Berliner Wasserbetriebe (BWB) – Water and sewage company in Berlin
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Abstract

The case study analyses the Berliner Wasserbetriebe, the water and sewage company in Berlin. In the first step it searches for reasons leading to the partial privatization in 1999 and specifies its process, in order to understand why in 2012 and 2013 the Berliner Wasserbetriebe were remunicipalised. To answer these questions an historical overview and the economic as well as political situation of Berlin have to be provided. Another important part of the case study is the investigation if water is a public good respectively a task of general interest in relation with natural monopolies. There is of course a link to the tariffs, which have to be paid by the citizens. The structure of tariffs, the calculation, the identification of the main costs and their impact are broached. These information are a starting point to discuss mechanism of governance and regulation as well as the relation between the different investors and their possibly competing aims. At the end of this case study as a result the lessons learned are presented.

The principal agent theory, the stakeholder analysis and the public choice theory serve as theoretical framework for the analysis.

Keywords: task of general interest, monopoly, partial privatization, calculation of tariffs, remunicipalisation, mechanism of governance and regulation, principal agent theory, stakeholder analysis.
1. Introduction

1.1. Introduction and Research Question

*Berliner Wasserbetriebe (BWB)* is the sole provider of water and wastewater disposal in Berlin. BWB is the largest water supply and wastewater disposal company in Germany and one of the largest employers and investors in Berlin.

After the reunification of Germany, Berlin had to face a lot of challenges causing a growing budget deficit, for example combining the infrastructure of former East and West Berlin, and transferring the employees of East Berlin’s public companies and administration.

The late 80s and 90s have seen a wave of public fusions and mergers between different public entities in Berlin, such as the different public water and sewage companies. In 1994 the process ended and the BWB was founded as a municipal company including the water infrastructure of East Berlin. In 1999 BWB was partly privatized, so that BWB, as an institution under public law, is part of the privately operating holding “Berlinwasser Holding AG”. In 1999 50,1 percent of the shares were held by the State of Berlin, while the international water company Veolia Water and the German energy utility RWE each hold 24,95 percent. In 2012 the State of Berlin rebought the share of RWE, and in 2013 the negotiations with Veolia Water were completed with the result, that the State of Berlin also buys back Veolia’s share with effect on January 2014 – bringing Berlin back the sole ownership of BWB: After a partial privatization back to a complete remunicipalisation.

Against this background the first set of questions of this case history is: What initiated the process of this partial privatization? How was this partial privatization organized and which obstacles were to overcome? How was the reaction of the system to the partial privatization, especially considering the discussions, citizens’ decisions, court decisions and a number of open questions between investors, and the State of Berlin as well as the customers and citizens?

The second main point of the case study will deal with the issue of public mission, public goods, and in the case “water” with natural monopolies. This issue must be illuminated under the national and regional conditions and its perception in Germany and Berlin.

The next part deals with operations, performance, and tariffs, providing an overview a historical perspective as well as directing the main and more detailed attention to the tariffs. The investigation of the structure of tariffs, their calculation, the detection of the main cost drivers, and their impacts take the centre of the analysis. This part broaches also the issues of finance, treasury and investment as well as BWB’s performance and its development over the last years, thus providing a profound basis to discuss regulation and governance mechanisms, such as investor relations, and competing goals.
The raised sets of questions require both a stakeholder analysis and a theoretical framework. With regard to the complex principal-agent-structures in the Berlin water sector, this study consults the new institutional economics, especially the principal agent theory.

The case of the BWB is an example of privatization, respectively partial privatization in the public sector finally ending in a rebuy. What led to the rebuy? Have the aims of the state of Berlin been fulfilled with the partial privatization, and if not, why? The rebuy suggests evidence that the aims were not fulfilled - which, of course, needs a more in-depth analysis to provide a profound rationale, especially to further investigate and demonstrate that hastily made policy decisions during the election cycle carry the risk of having an irreversible impact on the privatization performance and its implementation.

1.2. **Short Presentation of the BWB and Method**

Berliner Wasserbetriebe is an institution under public law. The State of Berlin holds 75.05 percent of the shares, while the international water supply company Veolia Water holds 24.95 percent. In the meantime Berlin also bought back Veolia Water’s share, so that the State of Berlin will own the company by 100% in 2014.

**Figure 1 – Commercial Key Data**

<table>
<thead>
<tr>
<th>Shareholder From 2014 Land Berlin (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees 4.500</td>
</tr>
<tr>
<td>Annual Investment Volume Minimum 250 m Euro</td>
</tr>
<tr>
<td>Customers 3.5 m</td>
</tr>
<tr>
<td>Balance Sheet total in 2012 6481 m Euro</td>
</tr>
<tr>
<td>Income total in 2012 1290 m Euro</td>
</tr>
<tr>
<td>Annual Result in 2012 125 m Euro</td>
</tr>
</tbody>
</table>


The case of Berlin and BWB has already been made subject to several scientific and practical inquiries so that sufficient material is available to carry out the case study. BWB is a worthwhile case to analyse due to its complexity and multifaceted conflicts thus providing useful findings in times where the European water sector is “in motion”.

This study adopts an economical perspective on the case not a judicial or political one. The latter have been dealt with in various other studies, e.g. the Klaus Lederer’s dissertations – Strukturwandel bei kommunalen Wasserdienstleistungen- (Public Administration Science), Daniela Ochmann – Rechtsformwahrende Privatisierung von öffentlich-rechtlichen Anstalten- (judicial science) or Frank Hüesker – Kommunale Daseinsvorsorge in der Wasserwirtschaft- (Political Science).
2. Public Mission

This paragraph pursues the question to what extent the actual public mission for water supply and wastewater disposal can be identified in the BWB, especially with regard to its organizational changes in the course of its existence. In short, considering the history of BWB one can, slightly provokingly, detect that BWB underwent a change from a water supply and wastewater disposal provider to a financial instrument and back. The main resultant questions are: Which specific public service missions can be identified? Which objectives of general interest are deliberately pursued by organizations in general and by BWB in particular?

