. Second, the potential for economies of scale⁷⁰ entail monopoly characteristics. And third, the fact that utility services are massively consumed creates the attention of politicians and interest groups towards the level of utility pricing and service quality.⁷¹ These three features, sunk investments, monopoly characteristics, and massive consumption, provide governments with an opportunity and incentive to expropriate an operator's sunk assets or to manipulate the regulatory regime.

However to do so, governments do not need to re-nationalise a utility, but can gradually usurp the assets of a private operator and manipulate the contractual conditions through regulatory procedures and administrative measures. This is profitable for a government if “the direct costs (reputation loss vis-à-vis other utilities, lack of future investments by utilities) are small compared to the (short term) benefits of such action (achieving re-election by reducing utilities' prices, by challenging the monopoly, etc.), and if the indirect institutional costs (e.g. disregarding the judiciary, not following the proper, or traditional, administrative procedures, etc.) are not too large”.⁷² From this it can be concluded that the likelihood of arbitrary action from political and administrative actors is the highest in those countries where the indirect institutional costs and the direct costs are small and the time horizon of the government is short. The indirect institutional costs are determined by the political and judicial institutions. If the checks and balances on decision-making are marginal, if the administration has strong regulatory power, and if the judiciary is not independent enough to review administrative decisions, then the regulatory discretion of political and administrative actors is large. If, moreover, the elections take a highly contested form and there is a strong need of political actors to satisfy interest groups, then the incentive to use this regulatory discretion rises and opportunism becomes more likely.⁷³

Levy and Spiller conclude from this (with a bias towards PSPs of a concessionary or similar type) that under such circumstances, uncertainty is a major factor for private companies, which may result in under-investment. A utility might still invest, but it will only do so in fields where a high market return is combined with a

⁷⁰ Economies of scale are present when an increase of input factors (e.g. by 100%) leads to an even higher increase of output (more than 100%). This typically leads to a reduction of suppliers in the market.

⁷¹ cf. Holburn, Guy L.F.; Spiller, Pablo T., 2002, p.3

⁷² Holburn, Guy L.F.; Spiller, Pablo T., 2002, p.4

⁷³ cf. Holburn, Guy L.F.; Spiller, Pablo T., 2002, p.4

short payback period. Furthermore, it will tend to limit its maintenance expenditures, which may well lead to a decreasing quality of the infrastructure. In addition, the technologies used will tend to have a lower degree of specificity, as they entail lower costs and can be transferred to other uses. Finally, a short payback-period may be realized through high service prices.⁷⁴ To attract sustainable long-term investments the government will therefore have to design regulatory frameworks which limit its own ability for opportunism that is given by the institutional environment. Such institutional arrangements can for instance prescribe price-setting procedures or specify that conflicts must be solved through an arbitrator or the judiciary. However, specialized governance structures entail costs and the types of regulations that are credible within a detrimental institutional environment are limited.⁷⁵

Hence, to allow for efficient regulation and satisfactory performance of private operators three complementary mechanisms restraining arbitrary administrative action need to be in place: (a) substantive restraints on regulatory discretion, (b) formal or informal restraints on changing the regulatory system, and (c) institutions that enforce both the substantive restraints and restraints on system changes.⁷⁶ To remain within the logic of the levels that were introduced in the literature review, we will start backwards:

Mechanism (c): The basic precondition for a government to show that it credibly refrains from expropriation and manipulative administrative action is the existence of an independent judiciary. This guarantees that restraints on discretion and restraints on system changes will be enforced. It is unlikely that countries where the judiciary is not independent, will be capable of sustaining efficient private sector participation and investments. Yet, if in such a case, the government still prefers a PSP to a vertically integrated public supply, then international guarantees might secure enough commitment to attract some private investment.

Mechanism (b): Institutional restraints on *changing the regulatory system* can be promoted in a variety of ways. Levy and Spiller distinguish two main categories: (i) systems that can provide credible regulatory commitment via *legislation*, and (ii) systems in which political actors need to show commitment by basing the regulatory process in *contract law*. The former category (i) in the broadest sense includes political

⁷⁴ cf. Holburn, Guy L.F.; Spiller, Pablo T., 2002, p.5

⁷⁵ cf. Levy, Brian; Spiller, Pablo T., 1994, p.202

⁷⁶ cf. Levy, Brian; Spiller, Pablo T., 1994, pp.209-211

systems with separated executive and legislative powers, multi-chamber legislatures elected non-simultaneously under different voting rules, federalism with strong decentralization, and proportional representation which tends to generate a large number of parties. If a number or all of these features characterize a political system, its legislation becomes more credible, since they make a change of legislation more difficult as a variety of contending actors would need to agree to such changes (checks and balances). The regulatory decision-making procedures of these systems may therefore be specified in administrative law. However, a political system with overlapping executive and legislative powers, one-chamber legislatures, strong centralization as well as majority vote systems (category ii) involve the danger for the private contracting party that legislation is easily adjusted, when priorities of a government change or the ruling party/parties change. In other words, in countries where the governmental power alternates between two parties with substantially different interests, changes in the law could follow directly from a change of the government or a change in priorities and therefore specific legislation does not represent a realistic protection against arbitrary administrative action. However, commitment can be shown by stipulating the regulatory process in contract law.

Mechanism (a): Substantive restraints *on regulatory discretion* can again be classified into two categories. The first is where the institutional environment includes informal constraints or bodies of administrative law that constrain arbitrary discretion even in the absence of explicit legal constraints, or if the arbitrary use of governmental power is limited by an institutionalized process of argumentation and consensus formation. In such cases, flexible regulatory processes may well be sufficient to restrain regulatory discretion. Second, if the discretion is not constrained by informal, administrative or process regulation, a country has to set substantive rules. However, the ability to set, monitor and enforce complex rules depends on its administrative capabilities. If these are weak, the country has to rely on less efficient rules for their regulatory system to work.

The preceding remarks show that good governance and legal certainty are critical dimensions considered by companies before making their investments. However, a government can use a variety of available mechanisms to show commitment – as one mechanism may compensate for the shortage of another – though at different costs and levels of efficiency. Moreover, as Levy and Spiller point out, credibility

sometimes is attained at the expense of flexibility. The same devices that constrain arbitrary discretion can also delay reforms or obstruct adaptations to changing circumstances.⁷⁷

The following section will present the amendments to Levy and Spiller's approach that were found to be essential for a comprehensive evaluation of the impact of institutional frameworks on PSP in the water sector in Jordan.

2.4.3 Amendments to the Framework and Application to the Water Sector

The preceding summary of Levy and Spiller's approach has shown that their theory only deals with explaining contractual distortions initiated by the government and not by the private contracting partner. In the author's eyes this is an inadequate narrowing of the view on the effects of institutions on a PSP arrangement. The same institutions that may constrain the discretion of the public contracting party may also have an impact on the discretion of the private contracting party. Well-defined and efficient regulatory processes are likely to reduce the potential for opportunism by the private operator. An independent judiciary, a tradition of upholding contracts, effective penalization and administrative capabilities that allow for complex rules are effective enforcement mechanisms which increase the potential costs of an operator for manipulating or exploiting a contract and thus make opportunistic behaviour less advantageous. This again affects the incentives of the operator to fulfil contractual goals and targets and thus has an impact on the effectiveness of the contract. Therefore, in this study the effects of institutions on both parties will be taken into account.

Furthermore, the approach by Levy and Spiller will be enlarged by another important element that is lacking within their framework. Their concept of institutional environment includes only national institutions. However, international institutions may also have a direct impact on the regulatory discretion of political and administrative actors, in particular in cases where PSPs are supported through international loans or development assistance. In such cases, international institutions can "support contracts and partially substitute for weak domestic institutions".⁷⁸ They may do so by making opportunistic behaviour costly for political and administrative actors, as the exploitation of a private operator will presumably lead to a considerable decrease in future

⁷⁷ cf. Levy, Brian; Spiller, Pablo T., 1994, p.207

⁷⁸ Shirley, Mary M.; Ménard, Claude, 2002, p.24

development assistance or private investment. This reduces the incentives for opportunistic behaviour where no national institutions restrain arbitrary action and thus improves contractual performance. Therefore, international institutions will be considered along with national political, judicial and regulatory institutions.

Another criticism of Levy and Spiller's approach concerns the fact that their notion of private sector participation is preconceived by them as arrangements with significant risks and major transfers of responsibilities. However, by definition the term private sector participation includes also minor-risk arrangements such as management and affermage contracts. Where no significant infrastructure investments are involved, an opportunistic public contracting party still has the possibility to manipulate or exploit the contract. This is because in any arrangement the private partner has made ex-ante 'investments' in terms of informing, bargaining and setting up a business in that country. Moreover, the operator has invested in its reputation and may fear that its reputation may be harmed when conflicts with the government arise or the contract is unsuccessful. A company's reputation is of even greater importance in the water sector, which is highly visible and where private sector participation is widely challenged. Thus, the private operator in a management or affermage contract is also 'locked in' to the transaction, yet to a lower degree than in, for example, a concession, where the operator has a high material risk. Instead of Levy and Spiller's notion of 'expropriation' by the public partner, which is limited to infrastructure investments, the author will use the term 'exploitation', which may include any form of arbitrary action that takes advantage of the private operator's situation and is to its detriment. However, when there is no possibility to expropriate an operator's assets, it is necessary to outline which incentives political and administrative actors may still have to manipulate or exploit a contract. One may be to provide their clientele with advantages. Another is the fact that a reduction in staff that may well result from PSP is likely to meet with bureaucratic resistance, which again might lead to opportunistic action. However, according to Levy and Spiller's theory, the room for opportunism may be constrained by the institutional framework, namely rule of law, political checks and balances and a clear and balanced regulatory framework.

Finally, it is important to acknowledge some important differences between the water sector and the sectors covered by Levy and Spiller (telecommunications) and authors such as Holburn and Spiller (electricity) that have applied a similar

approach. have later applied the same approach to electricity sector reforms. However, what distinguishes these two utility services from water services are the specific characteristics of water, which are relevant for the transaction situation. What all kind of utilities have in common is that they may entail large sunk investments, economies of scale, and a massive consumption.⁷⁹ Economies of scale imply that the profitability for other companies to compete with a supplier is limited. This is especially true for natural monopolies where the fixed costs for entering the market are very high.⁸⁰ Nevertheless, several countries have managed to introduce competition into their electricity or telecommunication sector. However, with regard to water, 66% of costs are considered to be in non-competitive areas, such as transmission and distribution, and only about 34% in potentially competitive areas, as compared to competitive areas amounting to 60% of costs in electricity.⁸¹ Furthermore, water cannot be generated unlike electricity for example because it is a natural resource. A country's underground and surface water resources are rather local and though often regarded as a renewable resource this is not always the case⁸². This becomes especially evident in cases where the extraction rate is higher than the replenishment rate. The latter is of special importance, as diminishing resources in many countries go along with a demographic development, which in the future might bring about water conflicts. Moreover, water is such an urgent basic human need – crucial for life and health – that one may consider it as a human right.⁸³ The human need for water explains the inelasticity of demand, which is essential when concerning pricing.⁸⁴ Water is also a merit good as it entails significant positive externalities⁸⁵ as already outlined before.⁸⁶

These stronger monopoly characteristics, the potential for conflict, the limitedness of the resource, the inelasticity of demand, and its features as a human right and a merit good have a strong impact on the transaction situation. This is because the idiosyncrasy of the good, the uncertainty of the sector and the strong interest of the consumers – at the same time being voters – in the quality of the supply and the pricing maximise the incentives and the opportunity of politicians for arbitrary interference into

⁷⁹ cf. Holburn, Guy L.F.; Spiller, Pablo T., 2002, p.3

⁸⁰ cf. Soto-Vazquez, Abdelali, 2006, p.6

⁸¹ cf. London Economics, 1998, drawn from Shirley, Mary, M.; Ménard, Claude, 2002, p.9

⁸² cf. Noll, Roger G., 2002, p.45

⁸³ cf. Klawitter, Simone; Qazzaz, Hadeel, 2005, pp.253-271

⁸⁴ cf. See Holburn, Guy L.F.; Spiller, Pablo T., 2002, p. 15

⁸⁵ cf. Lepenies, Philipp; Bauer, Armin, 2006

⁸⁶ cf. Chapter 2.2

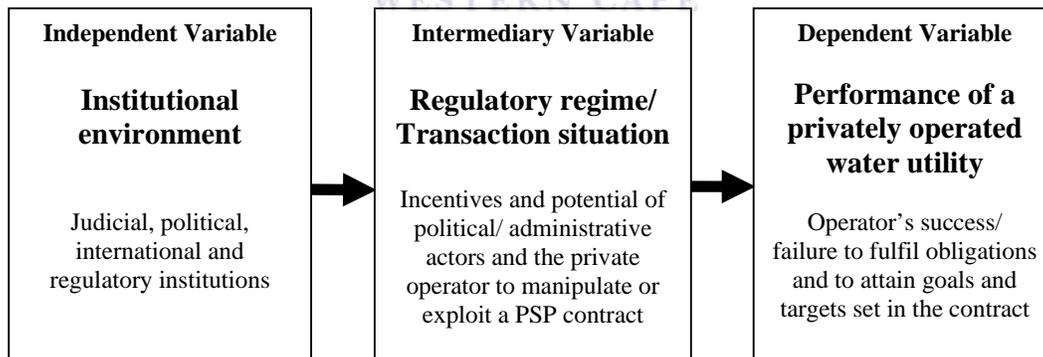
the business. This finding is valid in comparison with other sectors, while the strength of incentives within the water sector again varies with the chosen PSP option. The following section will introduce the hypothesis and sub-hypotheses that can be derived from the theoretical framework and the outlined amendments to it.

2.5 THEORETICALLY DERIVED HYPOTHESIS AND SUB-HYPOTHESES

The aim of this study is to look at the problem of water utilities regulation through the lens of transaction cost economics, supplemented by the exogenous variable of the institutional environment of a transaction. The performance of a privately operated water utility will be explained through the contractual problems that arise from the potential and incentives of the public and private contracting party for opportunistic behaviour. Therefore, the hypothesis derived from the theoretical framework to be tested in the case study is the following:

***General Hypothesis:** If the potential of political and administrative actors as well as the private operator to manipulate or exploit the contract are not sufficiently constrained by judicial, political, international and regulatory institutions, the performance of a privately operated water utility will be negatively affected.*

FIGURE 4: THEORETICALLY DERIVED HYPOTHESIS AND VARIABLES



To test the central hypothesis it is necessary to explore, whether the regulatory regime/transaction situation provides the *political and administrative actors* and the *private operator* with the incentives and the potential to manipulate or exploit the contract. The incentives and the potential for manipulation or exploitation are regarded as being low if sufficient constraints are established. These constraints are specified in the following concrete hypothesis:

Concrete hypothesis: *If, (a) substantive restraints (regulatory institutions) on regulatory discretion, and (b) formal or informal restraints on changing the regulatory system, and (c) institutions that enforce both the substantive restraints and restraints on system changes are properly established, the potential for manipulation or exploitation by political and administrative actors and by the private operator is low, and thus the institutional framework will not negatively affect the performance of a privately operated utility.*

A number of sub-hypotheses can be derived from this concrete hypothesis. These are listed as follows:

Sub-Hypothesis 1: *Weak performance (i.e. operator's failure to fulfil obligations and to attain goals and targets set in the contract) arises, when judicial institutions are incapable of enforcing both substantive restraints and restraints on system changes and when there are no international institutions that are able to compensate for this lack, and thus an opportunistic behaviour of political/administrative actors and the private operator is likely.*

This is because judicial institutions that provide for the rule of law are the basic precondition that support regulatory institutions and the stability of legislation. The rule of law makes the disregard of laws and contractual rules extremely costly for both the public and the private contracting party. However, if the judicial institutions are not independent, international institutions might secure sufficient commitment, for example through international monitoring. In other words, weak performance is likely to arise when independent judicial institutions are lacking and when there are no international institutions that are capable of compensating for this lack.

Sub-Hypothesis 2: *Weak performance arises, when – despite the existence of rule of law – the checks and balances are not sufficient to prevent legislative changes of the regulatory system and sufficient commitment is not secured through informal constraints or an institutionalized consensual process or contract law or international institutions.*

This is because in a system where the executive is not constrained by horizontal and vertical checks and balances and the electoral system produces two alternating parties with very different interests, a change in the priorities of the government or a change of the executive power from one party to the other may easily result in

legislative changes. Hence, if the potentially instable legislation is not balanced by non-legislative substantive constraints⁸⁷ or international institutions, the discretion of political and administrative actors is insufficiently constrained. In anticipation of this instability and where there is a lack of contractual covenants, the private operator might behave opportunistically and try to exploit the contract. In other words, weak performance arises when element (b) of the concrete hypothesis is missing and this lack is not compensated by non-legislative constituents of element (a) or by international institutions.

However, this means that a lack of checks and balances may be compensated through substantive constraints. The reason for this is that even if a new government comes to power it comes across the same given informal constraints, international institutions, and consensual processes. At the same time it is difficult for it to unilaterally change specific rules set in the contract if there is rule of law. The room for opportunistic governmental behaviour becomes even smaller, when a number of substantive constraints are established.

***Sub-Hypothesis 3:** Weak performance arises, when – despite the existence of the rule of law or constraining international institutions, and – despite sufficient checks and balances that legally restrain system changes, the regulatory process is not written in administrative law (juridification of the water sector) or in the contract (through specific regulatory constraints) and thus opportunistic behaviour of political/administrative actors and the private operator is likely.*

This is because regulatory discretion is unchecked, if the process by which regulatory decisions are to be taken, is unspecified. In recognition of this lack of regulation and thus exposed to the risk of arbitrary interference by political and administrative actors, also the private operator might behave opportunistically. In other words, weak performance arises when element (a) of the concrete hypothesis is missing.

