



TURUN KAUPPAKORKEAKOULU  
Turku School of Economics

## **Beyond bean-counting: a broader view of accounting, societies and water services**

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## Contents of the presentation

- A multidisciplinary research process
  - How did it come about?
  - How did it go?
  - Pros and cons
- What happened after graduation?
  - Current projects
- Example of multidisciplinary journal article:  
Vinnari & Näsi (2008): Milking municipal water utilities to balance municipal budgets and accounts.



## My background

- Matriculation examination 1994
- English language and culture studies at the University of Tampere (UTA), 1994-1996
- MSc studies in Economics , Accounting and Statistics, UTA, 1996-1999
  - MSc thesis: Ethical investment funds
- MSc studies in Environmental Engineering, TUT, 1999-2003
  - MSc thesis: System and cost assessment of biowaste treatment in the Pirkanmaa Region
- Consultant at Ramboll Finland, 2003-2004
- Awarded a position in TUT Graduate School 2004



## Development of dissertation

- Initial idea: to study how water services should be priced in Finland
- Two supervisors: one from TUT, another from UTA
- First article: economic regulation of water services in Finland
- Second article: how municipalities use water utilities as cash cows with the help of creative accounting
- Third article: privatization of water services in Tallinn
- Fourth article: how infrastructure asset management is regulated internationally
- A theme to connect the four articles
  - The New Public Management phenomenon



## Studies abroad

- Fellow Scholar, the Water Center, University of Washington, Seattle, USA, 2005-2006
  - Research, interviews at Seattle Public Utilities
  - Two Sociology courses
  - Visit to Univ. of British Columbia, Canada
- Visiting scholar, University of Wageningen, the Netherlands, autumn 2007
- Visiting Post-Doc, Copenhagen Business School, spring 2008





## Final dissertation

- Submitted for preliminary assessment in December 2007
- Assessors' comments came in January and February: suggested minor revisions
- Dissertation to print in March
- Synthesis, 89 pages
- 4 international, peer-reviewed journal articles
  - 2 published
  - 2 accepted for publication
- Disciplines: water services and public sector accounting



# Public defense

- Two opponents
  - Professor Jarmo Vakkuri, specialist in public sector management and accounting
  - Dr. Klaas Schwartz, water services specialist from UNESCO-IHE, Delft, the Netherlands





# Pros and cons of multidisciplinary dissertation

- Pros
  - A wider, socio-economic perspective into water services
  - Opportunity to gain new insights by combining areas of expertise
  - Leaves plenty of doors open for further research
- Cons
  - Danger of superficiality
  - Difficulty of deciding where to publish
  - Difficulty of finding opponents





## After graduation

- Autumn 2008: Assistant Professor, Dept. of Accounting and Finance, Turku School of Economics (TSE) (temporary position)
- Spring 2009:
  - Assistant Professor, Copenhagen Business School, spring 2009 (3-year position)
  - Expert report to Ministry of Agriculture and Forestry task group on amending the Water Services Act
  - Consultant in a project concerning regional water services cooperation in Pirkanmaa
- June 2009 – Jan 2010: maternity leave
- Jan 2010 - Postdoctoral Researcher, TSE



## Some current projects

- Financial knowledge of municipal water utility board members
  - Board members are responsible for overseeing utility management and use of funds
  - They are usually selected on a political basis, so how much do they know about finance and accounting?
  - Results:
    - 80 % of board members have no training or professional experience in financial matters
    - 50 % don't understand financial reports
  - What is the point of having such boards?
  - Conference trip supported by Kunnallisalan kehittämissäätö



## Some current projects

- Water utilities and sustainability reporting
  - Why do public monopolies voluntarily publish sustainability reports?
  - How do water utilities succeed in combining the social, environmental and financial aspects of service provision?
  - What kind of sustainability indicators are used to measure the performance of water utilities?
  - First findings reported in Vesitalous magazine 3/2011
  - Second part: use of sustainability indicators within water utilities



# **VINNARI & NÄSI: MILKING MUNICIPAL WATER UTILITIES...**



## Local government NPM reforms in Finland

- Separation of service provision and service production
- Moving from cash-based to accrual accounting (1997)
- 3-year balance requirement for municipal budget
- Utility services (water, energy):
  - Separation in municipal accounting
  - Full cost recovery through customer charges