First of all to answer these questions the terms “public mission” and “public goods” must be defined in general to specify the public mission of the water sector in Germany, especially in Berlin.

The “service for the public”-state ensures the provision of public goods. Public goods are in their basic properties non-excludable and non-rivalrous. Public institutions provide them, since market-like behaviour of individual gain-seeking would not produce efficient results. In this context two conditions have to be questioned: 1) The good is a public good, and therefore it isn’t subject to free market rules and 2)\(^1\) Does a public or private institution provide the public good? Generally, whether a good is classified, as a public good is the result of a political decision process. Public missions, resp. public goods, are vague legal concepts. The classification of public and private goods is not exclusively conducted on the basis of technical, economical or other aspects. Due to their importance for the society, which is clearly subject to manifold changes (changes of government etc.) over time, public goods are only exposed to the markets at the condition that their allocation is not at risk. Public goods are distributed and provided to the citizens on the basis of certain constitutional political negotiated rules for use and restricted access. The public offer of public goods must be politically legitimated premising a public and democratic control.\(^2\) In Germany, for some goods there is a political consensus to classify them as public goods. This is the case e.g. for water supply and wastewater disposal, waste disposal, local public transport, and the provision with hospitals.\(^3\)

The answer to the question, whether such a good should be provided and produced by public companies and/or private companies, depends on historical, technical or economic factors, and should include a discussion on the strategic relevance and specificity of the good or service under consideration. Above all in the end the decision is always a political one.\(^4\)

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\(^3\) cf.: Hüesker, F., 2011, p. 50.

Water supply and wastewater disposal are public goods. The strategic relevance of water supply and wastewater disposal is beyond question. If the provision and production itself is public or private, the question of specificity does no matter at this point.

Since 2000, the European Water Framework Directive (WFD) has provided the central regulatory framework for the use of water bodies and water resources in Europe. It defines far-reaching objectives with regard to the physico-chemical, biological ecological and quantitative status of groundwater, surface water and coastal waters. These objectives are to be achieved by a cross-sector management approach comprising of a series of basic management and protecting principles:

The management and protection of water bodies must look at the boundaries of natural river catchment areas to take the interdependencies of the hydrologic cycle into consideration as far as possible. Combined approaches consist of quality standards for water bodies and limiting values for emissions into water bodies.

The cost recovery and polluter-pays-principle foregoes the subsidisation of water, prices and charges, taking into account the environmental and resource costs for prices and charges and assigning costs according to the polluter-pays-principle.

The WFD was implemented in German law through the German Water resources management act and the water laws of the German Laender. Based on § 29e para. 1 s. 2 BerlWassG and § 18a para. 2 s. 1 WHG the BWB is, also after a partial privatization, obligated to be responsible for the wastewater disposal. BWB exercises this duty by the compulsory connection and usage, which is exclusively and based on § 29e para. 1 s. 3 BerlWassG. Furthermore the BWB’s assigned duty is the water supply, § 37a para. 1 s. 2 BerlBG because the BWB is the owner of the water supply network.

The German Basic Law (Article 28 (2)) and most constitutions of the German Laender ensure the local self-government of municipalities. This local self-government contains all matters concerning the local community. This means autonomy in terms of bylaws, organisational, personnel, financing, regional and planning issues of cities, municipalities, associations of municipalities and administrative districts in accomplishing their tasks. Water supply and wastewater disposal is an obligation of the municipalities by municipal regulations, the constitutions and water laws of the different German Laender.

7 cf: e.g. Art. 83 Abs. 1 Bayerische Verfassung: “The particular sphere of competence of Municipalities (Article 11, section 2) shall encompass the administration of Municipality capital reserves and enterprises; local traffic and road construction; the provision of water, light, gas and electricity for residents...”
In this legal framework the municipalities are free to decide the organization of water supply and wastewater disposal. This results in a great variety of forms of organization and practice.\(^9\)

3. **History**

This paragraph presents a historical review of the BWB and focuses especially on the partial privatization in 1999 as well as the further developments until today. With regard to the research questions not only the pure history of BWB is important, but also Berlin’s political, economical and social environment along the partial privatization and remunicipalisation processes.

3.1. **History of BWB**

For over 150 years BWB and its predecessors have been securing the drinking water supply and wastewater disposal in Berlin and the surrounding regions\(^10\) “Here are a few historical highlights that at the same time were historic turning points in the capital and surrounding area.”\(^11\) The following table shows the historical overview of the BWB until today. The dashed and continuous lines symbolize a change of function of the BWB. The dashed ones stand for a private and profit maximising company and the continuous ones for the public company focusing on the service for the public.

**Figure 2 – Historical Overview**


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\(^8\) cf: Berliner Wassergesetz (BWG), BbgWG, HessWG, WG M-V, WG R-Pf, WG S-A, SächsWG, ThürWG, etc.


3.2. **Political, Economical and Social Environment in the 90s**

This paragraph deals with the political, economical and social environment, especially the attitude towards privatization, in Germany in the 90s. It will help to get a better understanding of the reasons and rationales for the partial privatization in 1999.