The preceding hypotheses are based on the assumption that some constraining institutions may compensate for a lack of another. International institutions, for example, may have a constraining effect on opportunistic behaviour, when the other conditions are lacking. This may be the case, when international institutions exert

⁸⁷ 'Non-legislative substantive constraints' refer here to those constraints that cannot be altered through a change in the legislation, like informal constraints (Civil society monitoring and institutionalized consensual processes) and contract law. Thereto does not belong administrative law which *can* be altered through a change in legislation.

formal or informal pressure on the involved actors, which restrains them from behaving opportunistically. For example, in the case where judicial or regulatory constraints are weak, substantive restraints on opportunistic behaviour might still be effectively enforced, if a high international awareness of the contract (for example through donor monitoring) is combined with a strong concern of the government about its international reputation (for example due to a high dependency on international financial assistance). Even when all the conditions described above are present, however, this is not necessarily a sufficient condition or guarantee for good performance in the actual contract (as a range of other variables will clearly be involved in such performance). However, they are nevertheless clearly one of the important determinants.



CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The case that was chosen in this study to test the hypotheses set out in the previous chapter is the Management Contract for Water and Wastewater Services in the Amman Governorate, Jordan. As with most countries in the Middle East and North Africa (MENA) region, Jordan faces acute problems in the water sector due to its arid to semi-arid environment. Experience with private sector participation in the MENA region is rare since only 3% of the 158 water contracts signed in middle and low-income countries in the 1990s were in the MENA region.⁸⁸ Jordan is of particular interest, partly because it ranks among the world's seven poorest countries when it comes to its water resources,⁸⁹ and partly because, together with Morocco, it was one of the pioneers in the region regarding the implementation of PSPs in the water sector.⁹⁰ However, each of these two countries has adopted a different strategy with regard to the type of partnerships chosen. While Morocco relies on concessions, Jordan has preferred the less risky option of a management contract. As much of the previous research has been biased towards the former type of PSP (of the larger scale concessionary type),⁹¹ the Amman Management Contract (MC) in Jordan presents an interesting opportunity to redress this imbalance. The case is furthermore very suitable because it was Jordan's first PSP experience in the water sector and the management contract has only recently ended, thus enabling a full project cycle to be taken into account.

3.2 RESEARCH QUESTIONS FOR THE CASE STUDY

To apply the theoretical framework to the case of the Management Contract for Water and Wastewater Services in the Amman Governorate, the following specific research questions need to be answered:

⁸⁸ cf. Attia, Bayoumi, 2002

⁸⁹ cf. United Nations, 2003, p.34

⁹⁰ cf. Attia, Bayoumi, 2002

⁹¹ cf. Palaniappan, Meena, et al., 2006, p.5 and World Bank, 2005, p.23f

- *Background knowledge:* What is the country's economic, political and social situation? How is the Jordanian water sector situated? What does the Amman Management Contract (MC) look like?
- *Independent variable:* What kind of political and judicial institutions exist in Jordan? What kind of international institutions affect the transaction? What kind of substantive constraints are established?
- *Intermediary variable:* Which incentives and potential do political/administrative actors and the private operator have to manipulate or exploit the contract? What is the degree of occurrence of opportunistic behaviour by the contracting parties? Have the monitoring and enforcement mechanisms been effective?
- *Dependent variable:* How successful has the operator been in fulfilling its obligations and attaining the goals and targets set in the contract?

3.3 DATA NEEDS AND INDICATORS

In order to answer the research questions and to test the hypothesis in the case study, sets of indicators for the independent, the intermediary and the dependent variable were developed. These are set out below (and included in tabular form in annex A).

3.3.1 Independent Variable: Judicial, Political, International and Regulatory Institutions

For an assessment of the independent variable, the judicial, political, regulatory (substantive constraints) and international institutions have to be distinguished. As far as *judicial institutions* are concerned two indicators will be used to test the existence of the rule of law. These are **independence of the judiciary (J.1)** and **protection of property rights (J.2)**. While quite a number of indicators are commonly used to measure the rule of law,⁹² the author regards these two indicators as the most important ones in the context of an investigation into state-private sector interaction. This is because judicial independence shows how far the state and other external (e.g. private) actors are able to influence and interfere with the legal system. This may occur either in formal and legalized ways or informally and by corruption. By looking at the history of

⁹² cf. Kaufmann, Daniel; Kraay, Aart; Mastruzzi, Massimo, 2003, p.96

property rights protection in a country, meaningful information is gathered on the extent to which basic rights of private businesses have been respected. To assess the independence of the judiciary Levy and Spiller have opted to measure the extent of perceived judicial corruption⁹³ and to analyze if there is a history of court decisions against the government, as they have found these two features to be the key determinants.⁹⁴ These two measurements will be complemented by looking at the appointment mechanisms for judges, which allows for drawing conclusions about legalized possibilities of influence by the state. The protection of property rights is verified by checking if property rights have been upheld efficiently in the past.

FIGURE 5: INDICATORS AND MEASUREMENTS FOR JUDICIAL INSTITUTIONS

Independent variable		Indicators	Measurements
Judicial institutions	Existence of rule of law	J.1 Independence of the judiciary	<ul style="list-style-type: none"> • Appointment of judges does not lie in the sole responsibility of the executive • Extent of perceived corruption in the judiciary • Occurrence of former courts' decisions against the government
		J.2 Protection of property rights	<ul style="list-style-type: none"> • Tradition of efficiently upholding property rights

Political institutions can pose legal constraints on the discretion of the executive if they include **checks and balances (Po.1)**. These can firstly comprise a constitution and a full separation of powers, which limit the legislative power of the executive. Furthermore the institution of two legislative houses elected under different voting rules can create electoral checks and balances. An electoral system with proportional representation, which tends to produce a larger number of parties usually requires coalition rule and thus puts another constraint on political discretion. Finally, federalism and/or strong decentralization can provide constraints through a vertical separation of powers.

⁹³ The need to measure the *perceived* corruption is owed to the fact that corruption is covert and therefore “it is virtually impossible to come up with precise objective measures of it”. (Kaufmann, Daniel; Kraay, Aart; Mastruzzi, Massimo, 2007, p.321)

⁹⁴ cf. Levy, Brian; Spiller, Pablo T., 1994, p.208

FIGURE 6: INDICATORS AND MEASUREMENTS FOR POLITICAL INSTITUTIONS

Independent variable		Indicators	Measurements
Political institutions	Legal constraints on the discretion of the executive	Po.1 Checks and Balances	<ul style="list-style-type: none"> • Existence of a constitution • Full separation of powers • Two legislative houses elected under different voting rules • Electoral system with proportional representation • Federalism with strong decentralization

Indicators for *regulatory institutions* constraining the discretion of political and administrative actors and the private operator are four-fold. First, they include a **proper juridification of the water sector (S.1)**, which will be evaluated by checking if specialized government agencies for the regulation of the water sector exist, if their responsibilities are clearly assigned and if the regulator is autonomous. The autonomy of the regulator is given, when the regulator “is free to make decisions within [its] scope of authority without having to obtain prior approval from other officials or agencies of the government”.⁹⁵

Secondly, they include **informal (civil) society monitoring (S.2)** which may pose informal constraints on both parties. ‘Civil society’ is understood here as comprising all citizens that are organized in non-governmental organizations and are committed to regularly monitoring the water sector. ‘Society’, on the other hand, is defined as comprising all non-organized citizens that are informally and irregularly observing the water sector. It is assumed that due to the importance of water for the people, informal monitoring by civil society organizations or the unorganized society puts pressure on political actors and the private operator to provide water and wastewater services of a good quality. To determine if (civil) society in Jordan is effectively monitoring the water sector, the author will analyze to what extent the society is organized, informed and consulted as a stakeholder. The degree of organization of society is assessed by taking into account the number of civil society organizations that are monitoring the sector and their freedom to monitor it without restrictions. Thereby it is assumed that a high number of organizations or fewer but prominent organizations will be able to increase the effectiveness of monitoring. It will furthermore be examined if major malfunctions in the water sector have resulted in any resignations of politicians from office.

⁹⁵ Brown, Ashley C.; Stern, Jon, 2006, p.59

Thirdly, an **institutionalized consensual process (S.3)** in the water sector regulation may put process constraints on the discretion of the public contracting party. A ‘consensual process’ is not understood here in the narrow sense of unanimity in voting, but shall refer to a process of argumentation and consensus formation. If institutionalized consensual processes within the regulatory agencies precede the regulatory decision-making, this may prevent single administrative or political actors from behaving opportunistically. Thus, such a process may compensate for a lack of checks and balances.

Fourthly, **specific regulatory constraints (S.4)**, such as complex rules, may limit the potential for opportunism of the public and private contracting party. The author will therefore investigate if price-setting procedures, conflict resolution procedures, arbitration mechanisms, monitoring systems, penalty provisions and performance incentives are specified in the contract.

FIGURE 7: INDICATORS AND MEASUREMENTS FOR REGULATORY INSTITUTIONS

Independent variable		Indicators	Measurements
Regulatory institutions	Administrative constraints on the discretion of public and private contracting parties	S.1 Proper juridification of the water sector	<ul style="list-style-type: none"> • Existence of specialized government agencies for the regulation of the water sector • Clear responsibility assignment among regulating agencies in the water sector • Autonomy of the regulator
	Informal constraints on the discretion of public and private contracting parties	S.2 Informal (civil) society monitoring	<ul style="list-style-type: none"> • Degree to which the civil society is organized • Degree to which the civil society is consulted as a stakeholder • Coverage and discussion of water sector policies and outcomes in the press • Realization of public awareness campaigns by public or private contracting party • Resignations of politicians from office as a consequence to malfunctions in the water sector in the past
	Process constraints on the discretion of the public contracting party	S.3 Institutionalized consensual processes	<ul style="list-style-type: none"> • Institutionalized process of argumentation and consensus formation in the water sector regulation
	Specific regulatory constraints on the discretion of public and private contracting parties	S.4 Specific regulatory constraints	<ul style="list-style-type: none"> • Complex specific rules for the water sector (price-setting procedures, conflict resolution procedures, arbitration mechanisms, monitoring systems, penalty provisions, performance incentives)

Finally, *international institutions* affect the potential for arbitrary action when the government is interested in international investments and trade and is dependent on

international financial assistance.⁹⁶ Indicators chosen for these constraints are the **submission to international economic institutions (I.1)** and the existence of **international or bilateral monitoring (I.2)**. A membership in international economic organizations (such as the World Trade Organization, WTO) constrains the behaviour of the public contracting party through the rules that such organizations impose on a country. Furthermore, the application for membership of such organisations expresses an interest in international trade and investments and is a sign of the government's concern about its reputation with such organizations and investors. The membership of a country in international economic institutions may also have an impact on the private partner, who engages in a transaction with the country. This is because such economic institutions may stipulate procedures that are relevant for the enforcement of contracts. Thus, both parties of a transaction are affected. If international development agencies are involved in the transaction, for instance by supporting expenses associated with the contract, or if loans involve conditions on disbursement, these agencies have an interest in knowing if the recipients are using the finance adequately and if they are fulfilling the conditions for disbursement. For this purpose the financing agency and the recipient may have agreed upon monitoring mechanisms. But monitoring may also take place informally in the sense that an international or bilateral agency may not officially be part of the monitoring processes put in place, but is still engaged in the sector, for example through technical assistance, and therefore observing its performance. In such kinds of settings a state will be required to show commitment and a good performance to be able to attract future assistance. The higher the dependence of a country on such financial and technical assistance the higher is likely to be the government's commitment. International or bilateral monitoring may also affect the potential for opportunism of the private contracting party that is concerned about its reputation. However, the effect of international monitoring on the private partner is not usually formally established and can thus be expected to have a lower impact than on the public partner.

⁹⁶ cf. Shirley, Mary M.; Ménard, Claude, 2002, p.24

FIGURE 8: INDICATORS AND MEASUREMENTS FOR INTERNATIONAL INSTITUTIONS

Independent variable		Indicators	Measurements
International institutions	International constraints on the discretion of the public and private contracting party	I.1 Submission to international economic institutions	<ul style="list-style-type: none"> • Application for, or membership in international economic organizations • Policies favouring foreign investment and trade
		I.2 International or bilateral monitoring	<ul style="list-style-type: none"> • Loans from development organizations for the transaction which involve monitoring • Other international/ bilateral involvement in the transaction which entails either formal or informal monitoring (through technical assistance, for example)

3.3.2 Intermediary Variable: Potential for Opportunism

For the assessment of the intermediary variable, the *potential for opportunism by political/administrative actors and the private operator*, one can – as the potential itself is hardly measurable – instead measure the **degree of occurrence of opportunistic behaviour by political and administrative actors (R.1)**. Signs of occurrence include unilateral changes of the contract or attempts to do so, as well as contractual violations. In addition, renegotiations may indicate opportunistic behaviour, but in this case the reasons for renegotiation need to be examined in detail. The simple occurrence of a renegotiation is not an ample indicator for opportunistic action. A further hint of manipulation or exploitation may be conflicts between the regulator and the operator, but in order to rate them as opportunistically motivated, the quality of the conflict needs to be assessed. Another indicator for an insufficiently constrained potential for opportunism is **ineffective monitoring and enforcement (R.2)**. This can be measured by checking if the monitoring mechanisms were actually suitable for overcoming communication problems and information asymmetries, and if administrative capabilities were sufficient to properly monitor the operator and to apply the stipulated enforcement mechanisms. A state of asymmetric information is present when one party, typically the operator, has more or better information than the other party. The regulator usually tries collect information, for example through its own inspections, or through reports submitted by the operator. If these monitoring and reporting mechanisms fail to provide the necessary information on the performance of the operator, room for opportunism emerges.

FIGURE 9: INDICATORS AND MEASUREMENTS FOR THE REGULATORY REGIME/TRANSACTION SITUATION

Intermediary variable		Indicators	Measurements
Regulatory regime/ Transaction situation	Incentives and potential of political/administrative actors and the private operator to manipulate or exploit the contract	R.1 Degree of occurrence of opportunistic behaviour by political/administrative actors and the private operator	<ul style="list-style-type: none"> • (No) Push for renegotiation of the contract by either side • (No) Unilateral changes of the contract by political/administrative actors • (No) Attempts by political/administrative actors to unilaterally change the contract • (No) Contractual violations by either side • (No) Failure by private operator to report regularly and properly to the regulator • Quality of disagreements between political/admin. actors and the private operator
		R.2 (In-) Effective monitoring and enforcement	<ul style="list-style-type: none"> • (In-)Sufficient mechanisms to overcome information asymmetries • (In-)Sufficient administrative capabilities to properly monitor the operator and to apply stipulated enforcement mechanisms

3.3.3 Dependent Variable: Performance of the Privately Operated Water Utility

Finally, for the variable of the *performance of the privately operated water utility*, it is necessary to assess the operator's success or failure in fulfilling contractual goals and targets, for which the indicator will be the **(Non-) Compliance of results with contractual obligations, goals and targets at the end of the contract (Pf.1)**. This can be measured by comparing the goals and targets in the contract with the outcome of the transaction. In case that renegotiations have changed the stipulated targets the outcome will be assessed both against original and changed targets. If the results of these two assessments differ with regard to the compliance, it will be taken into account if the renegotiations were opportunistically motivated or not (as assessed for the intermediary variable).

FIGURE 10: INDICATORS AND MEASUREMENTS FOR THE PERFORMANCE OF THE PRIVATELY OPERATED WATER UTILITY

Dependent variable		Indicators	Measurements
Performance of the utility	Operator's success/failure to fulfil obligations and to attain goals and targets set in the contract	Pf.1 (Non-) Compliance of results with contractual obligations, goals and targets at the end of the contract	<ul style="list-style-type: none"> • Comparison of obligations/ goals/ targets stated in the contract with output/ outcome of the transaction

3.4 METHODS OF DATA COLLECTION

The data was gathered through qualitative research techniques during a field research period in Amman comprising desk research of secondary sources, supplemented by primary data collected through interviews.

3.4.1 Interviews

The interviews were designed and conducted as semi-structured interviews, with a number of open-ended comment questions, which served to add observed, anecdotal and perception-based information as respondents were allowed to express themselves as they wish. Two different sets of questions were prepared. The first set was used in interviews with the staff of political foundations and NGOs and served to verify the indicators for the judicial institutions, the political institutions and international institutions. The second set was used in interviews with water and privatization experts as well as the relevant personnel in the government and served to verify the indicators for international institutions, regulatory institutions, the regulatory regime/transaction situation and the performance of the private operator. In addition, the interviews provided the occasion to obtain important documents from the interviewees. A number of limitations arose, however, with regard to the available interview partners. Some interviews with government staff and experts could not be arranged, and it was not possible to interview representatives from the private contract operator LEMA (Lyonnaise Des Eaux-Montgomery Watson and Arabtech Jardaneh) because they were not present in Jordan anymore as the contract had ended. A list of the main interview partners is provided in Annex II. The interview questions addressed to political foundations and NGOs are included as Annex III. And the interview questions addressed to water privatisation experts and government officials are included as Annex IV.

3.4.2 Desk Research

The secondary data that was used for the examination of this case includes:

- The Management Contract for Water and Wastewater Services in the Amman Governorate that provides information about the contractual clauses, which is needed to judge upon violations of the contract.
- Documents associated with the transaction, which were published by the involved Jordanian governmental and administrative institutions to obtain an

understanding of the activities of the institutions and the relation between the government and the operator.

