

Report on Bachelor/Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

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| Student: | Dana Klímová |
| Advisor: | PhDr. Pavel Vacek, Ph.D. |
| Title of the thesis: | An Evaluation of Water Supply Ownership in Europe |

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

Author has chosen topic of water supply ownership in Europe, on which the complex topic of the effective ownership structures is being examined. The topic is very relevant, since efficient ownership structure or organization of the industry and their effect on water prices for customers has not been conclusively determined yet.

One of the aims of the paper, was to "*bring together the relevant literature in order to create a comprehensive summary of the ownership structures and its effectiveness with regards to water provision*" (page 1). This goal can be regarded basically as fulfilled, since really wide spectrum of literature and concepts has been provided. However, quantity in some parts outmatched quality. On the other hand, covering such a wide topic with in depth detail would need sufficiently larger format than bachelor thesis.

The first part of the thesis focuses on the typology of ownership structures in water supply, which is presented in structured way and offers basic overview of different approaches of organization of water industry.

The second part contains description of competition and regulation of the industry. In this part I lack wider literature overview altogether with **critical view** on the various methods of regulation even in terms of regulating body (e.g. state, independent regulator, contract regulation, etc.), in terms of regulation method (e.g. price cap regulation vs. rate of return regulation) or different targets of the regulation (e.g. consumer prices, distribution regulation, quality of water, etc.). Following "Pricing" chapter is too general, since it is not clear how the price of water is constructed. Author differs between fixed and variable part of price (page 19), but only general statement is used: "*Fixed charges often reflect the water stress and infrastructure development in the region*" (page 19) and forgets to explain variable part of the price at all. For some further paper or master thesis it is recommended to provide also analytical part instead of extensive descriptions.

In following sections author poses valuable questions about water privatization and difference between public and private ownership, altogether with nice literature overview supported by graphs comparing efficiency of ownership and management structures.

Another valuable part of the thesis is dataset compiled by the author, combining various sources of the data as well as various regions.

Questions for the author:

- 1) Author states high fixed initial costs (later called sunk costs) and need for investments (page 12) as reasons for "rather impossible" competition. Petrochemical industry, mining or metallurgy show very high initial fixed costs (i.e. offshore drilling platform) and need for capital intensive investment. How it is possible that mentioned industries even after fulfilling both conditions for "rather imperfect" competition operates in competitive market? What other conditions are needed for "rather impossible" competition?
- 2) Management problem. On the page 21 author states that in private organization, managers are more likely to benefit from better performance, while in public they don't have direct gain from the effort increase. In both forms of ownership, we can suppose managers to be different

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persons from owners. What are reasons for different work conditions resulting in different motivations and performance? If managers would possess same working condition, would they be able to achieve basically same performance?

- 3) Construction of the *competition* variable is rather problematic (page 31). Author employed dummy variable for (im)perfect competition, defining it as: “*When less than 5 companies (providers) operate more than 50% of water supply in the region, competition is considered as imperfect*”. Interesting fact (indeed) that the mean of this variable is 0,5. What is a reason for determining 5 companies as sufficient for perfect competition? Has author verified if for example 6 regional distributors are not just a monopolistic suppliers for sub-region?
- 4) Variables *Abstraction (billion m³)* and *Resources (m³/inhab./year)* are intuitively correlated. Which of these two variable author intuitively considers to be more reliable and why? Is variable Abstraction linked to regions or to countries?
- 5) Results from regression analysis can be employed in two basic ways. Either showing significance of individual variables or interpreting well fitted model. *Author interprets models even though it seems to be biased. (Results of the tariff regression on page 38). Which methodology was used for excluding of the variables from the model? Best fit model was decided based on which criteria?*

In the case of successful defense, I recommend “**velmi dobře**” (good, 2).

SUMMARY OF POINTS AWARDED:

| CATEGORY | POINTS |
|---|-----------|
| <i>Literature (max. 20 points)</i> | 13 |
| <i>Methods (max. 30 points)</i> | 20 |
| <i>Contribution (max. 30 points)</i> | 16 |
| <i>Manuscript Form (max. 20 points)</i> | 15 |
| TOTAL POINTS (max. 100 points) | 63 |
| GRADE (1 – 2 – 3 – 4) | 2 |

REFEREE'S NAME: Matej Kosturák

DATE: 9. 6. 2014

REFEREE'S SIGNATURE