In the five new Bundesländer the capital investments into facilities and networks of municipal providers and disposal were secured by private capital. This was encouraged by the German politics, granted tax concessions, and implemented by in many cases young inexperienced local affairs. Ministerial task forces and consulting companies supported these processes. However there was a lack of the essential procedural know how. The consequences became apparent in bad planned over dimensioned facilities, asymmetric risk distribution to the disadvantage of the public hand, and extensive transaction costs. Unfortunately these results had long-term effects and came to light delayed in time. Public private partnership (PPP)-initiatives were another new approach during this period. Choosing the PPP-alternative, at first sight the considerable accumulated need of the modernization of the water and sewage facilities, electricity networks and power stations seemed to be realized without the overload of the underfunded municipal budgets. PPP promised fast and uncomplicated relief on both advantages. Thus the 90s have seen a wave of privatizations, partial privatizations and PPP in the branch of municipal provider and disposal companies in former East and West Germany. European liberalization policy for services of general economic interest, municipal lack of public funds, an oversupply of investment-seeking private capital investment and the correspondent spirit of the time created a climate in which many municipalities put their silverware to disposal in a very unbiased and uncritical way\(^{12}\).

The special situation after the reunification in Berlin illustrates the following figure:

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3.3. Partial Privatization in 1999

Since 1994 the BWB were organized as a public law institution and the “Berliner Betriebegesetz” (BerlBetrG) was effective for the BWB and other public law institutions in Berlin (e.g. public transport company or city cleaning). The organizational change was a political aim in order to give the management more entrepreneurial independence and to reduce the political influence and control.\(^{13}\) The municipality assumes the institutional and guarantor liability for the public law institutions, and in return they should act independent and contribute to the development of the city by entrepreneurial expansion strategies, providing new jobs, and encouraging private investments in Berlin. Critical voices call these public companies “cash machines”\(^{14}\).

§ 2 para. 7,8 BerlBetrG allowed the public law institutions to assume independent cooperations within their general tasks. The BWB developed a broad portfolio with more than 20 cooperations.\(^{15}\) Many of these entrepreneurial experiments proved to be unprofitable turning out to be expensive, unsuccessful investments for the BWB and of course for its guarantor Berlin. For many of these cooperations three main problems can be highlighted:

- The relation to the general task of a public company vanished into thin air.
- The bad investments accumulated to a huge amount.

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\(^{13}\) cf.: preamble of the Eigenbetriebsreformgesetz of 09.07.1993 on Abghs-Drs. 12/2897.

\(^{14}\) cf.: Lederer, K., 2011, p. 447.

\(^{15}\) cf.: Senatsverwaltung für Finanzen (1999), p. 11.
No politician and no public supervision felt responsible to stop this development.\textsuperscript{16}

Though in 1997/1998 the erroneous strategy of the BWB’s operations became obvious, Berlin’s Government didn’t interfere. Instead of reducing BWB’s operations back to its core business and generating a moderate revenue for Berlin’s budget, e.g. by means of strict supervision, delegating competent representatives as board members, ensuring a competent management, and installation of a corporate governance, Berlin’s Government fell back in and stuck to its old patterns of behaviour.

After the full privatizations of its energy companies (Bewag and Gasag) in 1997 and 1998, the only public entity left, which promised from the politician’s point of view contributions to the budget by taking privatization steps, was BWB. Although Berlin’s Government transferred 500 Million Euro out of the BWB’s equity,\textsuperscript{17} both international financial and industrial players were easily mobilized, so that a commitment of well-funded investors was a realistic scenario.

In the face of the fiscal gap in the budget these steps were a matter of emergency. Furthermore in 1999 elections for Berlin’s Government and the Berlin City Parliament were ahead. The implementation of such an important project was beyond doubt an ambitious aim. Opposition against the privatization in Berlin’s parliament was not expected; there was a clear consensus of the coalition to cover budget gaps by privatization.\textsuperscript{18} \textsuperscript{19}

There were no fundamental political oppositions to certain forms of organization and the area of privatization. Only the management and the operator model dropped out, since they didn’t allow property transfers with correspondent revenues in the budget - at its best they provide continuous revenues on a comparatively low level over a longer period. Berlin’s Government found a model, which promised to be enforceable (in the Parliament though against the union) and generate adequate revenues: The BWB should stay a public law company within a holding. In order to create this holding model (a typical silent partnership of a private company in a public law institution) the legal basis had to be established by Berlin’s parliament.\textsuperscript{20}

Compared to the transformation into a capital company and its full privatization this model has some advantages.\textsuperscript{21}

\textsuperscript{16} cf.: Lederer, K., 2011, p. 447.
\textsuperscript{17} cf.: Ochmann, D., 2005, p. 21.
\textsuperscript{18} cf.: Hüesker, F., 2011, p. 120-124.
\textsuperscript{19} cf.: Plenarprotokoll 13/51, p. 3828 f.
\textsuperscript{20} cf.: Abghs-Drs. 13/3367.
\textsuperscript{21} cf.: Lederer, K., 2011, p. 449.
During the preparatory discussions and the whole process some stakeholders were significantly involved. The following table shows the relevant stakeholders and their position and aims.

### Figure 5 – Stakeholder Analysis

<table>
<thead>
<tr>
<th>Berlin’s Senate</th>
<th>Opposition in the Parliament</th>
<th>BWB</th>
<th>Employees / Union</th>
<th>Investors</th>
<th>Consulting Companies</th>
<th>Civil Society / Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Aims described in detail in the paragraphs before</td>
<td>• Against the partial privatization</td>
<td>• Management supported the partial privatization</td>
<td>• Support to the partial privatization</td>
<td>• High interest on BWB</td>
<td>• Were employed by all players at the same time (bidding companies and Berlin)</td>
<td>• General public was more critical against public companies</td>
</tr>
<tr>
<td></td>
<td>• Instituted a conventions procedure at the Berlin State Constitutional Court</td>
<td>• Investors promised investments</td>
<td>• Broad concessions of Berlin (Job guarantees)</td>
<td>• Market entry for international utility companies</td>
<td>• Created the holding model</td>
<td>• Privatization friendly parties won the election</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Information were hidden by the BWB (GDR inherit, Schwarze Pumpe)</td>
<td></td>
<td>• Water sector as a future market</td>
<td></td>
<td>• No protest expected or organized</td>
</tr>
</tbody>
</table>