- Documents associated with the transaction, which were published by LEMA to acquire information about the position of the operator.
- Documents associated with the transaction, published by the World Bank that financed this project, in order to gather information on its potential monitoring role and further information on the performance of the government and the operator.
- Performance evaluations by Suleiman (2002), Rothenberger (2006), as well as assessments by the United Nations (2003), and the World Bank (2007) in order to obtain information and evidence in relation to the various variables.⁹⁷
- Previous research on the subject, including that on the Jordanian political system.

3.5 METHODS OF DATA PROCESSING

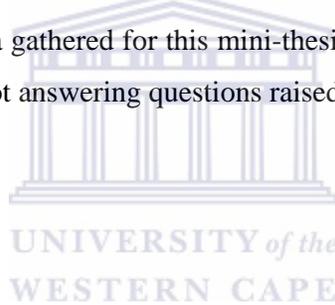
The hypothesis and sub-hypotheses are tested through the information collected from the interviews as well as from desk research. The qualitative analysis of the data provides insight into the institutional environment, the regulatory regime and the performance of the operator. Then, the link from the independent to the intermediary variable is drawn through an argumentative conclusion in the sense that the extent to which the discretion is constrained explains the degree of opportunistic action (in case that this assumption is confirmed by the data). The performance of the operator then results from the occurrence or non-occurrence of opportunistic action and thus establishes the link between the intermediary and the dependent variable. Thus, it will be possible to test the assumptions of the hypothesis and sub-hypotheses. The result of this test will allow the author to draw conclusions about the validity of the theoretical framework of Levy and Spiller and the modifications made for the case study. Possible

⁹⁷ **Suleiman** evaluated the Amman Management Contract in 2002, i.e. three years after its start. **Rothenberger** made a brief case study of the Amman Management Contract in 2004 and updated it in 2006. The **United Nations** in 2003 assessed the role of the private sector in the development and management of water supply in selected ESCWA member countries including Jordan. The **World Bank** published in 2007 after the end of the contract an "Implementation Completion and Results Report" on the loan provided for the Amman Water and Sanitation Management Project, which among other things financed the Amman Management Contract.

limitations that result from the chosen method are that no quantitative statements can be made about the degree to which each criterion had an impact on the dependent variable. This is because the interviews and desk studies are of a qualitative nature. Although perceptions about the degree of impact could have been obtained through the use of questionnaires, it was felt that these perceptions would be based upon rough estimates, and a small sample of interview partners would not be fully representative. The author therefore decided not to analyse statistically the degree to which each criterion has affected the dependent variable.

3.6 ETHICS STATEMENT

All the persons interviewed for this study were asked whether they would be happy to have their identities revealed in the thesis. Those that agreed to this are listed in Annex 2. In other cases, confidentiality of data gathered was assured by not attributing specific details gathered from the interviews to particular individuals. The sole purpose of using the data gathered for this mini-thesis was communicated to all the respondents. The choice of not answering questions raised was also respected.



CHAPTER 4

BACKGROUND INFORMATION ON THE CASE STUDY

This chapter provides a brief overview of Jordan's political, economic and social situation, of the Jordanian water sector and the pre-privatization situation, and of the management contract for water and wastewater services. More specific detail on the political, judicial and constitutional systems is provided in Chapter 5.

4.1 JORDAN'S POLITICAL, ECONOMIC AND SOCIAL SITUATION

Following the defeat of the Ottoman Empire during World War I, Great Britain and France divided the region amongst them. In 1920, Great Britain established the state of Transjordan and proclaimed Abdallah Ibn Hussein as king. Having achieved its independence from British rule in 1946, the Emirate of Transjordan was renamed three years later as the Hashemite Kingdom of Jordan. The country has been decisively influenced by the Israeli-Palestinian conflict which has heavily affected the country's population structure through the influx of Palestinian refugees and has created inner-societal tensions between East-Jordanians and Jordanians of Palestinian origin.⁹⁸ Following the 6-Day-War and the loss of the West Bank in 1967, martial law was imposed and not lifted until 1990. Beginning in 1989 the monarchy initiated a gradual liberalization that is often attributed to the political and economic crisis in which the state found itself during that time. Jordan had to accept an IMF structural adjustment programme, which among other things demanded the privatization of state operations.⁹⁹ Economic liberalization was accompanied by political reforms such as the restoration of parliamentary elections, the lifting of the ban on political parties and the broadening of political participation. This process, however, is sometimes viewed as a "defensive democratization," designed primarily to preserve the existing political system and the interests of the ruling elite, and thereby to sideline or prevent more fundamental reforms.¹⁰⁰

Two structural features that have evolved since Jordan's independence characterize its politics until today: First, the shortage of economic resources in the

⁹⁸ cf. Ben Salha, Edwige, 2003, p.36f

⁹⁹ cf. Dieterich, Renate, 1999, p.129

¹⁰⁰ Ben Salha, Edwige, 2003, p.51

Kingdom (few natural resources, barely developed industrial sector, only 6% of the land is arable¹⁰¹) has made it strongly dependent on external financial sources. Jordan may be referred to as a semi-rentier economy.¹⁰² While the notion 'rentier economy' describes states with a direct financial source (such as oil in the Arab Gulf States), the semi-rentier status refers to the country's dependence on financial sources from abroad. In the case of Jordan these are made up of remittances from Jordanian migrant workers in the Gulf States, of financial aid from the Gulf States, and of credits and other forms of development assistance from western countries and international agencies.¹⁰³ Such assistance has been flowing mainly because of Jordan's important geostrategic location, the admittance of thousands of Palestinian refugees and the country's constant efforts to suit and balance international and regional interests. As a consequence of this financial inflow the Jordanian producing economy plays a subordinate role in the state budget.¹⁰⁴ The need to acquire rents limits the room for Jordanian foreign policy and puts pressure on the state to meet demands of international financiers for the establishment of a democratic system.¹⁰⁵

The second feature that characterizes Jordanian politics is neo-patrimonialism, which can be defined as a form of rule which has its legitimacy in traditional loyalties and the allocation of goods and services. It is combined with modern forms of state organization (such as a modern bureaucracy).¹⁰⁶ Since the 1950s the Hashemite monarchy has been relying considerably on the loyalty of east-Jordanian tribes as many Palestinian-Jordanians have challenged the institution of the monarchy.¹⁰⁷ This is reflected in the electoral law, which privileges rural constituencies and cultivates tribalism. To safeguard the monarchy, the royal court has furthermore relied on clientelistic mechanisms and elite rotation. The Jordanian elites, located mainly in the bureaucracy, have divided the power, the resources and the access to them amongst themselves. They dominate the connections between the political elite and the society by allocating employment, social status and privileges of all kinds. This system is known locally as 'Wasta' which may be translated as 'connections' with tribe, clan or family

¹⁰¹ cf. World Bank, 2007, p.1

¹⁰² cf. Dieterich, Renate, 1999, p.124

¹⁰³ cf. Ben Salha, Edwige, 2003, p.43f

¹⁰⁴ cf. Ben Salha, Edwige, 2003, p.44

¹⁰⁵ cf. Dieterich, Renate, 1999, p.388

¹⁰⁶ cf. Ben Salha, Edwige, 2003, p.52

¹⁰⁷ cf. Baaklini, Abdo; Denoeux, Guilain; Springborg, Robert, 1999, p.140

patrons. Wasta has led to the bypassing state institutions¹⁰⁸, hinders the development of civil society organizations¹⁰⁹ and has had a detrimental influence on Jordan's economy.¹¹⁰ Beyond this, the mechanism of elite rotation (typically through frequent changes in the cabinet), which is controlled by the monarch, is designed to balance the power of various elites as it enables the participation of all elites within the political system and the granting of privileges to them. At the same time it may weaken the opposition (as frequent changes of the cabinet have shown) and is designed to prevent the monopolization of administrative and political posts through single clans or tribes.¹¹¹

FIGURE 11: MAP OF JORDAN



Source: Joffé, George, 2002, Cover

¹⁰⁸ cf. Ben Salha, Edwige, 2003, p.54

¹⁰⁹ cf. Dieterich, Renate, 1999, p.382

¹¹⁰ cf. Dieterich, Renate, 1999, p.123

¹¹¹ cf. Ben Salha, Edwige, 2003, p.55f

4.2 THE JORDANIAN WATER SECTOR AND THE PRE-PRIVATIZATION SITUATION

In its Water Strategy of 1997 the Jordanian Ministry of Water and Irrigation (MWI) asserts that the demographic pressure on Jordan's water resources is at its highest, while it is expected that from 2005 on no further freshwater resources can be developed.¹¹² What makes this prediction more severe is that from 1973 until today renewable groundwater resources have decreased by 66%.¹¹³ Besides the problem of overexploitation, the MWI also acknowledges that operation and maintenance costs are very high. This is especially true for the capital city of Amman that is distant from the country's main water resources. Acknowledging these facts, the ministry opts in its Water Strategy for improved resource management, wastewater reuse, institutional restructuring, stakeholder participation, regional cooperation, raising public awareness, performance measurement, health standards, cost recovery, private sector participation and water research to address these challenges.¹¹⁴

Private sector participation has also been encouraged by the World Bank, which has concluded from eight previous World Bank funded water supply projects in Jordan (with public sector operators) that public sector management has failed to improve service levels, which steadily declined during the 1990s.¹¹⁵ Until 1999 the country had been divided into twelve administrative governorates, each of which had their own public providers. These providers had been subjected to the supervision of the central Water Authority of Jordan (WAJ), which had also been entrusted with the overall management of water resources and the regulation of groundwater use. The provider that had been responsible for Amman is the Amman Governorate Water Administration (AGWA). The Amman Governorate includes 2.2 million customers who represent 45% of Jordan's total drinking water consumption.¹¹⁶ Local water providers such as AGWA were set up as autonomous units,¹¹⁷ but "due to the rigidity of laws and by-laws" had de facto ended up being "centrally managed, budgeted and staffed" by the WAJ.¹¹⁸ Thus, until the end of the 1990s, the WAJ had been carrying full responsibility for water supply and sanitation along with the task of regulatory supervision in the whole of

¹¹² cf. Ministry of Water and Irrigation, 1997

¹¹³ cf. Al Baz, Ismail; De Florio, Loredana; Bethmann, Andreas, 2007, p.388

¹¹⁴ cf. Ministry of Water and Irrigation, 1997

¹¹⁵ cf. World Bank, 2007, p.1

¹¹⁶ cf. Suleiman, Rebbieh, 2002, p.16

¹¹⁷ cf. Abu-Shams, Ibrahim; Rabadi, Akram, 2003, p.161

¹¹⁸ Abu-Shams, Ibrahim; Rabadi, Akram, 2003, p.161

Jordan.¹¹⁹ At the beginning of 1999 AGWA experienced losses of about 2.6 million Jordanian Dinar (approx. 3.1 million Euro).¹²⁰ Unaccounted-for-water (UFW)¹²¹ levels at 54% were excessively high and supply was intermittent with only eight hours per week in peak season.¹²² The failure to improve service levels under public sector operation was one decisive factor that put pressure on the Jordanian government to involve the private sector. Another important reason was a case of water pollution in 1997, which created a strong call for action.¹²³ In the wake of a privatization programme embarked on in 1997, the Management Contract for Water and Wastewater Services in the Amman Governorate was the first PSP that the government implemented in 1999 in the water sector.

4.3 THE MANAGEMENT CONTRACT FOR WATER AND WASTEWATER SERVICES

The PSP option that the Jordanian Government chose to improve water supply and sanitation in the Amman Governorate was a performance-based management contract. The original duration of the contract was four years, but it was extended twice, thus extending it to seven years and five months.¹²⁴ It started on 31 July 1999 and ended on 31 December 2006. The main goals were to improve efficiency particularly through the reduction of unaccounted-for-water, to increase sales revenues, to extend the hours of water supply, to secure water quality and to operate an efficient customer service.¹²⁵ The competitive bid for the contract was won by a joint venture of Suez Lyonnaise Des Eaux and Montgomery Watson Arabtech Jardaneh (LEMA). With the signing of the contract between the Water Authority of Jordan (WAJ) and LEMA, the private operator took full responsibility for technical operations and partial responsibility for administrative management, both in drinking water production and distribution as well as wastewater collection and treatment.¹²⁶ The tasks of the operator were to carry out and improve the operation and maintenance of the facilities (including

¹¹⁹ cf. Meuss, Marina; Stoll, Uwe; Barmer, Nina, 2006, p. 2

¹²⁰ cf. Programme Management Unit, 2007

¹²¹ "Unaccounted-for-water is the share of water system input that is unknown in quantity and in use, such as water leaked in the distribution system (technical losses), water stolen (as in illegal connections), imperfectly recorded (as in under-registering meters or through collusion between meter readers and consumers), poorly estimated in the commercial system (administrative losses)". (World Bank, 2007, p.19)

¹²² cf. World Bank, 2007, p.iii

¹²³ Rothenberger, Dieter, 16.09.07

¹²⁴ Starting date: 31.07.1999; ending date 31.12.2006

¹²⁵ cf. Suleiman, Rebbieh, 2002, p.16

¹²⁶ cf. SUEZ, 2003, p.17

UFW, constancy of supply and water quality) as well as the billing, collection and customer services (including accounts receivables), and to rehabilitate the facilities under an Operating Investment Fund.¹²⁷

By transferring such tasks, a management contract is generally capable of improving technical and managerial capabilities as well as the operating efficiency.¹²⁸ Yet, this PSP arrangement brings no private investment into the infrastructure and the ownership remains fully public. The financing of both the operation and infrastructure investments, however, was provided externally by donors. The management contract was part of the Amman Water and Sanitation Management Project (AWSMP), which had four project components: the Management contract, an Operating Investment Fund (OIF), a Capital Investment Programme (CIP), and technical assistance. With a loan of US\$ 55 million, the World Bank fully financed the first two components while the Bank had assembled co-financiers for the latter two components, namely the European Investment Bank, Italian bilateral assistance, KfW (German financial cooperation), and USAID. The OIF financed short-term and operating investments that were not covered by LEMA's working capital. Money from the CIP was reserved for restructuring and rehabilitating the network as well as for upgrading and extending service coverage, whereas the implementation of the Capital Investment Programme remained in the responsibility of WAJ.¹²⁹

The contract stipulated the compensation of LEMA through a fixed base fee and a variable performance incentive compensation (PIC) paid by WAJ. The latter was a function of three factors: revenue optimization, collection efficiency and cost control.¹³⁰ From the maximum annual PIC of 5%,¹³¹ liquidated damages might be withdrawn by WAJ in the case that LEMA did not meet the performance targets. Through this kind of compensation the private operator did not rely on revenues for its reward (as in management contracts generally). Nevertheless, in a management contract some entrepreneurial risk is still prevalent,¹³² but compared to other PSP options it is rather low.¹³³ The investments made by LEMA are confined to costs of informing, bargaining

¹²⁷ cf. Bankworld Inc, 2007, p.i

¹²⁸ cf. Saghir, Jamal, 2000, p.26

¹²⁹ cf. World Bank, 2007, p.3

¹³⁰ cf. Suleiman, Rebhieh, 2002, p.22

¹³¹ Percentage of the incremental improvement of cash flow (World Bank, 2007, p.14)

¹³² cf. chapter 4.3

¹³³ cf. Ringskog, Klas; Hammond, Mary Ellen; Locussol, Alain, 2006, p.1

and setting up a business in Jordan. Even if these kinds of investments are hardly transferable, the total of those sunk investments is relatively small. Yet, besides material investments companies have also invested in their reputation, which is – as argued before – of particular importance in the water sector. Still, the contract type suggests that the potential by political and administrative actors to manipulate or exploit the contract is limited. Major opportunistic action, such as the refusal to pay the full fixed fee despite proper conduct by LEMA may simply make the operator discontinue its operations, which is not in the interest of the public contracting party. Minor breaches of the contract are, however, conceivable as the private operator has an interest in completing the contract successfully. Indeed, the bidding for the contract shows that the bidders were risk-averse even in this low-risk setting. The bidders had been allowed to bid on the share of the performance incentive compensation in relation to the fixed fee and LEMA bade the minimum percentage of 5%.¹³⁴ This is noteworthy as the management contract is already a governance structure with a minor risk. It may simply indicate that LEMA had expected not to be able to increase the financial performance considerably and thus not to profit much from the PIC. Another explanation for this risk-averse bid might be that the entity (WAJ) that is in charge of deciding about the amount of liquidated damages which may be withdrawn from the PIC is not an independent body. The WAJ is advised by an independent auditor, but does not need to follow this advice. This opens up room for opportunism by the public contracting party. The bid therefore may suggest that LEMA, in anticipation of this potential for opportunism from its contracting partner, decided to minimize the effects that such behaviour could have on its compensation.

The governance structure of a management contract-type furthermore indicates that “a close and trustful co-operation with the public side is required”¹³⁵ as the operator can influence processes only to a very limited degree. The required political commitment may be adversely affected, if the political and administrative actors are not aware of what the chosen contract option is able to accomplish or if the PSP is to a

¹³⁴ cf. World Bank, 2007, p.14

¹³⁵ Rothenberger, Dieter, 2004, p.39

significant part a result of pressure by donors. International development agencies noticed these two problems in Amman.¹³⁶

The examination of the governance structure and the specific transaction situation of the Amman water management contract MC has shown which kind of incentive structure results from them. But the incentives and potential for opportunism of both contracting parties is – according to the author’s hypothesis – also abated and amplified by the institutional environment. This point will be taken up in further detail in the following chapter which presents the findings and interpretations that were drawn from the field research.