## Full Cost Recovery through Customer Charges

- Customer charges for water services should cover:
  - Operational costs
  - Investment costs in the long run
- Customer charges may also include "a reasonable rate of return" on capital invested by the owner of the water utility (= municipality)
- On the financial statements of a Public Enterprise, these items are titled "Basic Capital" and "Compensation for Basic Capital"



# Income to Case City from Water Utility

Table 1. Summary of the Profit and Loss Account information of Water Utility, 1994–2004 (EUR million)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Turnover	11.55	10.72	11.73	12.83	13.58	13.88	14.35	15.47	15.54	15.63	15.90
Operating Costs	-4.75	-4.89	-5.60	-5.60	-5.80	-7.72	-6.6	-7.69	-7.34	-7.44	-7.54
Depreciation	-2.85	-2.72	-2.77	-3.21	3.71	-4.08	-4.20	-4.51	-4.56	-4.56	-4.56
Financial Income	0.05	0.057	0.028	0.011	0.007	0.004	0.005	0.011	0.011	0.018	0.016
Financial Costs											
Interest Costs	0	-0.02	-0.03	-0.01	-0.06	-0.13	-0.26	-0.33	-0.39	-0.40	-0.34
<i>Compensation for the Basic Capital</i>	-2.51	-2.63	-2.66	-3.53	-3.53	-3.36	-3.19	-3.19	-3.19	-3.19	-3.19
Extraordinary Income and Expenses (net)	0	0	0	0	0	0	-3.15	0	0	0	0
Provisions*	-1.18	-0.51	-0.69	0	0	0	3.28	0.13	0.13	0.13	0.13
<b>Surplus/Deficit for the Financial Year</b>	<b>0.21</b>	<b>0</b>	<b>0</b>	<b>0.48</b>	<b>0.49</b>	<b>0.13</b>	<b>0.23</b>	<b>0.07</b>	<b>0.23</b>	<b>0.19</b>	<b>0.45</b>



# The Sale of the Water Utility

- 2003: City notes deficit problems, wants to sell Water Utility to its own Energy Company
  - > valuation by Firm X
  - > decision postponed
- 2004: Issue re-emerges
  - > valuation by Firm Y
  - > decision to sell
- 2005: Sale takes place
  - price: 150 Meur

## Owner City Budget 2003

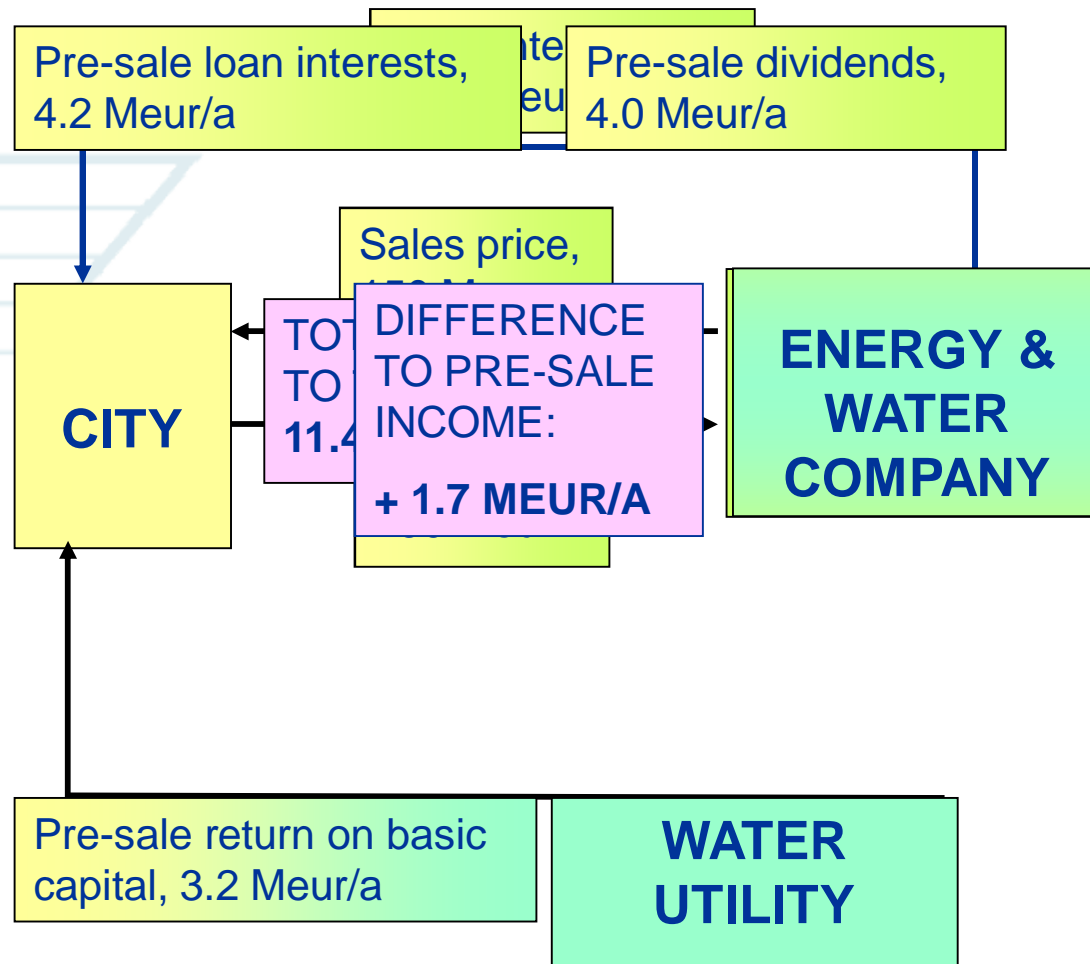
2004: - 13.481 Meur  
2005: - 19.69 Meur  
2006: - 7.308 Meur  
2007: + 1.272 Meur