In June 1999 the consortium Vivendi (today Veolia)/RWE/Allianz were awarded to take over 49.9% shares of BWB. The purchase price amounted to 1.7 billions Euro and was the highest of all offers. In addition the consortium also accepted other obligations, e.g. creation of new jobs and a water research centre, guaranteed employment until 2014 for core employees and investments amounting to 5 billion Euro until 2009. The period of validity was 30 years. The partner agreed confidentiality about the contents of the contract of the partial privatization. This means that the contracts, which formed the basis, were not treated in and not published to the public; in the not public board of assets which recommended the Parliament he acceptance of that business. In July 1999 the Parliament accepted the contract prepared by a public board of assets and confirmed the partial privatization.

### 3.4. Further Developments

With the acceptance and conclusion of the contract of the partial privatization the process of privatization and its developments have not been completed for a long time yet.

Initiated by the parliament’s opposition there was still the abstract of the judicial review to be performed. First of all they argued that the structure of an institution under public law embedded in a privately organized holding violates the democratic legitimacy. The second point aimed at the partial privatization law, which provides the basis for the tariff calculation. Especially the imputed interest on the capital employed and the treatment of efficiency measures were starting points for critical comments. Both were created to ensure the profit expectations of the private shareholders. The court followed the objections only for the issue of the calculation of tariffs; all the other points were refused.\(^{22}\)

Paragraph 5.2 “Tariffs” deals with the solution, the liability of compensation of disadvantages.

The tariffs increased ever since 2003. Therefore the former senator of commerce Harald Wolf recommended an investigation procedure conducted by the cartel office in order to decrease the tariffs. The cartel office followed the idea of the Land Berlin and suggested a price reduction of 16% including a recompense for recent years. The BWB appealed the decision of the cartel office and brought the issue to trial. The argument of the BWB was and has not changed up to now, that the cartel office is not competent, competent is only the local authority.\(^{23}\) This conflict is ongoing and the court has not come to a final decision yet.

Yet another development after the privatization was a petition of a referendum of Berlin’s population in 2011. The aim of that petition was to open

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\(^{22}\) cf.: Lederer, K., 2011, p. 455-456.  
the consortium agreement and the other contracts to public. Already in 2007 the citizens’ initiative started with its activities. It was a difficult procedure because the initiative didn’t have the support of any political party. But already in 2010 the amendment of the German freedom of information act came into effect, which allowed the disclosure of the contracts and agreements. Only due to constitutional rules the petition had to be finished and the population had to vote in 2011, although the issue had become obsolete at this time.\(^\text{24}\)

By far of capital importance were the remunicipalisation-steps in 2012 and 2013.

In 2010 the shareholder RWE signalized its attendance to sell its share of BWB. The pressure of Berlin’s Senate became apparently more intensively.\(^\text{25}\)

After closing the negotiations the Land Berlin rebought the RWE’s share of BWB for 654 Million Euro. The Land Berlin holds after the rebuy 75,05\% of the BWB’s shares. The purchase price is financed by the water revenues. The loan period is no longer than 30 years and financed by a state-owned financial institution. According to Berlin’s financial affairs senator Nußbaum, even if the required tariffs reduction of the Cartel Office must be realized the business is still fully financed.\(^\text{26}\)

The rebuy has been accompanied by doubts on part of other stakeholder: The citizens’ initiative “Berliner Wassertisch” (“Berlin’s water table”) criticizes that the purchase price is too high and that budgetary principles are violated. The initiative has appealed the Regional Court of Audit to deal with these issues.\(^\text{27} \text{28}\)

In 2013 also Veolia appeared to transfer its BWB’s share. So that in 2014 Berlin holds 100\% of the BWB, again. The repurchase price for Veolia’s share amounts to 590 Million Euro. The financing plan is the same as foreseen for the RWE’s share.\(^\text{29}\)

After the complete remunicipalisation no organisational change is planned, neither the holding structure nor the boards.

For the first time Berlin’s Senate considers a reduction of tariffs. Berlin’s Senator of Commerce currently negotiates a reduction, which is higher than the


\(^{25}\) cf.: Schoelkopf, K., 2010.

\(^{26}\) cf.: Thomsen, J., 2012.

\(^{27}\) Die Linke, 2012.

\(^{28}\) Thomsen, J., 2012.

Cartel office’s demand. The reduction should be reached by a change in the calculation scheme (imputed costs, respectively imputed depreciations) and in consequence a decrease of the distribution of profits. But the negotiations between the parties in Berlin’s governing coalition are ongoing.  

4. Regulation and Governance

This paragraph broaches governance and regulatory issues of the BWB. For this purpose, after illustrating the holding structure the relation between the investors and Berlin are described including a short stakeholder analysis. The stakeholder analysis consults the principal agent theory to highlight the different, in some extent opposing aims of the stakeholder. The second part in this paragraph deals with the regulation issues of BWB.

4.1. Governance

The most important governance mechanism of the BWB and its relations to both, the investors and Berlin, is the consortium agreement. It serves as a fundamental framework of the partial privatization. In addition to the shared aims of the contract partners the consortium agreement defines among other the determination of business areas, the appointment of persons and bodies, the fundamentals and objectives of the cooperation and arrangements for interruptions, placement of the stock, contract questions of guarantee, merger control and implementation. All other contracts and agreements are annexes of this contract.  

The consortium agreement wasn’t published in the commercial register because there was no disclosure and, even more important, because of the partners’ interest of confidentiality.  