¹³⁶ cf. Rothenberger, Dieter, 2004, p.39/cf. Rothenberger, Dieter, 2006, p.8/Meuss, Marina, 01.11.07/cf. European Commission, 2006, p.11

CHAPTER 5

RESEARCH FINDINGS AND ANALYSIS

5.1 INTRODUCTION

This chapter presents the findings on the impact of institutional frameworks on private sector participation, based on the data that was gathered through desk studies and interviews carried out during the field research. The chapter is structured into three sections representing the independent, intermediary and dependent variables identified in Chapters 2 and 3 above.

5.2 INDEPENDENT VARIABLE: INSTITUTIONAL ENVIRONMENT

5.2.1 Judicial Institutions in Jordan

Two indicators were identified to assess the *existence of rule of law*, namely the *independence of the judiciary* and the *protection of property rights*.

5.2.1.1 INDEPENDENCE OF THE JUDICIARY (J.1)

The independence of the judiciary in Jordan is constitutionally guaranteed.¹³⁷ However, the formal institutions on a lower level and the informal system may deviate from constitutional institutions. The following assessments intend to further investigate the issue.

Firstly, one can identify the way by which judges are appointed and dismissed. These tasks are in the responsibility of Jordan's Higher Judicial Council, while its appointments and dismissals have to be approved by the king.¹³⁸ According to the Independence of the Judiciary law of 2001, the Minister of Justice can recommend to the council the appointment of a certain person to a judicial post or give advice against a person's appointment "for reasons which could be personal, political or others".¹³⁹ Besides this, the articles (23 D) and (24 A) give the Minister of Justice the "power to recommend to the president of the Judicial Council to appoint a judge to the post of Secretary General of the Ministry of Justice".¹⁴⁰ The council itself consists of the speaker of the Upper House (senate), three senators and five senior judges. The three

¹³⁷ cf. Maddex, Robert L., 1995, p.148

¹³⁸ Ali, Nabeel, 05.11.07

¹³⁹ El Majali, Zuha' Farhan, 2006/7(?), p.2

¹⁴⁰ El Majali, Zuha' Farhan, 2006/7(?), p.2

senators are chosen by ballot within the Upper House, members of which are appointed by the King. The five judges are selected from the highest civil court in order of seniority.¹⁴¹ Freedom House reports that the “judicial appointments are consistently criticized as reflecting particularistic interests”.¹⁴² The Bertelsmann foundation finds that “the judiciary remains subject to political control in certain areas”.¹⁴³ From the formal appointment mechanisms and the reported exertion of control on appointments it can be concluded that the executive has substantial influence on the appointment of judges, which could be used to put pressure on judges to make the desired rulings.

Another measurement of judicial independence is the extent of perceived corruption in the judiciary. However, finding literature on corruption specifically for the judicial sector in Jordan has been a difficult task. Information on public perceptions is mainly limited to statements, which find that the public does not have confidence in Jordan’s judiciary.¹⁴⁴ Other sources conclude on the extent of corruption in the judiciary by looking into the legal system. Transparency International has recently published its Global Corruption Report 2007, which is dedicated to corruption in judicial systems. Although Jordan is not included in the country reports, it is still mentioned in this report among the international best practices with regard to legal schemes. It is stated that adversarial systems¹⁴⁵ usually are “associated with low levels of corruption”¹⁴⁶. The Islamic legal traditions in Jordan are found to embody such kind of adversarial proceedings.¹⁴⁷

A third indication of judicial independence would be the repeated occurrence of court’s decisions against the government. The non-governmental organization National Democratic Institute reported several cases where the courts ruled against ministries and municipalities, in private cases as well as in business cases.¹⁴⁸ The NDI is an international NGO headquartered in Washington and chaired by former United States

¹⁴¹ cf. Sakijha, Basem; Kilani, Sa'eda, 2001, p.12

¹⁴² Freedom House, 2006

¹⁴³ Bertelsmann Stiftung, 2006, p.5

¹⁴⁴ cf. Sakijha, Basem; Kilani, Sa'eda, 2001, p.8

¹⁴⁵ In an adversarial system “the parties to a controversy develop and present their arguments, gather and submit evidence, call and question witnesses, and, within the confines of certain rules, control the process. The fact finder, usually a judge or jury, remains neutral and passive throughout the proceeding” (Legal dictionary, <http://legal-dictionary.thefreedictionary.com/Adversary+system>). The distinctive feature of this kind of systems is that they tend to “increase the capacity of all parties within a dispute to challenge the evidence or resolutions generated by a judge or prosecutor”. (Buscaglia, Edgardo, 2007, p.72f)

¹⁴⁶ Buscaglia, Edgardo, 2007, p.72

¹⁴⁷ cf. Buscaglia, Edgardo, 2007, p.72f

¹⁴⁸ Ali, Nabeel, 05.11.07

Secretary of State Madeleine K. Albright. The organization has more than 50 field offices around the world and aims at assisting civil and political leaders in building their democratic structures. An example from the political arena for the Jordanian courts' rulings against the government, which the NDI gave, is a court's decision on a suit filed with respect to the parliamentary election of 2007. An individual's application for candidacy had been rejected by the Ministry of Interior as he was seen "unfit for the candidacy status".¹⁴⁹ When he filed a suit, the court found the decision of the Ministry of Interior to be invalid and the individual was allowed to run for the election.

In summary, it can be said that the results of the assessments of judicial independence are mixed. There is obviously no full independence, because the king has a direct control on the appointments and dismissals of judges as he has to approve them. Though not possessing this direct control, the Minister of Justice still has the possibility to influence appointments as he/she is allowed to give recommendations. The extent to which political and administrative actors or the private operator can influence judges through other channels could not be verified through the mentioned measurements, as the available data on perceived corruption was marginal. The estimation of interview partners, however, has been that 'Wasta'¹⁵⁰ also makes its mark on the judiciary.¹⁵¹ An incident that happened in 1995, moreover suggests that there are informal channels through which political actors at least try to exert pressure. That year 22 of the highest judges threatened to resign from office as they complained about the pressure of the government on the exercise of their office. Following negotiations with the Minister of Justice, however, these judges subsequently retracted these threats.¹⁵²

5.2.1.2 PROTECTION OF PROPERTY RIGHTS (J.2)

The second indicator that may be used to assess the rule of law is the protection of property rights. Personal property is protected from expropriation through the constitution and the investment promotion law.¹⁵³ Legal exceptions are provided for the purpose of public utility, but in this case fair compensation has to be paid.¹⁵⁴ The

¹⁴⁹ Ali, Nabeel, 05.11.07

¹⁵⁰ cf. chapter 6.1

¹⁵¹ Bröning, Michael, 22.10.07/De Winter, Annemie, 05.11.07

¹⁵² cf. Dieterich, Renate, 1999, p.104

¹⁵³ cf. El-Sayed Radwan, Mohamed, 1999, p.18

¹⁵⁴ cf. Hourani, Hani; Abu Rumman, Hussein; Kamel Nasser Ahmad, 2004, p.19

assessment of research institutions is that the risk of expropriation in Jordan is very low.¹⁵⁵

While the protection of property rights is obviously secured, the assessment of the independence of the judiciary has been mixed. Still, the overall evaluation from the perspective of international investors on the existence of rule of law is positive. This can be derived from an empirical study on the business environment in Jordan from a private sector perspective conducted in 1995 by the Centre for Strategic Studies at Jordan University. A sample of 151 large firms was selected, including firms that provide infrastructure services. Chief Executive Officers were interviewed among other things on the impediments and disincentives to investment that they find present in Jordan. Eighty three percent of the respondents judged “Bureaucratic impediments” and “Impediments related to skills and education” as important obstacles to investment, whereas a relatively smaller group, 68 percent of respondents, also identified “Legislative and legal impediments” as important obstacles. Within this latter category, respondents gave on average a weight each of 27% to the impediment “Multiplicity of laws and by-laws” and “Too many changes and amendments to laws”. The impediment “Corruption in the application of laws,” however, received only a weight of 18 percent.¹⁵⁶ Therefore, it can be said that the survey found that business executives did not assess corruption in the judiciary as a major prior impediment to investments. Furthermore, Jordan ranks in the Global Competitiveness Index 2007 with regard to judicial independence on position 38 of 128 countries, thus belonging in the top third.¹⁵⁷ With the region as a benchmark, the rule of law in Jordan received a score of 5 on a scale from 0-6 while lower scores indicate less rule of law.¹⁵⁸ To conclude, the existence of rule of law is from an economic perspective apparently satisfactory. Moreover, , according to the first hypothesis, weak judicial institutions may in any case be partly compensated through international institutions that create pressure to enforce substantive restraints and restraints on system changes.

¹⁵⁵ cf. Freedom House, 2006/El-Sayed Radwan, Mohamed, 1999

¹⁵⁶ Kanaan, Taher H., 1999, p.77

¹⁵⁷ cf. World Economic Forum, 2007, p.163

¹⁵⁸ cf. El-Sayed Radwan, Mohamed, 1999, p.20

5.2.2 Political Institutions in Jordan

5.2.2.1 CHECKS AND BALANCES (PO.1)

The discretion of the executive may be legally constrained by horizontal and vertical checks and balances, which make legislation and thus regulatory rules more stable. A basic constraint on the executive is the existence of a constitution. Jordan's constitution was established in 1952 and widely respected even in difficult times, when martial law was imposed. Though not disregarding it, the extensive powers of the king instead allowed him to have the constitution amended by the parliament.¹⁵⁹ For example in 1976, two years after he had dissolved the parliament, King Hussein desired to postpone the parliamentary elections for an unspecified time, but according to the constitution he was only allowed to postpone it for up to two years. Hence, the King called for an extraordinary session of the parliament. Within one day the parliament adopted the amendment desired by the king and afterwards the king dismissed the parliament again until its reestablishment in 1984.¹⁶⁰ However, since the lifting of martial law in 1989 and along with this the beginning of liberalization, the constitution has not been subsequently amended.¹⁶¹

Another potential constraint on the discretion of the executive is the separation of the executive, the legislature and the judiciary. The Jordanian constitution provides for a division but not full separation of these powers. While the monarch's influence on the judiciary has already been outlined above, the relation between executive and legislature deserves further attention. The system of government is a parliamentary constitutional monarchy. The executive authority is vested in the king who exerts his power through his ministers. The king appoints the prime minister and the other ministers upon proposal of the Prime Minister and has the power to dissolve the government. Ministers do not have to be members of parliament. The legislative power is vested in the National Assembly, which consists of the Upper House (Senate) and a Lower House (House of Representatives). Members of the Senate are appointed by the king, while the members of the Lower House are elected by the people by secret ballot in a general election.¹⁶² The government requires a vote of confidence by the House of Representatives and is accountable to it. On the demand of a two-thirds majority in the

¹⁵⁹ cf. Baaklini, Abdo; Denooux, Guilain; Springborg, Robert, 1999, p.145ff.

¹⁶⁰ cf. Dieterich, Renate, 1999, p. 144/146

¹⁶¹ cf. Dieterich, Renate, 1999, p. 155

¹⁶² cf. Maddex, Robert L., 1995, p.146ff.

Lower House, the government has to resign, and the Lower House can impeach single Ministers.¹⁶³ The king, however, has immunity from any responsibility for the actions of his government.¹⁶⁴ Bills drafted by the cabinet have to be submitted to both houses, which have the power to amend or reject them. Legislation can be vetoed by the monarch, and this veto can only be overturned by a two-thirds vote in both chambers.¹⁶⁵ The king also has legislative powers. In times when the Parliament is not in session (Parliament's sessions amount to five months annually¹⁶⁶) or has been dissolved, the Cabinet may pass provisional laws if sanctioned by the king.¹⁶⁷ Furthermore, the king has the authority to suspend elections, dissolve the Parliament, withdraw single members of both houses¹⁶⁸ and to extend Parliament's regular 4-year-term for up to two years. The preceding summary of the division of powers has shown that Parliament and the judiciary may restrain the executive only to a limited degree. In particular, the legislature can "function only within the constitutional and political space granted and tolerated by the king".¹⁶⁹

The Jordanian legislative is bicameral, but this does not constrain the executive, as the Upper House is not elected by the people but appointed by the King. Legal constraints on the executive are also not promoted by the electoral system in Jordan. This is because political parties play only a limited role in Jordan. The negligible role of parties is illustrated by the fact that in the current House of Representatives 75 of 80 members entered parliament as independent candidates.¹⁷⁰ The weakness of the parties is one important reason why in Jordan candidates mostly are not elected because of their ideological affiliation but rather because of their tribal association.¹⁷¹ Furthermore, in a system where an institutionalized access to resources is not promising, clientelism is the primary mean to obtain such resources. Therefore, voters tend to vote for those candidates with which they have tribal or kinsmanlike relations. This voting behaviour is especially problematic in an electoral system such as Jordan's, where candidates are elected based on a first-past-the post basis. The candidate with the highest number of

¹⁶³ cf. Baaklini, Abdo; Denoeux, Guilain; Springborg, Robert, 1999, p.139

¹⁶⁴ cf. Hourani, Hani; Abu Rumman, Hussein; Kamel Nasser Ahmad, 2004, p.14ff.

¹⁶⁵ cf. Maddex, Robert L., 1995, p.148

¹⁶⁶ cf. Baaklini, Abdo; Denoeux, Guilain; Springborg, Robert, 1999, p.165f.

¹⁶⁷ cf. Hourani, Hani; Abu Rumman, Hussein; Kamel Nasser Ahmad, 2004, p.24

¹⁶⁸ cf. Hourani, Hani; Abu Rumman, Hussein; Kamel Nasser Ahmad, 2004, p.75

¹⁶⁹ Baaklini, Abdo; Denoeux, Guilain; Springborg, Robert, 1999, p.165

¹⁷⁰ cf. <http://www.kinghussein.gov.jo/government3a.html>

¹⁷¹ cf. Dieterich, Renate, 1999, p. 207

votes enters the parliament after one electoral round only. The votes of the other candidates get lost, which would be different in a system with proportional representation.¹⁷² As a consequence the members of the Lower House represent only a minority of the citizens which they try to benefit to keep their loyalty. Due to these features of the system, representatives barely form a strong opposition and hence cannot put major constraints on the executive. But even if parties played a greater role in Jordan this would barely challenge the executive, as the political system does not give the largest parliamentary group the right to form the government.¹⁷³ Thus, it can be said that there are few electoral checks and balances on the executive's discretion.

The last criterion to be assessed for the political institutions is whether the Jordanian system demonstrates strong federal and/or decentralized tendencies. This is not the case, as Jordan is a unitary state and although a process of decentralisation started in 1989 the powers and importance of the municipalities and governorates is still relatively low.¹⁷⁴ In the water sector, some results of the decentralization process can be seen with the Aqaba Water Company in the south, the management contract in Amman and the commercialization of the Northern Governorates, where the establishment of a public company is underway. The rest of the country's water administration is, however, still under central control and operation. This means that the executive discretion is also not considerably constrained by a vertical separation of powers.

The examination of political institutions in Jordan has shown that the executive is hardly constrained by political checks and balances. However, it is important to recognize that much of the executive discretion is limited to the King. Thus, on the one hand it can be assumed that with regard to the direction of the country's major policies, some reliable continuity is provided. On the other hand, the monarch relies on neo-patrimonial mechanisms and is equipped with the power to put through and control elite rotation, which has resulted in frequent (often annual) changes of the ministers.¹⁷⁵ During the term of the management contract six different politicians have served as Ministers of Water and Irrigation, although one of them served an unusually long period of about four years (2001-2005). Attempts to change the regulatory system in the water sector are therefore more likely to occur than in systems where the cabinet regularly

¹⁷² cf. Dieterich, Renate, 1999, p.207

¹⁷³ cf. Dieterich, Renate, 1999, p.190f.

¹⁷⁴ Bröning, Michael, 22.10.07/ Ali, Nabeel, 05.11.07

¹⁷⁵ cf. Loewe, Markus, 2007, p.148

changes based on four- or five-year terms. Hence, it can be stated that the checks and balances are not sufficient to prevent legislative changes of the regulatory system. Yet, according to the second sub-hypothesis, as will be discussed below, sufficient commitment may instead be secured through non-legislative substantive constraints or international institutions.

5.2.3 Regulatory Institutions in the Jordanian Water Sector

The discretion of both the public and private contracting party may be constrained by regulatory institutions that exist in the Jordanian water sector. These are administrative constraints (*Proper juridification of the water sector*), informal constraints (*Informal (civil) society monitoring*), process constraints (*Institutionalized consensual processes*), and *specific regulatory constraints*.

5.2.3.1 PROPER JURIDIFICATION OF THE WATER SECTOR (S.1)

To assess if the Jordanian water sector is properly juridificated, it is necessary to examine the structure of the water sector, the allocation of responsibilities and the degree of autonomy of the regulator.