Valuation method	EUR million
Book value	37
Techn.econ. (Firm X)	120-210
Techn. econ. (Firm Y)	130
DCF (X)	50-80
DCF (Y)	74





# Sales Arrangement



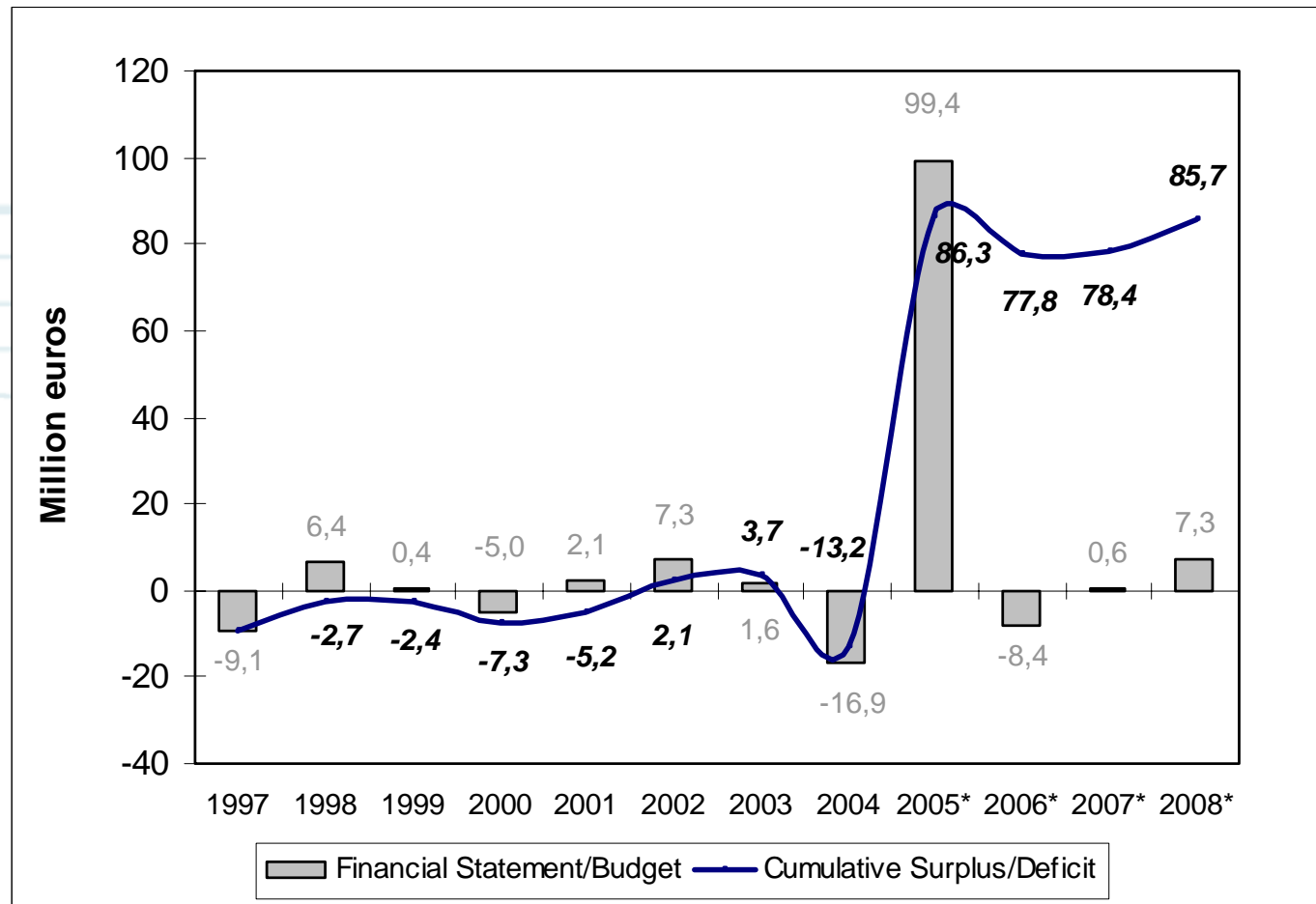


## Sale proceeds on City's income P/L account

	<i>2004</i>	<i>2005</i>	<i>2006*</i>	<i>2007*</i>
Revenues from operations	96.48	100.55	171.69	172.95
Production for own use	14.46	14.24	0.00	0.00
Operating expenses	- 374.37	- 378.16	- 460.77	- 462.80
<b>Operating margin</b>	<b>- 263.43</b>	<b>- 263.37</b>	<b>-289.08</b>	<b>- 289.85</b>
Tax revenues	220.29	227.09	238.10	246.89
State grants	43.05	47.04	53.66	55.54
Financial revenues and costs (net)	5.19	4.52	8.36	7.95
<b>Annual margin</b>	<b>5.10</b>	<b>15.28</b>	<b>11.04</b>	<b>20.53</b>
Depreciation	- 22.72	- 31.74	- 20.02	- 20.48
<i>Extraordinary income</i>	<i>0.14</i>	<i>116.92</i>	<i>0.00</i>	<i>0.00</i>
<b>Net result for financial year</b>	<b>- 17.48</b>	<b>100.46</b>	<b>- 8.98</b>	<b>0.05</b>
Provisions	0.60	2.23	0.54	0.55
Surplus/deficit for financial year (without the sale of Water Utility)	<b>- 16.88</b>	<b>102.69</b> (-19.69)	<b>- 8.44</b>	<b>0.60</b>



# Cumulative surplus/deficit





## Reasons for the sale

- Emergency relief for City budget
- Synergy benefits for network operations
- Taxation benefits
  - Income to the City as loan interests, not dividends – less to be paid in tax
- 1,7 Meur/a increase in stable income



# Conclusions

- The unregulated Compensation for Basic Capital can be deemed *creative accounting* because:
  - It is a misleading term, recorded as a financial expense and not an appropriation of profit
  - Looking at the bottom line gives a wrong impression of the financial stance of an enterprise
- It is also *hidden taxation* because:
  - The rate of return is no longer "reasonable"
  - The money paid by water users is allocated to other public services



## Conclusions cont'd

- City took advantage of the difficulty of “fair” asset valuation as a legal way of increasing asset values
  - > short-term outcome: budget balance
  - > long-term outcome: rising prices for ten years since 2006
  - > violation of intergenerational equity
- City sees itself as an investor rather than a provider of essential services



## Recommendations

- Accrual accounting opens up possibilities for creative accounting in the public sector  
-> need to review and develop accounting practices
- Uniform standards needed for regulation of accrual accounting in the public sector - esp. for valuation of infrastructure assets