The following figure illustrates the structure of the holding model after the partial privatization.

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31 Abgeordnetenhaus von Berlin: D-13/3367 vom 05.01.1999.
As mentioned before, an institution under public law is characterized by a supervisory board, the management and the guarantors’ meeting. Thus it is necessary to consider these organs and explain its relations.

Due to the contract of the centralized management between BWB and the Holding AG the Holding AG owns the authority to give directives to the institution under public law. This right is limited by the contract of partial privatization and is accepted under reserve of the acceptance of the directive committee, in which the Land Berlin owns the majority.\textsuperscript{33}

Figure 7 – Board of Supervisory and Board of Managers at BWB

<table>
<thead>
<tr>
<th>Supervisory Board</th>
<th>Board of Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Nomination by guarantor’s meeting</td>
<td></td>
</tr>
<tr>
<td>• Holding AG submit proposals</td>
<td></td>
</tr>
<tr>
<td>• Consists 16 members</td>
<td></td>
</tr>
<tr>
<td>• Appointment and Dissiasal of the board of managers, refusal only by important reasons</td>
<td></td>
</tr>
<tr>
<td>• Supervision of the management</td>
<td></td>
</tr>
<tr>
<td>• Confirmation of the business plan</td>
<td></td>
</tr>
<tr>
<td>• Determination of the tariffs and charges</td>
<td></td>
</tr>
<tr>
<td>• 4 board members</td>
<td></td>
</tr>
<tr>
<td>• Board members of technology and human resources proposed by Berlin and of finance and development and marketing and sales proposed by Holding-AG, with each consultation of Berlin or Holding-AG</td>
<td></td>
</tr>
<tr>
<td>• § 9.6 consortium agreement constitutes a committee of the boards, which has 3 members (Berlin, Vivendi, RWE). This committee has the task to appoint the chairman of the board of BWB after the proposal of the majority. Thus the private shareholders hold the majority in this committee, which is definitely contradictory to § 6 para. 2 BerlBG</td>
<td></td>
</tr>
</tbody>
</table>


**Relation between the board of managers and the supervisory board:**

As shown the representatives of the private investors in the board of managers own a position in which they can enforce their interests against the representatives of Berlin by the voice of the chairman. This provides an opportunity for the private investors of the Beteiligungs-AG (Holding-AG) to act against the intentions of Berlin in terms of the business of the BWB as long as the supervisory board is not needed to be involved. In case the supervisory board is involved a consensus between the employees’ representatives and the chairman of the supervisory board countervail against the private dominated board of managers. The board of managers needs the confirmation of the supervisory board for the following decisions:34

Foundation of subsidiaries, disposal and acquisition of companies and participations, disposal and acquisition of assets as well as the disclaimer of receivables and conclusions of compromise agreements unless a limit of 10 million DM (ca. 5 million Euro) is not exceeded etc.

This leads to the following conclusion: the supervisory board is to be involved in important but not in all business decisions. In the case of involvement the supervisory board Berlin has a powerful control instrument. But not to be underestimated is the relation between the board of managers and the supervisory board of the Holding AG: very often the members of the BWB’s

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supervisory board and in the Holding AG’s supervisory board are the same persons the same for the BWB’s and Holding AG’s board of managers. A complicated overlapping of organs with authority is the consequence.\textsuperscript{35}

For a deeper analysis of the management and control problems arising as a result of these facts the principal agent theory can be consulted. The main and first principal of any public company is the citizen. By elections the citizen gives power to its representative, its agent, who is in the same time principal, e.g. of the administration, and the public companies. Along this principal-agent-chain it should be ensured that the democratic control is in the citizens’ hand. Therefore the citizen needs the possibility to gain information with a minimum of effort, e.g. transactions costs. As the paper has already elaborated, the partial privatization process featured a lack of transparency, so that a judgement by the citizen was impossible. Even the parliament did not have full access to the contracts. This gives reason to believe that there were hidden information and actions in terms of the moral hazard phenomenon. The complex structure of the holding, the complicated relation between the supervisory board and the board of managers as a result of the complex contract structure, and different committees with different authorities lead to the obligation to find always consensus and compromises by the boards in order to balance the diverging interests of the private investors and the Land Berlin.

4.2. \textit{Regulation}

This paragraph deals with regulation and control issues of BWB. It takes the perspective of the Land Berlin and focuses on the regulation of tariffs as one promising example to show the complexity of regulation in the water sector in general and BWB in particular. At first, in the following figure the possibilities of control are described by actors.

The political regulation is also difficult because the different senate departments pursue different aims. The financial department is interested in profits for the budget, the aim of the department for consumer protection and environment has more interest in consumer friendly tariffs and the protection of the environment, and the department for economics has a more general interest in the general development of the BWB and Berlin – all the more since the Economics Senator is the chairman of the supervisory board.

Another point to illuminate is the imposition of tariffs and its control. As already mentioned the representatives to confirm and create tariffs as well as the imputed interest on operating assets are: BWB itself, the supervisory board and the department of consumer protection. In comparison to other German cities the tariffs are too high - obviously the regulation instruments don’t operate ideally, even if the Berlin’s Senate’s aims are stable and fair prices.

At the suggestion of the former and outgoing chairman of the supervisory board and Economic Senator Harald Wolf the Federal Cartel Authority has initiated a procedure against BWB because of too high prices. This was only possible because of the decision of the BGH (Federal Supreme Court), KVR 66/08 of February 2010 deciding on the adaptability of cartel anti abuse legislations of water prices. Until today it is open if the anti-abuse legislations are also applicable for public enterprises, because they impose tariffs instead of prices. But nevertheless the procedure is ongoing and the federal cartel office followed the opinion of Harald Wolf.