The Jordanian Ministry of Water and Irrigation (MWI) is entrusted with the tasks of monitoring, planning, management, the preparation of sector strategies and policies as well as water price regulation. The authority that carries nationwide responsibility for water supply and sanitation (WSS) and thus has operational as well as regulatory functions, is the Water Authority of Jordan (WAJ).¹⁷⁶ The WAJ was established as an autonomous body with financial and administrative independence and accordingly has the right to enter legal proceedings and sign contracts, as it did in the case of the contract with LEMA. The authority is lead by a Secretary-General and has a board of directors, which is chaired by the minister of the MWI.¹⁷⁷ The Minister is authorized to issue instructions to the WAJ.¹⁷⁸ A Programme Management Unit (PMU) was set up in 1997 as a monitoring unit within WAJ through a financing agreement between the Jordanian government and the European Commission. However, the PMU did not start its full operations until 2000.¹⁷⁹ The unit has a board of executives, which is headed by the Minister and includes the Secretary-Generals of WAJ and of MWI. The

¹⁷⁶ cf. Meuss, Marina; Stoll, Uwe; Bartheimer, Nina, 2006, p.2

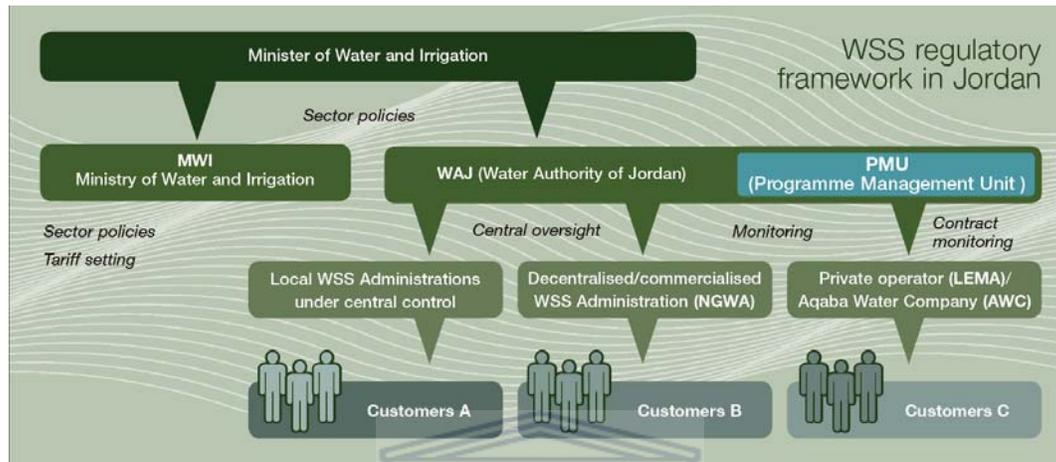
¹⁷⁷ cf. Al al-Bayt University; InWEnt, 2005, p.53f.

¹⁷⁸ Rothenberger, Dieter, 16.09.07

¹⁷⁹ Dahiyat, Iyad, 29.10.07

PMU's tasks comprise the management of the Greater Amman Water Sector Improvement Programme (GAWSIP) as well as the monitoring of the Capital Investment Programme, the Amman Water Management Contract and other PSP initiatives in the governorates.¹⁸⁰

FIGURE 12: REGULATORY FRAMEWORK FOR WATER SUPPLY AND SANITATION (WSS) IN JORDAN



Source: Meuss, Marina; Stoll, Uwe; Barmerier, Nina, 2006, p.2

The problem of the described administrative structure is that the responsibilities of the three units are not clearly divided with regard to the tasks of regulation, supervision and operation.¹⁸¹ This results partly from the fact that the WAJ had been set up long before the MWI was founded, and thus the hierarchical lines needed to be built around traditionally established ones.¹⁸² Interviewees reported overlapping or unclear responsibilities, difficulties to differentiate and coordinate between the units, and incidents where WAJ left out the PMU to undertake direct negotiations with LEMA, e.g. on incentive payments.¹⁸³ In particular, the PMU experienced problems in finding its role as it was subject to different accountability lines, had only limited decision-making power, was to a major extent confined to making recommendations, and started its full operations late (about one year after the start of the management contract).¹⁸⁴ Furthermore, the European Commission on the one hand intended to build up the unit to a fully-fledged regulator (which raised expectations among PMU staff), while the Jordanian government did not have it in mind to give extended regulatory competences

¹⁸⁰ cf. World Bank, 2007, p.5

¹⁸¹ cf. Meuss, Marina; Stoll, Uwe; Barmerier, Nina, 2006, p.2

¹⁸² Rothenberger, Dieter, 16.09.07

¹⁸³ Oweis, Munir, 19.09.07/Dahiyat, Iyad, 29.10.07/Meuss, Marina, 01.11.07/Zoubi, Kamal, 17.09.07/Rothenberger, Dieter, 16.09.07

¹⁸⁴ Dahiyat, Iyad, 29.10.07

to the PMU.¹⁸⁵ The effect of these unclear responsibilities within the administration has been that the de facto allocation of tasks and responsibilities was dependent on the strength of the leadership of each unit. Thus, the discretion of the units varied with the change of its top personnel. An example of such kind of irregularities were the endeavours of the Secretary-General of the MWI to issue instructions to the WAJ though not formally being superior to it.¹⁸⁶

With regard to the autonomy of WAJ, being the main regulator, it can be said that, although it was set up as an autonomous unit, this has not been the case in practice. In addition to already mentioned formal influences by the Minister and informal influences by the MWI's Secretary-General, the authority was later subjected through by-laws to the provisions of the Civil Service Commission, the Audit Bureau, the Bureau of Supervision and Inspection, as well as government procurement regulations. Thus, the authority's staff have to be employed under the Civil Service Law, the WAJ has to organize its financial accounts according to the regulations of the Audit Bureau, and its activities are scrutinized by the mentioned agencies, all of which serves to limit its autonomy.¹⁸⁷

The assessment of the administrative structure of the water sector has shown that due to the unclear responsibility assignment and the lack of autonomy of the regulator, the discretion of the public and private contracting parties was insufficiently constrained. With regard to the public contracting party even a proper juridification of the water sector would not have provided sufficient constraints. This is because the weak checks and balances made the legislation and thus the regulatory rules unstable. The described setting also increased the discretionary power of the private operator. The unclear assignment of responsibilities allowed the operator to use informal channels to pass over certain authorities and to collaborate in a corrupt way with administrative and political actors.

5.2.3.2 INFORMAL (CIVIL) SOCIETY MONITORING (S.2)

To find out if civil society effectively constrained the discretion of political and administrative actors as well as the private operator, the author investigated the extent to

¹⁸⁵ Rothenberger, Dieter, 16.09.07

¹⁸⁶ Meuss, Marina, 01.11.07

¹⁸⁷ cf. Al al-Bayt University; InWEnt, 2005, p.52 f./ Zoubi, Kamal, 17.09.07/ cf. Abu-Shams, Ibrahim; Rabadi, Akram, 2003, p.161

which civil society degree the society was organized, consulted and informed. Additionally, an investigation was carried out to see if major malfunctions in the water sector led to resignations by politicians from office.

Although since 1989 the number of non-governmental organizations (NGOs) has greatly increased, they have been restricted by somewhat authoritarian practices, namely “social control projected through a complex array of administrative procedures, legal codes, and informal regulative practices designed to constrain opposition without resorting to violence”.¹⁸⁸ These manifested themselves in three conditions which NGOs must fulfil. First, for their application for registration, they have to draft an internal document which among other things stipulates precisely the activities that the organisation will involve in. Single activities may be crossed out from the list by the responsible government officials. If the application is approved, “it serves as a rigid guideline for permissible activities” and changes to it have to be approved by the government.¹⁸⁹ Furthermore, the organisation must adhere to administrative and oversight requirements, which provide extensive opportunities to interfere in the affairs of the NGO. For example, ministry officials are required to attend the NGO board elections and must approve the results. They can also demand to be given insight into the organisation’s financial records, and the NGO has to issue an annual report which records information on finances, correspondence, revenues, working members etc.¹⁹⁰ Secondly, NGOs are not allowed to engage in any political activities, since this permission is restricted to political parties.¹⁹¹ And thirdly, “assertive and critical opposition leadership through NGOs is prohibited.”¹⁹² In practice, all this means that that all members of NGOs must be approved by the ministry of the interior and the state may exclude particular individuals which it deems threatening to state interests from the organization. Such sweeping discretionary power of the state substantially limits the room for civil society participation in Jordan’s public affairs.

This marginalization of civil society was mirrored in the water sector. The public as one if not *the* most important stakeholder of water and wastewater services was not permitted to participate in decision-making and was not consulted by political or

¹⁸⁸ Wiktorowicz, Quintan, 2002, p.111

¹⁸⁹ Wiktorowicz, Quintan, 2002, p.116

¹⁹⁰ Wiktorowicz, Quintan, 2002, p.117

¹⁹¹ cf. Wiktorowicz, Quintan, 2002, p.115

¹⁹² Wiktorowicz, Quintan, 2002, p.116

administrative actors.¹⁹³ The private operator on the other hand interacted with the society by undertaking customer satisfaction surveys and awareness campaigns, though not obligated to do so by contract.¹⁹⁴ However, no such campaigns were undertaken by the public awareness directorate of the WAJ.¹⁹⁵ The ability of the society or civil society to informally monitor the water sector was further constrained by a lack of transparency and access to information.¹⁹⁶ Press reports contained no details about the PSP, nor was the press a forum for discussion.¹⁹⁷ Both the public and the private contracting party confined the role of the press mainly to publishing their reactions in case of service delivery problems or unpopular system changes (such as changes to the billing system).¹⁹⁸

Two cases of major drinking-water-pollution-induced infections in Jordan in 1998 and the latest in 2007 (outside LEMA's service area) have shown that politicians were held accountable following such malfunctions. In the latter case the Minister of Water and Irrigation, the Secretary-General of WAJ and the Minister of Health resigned. The resignations can be seen as a way to avert a crisis, because with the utmost probability a non-resignation would have caused a violent uprising in the streets (as did the earlier downsizing of food subventions in 1996).¹⁹⁹

The preceding illustration of the role of civil society makes clear that the dominance of the state restricted the organization of society, limited its participation and provided little or no information. Thus, civil society organizations were unable to informally monitor the sector and accordingly had little or no influence over the discretion of the public and private contracting party.²⁰⁰ The power of the unorganized civil society interventions limited the potential for opportunism only with regard to such kind of opportunistic behaviour which would have caused major malfunctions. And even then, as the pollution cases show, much of the society's power was of a retrospective nature and was limited to holding politicians and top-administrative actors accountable to some extent. In conclusion, therefore, it is clear that civil society had a

¹⁹³ Ali, Nabeel, 05.11.07/ Dahiyat, Iyad, 29.10.07

¹⁹⁴ cf. Suleiman, Rebbieh, 2002, p.30

¹⁹⁵ Oweis, Munir, 19.09.07

¹⁹⁶ cf. Suleiman, Rebbieh, 2002, p.20

¹⁹⁷ Zoubi, Kamal, 17.09.07

¹⁹⁸ Dahiyat, Iyad, 29.10.07

¹⁹⁹ Ali, Nabeel, 05.11.07

²⁰⁰ Zoubi, Kamal, 17.09.07

very limited ‘monitoring’ role and thus did not constrain the potential for opportunism by the public and private contracting party.

5.2.3.3 INSTITUTIONALIZED CONSENSUAL PROCESS (S.3)

Constraints on the discretion of political and administrative actors may also be generated by an institutionalized process of argumentation and consensus formation. In the Jordanian water sector the stakeholders that were involved in decision-making were largely limited to the water sector entities (MWI, WAJ, PMU), other government ministries (such as the Ministry of Planning), donors (in particular the World Bank, KfW, USAID, European Investment Bank) and private sector representatives.²⁰¹ NGOs, consumers and local authorities were not engaged to any significant extent.²⁰² Interviewees reported that although discussions at meetings sometimes aimed at concerted decisions, the committees’ structures were very hierarchical. Thus, positions that did not have the approval of the Minister of Water and Irrigation or the Secretary-General of WAJ could not achieve a consensus.²⁰³ As a result, the decision-making process in water sector regulation did little to abate the potential for opportunism by political and top-administrative actors.

5.2.3.4 SPECIFIC REGULATORY CONSTRAINTS (S.4)

The potential for opportunism by the public and private contracting party may further be legally constrained by complex specific rules in the contract. It is important to notice that contract law unlike administrative law may not be legally altered without the sanction of the private contracting party. Thus, contract law is not necessarily affected by potentially unstable legislation through a lack of checks and balances.

The water management contract did not stipulate any specific price-setting procedures as prices are set by the cabinet.²⁰⁴ Such an arrangement did not provide much room for opportunism from either party. The private operator in a management contract does not rely on revenues for its compensation, but is paid an agreed management fee instead. With respect to the government, a cut in prices, although popular with the public, would have decreased the operational profit generated by

²⁰¹ Dahiyat, Iyad, 29.10.07

²⁰² cf. Meuss, Marina; Stoll, Uwe; Bartheimer, Nina, 2006, p.3

²⁰³ Rothenberger, Dieter, 16.09.07/Zoubi, Kamal, 17.09.07

²⁰⁴ Oweis, Munir, 19.09.07

LEMA. In fact price increases rather than decreases were targeted by WAJ during the contract period.²⁰⁵

For the settlement of disputes, the contract specified three procedures. If a dispute arose the parties would first seek to resolve it by mutual consultation. If they failed to do so, the dispute would then be referred to an Adjudicator. If either the WAJ or LEMA was dissatisfied with the Adjudicator's decision, then arbitration would commence. Each party could appoint one arbitrator, while the two parties would jointly appoint a third arbitrator. The decision of a majority of arbitrators would be final and would be enforceable before any court.²⁰⁶ The stipulations show that the procedures constrained the potential for opportunism of both parties through clear rules for the resolution of disputes.

To address possible problems of information asymmetry between the regulator and the operator the contract stipulated weekly and monthly meetings of the WAJ's and the operator's representatives. In addition, the operator had to issue monthly and annual reports, an annual budget, as well as additional reports upon request by WAJ.²⁰⁷ The PMU as the monitoring unit tracked 15 key indicators (drawn from the performance indicator agreement of the contract) on a quarterly and annual basis. An additional annual financial and technical audit report was prepared by external auditors funded by USAID.²⁰⁸ The reporting requirements therefore can be regarded as significant constraints on the discretion of the private operator.

The contract further specified penalty provisions and performance incentives. At the end of each contract year an independent auditor issued a statement of operations on the performance of the private operator. The auditor was from an international firm that was selected and paid by the WAJ. Based on the statement, the WAJ calculated the performance incentive compensation (PIC) part of the contract. In case the operator failed to meet the performance standards, the WAJ was allowed to withhold payments and to deduct liquidated damages either from the fixed fee or from the PIC.²⁰⁹ The critical aspect of these contractual stipulations was that the independent auditor acted in a purely advisory function. The WAJ had the power to decide if the non-achievement of

²⁰⁵ Rothenberger, Dieter, 16.09.07

²⁰⁶ cf. Water Authority of Jordan, 1999, General Conditions, p.9f.

²⁰⁷ cf. Water Authority of Jordan, 1999, General Conditions, p.20ff.

²⁰⁸ cf. World Bank, 2007, p.5

²⁰⁹ cf. Water Authority of Jordan, 1999, General Conditions, p.40ff.

the performance targets could be accredited to a failure of the operator or was due to other reasons. The power of WAJ to decide on this and to determine the amount of liquidated damages, provided the regulator with a significant scope for opportunism.²¹⁰

The examination of regulatory institutions in Jordan has shown that neither the administrative structure of the water sector, nor civil society monitoring, nor an institutionalized consensual process were able to sufficiently constrain the discretion of the public and private contracting party. While the latter two did not even qualify as nameable constraints, the administrative structure of the water sector left definite scope for arbitrary decisions and possible corrupt collaboration between political and administrative actors and the private operator. Despite this, there is no doubt that specific regulatory constraints, associated with the contractual agreement and terms and conditions, did help to constrain the discretion of the contracting parties. This was because the degree to which the rule of law was established was satisfactory and consequently the contractual rules were enforceable by the courts. However, the presentation of the contractual rules has revealed that these rules may leave some scope for opportunism (as in the case of the penalty provisions). Moreover, contractual institutions may only confine what they have actually stipulated. However, as has been mentioned before, contracts are necessarily incomplete. The conclusion, therefore, is that the lack of political checks and balances was only partly compensated by the specific regulatory constraints. The following section will assess if international institutions played a part in constraining opportunistic behaviour by the contracting parties.

5.2.4 International Institutions Affecting a PSP in the Water Sector

5.2.4.1 SUBMISSION TO INTERNATIONAL ECONOMIC INSTITUTIONS (I.1)

In addition to domestic institutions, international institutions may also place constraints on the discretion of the parties of a PSP. On 11th April 2000 Jordan was formally admitted as a member of the World Trade organization (WTO).²¹¹ By its association with the WTO, being a “legal and institutional foundation of the multilateral trading system”, the country submitted to major agreements such as the General

²¹⁰ Rothenberger, Dieter, 16.09.07

²¹¹ cf. Day, Alan J., 2006, p.624

Agreement on Trade in Services (GATS).²¹² GATS places obligations on its members regarding transparency, domestic regulations, business practices and so on. Another function of the WTO is to set rules and procedures for the settlement of disputes among its members.²¹³ From 1989 onwards Jordan's economic policies were strongly influenced by its request for financial support from the International Monetary Fund (IMF) of which Jordan is a member. Following the development of a structural adjustment programme, Jordan opened up capital markets, passed a new investment law, took steps towards privatization in the infrastructure sector, and modernized the transportation and communication infrastructure.²¹⁴ In 1998, a study assessed the 'business friendliness' of Middle Eastern countries and accredited Jordan the highest overall score (along with Lebanon).²¹⁵ Following King Abdullah II's accession to the throne in 1999, economic reforms were also accompanied, at least on paper, by political and administrative reforms. Between 1999 and 2005 the King announced a number of reform initiatives. These included initiatives against corruption, to restructure the judiciary, to reform administration, to decentralize the kingdom, to empower the parliament, and to reform the electoral law. However the effective implementation of the majority of these reforms still remains to be seen.²¹⁶ The most comprehensive reform approach was the National Agenda of 2005/06, which renewed many earlier reform initiatives. However, few expect that this reform initiative will be any more successful than earlier efforts, largely because opposition and resistance from powerful groups in government and parliament is likely to be very strong.²¹⁷ Nevertheless the King's interest in international trade and investment remains strong. This is further demonstrated by Jordan's engagement in the World Economic Forum (WEF), where Queen Rania of the Hashemite Kingdom of Jordan is a member of the foundation board. The regional initiative 'WEF on the Middle East' had its founding session in Jordan and more conferences by the WEF took place in Amman afterwards.²¹⁸

²¹² Sweis, Rateb, 2002, p.298

²¹³ cf. Sweis, Rateb, 2002, p.299f.

²¹⁴ cf. Loewe, Markus, 2007, p.152/ Baaklini, Abdo; Denoeux, Guilain; Springborg, Robert, 1999, p.161

²¹⁵ cf. Kanaan, Taher H., 1999, p.80

²¹⁶ cf. Loewe, Markus, 2007, p.152ff.

²¹⁷ cf. Loewe, Markus, 2007, p.154

²¹⁸ cf. <http://www.weforum.org>

Jordan's obvious efforts to open up its economy and to encourage investments are a clear indication of the the government's concern about its reputation with international investors. This concern and the legal liability of international economic institutions comprehensively constrained the potential for opportunism of political and administrative actors. The reason for this is that an exploitation of LEMA or other serious actions of opportunism would have diminished the willingness of international firms to invest in the country. Moreover, if, along with the opportunistic action, international economic institutions would have been violated, the government might have been subject to penalties. The influence of international economic institutions was also felt by the private contracting party. For example, as Jordan is party to the GATS-agreement of the WTO, private operators are also subject to the conditions and restrictions of such an agreement, with regard to such things as the stipulation of dispute resolution procedures, for example.

5.2.4.2 INTERNATIONAL OR BILATERAL MONITORING (I.2)

Restrictions on the discretion of the contracting parties may also stem from formal or informal international monitoring. International organizations or other governments that are providing loans or financial assistance are typically interested in how the money and assistance they provided is being used. Thus, they will engage in some kind of formal or informal monitoring. The Amman water management contract was – as mentioned before – financed by a World Bank loan and was embedded in the Amman Water and Sanitation Management Project (AWSMP) that involved further donors (USAID, KfW, EIB, Italy). In the project agreement on the AWSMP between the World Bank and the WAJ, the Bank laid down that WAJ shall “afford the Bank a reasonable opportunity to exchange views” on progress of project and WAJ performance and shall “promptly inform the Bank of any condition which interferes or threatens to interfere with the progress of the project”.²¹⁹ In addition, copies of reports, work programs and budgets had to be furnished to the Bank. Similar mechanisms applied with regard to the other donors of the AWSMP. Besides loans, financial assistance was also provided in the form of grants. The European Union (EU) financed the set-up and operation of the Programme Management Unit (PMU). One EU representative sat on the Executive Management Board of the PMU and was thus

²¹⁹ World Bank, 1999, p.2

involved in the decision-making process and the approval of annual operational plans.²²⁰ The finance agreement between the two parties determined that the responsibility of the EU was to monitor and audit the unit's performance.²²¹ Finally, the GTZ (German technical cooperation) provided technical assistance for the preparation of the contract. However, the agency was not involved into the implementation of the contract and thus did not have noticeable effect on the room for opportunism of the contracting parties.

The donors that were involved in the transaction through financial assistance obviously monitored the performance of the contracting parties, but monitoring agreements existed only for the performance of the public side. Interviewees rated the influence of donors on the discretion of political and administrative actors as high. It was stated that if LEMA had encountered serious problems through opportunistic behaviour by its public partner, it could have turned to the World Bank. Furthermore, the view was advanced that donor pressure was a corner stone that was prevented arbitrary interference into the water sector. Without this kind of control, it was voiced, employees would not have been able to achieve their goals.²²²

To conclude, Jordan's status as a semi-rentier economy par excellence and its resulting strong dependence on international investments and rents generated significant commitment of political and administrative actors to the contract.²²³ Hence, international institutions considerably reduced the incentives and potential for opportunistic behaviour and made it very likely that the public partner was willing to cooperate with the private partner.²²⁴ The discretion of the latter was also constrained by international institutions, yet to a minor extent than the public side. The constraints that influenced the private operator were on the one hand international economic institutions like the WTO regulations. On the other hand, the international awareness of the contract and of the performance of each party made it desirable for LEMA to show commitment in order to maintain a good international reputation.

²²⁰ Dahiyat, Iyad, 01.11.07

²²¹ Oweis, Munir, 19.09.07

²²² Interviewee, anonymous

²²³ Meuss, Marina, 01.11.07

²²⁴ Bröning, Michael, 22.10.07

5.2.5 The Institutional Framework in Jordan: A Summary

The examination of the institutional framework in Jordan has firstly revealed that the degree of the rule of law, although limited in some key respects, was nevertheless satisfactory for the requirements of the case under observation. However, the author only assessed the rule of law from the perspective of international investors. This study did not investigate if rule of law was also satisfactory from the perspective of the country's citizens or local businesses. Moreover, judicial institutions were undoubtedly supplemented by international institutions, which enhanced the enforcement of specific constraints on opportunistic behaviour. It can therefore be stated that judicial institutions were capable of enforcing both substantive restraints and restraints on system changes and that international institutions further enhanced the enforcement of specific constraints. That means that mechanism (c) of the study's concrete hypothesis supported by the evidence.²²⁵

With regard to the political institutions in Jordan it was found that political checks and balances were insufficient to stabilize the legislation for the water sector. In other words, formal or informal restraints on changing the regulatory system were missing (mechanism (b) of the concrete hypothesis). This lack may be compensated by non-legislative constraints. However, neither civil society monitoring nor an institutionalized consensual process were effective in circumscribing the discretion of the contracting parties. With regards to regulatory institutions (mechanism (a) in the concrete hypothesis), only the specific rules fixed by contract law were able to place constraints on the discretion of the contracting parties. The regulatory competence in the Jordanian water sector therefore can be seen as weak.

Important constraints that were capable of safeguarding the PSP came from outside the country in the form of international economic institutions and international monitoring. However, this shows that opportunistic action is primarily constrained in situations where it becomes visible for international organizations. This is the case when it is either observable through monitoring or when opportunistic action prompts one of the parties to voice its complaints through arbitration or other means that make it public. It is assumed that the latter occurs whenever the opportunistic action is of a significant degree.

²²⁵ cf. chapter 4.2

Before summing up the concrete potential for opportunism of each party, the relationship between the two parties can be recalled. The regulator in a management contract is generally in a stronger position than the operator, since the regulator has the power – no matter if justified or not – to withhold payments or to deduct liquidated damages. To obtain its right in case of unjustified penalties, the operator would need to go to arbitration or file a suit, which brings about costs. These costs also include costs for damages of the operator's reputation, as legal disputes of a firm with a government may decrease the willingness of other governments to contract it, even when the firm wins the dispute. It is therefore likely that the operator will not take legal measures if the costs are higher than those that arise from the opportunistic action by the public party.

With regard to the incentives and potential for opportunism of *the private operator*, the following could therefore be projected: The contractual rules placed quite strong constraints on the operator, as these rules were likely to be enforced through the existence of the rule of law and international constraints. Room for opportunism by the private operator remained, however, where the contract made no stipulations or where opportunism was not observable to the public party due to an information asymmetry.

With regard to the incentives and potential for opportunism of *political and administrative actors*, the following could be projected from the institutional framework. The discretion of political and administrative actors was mainly constrained by contractual rules, the existence of rule of law and international institutions. The irregularities in administrative law principally left much discretion to political and administrative actors, especially at top-management level. Hence, in this setting, room for opportunism remained, where no rules were stipulated and where the breach of contractual rules did not become visible to international agencies and did not prompt the operator to take measures that made the opportunistic action public.

The previous sections of this chapter have discussed the potential for discretionary and opportunistic behaviour by one or both of the contracting parties. The following section investigates the extent to which opportunistic action actually occurred, as well as whether administrative capabilities were sufficient so that monitoring and enforcement mechanisms were effective.

5.3 INTERMEDIARY VARIABLE: REGULATORY REGIME - TRANSACTION SITUATION

The previous examination of the institutional framework has shown that the incentives and potential for opportunistic behaviour were not fully constrained. The projections that were made, based on the information about the institutional environment, will now be tested by scrutinizing the degree of occurrence of opportunistic behaviour of both parties and the effectiveness of monitoring and enforcement mechanisms.

5.3.1 Degree of Occurrence of Opportunistic Behaviour by Political - Administrative Actors and the Private Operator (R.1)

One incidence of opportunistic action may be a renegotiation of the contract that is pushed through by one of the contracting parties but is to the detriment of the other. Yet, some degree of renegotiation is desirable, as not all eventualities may be foreseen at the time of the set-up of the contract. Therefore, if renegotiations have occurred it is necessary to investigate their quality and impetus to find out if they are a matter of flexible adaptations or opportunistic renegotiations.²²⁶ In the case of the Amman MC after the audit of the first contract year, the parties recorded in a memorandum of understanding that “factors external to the contract [...] may have had an impact on the ability of LEMA to achieve certain contractual performance standards”.²²⁷ In a subsequent memorandum of understanding the PMU acknowledged that due to an inadequate net supply capacity of bulk water to the utility, the potential of LEMA to reduce the unaccounted-for-water and to improve the constancy of supply had been limited.²²⁸ Thus, it was amicably agreed to adjust the performance targets. This amendment can therefore be seen as a flexible adaptation to unexpected external problems and highly demanding performance standards.²²⁹ Other amendments to the contract stipulated its extension from four years to the final period of seven years and five months and additional tasks for LEMA with regard to the implementation of the Capital Investment Programme were added. But these also cannot be delineated as

²²⁶ cf. Rothenberger, Dieter, 2004, p.24/36

²²⁷ Programme Management Unit, 2001, p.2

²²⁸ cf. Programme Management Unit, 2002, p.1

²²⁹ cf. Rothenberger, Dieter, 2006, p.8

opportunistic renegotiations as LEMA received additional compensation for its extended efforts. No further amendments or unilateral changes have been attempted.²³⁰

With regard to contractual violations, it was found that no party sought arbitration or went to court. Still, one clear infringement of the contract occurred in connection with the seconded personnel that were released from their work at WAJ to work for LEMA. The contract had stipulated that LEMA was allowed to transfer 50% of the inherited personnel back to WAJ, and replace them by more qualified staff. Yet, after the first contract year when LEMA had returned 20% of the personnel, WAJ refused further staff transfers. The most likely reason for this is that the concerned staff lodged a protest with their patrons (i.e. the influential elite) against the procedure. Hence, the clientelistic network stopped LEMA from exercising its right, but nevertheless the private operator did not go to arbitration on this issue. In the following year LEMA removed most of the respective personnel, mainly through retirement, and hired new staff from the market.²³¹ One interviewee was of the opinion that LEMA had most probably experienced further problems in terms of personnel decisions, due in the main to the effects of 'Wasta' and 'clientelism' that are inherent in Jordan's bureaucracy.²³² This assumption was confirmed by another interviewee, who was informed about an incident in which one minister put pressure on LEMA to hire a number of the minister's clients. It was said that subsequent to this move the minister overruled a decision by WAJ to deduct liquidated damages from LEMA's compensation.²³³ From the side of the private operator no infringements of the contract were reported, and LEMA fulfilled its reporting requirements.²³⁴

One incident that was not a clear breach of the contract but nevertheless induced a disagreement between the contracting parties was the delay of the capital investment programme (CIP). The contract envisaged that the programme for the rehabilitation and restructuring of the network ought to be finalized within the second contract year, but this stipulation was not binding.²³⁵ The same applied to the delivery of a customer information system. LEMA complained that the delay of these programmes affected its ability to achieve the contractual targets, such as the unaccounted-for-water target and

²³⁰ Rothenberger, Dieter, 16.09.07

²³¹ cf. Abu-Shams, Ibrahim; Rabadi, Akram, 2003, p.168f./ Interviewee, anonymous

²³² Interviewee, anonymous

²³³ Interviewee, anonymous/cf. Suleiman, Rebhieh, 2002, p.33

²³⁴ Rothenberger, Dieter, 16.09.07

²³⁵ cf. Water Authority of Jordan, 1999, Appendix 16, p.3

the accounts receivable target, as for example some rehabilitation was done in the network while LEMA was operating it.²³⁶ The delay itself actually did not constitute a form of opportunism by the public party, as it was not to its own advantage. However, the WAJ did not acknowledge that the operator's performance was negatively affected by this time lag. In the before-mentioned memorandum of understanding on the revision of performance standards for the third contract year, it solely admitted a detrimental effect by an inadequate net supply capacity.²³⁷ In this connexion, the institutional arrangement that furnished the WAJ with the authority to calculate the performance incentive compensation (upon recommendation of an independent auditor) proved problematic. The power of WAJ to determine the reasons for the non-achievement of targets and the amount of liquidated damages, provided it with a significant discretion.²³⁸ Correspondingly, the partiality of WAJ in setting the liquidated damages gave rise to frictions.²³⁹

Reportedly, especially in the first years of the contract, various other frictions occurred at those points, where the operator was dependent on the cooperation of the regulator, such as personnel and procurement.²⁴⁰ LEMA complained about the government's mentality as well as long and tedious procedures in the cooperation with the public party.²⁴¹ Interviewees argued that the regulator's initial unaccommodating attitude to the contract most probably resulted from its lack of knowledge about what the chosen contract option was able to deliver, as well as the fact that it was not the government but the donors that had initiated the PSP.²⁴² The opposition to the contract by some employees, who feared that they might lose their jobs, combined with an insufficiently constrained discretion of political and administrative actors, thus resulted in some opportunistic behaviour by the regulator, such as delays in the approval of billings handed in by LEMA. Repeated replacements by LEMA of its own top-management may also indicate a problematic relationship with WAJ. However, this

²³⁶ cf. Suleiman, Rebbieh, 2002, p.30/45

²³⁷ cf. Programme Management Unit, 2002, p.1f.

²³⁸ Rothenberger, Dieter, 16.09.07

²³⁹ Rothenberger, Dieter, 16.09.07

²⁴⁰ Meuss, Marina, 01.11.07

²⁴¹ cf. Suleiman, Rebbieh, 2002, p.30

²⁴² Meuss, Marina, 01.11.07/ Rothenberger, Dieter 16.09.07/Dahiyat, Iyad, 29.10.07

situation improved after some time, when the PMU had taken up its work. Regular meetings were established, which helped to ease the earlier tensions.²⁴³

5.3.2 (In-) Effective Monitoring and Enforcement Mechanisms (R.2)

The contract provided for ample monitoring and reporting requirements.²⁴⁴ However, these were viewed, especially by LEMA, as being excessive and time-consuming obligations.²⁴⁵ Notwithstanding this, interviewees reported that the monitoring procedures were not satisfactory in some areas, in particular in relation to the collection ratio, as the meter readers possessed an information monopoly. This information was important because the collection ratio partly determined the performance incentive compensation for the operator. Over time, however, the problem was resolved through an increased automation in meter-reading through handheld-units.²⁴⁶ Another opportunity for opportunism, this time for LEMA, was the fact that during the first year of the contract, when the PMU had not been fully established, no monitoring took place.²⁴⁷ However, there is no evidence that the operator took advantage of this opportunity for opportunistic behaviour.

The administrative capabilities of the PMU as the monitoring unit were initially quite weak, as the unit had been newly set up and as its personnel had little experience with respect to the required tasks. However, this initial lack was mostly outweighed by the engagement of external auditors for the annual review of the operator's performance. Thus, no major imbalance came about between the regulator and the operator.²⁴⁸ The enforcement of the contract has been largely effective as the incentive payments and penalties were sufficient instruments to achieve compliance by LEMA.²⁴⁹

It has to be conceded that the reported incidents of opportunism give only an idea of the degree of opportunistic behaviour that has actually taken place during the contract period. The causes for this lie within the nature of the forms of opportunistic behaviour that were insufficiently constrained by the institutional framework. It was projected that opportunism by the operator was likely especially in those areas, where

²⁴³ Rothenberger, Dieter, 16.09.07/Oweis, Munir, 19.09.07/Dahiyat, Iyad, 29.10.07

²⁴⁴ cf. chapter 7.1.3, S.4

²⁴⁵ Meuss, Marina, 01.11.07/Dahiyat, Iyad, 29.10.07

²⁴⁶ cf. Rothenberger, Dieter, 2004, p.36/Rothenberger, Dieter, 16.09.07/Oweis, Munir, 19.09.07/ Meuss, Marina, 01.11.07

²⁴⁷ Dahiyat, Iyad, 29.10.07

²⁴⁸ Rothenberger, Dieter, 16.09.07

²⁴⁹ Zoubi, Kamal 17.09.07/Dahiyat, Iyad, 29.10.07

the public party could not observe it. This lack of transparency occurred with regard to the first contract year, when no monitoring took place, with respect to the collection ratio. However, due to its unobservability by the regulator and international organizations, no other information about incidents of opportunism by LEMA could be obtained. With regard to opportunistic behaviour by the public partner, the state of information was better. It was projected from the institutional framework that opportunistic action by the public party could occur when it was not visible to international organizations and was not of a degree upon which LEMA would decide to take measures that make it public. This assumption was confirmed by the reported incidents of opportunism. One clear infringement of the contract concerning the transfer of personnel did not prompt LEMA to go to arbitration. Another incident, the far-reaching clientelism by one minister, was apparently reciprocated by the cancellation of liquidated damages. Further concrete opportunistic action could not be named, yet it was stated that in the first contract years, WAJ was not cooperative and the relation between the contracting parties was affected by frictions, especially regarding the incentive payments.