<table>
<thead>
<tr>
<th>Berlin’s Senate</th>
<th>Senator of Economic</th>
<th>Financial Affairs Senator</th>
<th>Senate’s Department for Environment</th>
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<tr>
<td>• Right to change the legal framework for BWB</td>
<td>• Chairman of the supervisory board</td>
<td>• Responsible for the investment management and investment controlling</td>
<td>• Implementation of the water law regulation</td>
</tr>
<tr>
<td>• Distribution of competences for the different senators</td>
<td>• Control of the institutions under public law and legal supervision</td>
<td>• Definition of fiscal and specialized objectives, they build the basis for the strategic control and the annual objectives for the management</td>
<td>• Approval procedure for water and wastewater works</td>
</tr>
<tr>
<td>• Guarantors’ committee</td>
<td>• Proposal of imputed interest of the business assets for the calculation of tariffs</td>
<td></td>
<td>• Approval of tariffs since 2006 (until 2006 Senate’s Department of Commerce), this reallocation solves the conflict of interest as the tariffs are also approved by the board of supervisory</td>
</tr>
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<td>• Discharge the supervisory board</td>
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<td>• Appointment of the BWB’s auditor</td>
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5. Operations, Performance and Tariffs

In this paragraph the facts of the BWB are highlighted, in particular the economic situation, the tariff calculation and the general performance.

5.1. Operations

The BWB is a water company and provides water supply and wastewater disposal. BWB has 9 water works 6 sewage works and 800 deep wells in order to fulfil its tasks. The drinking water network has a 7,870 km pipeline network for drinking water and 9,606 km canalisation.

There is only an about 2 per cent water loss during the pipeline transportation. This is a low value compared to international and national performance data. It is the result of a consequent maintenance of the pipelines and a sign of high quality, in particular in consideration of the fact, that water is a vital and scarce resource. In addition according to schedule one percent of the network is renewed annually.

During the partial privatization process the following investments are negotiated and confirmed. In the consortium agreement it is codified that within 10 years 2,5 bn Euro, meaning about 250 million Euro per year, must be used for investments. After the reunification and in the following years the investments were on a high level due to a substantive increase of demand. The BWB’s management is in general in favour for investments. Therefore they invested more than the claimed 250 million Euro per year, which can be attributed to two reasons: First the investments are directly financed by the tariffs and second the investments increase the capital employed. An increase of capital employed causes an increase of the imputed interest on the capital employed, which is in line with the interest of the shareholder. Another advantage of investments is an increasing reputation because a company, which invests, stands for innovation and modernity.

The employees are an important stakeholder for the BWB. In the consortium agreement it was confirmed that enforced redundancies are excluded until 2014. Nevertheless it is also clear that the BWB doesn’t hire new employees except for the necessary minimum, which is mostly hired from the own trainees.

5.2. Tariffs

The BWB finances itself exclusively from tariffs. Tariffs are public fees, which are imposed by a public regulation authority in return for an individual attributable public good or service. They are supposed to cover the costs of this service or good entirely or at least partly.

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38 cf.: BVerfGE 50, 217 (226).
This means that the imposition of tariffs is liable to concrete legal requirements. The legal framework on tariffs in Germany is determined by the Community Charges Acts (local rates act) and the municipality codes of the German Länder.

Since 2007, after the amendment of the freedom of information act and a court decision of the Higher Administrative Court Berlin-Brandenburg (OVG), the general basis of the calculation of the water and wastewater disposal tariffs is publicly available. As a consequence of the court decision the BWB published a leaflet with its calculation basis and principles.

The framework for the calculation of tariffs in Berlin is the “Berliner Betriebgesetz” (BerlBG, especially § 16 and § 17 BerlBG) and the Wassertarifverordnung (WTarifVO).

The tariffs must follow the principles of equivalence and equal treatment as well as cost recovery. The tariffs are calculated for a maximum period of 2 years. (§ 16 para. 1 BerlBG).

The calculation of tariffs is based on basic and variable costs. The fixing of the tariffs can be split in basic and variable prices. The basic price can be determined progressively or degressively. Furthermore the BWB can impose a one-time access charge (§ 16 para. 2 BerlBG).

Costs have to be adequate in accordance to the economic principles and subject to economic management. This includes also charges for engaged external labour, imputed depreciations on the basis of replacement values, imputed single risks, accrued liabilities, adequate imputed interest on capital employed and charges for the economical and technical development (§ 16 para. 3 BerlBG). It is assumed that the replacement costs of assets will be higher in the future than today, respectively in the past, due to general increasing prices.\(^{39}\)

The capital employed includes operating assets minus the advance payment and first instalments, which are provided free of interest to the institutions under public law by the Land Berlin. The operating assets consist of permanent and floating assets serving the scope of business. Fundamentally the financial asset and manufacturing costs minus the not indexed depreciation are taken as the basis for the calculation of the operating assets (§ 16 para. 4 BerlBG).

The operating assets are included in the calculation via an imputed interest rate determined by the Senate Department for Economics. This imputed interest rate is supposed to comply at least with the average return of German 10-year federal bonds on a calculation base of the last 20 years, plus 2% (§ 16 para. 5 BerlBG).

Consumers are only allowed to be charged with the actually raised costs. Favourable estimations respectively unfavourable differences are detected by a

post calculation. Deviations have to be adjusted within the next two periods (§ 16 para. 6 BerlBG).

In the end the supervisory board decides on the determination of the tariffs (§ 17 para. 1 BerlBG).

Two general questions arise in this context:

The applied method to determine the imputed interest already includes a profit in the tariffs. But should a profit actually be an element of costs when calculating a tariff for a public good? This leads of course to a follow-up question: In what extent the profit margin is related to the interest rates to be applied?

Depreciation is calculated on the basis of replacement values: Does the BWB actually need in the future the same infrastructure, e.g. capacities? Are the dimensions of the facilities well estimated if a reduction of the water consumption is predictable? E.g. there is reliable evidence on decreasing water demand due to technical progress and demographic changes.

Addressing the first question: Imputed costs are opportunity costs expressing the monetary value of the investor’s opportunity to invest the capital in an alternative investment. In order to consider this fact the imputed interests are a common element in the cost calculations of many municipalities, permitted by the courts.\(^{40}\) The other question refers to the interest rate to be applied in relation to the profit. Two facts need to be considered in this context. First, the amount of the capital employed and the way it is calculated. If the private investors pursue the aim of profit maximization they will have a great interest in a high amount of the capital employed in order to gain more profit due to the higher calculation basis for the interests. This runs the risk that overdimensioned infrastructure is held available. For this reason the Berliner Betriebegesetz regulates the calculation of the capital employed. For this purpose the focus has been shifted on the amount of the imputed interests. Thus, it is permitted to exceed the mentioned amount of interest if it bases on measures, which lead to a permanent increase of the economic performance, especially by new technologies, economizations, increases of efficiency etc. This further amount of interest is valid for 3 years after the assessment. The advantages gained from the adopted measures must be referred to the consumers.\(^{41}\) As a result of this not clearly defined exceptional rule the BWB’s imputed interests are higher than the common 4% in municipalities.\(^{42}\)

Turning to the second question, the depreciation on replacement values: This chosen method of depreciation bases upon the general assumption that the replacement of facilities in the future will be more expensive than today and assumes an inflation affecting the replacement costs. In the result this leads to

\(^{40}\) cf.: Driehaus, H.-J., 2008, § 6 Rn. 146c.
\(^{41}\) cf.: § 3 para. 4 Teilprivatisierungsgesetz.
\(^{42}\) cf.: Hüesker, F., 2011, p. 239.
increasing water tariffs. Assuming constant revenues, the profit increases because the depreciations - due to their imputed character - are not affected by direct cost increase. The same problem arises when discussing the ordinary useful life of the facilities, which influence the calculation as well.

Although the depreciation on replacement values is economically worthwhile, the risk of its abuse for manipulating tariffs is high because there are too many unclear facts, e.g.: Does Berlin need the same facilities and capacities in the future (technological developments, demographic change)? How should future prices be calculated, which price indices are appropriate, in particular since the BWB currently calculates with 21 different, partially to be questioned, indices? For politicians, who are in charge to confirm the tariff calculation, it is difficult to understand and overview all these facts. Thus BWB has an advance of information and can use it against the politicians and the administrative staff.

To get an overview of the elements of costs in the calculation, the BWB has published a leaflet in which these are explained and illustrated.

**Figure 9 – Overview of the costs in the BWB’s calculation**

![Figure 9](image)

Source: Berliner Wasserbetriebe: Grundlagen der Tarifkalkulation, p. 12.

The figure shows that 21% of the calculation is imputed interests and 23% imputed depreciations. This means that almost 50% of the calculation is imputed costs. The BWB is a public company with a natural monopoly. Hence there is no risk that the BWB calculates itself out of the market or that consumers search for substitutes. Having a look at the imputed interest rates currently valid for 2013 6.5% (2012: 6.9%, 2011: 7.1%, 2010: 7.6%) they without a doubt seem overdimensioned comparing the risk.

An increase of the rates serves originally, as pointed out above, the return expectations of the private investors. Today’s rate of 10-years German

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43 cf.: Verordnung über die angemessene Verzinsung des betriebsnotwendigen Kapitals der Berliner Wasserbetriebe (BWB).
Government Bonds amounts 1.33%. In comparison the BWB’s interest rate for 2013 is indeed disputable.

Besides another mechanism influences the amount of the imputed interest: The increase of the imputed depreciation on replacement values. The profits earned via applying this depreciation method remain in the company and turn into equity capital. This increased equity capital must be imputed to the capital employed which is consequently raised by these depreciations. The imputed interests, as mentioned before, are calculated on the basis of the capital employed. With a higher equity capital the company can also save costs for debt capital, which again in turn increases the profit and the return.

5.3. Performance

This paragraph deals with the performance of the BWB and points out, why it is difficult to set a benchmark in this context. Although there are two benchmark organizations specialized in the public sector and the BWB is a member of both, one cannot obtain further information on efficiency or other important performance criteria. Thus, it is exceedingly difficult to judge the BWB on the basis of comparative data. At least some facts can be highlighted which influence the BWB’s performance.

The overall determining factor is the consumption of water, which has decreased over the last decades.

The decreasing water consumption poses a big challenge for the BWB, in particular its infrastructure. The facilities are already overdimensioned due to the differences in the planned and actual development of Berlin’s population. In addition the consumer behaviour changed causing a decreasing demand. Since the tariff calculation in Germany applies absorption costing, as a consequence the maintenance costs (predominant consisting of fixed costs), which are allocated per cubic metre used, have increased, resulting in higher tariffs per cubic metre.

Until 2003 the tariffs were stable due to the contracts and agreements of the partial privatization. Hence it is interesting to take a look into the further developments until today. For the general water pricing in Germany in the last years an increase of around 0.5-2% per year can be constituted as moderate. In comparison the BWB’s tariffs increased remarkably after 2003. There are many reasons for the increase, mainly the general increase of costs (employee, material etc.), the partial privatization and the distribution of the profits.