In summary, opportunistic behaviour in the Amman Management Contract was of a hidden nature. This is coherent with what was predicted from the institutional framework: namely, that no widely observable opportunistic action would arise, but that the weak regulatory framework still left significant room for opportunism by both the public and private partners. The following section evaluates the performance of the private operator, following which the thesis will be summarized and the validity of the asserted hypotheses will be assessed.

5.4 DEPENDENT VARIABLE: PERFORMANCE OF THE PRIVATELY OPERATED WATER UTILITY

The Programme Management Unit tracked 15 indicators as key targets. Performance against these is summarised and analysed below.

The constancy of water supply was increased from 8 hours on average per week to 36 hours per week in peak season and 48 hours in off-peak season, thus fulfilling the revised performance target (Target 1). This increase was achieved despite the influx of

a large number of refugees from Iraq and an insubstantial increase in bulk supplies.²⁵⁰ A clear delivery schedule, moreover, produced certainty for the customers.²⁵¹ The water quality was improved from a good quality to a very high standard and remained stable on a level exceeding the MWI's quality standards.²⁵²

To improve inefficient customer services and public information, the operator established and operated a state-of-the-art computerized customer call centre (Target 2), which was widely praised.²⁵³ In addition, the operator set up three regional repair and maintenance shops with a 24-hour service.²⁵⁴ This enabled LEMA to reduce the response time for repairs of water and sewerage malfunctions to 1.6 hours, thus exceeding the agreed target of 6 hours (Target 3).²⁵⁵

Staff productivity was increased from 5.6 to 3.4 staff per thousand water accounts, thus exceeding the agreed target of 4.0 (Target 4). The network was digitally mapped to 100% (Target 5), a hydraulic computer model was developed and staff trained in its use (Target 6), and a computerized information system was developed and operated (Target 7). Operating and maintenance procedures were improved to international standards (Target 8) and 250,000 water meters were renewed, exceeding the target of 200,000 (Target 9). A digitally-based leak detection and repair program was implemented and well run (Target 10), and a preventive maintenance programme was successfully completed (Target 11).²⁵⁶

Assessment problems occurred with regard to two targets. Concerning energy consumption, an energy management plan was submitted as obliged (Target 12), but the reduction of power consumption could not be meaningfully measured due to external factors out of the control of the operator. The evaluation of the reduction in the number of breakdown repairs in the water network (Target 13) was also not feasible as the indicator was fine-tuned later and received a different base year. Moreover, the target can be questioned, as it was likely that repairs would increase in the short- and medium-term because of an improved constancy of supply and "in a situation where improved

²⁵⁰ cf. World Bank, 2007, p.7

²⁵¹ Rothenberger, Dieter, 16.09.07

²⁵² cf. Rothenberger, Dieter, 2006, p.9/cf. Bankworld Inc, 2007, p.50

²⁵³ Oweis, Munir, 19.09.07/Zoubi, Kamal, 17.09.07/Meuss, Marina, 01.11.07

²⁵⁴ cf. Bankworld Inc, 2007, p.54f.

²⁵⁵ cf. World Bank, 2007, p.7

²⁵⁶ cf. World Bank, 2007, p.7f./cf. Bankworld Inc, 2007,p.48f.

customer service and public information campaigns [encouraged] customers to report leaks and malfunctions”.²⁵⁷

The operator failed to achieve one of the primary targets (Target 14), a reduction in the percentage of unaccounted-for-water (UFW). This was originally supposed to be reduced from 54% to 29%. In a memorandum of understanding the target was revised to 40%, but LEMA accomplished only a reduction of 42% on average. However, to LEMA’s defence it should be said that in those districts where the network and metering had been upgraded a reduction to 35% was achieved, and in some pilot districts where continuous water supply was realized, the UFW was reduced to 23%.²⁵⁸ The operator further failed to achieve the target (Target 15) for the collection of accounts receivables (in terms of days of average daily billing) from 269 days to 73 days.²⁵⁹ The actual reduction achieved was only to 217 days. This failure was partly due to a number of extremely old accounts, which according to Jordanian law may not be written off even though the chance of ever collecting them is small.²⁶⁰

To conclude, at the end of the contract LEMA complied substantially with 11 of 15 key performance targets, whereas two targets could not be meaningfully assessed. Distinct improvements were achieved in commercial and administrative respects. Also the technical operations have been improved to some extent. The targets for the reduction of UFW and accounts receivables were missed, but one can argue that they had been set based on questionable estimates, as the inability of the government to guarantee sufficient bulk supply made water supply intermittent and extremely old accounts could not be written off. Apart from that, the operator fulfilled all its obligations and was successful in achieving the goals of the contract, which aimed at an increase in efficiency in terms of increased profitability. The incentive for an efficiency increase was set through the performance incentive compensation (PIC), which was contingent on revenue optimization, improved collection efficiency and cost control. LEMA managed to increase the operational profit from annual losses of approx. 2.7 million Jordanian Dinar (JD)²⁶¹ before the implementation of the PSP to an annual

²⁵⁷ World Bank, 2007, p.8

²⁵⁸ cf. World Bank, 2007, p.6

²⁵⁹ The target of 269 days was revised in a later memorandum of understanding, but no reliable information could be obtained on the new target.

²⁶⁰ cf. World Bank, 2007, p.8

²⁶¹ Currency equivalents (effective 12.02.2007): JD 1.00 = US\$ 1.41; US\$ 1.00 = JD 0.71 (World Bank, 2007, p.1)

profit of about 13.7 million JD.²⁶² The operator received PICs for each year of the contract. The overall judgement on LEMA's performance therefore may be rated as good. The following chapter provides a summary of this study, draws conclusions about the validity of the hypotheses and the explanatory power of the theoretical framework, and provides some final considerations with respect to PSPs in the water sector.



²⁶² cf. Programme Management Unit, 2007

CHAPTER 6

SUMMARY, CONCLUSIONS AND FINAL CONSIDERATIONS

This study aimed at investigating the impact of institutional frameworks on private sector participation in water supply and sanitation. For this purpose it was firstly outlined how the concept of institutions is related to water governance and development. It was found that institutions form the framework by which authority is exercised in a country and that this framework is linked to governance outcomes. The demonstrated positive externalities of a sufficient, reliable and safe water supply made clear how important it is for the social and economic development of a country that governments address the shortcomings in water governance. The need to improve water supply and sanitation (WSS) under public service provision led to the promotion of private sector participation. Recent developments show that the mixed experience with private provision has brought about an increase of low-risk rather than larger-scale and high-risk PSP arrangements.

In the course of this work, an overview was provided of the research that has been carried out on the determinants of performance of PSPs in infrastructure provision and services. Four levels of analysis were identified: the level of resource allocation and employment (drawn primarily from neoclassical economics and agency theory); the level of governance (drawn from transaction cost analysis); the level of the institutional environment (drawn from new institutional economics and positive political theory); and the level of institutional embeddedness (drawn from social theory). As the level of neoclassical economics and the agency theory was found to be incapable of explaining the experienced malfunctions of PSP arrangements, and institutional embeddedness is often taken as given (as norms and traditions can hardly be shaped deliberately), the focus was on the middle two levels. On the third level, the transaction cost approach by Williamson points out that the performance of a PSP in terms of its transaction cost efficiency depends on the degree of a fit or misfit between the characteristics of a transaction and its chosen governance structure. The approaches that were introduced for the second level included political economy theory as well as the new institutional economics. Baietti, Kingdom and Ginneken find that a significant degree of autonomy and balanced accountabilities of a utility are important conditions for good performance.

Rufin and Romero identify both political and institutional factors as determinants of performance, namely resources, capabilities, as well as institutional structures and the problem of 'time inconsistency in public policy'. The NIE theories of the second level which are based on the transaction cost economics have shifted the focus from the 'play of the game' to the 'rules of the game'. They find that the institutional environment of a transaction has an impact on its cost and performance. The overview of the existing literature showed a lack of research regarding the role of the institutional environment in general and PSP in the water sector specifically and moreover was biased towards approaches explaining mainly the performance of high-risk arrangements. To contribute to filling this gap the derived research question was how far the institutional environment in a country affects the performance of a privately operated water utility. The NIE approach that was best suited for the methods and scope of this study, though with some additions and modifications, was the approach by Levy and Spiller which focused on how the institutional environment affects the opportunity for opportunism and manipulation by the public and private partners in a PSP arrangement, with obvious implications for the efficient and effective performance of the contract.

Having introduced the concept of institutions, Levy and Spiller's framework was presented in detail. They find that three complementary mechanisms are necessary to restrain opportunism by the public side: (a) substantive restraints on regulatory discretion, (b) formal or informal restraints on changing the regulatory system and (c) institutions that enforce both substantive restraints and restraints on system changes. As this view inadequately narrowed the analysis on contractual distortions initiated by the public contracting partner, the framework was adapted to also take into account the impact of institutions on the potential for opportunism by the private partner. Furthermore the approach was expanded to include not only national judicial, political and regulatory institutions, but also international institutions. Thereafter the hypothesis and sub-hypotheses were introduced, which suggested that the performance of a privately operated water utility will be negatively affected, if the discretion of the contracting parties is not sufficiently constrained by the institutional environment.

In a next step the chosen case study of the management contract in Amman, Jordan was justified. The research methodology was presented, setting out the research questions for the case study, data needs and indicators for the independent, intermediary and dependent variable as well as the methods of data collection and data processing.

An overview on Jordan's political, economic and social situation, the Jordanian water sector and the pre-privatization situation along with the Amman Management Contract provided the background information for the subsequent findings and interpretations. The section on the management contract moreover explained what kind of incentive structure resulted from the chosen governance structure and the specific transaction situation. The examination of the institutional framework revealed that it was mainly judicial and international institutions and specific contract rules that constrained the discretion of the contracting parties. Political checks and balances were insufficiently established and the remaining regulatory institutions left room for opportunism. From the assessment of the institutional framework it was thus projected that opportunistic action by the private operator could occur in areas for which the contract made no stipulations or where such behaviour was not observable to the public party.

With regard to the public party it was projected that opportunism could occur in areas where no contractual rules were stipulated, where the breach of contractual rules would not become visible to international agencies and would not prompt the operator to take measures that make the opportunistic action public. These projections were confirmed by the assessment of the occurrence of opportunistic behaviour and the effectiveness of monitoring and enforcement mechanisms. No opportunistically motivated renegotiation took place, nor did any contractual violations occur that induced one party to seek arbitration or to go to court. Still, clear incidents of opportunism by political and administrative actors were reported with regard to personnel decisions, but these were not made public and thus were not well known to most interview partners. Furthermore, the institutional framework gave rise to frictions on the working level as in the case of the calculation of the Performance Incentive Compensation (PIC) by the Water Authority of Jordan, as well as the non-cooperation of the public side in the early years of the contract. If the room for opportunism by the private partner was also exploited by it, this could not be verified as no sources or interview partners were available that could have reported such incidents. The assessment of the dependent variable showed that the performance of the privately operated water utility was good, as eleven of fifteen key targets were fulfilled, whereas two targets could not be meaningfully assessed. The goal to increase the efficiency and the operational profit was also attained. Whilst LEMA failed to comply with the targets for unaccounted-for-water (UFW) and accounts receivables, it can be argued that they

had been set on questionable estimates and their achievement was among other things hampered by an insufficient bulk supply and the legal prescription that prohibits old accounts to be written off.

Based on the findings of the previous chapter, we can now turn, by way of conclusion, to an assessment of the extent to which the assumptions of the hypotheses set out in Chapter 2 can be verified by the case of the Management Contract for Water and Wastewater Services in the Amman Governorate. It is obviously acknowledged that a single case-study of this kind cannot conclusively prove or disprove such hypotheses, but it is nevertheless felt that valuable research lessons may still be learned.

Sub-Hypothesis 1: *Weak performance (i.e. operator's failure to fulfil obligations and to attain goals and targets set in the contract) arises, when judicial institutions are incapable of enforcing both substantive restraints and restraints on system changes and when there are no international institutions that are able to compensate for this lack, and thus an opportunistic behaviour of political/administrative actors and the private operator is likely.*

Sub-hypothesis 1 does not apply to the Amman Water case, as judicial institutions have been found to sufficiently constrain substantive restraints and restraints on system changes from the perspective of international investors. In addition, international institutions are able to limit the discretion of the actors.

Sub-Hypothesis 2: *Weak performance arises, when – despite the existence of rule of law – the checks and balances are not sufficient to prevent legislative changes of the regulatory system and sufficient commitment is not secured through informal constraints or an institutionalized consensual process or contract law or international institutions.*

Sub-hypothesis 2 does not apply as the lack of checks and balances was found to be (at least regarding major and visible opportunistic action) compensated by the contract and international institutions.

Sub-Hypothesis 3: *Weak performance arises, when – despite the existence of the rule of law or constraining international institutions, and – despite sufficient checks and balances that legally restrain system changes, the regulatory process is not written in administrative law (juridification of the water sector) or in the contract (through specific regulatory constraints) and thus opportunistic behaviour of political/administrative actors and the private operator is likely.*

Sub-hypothesis 3 also does not apply as one of the preconditions, namely “sufficient checks and balances”, was found to be insufficient. The non-applicability of these sub-hypotheses helps to explain why no weak performance has arisen from the institutional framework in Jordan. Still, the concrete hypothesis projected that an improper establishment of the three mechanisms (a), (b) and (c) would leave potential for opportunism by the contracting parties, which could negatively affect the performance of the utility.

Concrete hypothesis: *If, (a) substantive restraints (regulatory institutions) on regulatory discretion, and (b) formal or informal restraints on changing the regulatory system, and (c) institutions that enforce both the substantive restraints and restraints on system changes are properly established, the potential for manipulation or exploitation by political and administrative actors and by the private operator is low, and thus the institutional framework will not negatively affect the performance of a privately operated utility.*

It was also assumed that a lack in some institutions may be compensated by other constraints if a number of them were established. In Jordan, a lack of effective checks and balances was discovered. This lack was neither constrained by informal constraints or an institutionalized consensual process. The only institutions that effectively placed constraints on the discretion of political and administrative actors were the contract and international institutions.

What is important to realize is that the problem in Jordan was not only the instability of regulation that resulted from the lack of checks and balances. The regulation of the water sector itself, i.e. its administrative structure, was also improperly established. The unclear allocation of responsibilities left significant discretion to individual actors especially at the top level. That this discretion was sometimes used in an opportunistic way was indicated by the reported incidents. However, in Jordan, the ‘pursuit of self-interest’ did not occur in terms of a joint opportunism by the personnel of a water sector entity to the advantage of the entity or the sector as a whole, which has sometimes been the case in other countries. Opportunistic action was rather pursued by single actors to their own advantage. As such kind of opportunism needs to be pursued in a more or less hidden way, the actors needed to make sure that it was not made public by the partner. This may have been reached, as in one of the cases outlined above, by compensating the private partner through the PIC incentive scheme.

I have therefore come to the conclusion that the general hypothesis could neither be denied nor clearly confirmed by the case study. This is because, despite the lacks of constraints on opportunistic behaviour, the performance of the privately operated water utility was satisfactory (in terms of meeting most of the targets set out in the contract). There is also little evidence to suggest that the two targets that were not reached would have been achieved without the incidents of opportunism. From a developmental perspective the Management Contract for Water and Wastewater Services in the Amman Governorate can be rated as a success. The total amount of PICs combined with the total amount of fixed fees paid to the operator was less than 15 million Jordanian Dinar (or 18 million Euros). This means, that the profit created by the contract was substantially higher than its costs. Additional finance was also provided for the rehabilitation of the network. With regard to the whole Amman Water and Sanitation Management project, which also included the Capital Investment Programme, the World Bank rated the efficiency of the project as high.²⁶³ The financial burden on the government was reduced as the cost-recovery was significantly improved. The impact of the project on the poor was also positive. The rise in water connections from about 90% to practically 100% was of particular benefit to the poor, as they are usually “the last to be connected to piped water”.²⁶⁴ The same applied to sewer connections which increased from 69% to 80% of the population.²⁶⁵ The increase of the hours of supply is also of relevance for the poor as these can afford only smaller water tanks to store water when the supply is intermittent.²⁶⁶ The increase in the quality of drinking water reduces the health risk of the population, but again disproportionately benefits the poor as these have less economic means to pay for alternative and safer drinking water sources. However, in terms of the sustainability of the project the success has to be rated as lower. This is because the water supply and sanitation systems in Amman remain dependent on foreign financing of its investments.²⁶⁷ Furthermore, “urban water demand is projected to almost double by 2020”.²⁶⁸ The demographic development will be a big challenge for a country where scarce water resources allow already only for an unsatisfactory bulk supply capacity.

²⁶³ World Bank, 2007, p.9

²⁶⁴ Ringskog, Klas; Hammond, Mary Ellen; Locussol, Alain, 2006, p.2

²⁶⁵ World Bank, 2007, p.9

²⁶⁶ Rothenberger, Dieter, 16.09.07

²⁶⁷ World Bank, 2007, p.18

²⁶⁸ Meuss, Marina; Stoll, Uwe; Barmeier, Nina, 2006, p. 4

Despite the successes of the water management contract, it is nevertheless likely that the opportunism regarding the operator's human resources still had a limiting effect on its performance as some personnel were not as qualified as they could have been if they had been recruited competitively from the market. Also some frictions could have been avoided by assigning the authority for the calculation and definition of the PIC to an independent auditor. Finally, the projections made from the assessment of the institutional framework have been confirmed by the actual incidents of opportunism. This suggests that the general hypothesis contains some truth.