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44 http://www.finanzen.net/zinsen/10j-Bundesanleihen.
After the privatization the profit transfer conducts to the corresponding shares. In addition there are agreements for deferred liabilities, reserves and the equity capital.\textsuperscript{48}

Based on the court decision invalidating the agreement of the tariffs the private investors and the Berlin’s Senate have already found a new way to realize the expected and factual guaranteed profits for the private investors: § 23 para. 7 of the consortium agreement guarantees the expected profits for the private investors, even if the Land Berlin (50,1\% of the shares) has to abstain from its own portion of the profit.\textsuperscript{49} So after the change of government in Berlin and the end of the bondage to stable prices in 2003 the new government had to negotiate and install new rules for the tariff calculation in order to avoid the funding of the private investors’ distribution of profits out of the budget. Berlin’s Senate was allowed to determine annually the adequate imputed interest rates on the capital employed. This created a margin for tariff rises. The next measure was to change the basis of the imputed depreciation to replacement values.\textsuperscript{50}

During the analyzed 10 years the private shareholders received a profit transfer at a total of 1 142,6 million Euro. This means that they received already 67,21\% of the invested capital (about 1,7 bn Euro) within 10 years. In the same time the Land Berlin received only 778,1 million Euro.\textsuperscript{51} The Land Berlin has resigned about 365 million Euro of its possible share of profit out of its share at BWB during this period. For the investors it was a good bargain - without any doubt.\textsuperscript{52}

\textbf{6. Future Perspectives and Lessons Learned}

This paragraph summarizes the conclusions of this case study. This summary includes also future perspectives and ends with the lessons learned.

The confidential contracts and agreements including all amendments and being confidential until 2005 comprise more than 700 pages; adding laws like Berliner Betriebegesetz this is a complex and complicate framework. In the end all these aspects led to the presented holding structure affected by governance and regulation problems because of the complicate relation between private investors, the Land Berlin and the BWB. The most important facts from the citizens’ perspective are the increasing tariffs and its calculation. The costing scheme is difficult to understand for someone without any economic background. The issues around the imputed costs (imputed interests and depreciations) are complicated, in particular the relation to the capital employed.

\textsuperscript{48} cf.: Hüesker, F., 2011, p. 240.
\textsuperscript{50} cf.: Lederer, K., 2011, p. 458-459.
\textsuperscript{51} cf.: Beteiligungsbericht of Berlin 2006-2011 and annual reports 2001-2010.
\textsuperscript{52} cf.: Hüesker, F., 2011, p. 262.
After the experience of the BWB’s partial privatization, which was, as already mentioned, a broadly accepted political and social mistake, there is no positive climate for further privatizations in Berlin. There are even ongoing developments for other remunicipalisations in Berlin. This leads to the following lessons learned:

**Transparency:**

Without transparency projects such as the BWB privatization are difficult to legitimate towards the citizens. Citizens don’t longer accept the intransparency in political processes. There is a strong request for open government and more than ever the politicians can’t ignore that demand, as well as the demand for participation in serious decisions.

**Budgets deficits:**

Budget deficits can’t be solved by privatization. Usually the deficits are not caused by public companies. Quite the contrary, public companies gaining profits, such as BWB, can – if allowed according to the applicable law – cross-subsidize other public services. The short-term view of the public-sector accounting (cash accounting) and budget control favours short-term decisions.

For example, one aim of the BWB’s partial privatization was to use the sales revenue to reduce the budget deficit in 1999. But the deficit had and has structural roots and can’t be solved by one sales action. To overcome budget deficits overall strategies are necessary and needed.

**Strategies:**

One problem of the politics is the election cycles. Following the findings of the public choice-theory they prevent long-term planning and strategies for municipalities and cities. But long-term strategies are necessary to develop a successful and sustainable municipality, also in terms of competition with other municipalities. The same applies for public enterprises and their function within a municipality. As seen the BWB has changed its instrumental function often during its history. In its beginning the BWB was a privately founded and run company with profit orientation (financial function), after hygienic problems in Berlin the role changed to a service provision orientation and became a public run enterprise (service for the public function). In the 90s the role changed once again to a financial function due to budget deficits, so that gaining profit dominates again. Due to the public pressure the instrumental function changed in the recent history to a service for the public orientation and function. Often when the function is profit and financial orientated it does not lead to a sustainable success.

If it comes due to election cycles to time pressure, it limits the possibility to get familiar with the complex matter of law and to discuss the actual impacts of projects.
Politicians’ actions:

Often political decisions are ascribed to some politicians’ “dreams” of realizing a certain project or action. In order to get the parliament’s acceptance for the project, sometimes non-realistic estimations are created. Irreversible investment decisions have a long-term influence on the public budget and thus the political capacity to act. Thus more expertise and opinions need to be included in the decision process in order to get more realistic scenarios as a profound base for the decision on the project, respectively investment. Also the aims of the chosen partners (private) must be estimated realistically, especially in terms of difficult irreversibility.

References

BVerfGE 50, 217 (226).
http://www.die-linke-berlin.de/die_linke/parteitage/4_landesparteitag/1_tagung/beschluss/7/


Frankfurter Allgemeine Zeitung (1999): Noch Hürden bei der Wasser-Privatisierung, 10.06.1999, source:


2011, 2012): Verordnung über die angemessene Verzinsung des betriebsnotwendigen
Sozialdemokratische Partei Deutschland (2006): Koalitionsvereinbarung zwischen
Thomsen, Jan (2012a): Senat will das Wasser zurück, in: Berliner Zeitung of 17th July
2012,
http://www.berliner-zeitung.de/berlin/rekommunalisierung-der-berliner-
wasserbetriebe-senat-will-das-wasser-zurueck,10809148,16636818.html.
Thomsen, Jan (2012b): Land soll Wasser zurückkaufen, in Berliner Zeitung of
25th October,
http://www.berliner-zeitung.de/berlin/rekommunalisierung-land-soll-wasser-
zurueckkaufen,10809148,20714388.html.

Web pages
Berliner Wasserbetriebe (BWB): www.bwb.de.
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