However, with regard to the explanatory power of the theoretical framework some limitations need to be acknowledged. Some aspects were found to have a detrimental effect on the PSP arrangement could not be adequately analyzed through new institutional economics approaches. For example, the non-cooperation of administrative actors with the private operator in the first years of the contract was attributable in part to their lack of awareness of what the chosen contract option was supposed to accomplish, and in part to the fact that the PSP was to a significant extent a result of pressure by donors. Thus, opportunistic behaviour in form of non-cooperation (e.g. by unnecessarily slowing down administrative processes) neither originated from an insufficiently constrained discretion, nor could this behaviour have been adequately constrained by institutions. At such points the political economy theories are better suited to provide explanations and solutions for factors that have a detrimental effect on PSP arrangements.

In addition, with respect to the transferability of the findings of the case study to other PSPs in other countries some limitations remain. International institutions have played an extremely important role in Jordan, which cannot necessarily be presumed to be the case for other developing countries. Due to its lack of national resources and a weak economy, Jordan is highly dependent on international rents and investments and cannot risk putting off donors and international investors. This means, that even if a country is submitted to comparable international economic institutions and the PSP under observation is financed internationally, this does not necessarily mean that these institutions have a similar constraining effect on the discretion of the contracting parties. Moreover it needs to be acknowledged that in Jordan despite an insufficient separation of powers and a lack of political checks and balances, much of the unrestrained discretion was limited to the king. Consequently, this setting provided some stability, as

the king's policies regarding international rents and investments are unlikely to change as long as the country has the status of a semi-rentier economy.

Not only is the transferability of the findings to other *countries* limited. Also with regard to other PSP arrangements in Jordan that do not involve international companies and are not financed internationally, the institutional framework looks very different. Without the impact of international institutions on the discretion of the actors, the administrative structure and proceedings may give rise to a significant commitment problem by the public side. These examples show that the concrete findings are not easily transferable, but rather that for each transaction the specific situation of a country and the particular institutional framework needs to be assessed.

Nevertheless, it is clear that the chosen PSP option can make an important difference. In high-risk arrangements the incentives for opportunism are higher and the lock-in of the contracting parties is stronger so that the discretion of the actors needs to be more thoroughly restrained. For Jordan, under the outlined institutional framework, it is doubtful if a higher-risk arrangement, such as a concession, would have performed as effectively as a management contract. This can be assumed because of the weak regulatory framework and the opportunities for political interference into the sector. Likewise it is doubtful if Jordan could attract larger-scale and higher-risk investments under the present institutional environment. This assumption is further supported by the behaviour that bidders in the case of the Amman Management Contract. Although a management contract already possesses a limited potential for opportunistic action and although the fixed fee and the PIC was financed by the World Bank (thus adding to the security of the compensation), the various bidders decided to bid for a very low performance incentive component (PIC). Another indication for the risk aversion of private operators in Jordan is that a tendered management contract for the Northern Governorates received only one bid. After being replaced by a Management Consultant Contract, for which the risk tends to zero, the contract received many bids.²⁶⁹

While the presented theoretical framework was designed to be applicable to various countries and PSP arrangements, the case study suggests that specific findings (related in particular to issues such as the role of international institutions) cannot be transferred easily to other countries. This is because the institutions may not be seen as

²⁶⁹ Dahiyat, Iyad, 29.10.07

independent building blocks but rather form a network which is likely to be unique for each country. The application of the framework to other countries and PSP arrangements therefore demands each time a complex assessment of the respective institutional environment. However, this case study provides one important insight which may be generalized. This is that regulatory credibility may be developed even in unpropitious circumstances and environments.²⁷⁰ In Jordan a relatively good performance was achieved despite the incomplete independence of the judiciary, despite a lack of checks and balances and despite quite a weak a weak regulatory framework. To be able to increase the chance for the good performance of a planned arrangement, it is advantageous for governments to be aware of the strengths and weaknesses of their own institutional environment. When governments are aware of these aspects they are able to choose either a PSP option for which the institutional framework brings about sufficient constraints or to adapt the institutional environment in a way that it may sufficiently restrain the desired PSP option.

According to the findings of this study, the decision of the government to transfer the operation of the water supply and sanitation in Amman after the end of the LEMA contract to a public company (called Miyahuna) seems risky. While the government's argument that its inability to guarantee bulk water supply would indicate a necessary reversal from the path towards higher-risk PSP may be justified, the institutional framework, I would argue, needs to be rethought if the public company is to perform effectively. Admittedly, unlike the situation that prevailed before the LEMA contract (when water and sanitation services were centrally managed), Miyahuna will operate on a commercial basis and will be provided with a more transparent governance structure. However, for this new public company, the strong constraining effect of international institutions will probably cease to apply. During the LEMA contract, such institutions had been important constraints on opportunistic behaviour, in a country where the judiciary is not completely independent, where checks and balance are nearly non-existent and where the regulatory framework is weak. Whether or not a public water company, which is owned, financed and operated by Jordanian nationals – and consequently lacks the constraining effect of international institutions – can protect itself against the influences of 'Wasta' and clientelism therefore remains to be seen.

²⁷⁰ cf. Levy, Brian; Spiller, Pablo T., 1994, p.201

‘Wasta’ as a structural feature of Jordan’s political, social and economic system is a key obstacle to regulatory credibility in Jordan since with the aid of ‘wasta’ institutions may be bypassed and legal frameworks may be influenced.²⁷¹ But the “reliance on personal relationships is less a reflection of tradition than it is a result of the novelty and instability of formal, impersonal institutions and relations”.²⁷² Thus, ‘wasta’ should not be regarded as a feature that is inherent to the Jordanian culture, but rather as a vestige of a society that has been organized in a different way. Making institutions reliable and stable is the responsibility of politics, whereas the royal court itself hampers this development by allowing such things as elite rotation to hold on to its power. This creates an obvious dilemma for the regime, as the conservation of its power through the sustainment of the loyalty of politically influential groups could well be at odds with the economic and social development of the country.²⁷³



²⁷¹ cf. Loewe, Markus, 2007, p.146

²⁷² Dieterich, Renate, 1999, p.132

²⁷³ cf. Loewe, Markus, 2007, p.142

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ANNEXES

Annex I: Variables, Indicators and Measurements

TABLE 1: INDICATORS AND MEASUREMENTS FOR THE INDEPENDENT VARIABLE
“INSTITUTIONAL ENVIRONMENT”

Independent variable		Indicators	Measurements
Judicial institutions	Existence of rule of law	J.1 Independence of the judiciary	<ul style="list-style-type: none"> • Appointment of judges does not lie in the sole responsibility of the executive • Extent of perceived corruption in the judiciary • Occurrence of former courts’ decisions against the government
		J.2 Protection of property rights	<ul style="list-style-type: none"> • Tradition of efficiently upholding property rights
Political institutions	Legal constraints on the discretion of the executive	Po.1 Checks and Balances	<ul style="list-style-type: none"> • Existence of a constitution • Full separation of powers • Two legislative houses elected under different voting rules • Electoral system with proportional representation • Federalism with strong decentralization
Regulatory institutions	Administrative constraints on the discretion of public and private contracting parties	S.1 Proper juridification of the water sector	<ul style="list-style-type: none"> • Existence of specialized government agencies for the regulation of the water sector • Clear responsibility assignment among regulating agencies in the water sector • Autonomy of the regulator
	Informal constraints on the discretion of public and private contracting parties	S.2 Informal (civil) society monitoring	<ul style="list-style-type: none"> • Degree to which the civil society is organized • Degree to which the civil society is consulted as a stakeholder • Coverage and discussion of water sector policies and outcomes in the press • Realization of public awareness campaigns by public or private contracting party • Resignations of politicians from office as a consequence to malfunctions in the water sector in the past
	Process constraints on the discretion of the public contracting party	S.3 Institutionalized consensual processes	<ul style="list-style-type: none"> • Institutionalized process of argumentation and consensus formation in the water sector regulation
	Specific regulatory constraints on the discretion of public and private contracting parties	S.4 Specific regulatory constraints	<ul style="list-style-type: none"> • Complex specific rules for the water sector (price-setting procedures, conflict resolution procedures, arbitration mechanisms, monitoring systems, penalty provisions, performance incentives)
International institutions	International constraints on the discretion of the public and private contracting party	I.1 Submission to international economic institutions	<ul style="list-style-type: none"> • Application for, or membership in international economic organizations • Policies favouring foreign investment and trade
		I.2 International or bilateral monitoring	<ul style="list-style-type: none"> • Loans from development organizations for the transaction which involve monitoring • Other international/ bilateral involvement in the transaction which entails (in)formal monitoring (such as technical assistance)



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TABLE 2: INDICATORS AND MEASUREMENTS FOR THE INTERMEDIARY VARIABLE
 “REGULATORY REGIME (TRANSACTION SITUATION)”

Intermediary variable		Indicators	Measurements
Regulatory regime/ Transaction situation	Incentives and potential of political/administrative actors and the private operator to manipulate or exploit the contract	R.1 Degree of occurrence of opportunistic behaviour by political/administrative actors and the private operator	<ul style="list-style-type: none"> • (No) Push for renegotiation of the contract by either side • (No) Unilateral changes of the contract by political/administrative actors • (No) Attempts by political/administrative actors to unilaterally change the contract • (No) Contractual violations by either side • (No) Failure by private operator to report regularly and properly to the regulator • Quality of disagreements between political/admin. actors and the private operator
		R.2 (In-) Effective monitoring and enforcement	<ul style="list-style-type: none"> • (In-)Sufficient mechanisms to overcome information asymmetries • (In-)Sufficient administrative capabilities to properly monitor the operator and to apply stipulated enforcement mechanisms

TABLE 3: INDICATORS AND MEASUREMENTS FOR THE DEPENDENT VARIABLE
 “PERFORMANCE OF THE PRIVATELY OPERATED WATER UTILITY”

Dependent variable		Indicators	Measurements
Performance of the privately operated utility	Operator’s success/ failure to fulfil obligations and to attain goals and targets set in the contract	Pf.1 (Non-) Compliance of results with contractual obligations, goals and targets at the end of the contract	<ul style="list-style-type: none"> • Comparison of obligations/ goals/ targets stated in the contract with output/ outcome of the transaction

Annex II: Interview Partners

Ali, Nabeel B.

National Democratic Institute, Jordan office, Resident Programme Assistant
05 November 2007

Bröning, Michael

Friedrich Ebert Foundation, Resident Representative
22 October 2007

Dahiyat, Iyad Eng.

Programme Management Unit (PMU), Governorate Support Manager
29 October 2007, 01 November 2007

De Winter, Annemie

Friedrich Naumann Foundation, Director
05 November 2007

Meuss, Marina

GTZ (German technical cooperation), Interim Programme Manager
Water Programme, Ministry of Water and Irrigation
01 November 2007

Oweis, Munir

Programme Management Unit (PMU), Director
(Former employee of LEMA)
19 September 2007

Rothenberger, Dieter

GTZ (German technical cooperation), Programme Manager
Operations Management Support for the Middle Governorates, Water Authority of Jordan
16 September 2007

Zoubi, Kamal Eng.

Miyahuna, Jordan Water Company, Chief Executive Officer
(Public Water Company – successor of LEMA)
17 September 2007



Annex III: Interview Questions Addressed to Political Foundations and NGOs

The Impact of Institutional Frameworks on Private Sector Participation

- The Case of the Management Contract for
Water and Wastewater Services in the Amman Governorate, Jordan –

Research Question: In how far does the institutional framework in a country, composed of its political, judicial, international and regulatory institutions, affect the performance of a privately operated water utility?

INDEPENDENT VARIABLE: INSTITUTIONAL ENVIRONMENT

Judicial Institutions: Existence of rule of law

J.1 Independence of the judiciary

1. What are the mechanisms for appointing judges?
2. What is the extent of perceived corruption in the judiciary?
3. Have the courts repeatedly decided against the government?
4. Would you regard the judiciary as being independent?

J.2 Protection of property rights

1. Is there a tradition of efficiently upholding property rights?

Political Institutions: Legal constraints on the discretion of the executive

Po.1 Checks and balances

1. Does a constitution exist?
2. Are the legislative, executive and judicial powers fully separated?
3. Is the legislative bicameral, and if yes have the two legislative houses been elected under different voting rules?
4. Does the electoral system demand proportional representation or a first-past-the-post rule?
5. Is the state federally structured and strongly decentralized?
6. Would you regard the checks and balances as constraining factors for legislative changes of the regulatory system in the water sector?

International Institutions:

International constraints on the discretion of the public contracting party

I.1 Submission to international economic institutions

1. Has Jordan applied for, or is member in international economic organizations?
2. Are economic policies favouring or restricting foreign investment and trade?
3. Would you regard international economic institutions as constraining factors upon the potential of political and administrative actors to behave opportunistically in interactions with private business? Do you think it also constrains the discretion of the private contracting party?

Annex IV: Interview Questions Addressed to Water and Privatization Experts and the Relevant Personnel in the Government

The Impact of Institutional Frameworks on Private Sector Participation

- The Case of the Management Contract for Water and Wastewater Services
in the Amman Governorate, Jordan –

Research Question: In how far does the institutional framework in a country, composed of its political, judicial, international and regulatory institutions, affect the performance of a privately operated water utility?

INDEPENDENT VARIABLE: INSTITUTIONAL ENVIRONMENT

Regulatory institutions:

Substantive constraints on the discretion of public and private contracting parties:

S.1 Administrative constraints: Proper juridification of the water sector

1. Which specialized government agencies are involved in the regulation of the water sector?
2. Are responsibilities clearly assigned among them?
3. Is the regulator autonomous?
4. Do you consider the water sector as properly juridificated, i.e. are regulatory mechanisms sufficient and effective? If not, which improvements would you recommend?
5. Do you think that the mentioned constraints abate the potential for opportunism of public and/ or private contracting party?

S.2 Informal constraints: Informal (civil) society monitoring of the

1. What was the degree of public interest in the quality of water and wastewater services?
2. To which degree was the civil society organized?
3. Has the civil society been consulted as a stakeholder?
4. Have water sector policies and outcomes been covered and discussed in the press?
5. Have public awareness campaigns on the developments in the water sector been realized by the public and/ or private contracting party?
6. Have politicians in the past resigned from office as a consequence to malfunctions in the water sector?
7. Do you think that informal (civil) society monitoring abates the potential for opportunism of public and/ or private contracting party?

S.3 Process constraints: Institutionalized consensual process

1. Is there an institutionalized process of argumentation and consensus formation in the water sector regulation? If yes, do you think that it abates the potential for opportunism of the public contracting party?

S.4 Specific regulatory constraints: Complex specific rules

1. Which complex rules do exist for the regulation of the water sector (e.g. price-setting procedures, conflict resolution procedures, arbitration mechanisms, monitoring systems, penalty provisions, performance incentives)?
2. Do you think that any regulations, that should have been established, are lacking?

3. Do you think that these rules abate the potential for opportunism of public and/ or private contracting party?

International institutions:

International constraints on the discretion of the public contracting party

I.2 International or bilateral monitoring

1. Are loans from development organizations provided for the transaction, which involve monitoring?
2. Is there any other international or bilateral involvement in the transaction that entails formal or informal monitoring?
3. Do you think the international involvement constrains the discretion of political and administrative actors and/ or of the private operator?

INTERMEDIARY VARIABLE: REGULATORY REGIME/ TRANSACTION SITUATION

Regulatory regime: Incentives and potential of the political/administrative actors and the private operator to manipulate or exploit the contract

R.1 Degree of occurrence of opportunistic behaviour by political and administrative actors and the private operator

1. Have political or administrative actors or the private operator triggered a renegotiation of the contract?
2. Has the contract during its implementation been changed unilaterally by the government?
3. Have political or administrative actors attempted to unilaterally change the contract?
4. Have political/administrative actors or the private operator disregarded contractual rules and obligations?
5. Has the operator regularly and properly reported to the regulator?
6. Have disagreements emerged between political or administrative actors on the one side and the private operator on the other? What was their quality?

R.2 (In-) Effective monitoring and enforcement

1. Have the administrative capabilities been sufficient to monitor the operator and to apply the stipulated enforcement mechanisms?

**DEPENDENT VARIABLE:
PERFORMANCE OF THE PRIVATELY OPERATED WATER UTILITY**

Operator's success/failure to fulfil obligations and to attain goals and targets set in the contract

Pf.1 (Non-) Compliance of results with contractual obligations, goals and targets at the end of the contract

1. Has the operator fulfilled its obligations and attained the goals and targets set in the contract? (Please give figures/ percentages if possible!)
 - a. Has the quality of services (water quality, constancy of supply, water/ wastewater facilities breakdowns) improved for customers?
 - b. Has the financial situation (cost reduction, increased turnover) improved?

- c. Has the technical efficiency (water losses, leak detection programme, unaccounted-for-water) improved?
 - d. Has the operational efficiency (billing, collecting, unaccounted-for-water, accounts non-receivable) improved?
 - e. Has the (operation) investment capital been used efficiently and effectively? (maintenance, repair, replacement of 50.000 water meters per year, GIS based information management system)
 - f. Has a Customer Service Office been established? What has been its impact? (response time for leaks repair)
 - g. Has staff been trained and further qualified?
2. Has the operator received the performance-based bonus? How often and what was its amount?
 3. How do you judge the overall performance of the water utility while being operated by LEMA?

